Emergency Triage
Manchester Triage Group
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EDITED BY

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THIRD EDITION
Contents

Editors, vi
Members of the original Manchester Triage Group, vii
International Reference Group, viii
Preface to the third edition, ix
Preface to the first edition, xi
1 Introduction, 1
2 The decision-making process and triage, 6
3 The triage method, 11
4 Pain assessment as part of the triage process, 25
5 Patient management, triage and the triage practitioner, 35
6 Auditing the triage process, 42
7 Telephone triage, 47
8 Beyond prioritisation, 54
Presentational flow chart index, 62
Presentational flow charts, 64
Discriminator dictionary, 174
Index, 185
General discriminators, 190
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viii
Preface to the third edition

Time continues to move on and it is now nearly 20 years since a group of senior emergency physicians and emergency nurses first met to consider solutions to the muddle that was triage in Manchester, UK. We had no expectation that the solution to our local problems would be robust enough (and timely enough) to become the triage solution for the whole United Kingdom. Never in our wildest dreams did we imagine that the Manchester Triage System (MTS) would be generic enough to be adopted around the world. Much to our surprise, however, both of these fantastic ideas came about, and the MTS continues to be used in many languages to triage tens of millions of Emergency Department attenders each year.

The basic principles that drive the MTS (recognition of the presentation and reductive discriminator identification) are unchanging – but from time to time it has become necessary to make some adjustments to the detail. The third edition builds on the changes we made in the second; it takes into account the comments passed to us by users over the years (for which we are very grateful) and also the contributions of the International Reference Group, who bring a broad perspective from other clinical situations and cultures. It also seeks to include modifications that reflect new research and alterations in the practice of emergency care. Significant changes include new charts for unwell neonates and babies and a major, evidence-based change in the way in which fever in childhood is prioritised. We have clarified discriminator terminology and definitions where this was proving difficult (for instance ‘abnormal pulse’ is now clarified as ‘new abnormal pulse’ and ‘known immunosupression’ has been restated as ‘known or likely immunospression’). We have also taken the opportunity to standardise the order in which discriminators appear on the charts.

Overall though, as in the second edition, the changes are small in number.

This new edition also continues our attempt to put triage in the context of changes that are happening in many emergency care systems around the world. Emergency care continues to be the focus of political and management attention. The care of increasing numbers of patients with
Preface to the third edition

less urgent conditions (who make up the majority in most settings) continue to be a source of concern, since under-resourced systems that focused (rightly) on patients with the highest clinical priority inevitably resulted in delayed care for those at the other end of the priority scale. In the consumer age, this delay (which delivers a poor patient experience) is unacceptable. It is often easier to blame the clinical prioritisation system (triage) for this delay than to deal with an under-resourced system. Another current vogue is to try to replace a dedicated emergency care triage system with a hospital-wide track and trigger score. The evidence is clear that, unsurprisingly, this cannot be done without a considerable additional risk to physiologically normal patients early in the evolution of their illness.

Our standpoint has always been that proper emergency triage is vital in all systems or circumstances where the demand for emergency care outstrips the ability to deliver it. We continue to believe that these circumstances occur occasionally in even the best managed and resourced systems, and frequently in those with the usual demands and staffing. Thus clinical prioritisation (whether called triage, initial assessment or anything else) remains a cornerstone of clinical risk management in emergency care, and abandoning it completely is not an option.

Kevin Mackway-Jones, Janet Marsden, Jill Windle
Manchester, 2013
Preface to the first edition

Every day, emergency departments are faced with a large number of patients suffering from a wide range of problems. The workload varies from day to day and from hour to hour and depends on the number of patients attending and what is wrong with them. It is absolutely essential that there is a system in place to ensure that these patients are seen in order of clinical need, rather than in order of attendance.

In the past year great steps have been made towards establishing a National Triage Scale in the United Kingdom; this follows on from similar work in Australia and Canada. This book is intended to allow practitioners of triage to work to a set standard when applying national scales to the patients presenting to their departments. The members of the multi-professional consensus group that designed this methodology hope that individual practitioners will use it to inform the triage process and ensure that their decisions are both valid and reproducible.

This manual contains the basic knowledge necessary for triage practitioners to begin to build their competence in performing triage. It is hoped that practitioners will find a useful source reference and aide-memoire.

Kevin Mackway-Jones, 1996
CHAPTER 1
Introduction

Background

Triage is a system of clinical risk management employed in Emergency Departments worldwide to manage patient flow safely when clinical need exceeds capacity. Systems are intended to ensure care is defined according to patient need and in a timely manner. Early Emergency Department triage was intuitive, rather than methodological, and was therefore neither reproducible between practitioners nor auditable.

The Manchester Triage Group was first set up in November 1994 with the aim of establishing consensus among senior emergency nurses and emergency physicians about triage standards. It soon became apparent that the Group’s aims could be set out under five headings.

- Development of the common nomenclature
- Development of common definitions
- Development of a robust triage methodology
- Development of a training package
- Development of an audit guide for triage

Nomenclature and definitions

A review of the triage nomenclature and definitions that were in use at the time revealed considerable differences. A representative sample of these is summarised in Table 1.1, where the priority categories are shown on the left and the maximum respective times (in minutes) to first contact by a treating clinician are listed in the right-hand columns.
2 Chapter 1

Table 1.1

<table>
<thead>
<tr>
<th>Hospital 1</th>
<th>Hospital 2</th>
<th>Hospital 3</th>
<th>Hospital 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>A</td>
<td>Immediate</td>
<td>0</td>
</tr>
<tr>
<td>Amber</td>
<td>B</td>
<td>Urgent</td>
<td>5–10</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Semi-urgent</td>
<td>30–60</td>
</tr>
<tr>
<td>Green</td>
<td>D</td>
<td>Delay acceptable</td>
<td>3</td>
</tr>
<tr>
<td>Blue</td>
<td>E</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>FGHI</td>
<td>FGHI</td>
<td>FGHI</td>
<td>FGHI</td>
</tr>
</tbody>
</table>

Despite this enormous variation, it was also apparent that there were a number of common themes running through the timings of these different triage systems, and these are highlighted in Table 1.2.

Table 1.2

<table>
<thead>
<tr>
<th>Priority</th>
<th>Max. time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>&lt;15</td>
</tr>
<tr>
<td>3</td>
<td>&lt;60</td>
</tr>
<tr>
<td>4</td>
<td>120</td>
</tr>
<tr>
<td>5</td>
<td>&lt;240</td>
</tr>
</tbody>
</table>

Once the common themes of triage had been highlighted, it became possible to quickly agree on a new common nomenclature and definition system. Each of the new categories was given a number, a colour and a name and was defined in terms of ideal maximum time to first contact with the treating clinician. At meetings between representatives of Emergency Nursing and Emergency Medicine nationally, this work informed the derivation of the United Kingdom triage scale shown in Table 1.3.

Table 1.3

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Colour</th>
<th>Max. time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Immediate</td>
<td>Red</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Very urgent</td>
<td>Orange</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Urgent</td>
<td>Yellow</td>
<td>60</td>
</tr>
<tr>
<td>4</td>
<td>Standard</td>
<td>Green</td>
<td>120</td>
</tr>
<tr>
<td>5</td>
<td>Non-urgent</td>
<td>Blue</td>
<td>240</td>
</tr>
</tbody>
</table>
Introduction

As practice has developed over the past 20 years, five-part triage scales have been established around the world. The target times themselves are locally set, being influenced by politics as much as by medicine, particularly at lower priorities, but the concept of varying clinical priority remains current.

Triage methodology

In general terms a triage method can try and provide the practitioner with the diagnosis, with the disposal or with a clinical priority. The Triage Group quickly decided that the triage methodology should be designed to allocate a clinical priority. This decision was based on three major tenets. First, the aim of the triage encounter in an Emergency Department is to aid both clinical management of the individual patient and departmental management; this is best achieved by accurate allocation of a clinical priority. Second, the length of the triage encounter is such that any attempts to accurately diagnose a patient are doomed to fail, as this activity requires a consultation rather than a triage assessment. Finally, it is apparent that diagnosis is not accurately linked to clinical priority, the latter reflects a number of aspects of the particular patient’s presentation as well as the diagnosis; for example, patients with a final diagnosis of ankle sprain may present with severe, moderate or no pain, and their clinical priority must reflect this.

In outline, the triage method put forward in this book requires practitioners to select from a range of presentations, and then to seek a limited number of signs and symptoms at each level of clinical priority. The signs and symptoms that discriminate between the clinical priorities are termed discriminators and they are set out in the form of flow charts for each presentation – the presentational flow charts. Discriminators that indicate higher levels of priority are sought first, and to a large degree patients who are allocated to the standard / 4 / green clinical priority are selected by default.

The decision-making process is discussed in chapter 2, and the triage method itself is explained in detail in chapter 3.

Priority and management

It is easy to become confused between the clinical priority and the clinical management of a patient. The former requires that enough information is gathered to enable the patient to be placed into one of the five defined categories as discussed above. The latter may well require a much deeper
understanding of the patient’s needs, and may be affected by a large number of extraneous factors, such as the time of day, the state of the staffing and the number of beds available. Furthermore, the availability of services for particular patients will fundamentally affect individual patient flow. Separately staffed ‘streams’ of care for particular patient groups will run at different rates. This does not affect underlying clinical priority which affects the order of care within, rather than between, streams in such a system. These issues are discussed in more detail in chapter 5.

**Training for triage**

This book, in conjunction with the accompanying Manchester Triage Provider Course, attempts to provide the training necessary to allow introduction of a standard triage method. This process has been highly successful, not only in the UK where the system originated, but across many countries that sought a standard for triage in their health care systems. It is not envisaged that reading the book and attending a course can produce instant expertise in triage. Rather, this process will introduce the method and allow practitioners to develop competence at using the material available as a first step towards competence in using the system. It must be followed up by audit of individual triage practitioners and evaluation of their use of the system.

**Triage audit**

The Triage Group spent considerable time trying to pin down ‘sentinel diagnoses’ – that is diagnoses that could be identified retrospectively and which could be used as markers of accurate triage. For the reasons outlined above, it soon became apparent that even retrospective diagnosis could not accurately predict actual clinical priority at presentation.

Successful introduction of a robust audit method is essential to the future of any standard methodology, since reproducibility between individual practitioners and departments must be shown to exist. This is discussed in more detail in chapter 6.

**Beyond triage in the Emergency Department**

The concept of triage (determining clinical need as a method of managing clinical risk) and the process outlined in this book (presentational
recognition followed by reductive discriminator seeking) is applicable in other settings. In some of these, for example medical, surgical or paediatric assessment units, the system can be implemented in exactly the same way as it is in the Emergency Department. In other settings, for instance Primary Care or Out of Hours Units, many contacts may be made by telephone. A modification of the Manchester Triage System (MTS) can be used and this is outlined in chapter 7.

The information gained during the triage process can also be used in other ways to improve patient care. It is important, for instance, that clinicians recognise any change in the patients’ status as early as possible. Early Warning Scores have been applied in many settings to formalise this function. In the Emergency Department the ABCDE discriminators from the MTS can be used in exactly this way, and the monitoring of physiological parameters, as outlined in chapter 8, is an intuitive way for triage practitioners to put into practice the original exhortation for dynamic triage and that ‘every intervention is a triage intervention’.

Finally, many users of the MTS have recognised that the outcome of the presentation selection–priority assignment process is to place individual patients into one of 265 slots in a $53 \times 5$ presentation–priority matrix. This ‘pigeon-holing’ can be used to drive pathways of care in systems that have taken to ‘streaming’. Particular presentation–priority combinations (e.g. wounds–green, chest pain–orange) may be appropriate to particular streams (minor injuries and resuscitation, respectively, in the examples given). This concept is discussed in more detail in chapter 8.

**Summary**

Triage is a fundamental part of clinical risk management in all departments when clinical load exceeds clinical availability. Emergency triage promulgates a system that delivers a teachable, auditable method of assigning clinical priority in emergency settings. It is not designed to judge whether patients are appropriately in the emergency setting, but to ensure that those who need care receive it appropriately quickly. MTS has been shown to have functions beyond the initial concept when used to monitor care and to signpost streams of care determined by local provision and actual availability.
CHAPTER 2
The decision-making process and triage

Introduction

Decision making is an essential and integral part of nursing and medical practice. Sound clinical judgment in relation to patient care requires both knowledge and experience. Many practitioners argue that critical decision making is only about ‘common sense’ and ‘problem solving’, and to a certain extent they are correct. It is, however, more than this and requires a high level of skill. Within the decision-making process, clinicians are expected to:

- Interpret
- Discriminate
- Evaluate

the information they gather about patients, and critically appraise their actions following that decision. Without a framework of reference on which to base these decisions, they will be unstructured, haphazard and potentially unsafe. The ability to make sound decisions is essential for safe and effective patient management.

Early triage systems structured the interview but gave no guidance about the action following a decision. Thus the outcome of the triage process was not based on a sound methodology. Triage decisions were unique to each nurse and inherently part of their own decision-making process and such decisions are likely to be fundamentally flawed without a framework of reference. To overcome this problem, a framework of reference (methodology) for the process of triage is required and a method by which practitioners can acquire the necessary skills for its implementation.
The development of expertise

A relationship between experience and skill acquisition has been described in which there are five stages of development:

- Novice
- Advanced beginner
- Competent
- Proficient
- Expert

As practitioners develop along this continuum, they acquire skills and learn from their experiences in practice and it is expected that their decision-making ability alters and improves. The process can be facilitated by providing a system based upon a common framework that is methodologically sound, on which decisions can be based and their effectiveness evaluated.

Decision-making strategies

A number of strategies are used in the decision-making process. These are:

- Reasoning
- Pattern recognition
- Repetitive hypothesising
- Mental representation
- Intuition

Reasoning

There are essentially two types of reasoning involved in critical thinking: inductive and deductive. Inductive reasoning is the ability to consider all possibilities, and is particularly useful for the less experienced. It involves a time-consuming process of considering all patient information collected in order to reach a sound decision about the care they require.

Deductive reasoning is the simultaneous ‘weeding out’ of possible solutions whilst actively collecting patient information. This strategy is often unknown or unrecognised and becomes part of expert practice. It allows the practitioner to rapidly sort relevant from irrelevant information to reach a decision.
Chapter 2

Pattern recognition
This is the strategy most commonly used by clinicians, and is particularly important when making the rapid decisions based on limited information that are necessary during triage. Pattern recognition is a method of piecing information together in an analytical sense. Clinicians interpret the pattern of the patient’s signs and symptoms by comparison with relationships and conditions from previous cases. This leads them to a decision about the patient’s well-being or a potential diagnosis. The ability to use this decision-making skill develops with experience, and often appears to be intuition. Novice, proficient or competent practitioners may need to use conscious problem solving to reach a solution, while their more experienced colleagues can employ pattern recognition.

Repetitive hypothesising
Repetitive hypothesising is used by clinicians to test diagnostic reasoning. By gathering data to confirm or eliminate a hypothesis, a decision can be made. Depending on the level of expertise this method can be either inductive or deductive.

Mental representation
Mental representation is a method of simplifying the situation to provide a general picture, and allow focusing on relevant information. This strategy is often used when a problem is highly complex or overwhelming. The use of analogies helps the clinician visualise the situation by simplifying the problem and allowing a different perspective. Triage decisions need to be rapid and this method has limited use at this stage in the patient’s pathway.

Intuition
Intuition is inextricably linked with expertise and is commonly seen as the ability of practitioners to solve problems with relatively few data. Intuition rarely involves conscious analysis and is often expressed as a ‘gut feeling’ or ‘strong hunch’. Expert practitioners view situations holistically and draw on past experience. Much of their knowledge is embedded in practice and referred to as tacit, where effective decisions are made by combining knowledge with decision-making theories and intuitive thought. Many expert clinicians are unaware of the mental processes they employ in the assessment and management of patients. Although intuition has remained unmeasurable, the value to clinical practice is acknowledged and well documented.
The decision-making process and triage

Decision making during triage

Despite all the theories, decision making is quite simply a series of steps to reach a conclusion and consists of three main phases: (i) identification of a problem; (ii) determination of the alternatives; and (iii) selection of the most appropriate alternative. An approach to making critical decisions has been described that uses the following five steps:

1. Identify the problem
2. Gather and analyse information related to the solution
3. Evaluate all the alternatives and select one for implementation
4. Implement the selected alternative
5. Monitor the implementation and evaluate outcomes

This approach incorporates a number of theories and methods. When applied to triage the decisions are formed as follows.

Identify the problem
This is done by obtaining information from the patients, their carers and/or any pre-hospital care personnel. This phase allows the relevant presentational flow chart to be identified.

Gather and analyse information related to the solution
Once a flow chart has been identified this phase is facilitated since discriminators can be sought at each level. The charts facilitate rapid assessment by suggesting structured questions. Pattern recognition also plays a part at this stage.

Evaluate all the alternatives and select one for implementation
Clinicians collect significant amounts of data about the patients they deal with which is collated into their own mental database and stored in compartments for easy recall. Use of this stored information is most effective when linked to an assessment or organisational framework. The presentational flow charts provide the organisational framework to order the thought process during triage. The flow charts aid decision making by providing a structure, and, importantly, support junior staff as they develop decision-making skills.
Chapter 2

Implement the selected alternative

There are five levels of priority (as discussed in chapter 1) and the triage practitioner tests the discriminators against the patient’s presentation and allocates priority at the highest level of positive discriminator. The priority therefore depends upon the urgency of the patient’s condition and, once the priority is allocated, the appropriate pathway of care begins. Triage is a dynamic process and must not be seen as an isolated incident that occurs only at the beginning of the patient’s journey. The triage practitioner must use their decision-making skills and expertise to identify those patients who will require ongoing monitoring and re-triage.

Monitor the implementation and evaluate outcomes

The method of triage outlined in this book ensures that the decision is predetermined if the correct process has been followed. The triage practitioner will therefore be able to identify how and why they reached the initial outcome (priority), conduct an accurate reassessment and subsequently confirm or change the level of priority. Accurate, reproducible decisions ensure that the whole process can be audited.

Changing current decision-making practice

For many experienced clinicians the introduction of a new framework for triage decisions poses some anxieties. It is difficult to unlearn individual methods of decision making that have developed over years of practice. However, this change should be viewed as a further refinement of their present system, providing – for the first time – a clear rationale for their decisions and an auditable system. This systematic approach will be a major contribution to the body of knowledge when used to teach junior staff, who rely so heavily on experts to inform and guide their own practice. The actual process of triage decision making presented here has been shown to be effective and adaptable to many practice settings, and has value to triage practitioners irrespective of their level of experience.
CHAPTER 3
The triage method

Introduction

The method outlined in this book is designed to allow the triage practitioner to rapidly assign a clinical priority to each patient. The system selects patients with the highest priority first without making any assumptions about the diagnosis. Emergency Departments are, to a large extent, driven by the patients’ presenting signs and symptoms and this lack of focus on diagnosis is, therefore, deliberate.

Five-step process to triage decision making

1. Identify the problem
2. Gather and analyse information related to the solution
3. Evaluate all the alternatives and select one for implementation
4. Implement the selected alternative
5. Monitor the implementation and evaluate outcomes

Identifying the problem

Clinical practice is geared around the concept of a presenting complaint – that is the chief sign or symptom identified by the patient or carer. A list of presentations pertinent to triage is shown below.

Abdominal pain in adults
Abdominal pain in children
Abscesses and local infections
Abused or neglected child
Allergy
Apparently drunk
Assault
Irritable child
Limb problems
Limping child
Major trauma
Mental illness
Neck pain
Overdose and poisoning

(Continued)
This list of presentational flow charts covers almost all presentations to Emergency Departments. The list, charts and contents were finalised after considerable discussion and have been refined, in both this and previous editions, following changes in practice, research and international consultation. The presentations fall broadly into the categories of illness, injury, children, abnormal and unusual behaviour, and major incidents.

The first part of the triage method requires the practitioner to select the most appropriate presentational flow chart from the list. The chart identifies discriminators that allow the clinical priority to be determined.

A key feature of the method is that the charts are consistent in their approach, since it is recognised that a number of patients’ chief complaints may lead to more than one presentational flow chart. For example, a patient who presents feeling generally unwell with a stiff neck and a headache will be given the same priority whether the practitioner uses the *Unwell adult*, *Neck pain* or *Headache* flow charts.

**Gathering and analysing information**

To a great extent the patient’s presentation will dictate which presentational flow chart is selected. Following this selection, information must be gathered and analysed to allow the actual priority to be determined. The
The triage method

flow chart structures this process by showing key discriminators at each level of priority – the assessment is carried out by finding the highest level at which the answer posed by the discriminator question is positive. Discriminators are deliberately posed as questions by the triage practitioner to facilitate the process.

**Discriminators**

Discriminators, as their name implies, are factors that discriminate between patients, such that they allow them to be allocated to one of the five clinical priorities. They can be *general* or *specific* and are arranged in the ABCDE format. General discriminators apply to all patients irrespective of their presentation and therefore appear time and time again throughout the charts; on each occasion the general discriminators will lead the triage practitioner to allocate the same clinical priority. Specific discriminators are applicable to individual presentations or to small groups of presentations, and tend to relate to key features of particular conditions. Thus while severe pain is a general discriminator, cardiac pain and pleuritic pain are specific discriminators. General discriminators appear in many more charts than specific ones. All the discriminators used are defined in the discriminator dictionary at the end of the book, and the definitions of the specific ones in use on individual charts are repeated on the accompanying chart notes for ease of reference. All discriminators are reviewed for each edition. Any changes are published on the triage website at www.triagenet.net.

General discriminators are a recurring feature of the charts, and a proper understanding of them is essential to an understanding of the triage method. Six general discriminators are discussed further here:

- Life threat
- Conscious level
- Haemorrhage
- Temperature
- Pain
- Acuteness

**Life threat**

To a practising emergency nurse or emergency physician life threat is perhaps the most obvious general discriminator of all. Broadly speaking this recognises that any cessation or threat to the vital (ABC) functions places the patient in priority 1 (red).
Patients who are unable to maintain their own airway for any length of time have an insecure airway. Additionally, patients with stridor have significant airway threat – this may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open. Absence of breathing is defined as no respiration or respiratory effort as assessed by looking, listening and feeling for 10 seconds. Inadequacy is a more difficult concept – but in general, patients who are failing to breathe well enough to maintain adequate oxygenation have inadequate breathing. There may be an increased work of breathing, signs of inadequate breathing or exhaustion. Absence of pulses is only diagnosed after palpation over a central pulse for 5 seconds. Shock can be difficult to diagnose – the classic signs include sweating, pallor, tachycardia, hypotension and reduced conscious level.

Conscious level
Conscious level is considered differently for adults and children. In adults only currently fitting patients are always categorised as priority 1 (red), while all unresponsive children are placed in this clinical priority. Adult
The triage method

patients with altered conscious level (responding to voice or pain or unresponsive) are categorised as priority 2 (orange), as are children who respond to voice or pain only. All patients with a history of unconsciousness should be allocated to priority 3 (yellow).

The fact that all patients with alterations in conscious level are allocated to the very urgent priority may be at odds with current practice; this is especially so with regard to the clinical priority given to patients who are intoxicated or under the influence of drugs. Two points need to be made about this. Firstly, the aetiology of alterations in level of consciousness is largely irrelevant in determining the risk to the patient – an altered conscious level due to drugs or alcohol is clinically as important as an altered conscious level due to other causes. Secondly, most drunk patients do not have an altered level of consciousness. Specific points about the allocation of clinical priority to patients who are apparently drunk are dealt with in the presentational flow chart of that name.
Children

Unresponsive
Currently fitting

Responds to voice or pain

History of unconsciousness

Haemorrhage
Haemorrhage is a feature of many presentations – particularly, but not exclusively, those involving trauma. The haemorrhage discriminators are exsanguinating, uncontrolled major or uncontrolled minor. The use of the success of attempts to control the haemorrhage is deliberate since, in general, continuing bleeding has a higher clinical priority. While, of course, in practice it can be difficult to decide which category a particular haemorrhage falls into, the definitions of the discriminators are designed to help the practitioner to do this. Exsanguinating haemorrhage is present if death will ensue rapidly unless bleeding is stopped. A haemorrhage that is not rapidly controlled by the application of sustained direct pressure, and in which blood continues to flow heavily or soak through large dressings quickly, is described as an uncontrollable major haemorrhage, while that in which blood continues to flow slightly or ooze, is described as uncontrollable minor haemorrhage.
The triage method

Any bleeding, however minor, will, unless another discriminator leads to the allocation of a higher clinical priority, be allocated to priority 4 (green).

Temperature

Temperature is used as a general discriminator and accurate measurement of the temperature should be a part of the triage process, where indicated. Clinical impression of skin temperature is important and is crucial where immediate assessment of core temperature is not possible.

If the skin feels very hot, the patient is clinically said to be very hot – this corresponds to a temperature of 41°C or more; similarly if the skin feels hot the patient is clinically said to be hot and this corresponds to a temperature of 38.5°C or more. A patient with warm skin fulfils the discriminator of warmth and this goes with a temperature of less than 38.5°C.
Chapter 3

Patients with cold skin can be said to be clinically cold – a core temperature of less than 35°C matches this.

A very hot patient (1 year and above) will always be categorised as priority 2 (orange), while a hot patient will be categorised as priority 3 (yellow). Patients who are cold will be allocated to priority 2 (orange). The hot baby (from birth to 12 months) will always be categorised as priority 2 (orange).

Pain
From the patient’s perspective, pain is a major factor in determining priority. The use of pain as a general discriminator throughout the presentational flow charts recognises this fact and implies that every triage assessment should include an assessment of pain. Pain assessment is dealt with in chapter 4 and readers are referred there for a detailed discussion. In general terms, the discriminator severe pain is intended to imply pain that is unbearable, often described as the worst ever, while moderate pain refers
The triage method

to pain that is bearable but intense. Any patient with a lesser degree of recent mild pain should, if no other discriminators suggest a higher categorisation, be allocated to priority 4 (green) and not to the non-urgent category, priority 5 (blue).

The general pain discriminator describes the intensity or severity of pain only. Other characteristics of pain, such as site, radiation and periodicity, may feature as specific discriminators in particular presentational flow charts.

**Acuteness**

Within the triage method certain conventions have been used to help with consistency. The term ‘abrupt’ is used to indicate onset within seconds or minutes and ‘acute’ indicates a time period within 24 hours. Recent symptoms and signs are those that have appeared within the past 7 days.
Whilst most clinicians have no problem accepting that the acuteness of onset can help indicate the clinical priority, it is slightly more controversial to argue that chronicity (in this case greater than 7 days) is used to define a non-urgent problem. However, on reflection, it is intuitive that the relatively long time that the problem has been present indicates that the patient can be allocated the non-urgent priority without clinical risk. The triage method is such that the presence of any other general or specific discriminators relevant to the presentation will result in the allocation of a higher priority, for example, recent mild pain.

The use of this discriminator is not intended to ‘punish’ patients for turning up ‘inappropriately’, nor is it intended to ensure that patients who have had injuries or illnesses for a long time have extended waiting times. The actual waiting time for patients with stable problems not of recent onset will depend on the current case mix and case load of the department, and the resources available.

**Secondary triage**

It may not be possible to carry out all the assessments necessary at the initial triage encounter – this is particularly so if the workload of the department is high. In such circumstances the necessary assessments should still be carried out, but as secondary procedures by another member of the team. More time-consuming assessments (such as blood glucose estimation and peak flow measurement) are often left to the secondary stage. Many charts have a ‘risk limit’ placed on them, which indicates the lowest priority that can be applied to the patient if all observations needed are not complete.
The triage method

Evaluating alternatives and selecting one

Selection of the most appropriate flow chart presents a number of general and specific discriminators which can then be tested against the patient. The skill in implementing the triage method lies in the application of this testing. Practitioners must decide whether the criteria for the presence of each discriminator is fulfilled, and must decide which discriminator is the most applicable at the highest clinical priority. For example, the patient who presents with neck pain following direct trauma to the neck and a pain score of 6 (both priority 3), the most appropriate discriminator is direct trauma to the neck as this provides more significant information about this patient.

Implementing the selected alternative

This step is essentially a procedural one. The inevitable outcome of the information gathering, analysis and evaluation leads to allocation of one of the clinical priorities shown in the Table 3.1.

Table 3.1

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Immediate</td>
<td>Red</td>
</tr>
<tr>
<td>2</td>
<td>Very urgent</td>
<td>Orange</td>
</tr>
<tr>
<td>3</td>
<td>Urgent</td>
<td>Yellow</td>
</tr>
<tr>
<td>4</td>
<td>Standard</td>
<td>Green</td>
</tr>
<tr>
<td>5</td>
<td>Non-urgent</td>
<td>Blue</td>
</tr>
</tbody>
</table>

Documentation

Implementation involves recording the allocated priority and showing the decision making that led to it. The triage method outlined here allows documentation to be simple and precise. The minimum required is a record of which presentational flow chart is being used, which discriminator defines the category and which category has been selected. Thus, for instance, the triage record of a patient with chest pain might be:

Chest pain
Pleuritic pain
Urgent/priority 3 (yellow)
This simple approach to documentation allows for simple audit, but it is recognised that computer decision support software is widely used and will dictate the way the triage event is recorded.

**Patient assessment**

The purist view of the triage event is a rapid and focused encounter in which information is gathered and applied to assign a priority. This type of assessment is a skill in itself. The following framework can be used to teach the process to triage practitioners, ensuring decisions are based on relevant and appropriate patient data.

It is important that the assessment of a patient is systematic and all elements of that assessment are pieced together to give a complete picture of the patient’s problem. For this reason the triage practitioner should have sufficient experience of emergency care and the interpersonal skills to communicate effectively with patients and their families.

The approach to this assessment should take the following format (Table 3.2):

<table>
<thead>
<tr>
<th>Assessment component</th>
<th>Triage activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greeting the patient</td>
<td>The assessment begins at first sight of the patient; watch the patient as they approach the triage area, and pick up on any visual signs, which may include: • level of mobility • obvious injury • age of patient</td>
</tr>
<tr>
<td>Patient’s history</td>
<td>Ask the patient why they have attended the Emergency Department This is a short, concise, subjective history and tells you about the patient’s injury/illness/health-related problem</td>
</tr>
</tbody>
</table>
| Presenting complaint       | The patient’s presenting complaints can be established from the subjective history they provide  
This leads the triage practitioner to choose the most appropriate presentation flow chart |
| Focused questions (interview) | This is where the triage practitioner’s knowledge and skills are most evident. Application of anatomical knowledge, pattern recognition of presenting complaints and the ability to react effectively to life-threatening situations are all the domain of the triage practitioner |
The triage method

Table 3.2 (Continued)

<table>
<thead>
<tr>
<th>Assessment component</th>
<th>Triage activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focused questions can be used to obtain more detail if required, e.g. mechanism of injury, duration of the problem, current medications, etc. The format of these questions will be directed by the discriminators in the chosen presentation flow chart</td>
<td></td>
</tr>
<tr>
<td>Physical examination and assessment of physical parameters</td>
<td>If appropriate: • location of actual sites of injury • recording of baseline observations, pulse, temperature or more detailed information, e.g. obtained from pulse oximetry or assessment of visual acuity</td>
</tr>
<tr>
<td>Pain assessment</td>
<td>An integral part of the MTS, both subjective (patient) and objective (triage practitioner) pain scores are worth recording with documentation of the rationale for differing scores</td>
</tr>
<tr>
<td>Priority/plan of care</td>
<td>Priority assigned using the most appropriate discriminator applicable to the patient. Briefly describe any further care identified as a result of the triage assessment</td>
</tr>
<tr>
<td>Documentation</td>
<td>The recording of this information should be in an agreed format and should be clear, concise and relevant to the presenting complaint</td>
</tr>
<tr>
<td></td>
<td>When a computerised triage system is in place, the triage practitioner should make sure the focus of attention is always the patient and not the computer screen/keyboard</td>
</tr>
<tr>
<td></td>
<td>Include a record of any: • allergies • current medications • relevant past medical history • first aid measures applied at triage • observations • drugs administered, e.g. analgesia</td>
</tr>
<tr>
<td></td>
<td>Make sure signature is legible</td>
</tr>
<tr>
<td>Reassessment</td>
<td>Document where there is a need to reassess, in particular when analgesia has been administered at triage</td>
</tr>
</tbody>
</table>

By following this systematic process, facilitated by the triage methodology, the patient assessment can be performed rapidly and confidently to reach an appropriate clinical priority in order to guide decision making.
Chapter 3

Monitoring and evaluating

Clinical priority can change and triage must therefore be dynamic. The triage method described here can be carried out rapidly and reliably by qualified clinicians; it is therefore useful as a tool for multiple re-evaluations of clinical priority during the patient’s stay.

Every encounter can be used as a triage assessment and any change in clinical priority can be rapidly notified and acted upon.
CHAPTER 4
Pain assessment as part of the triage process

Introduction

Pain is a key issue for patients attending Emergency Departments. Pain assessment has improved since the first edition of this text, however pain assessment must remain at the forefront of the triage method so that pain continues to be assessed and managed appropriately. Pain is an important issue for a number of reasons.

- The majority of patients attending Emergency Departments have some degree of pain
- The degree of pain influences the urgency
- The adequacy of pain management is a key criterion for patient satisfaction
- Patients in pain can become agitated and aggressive
- Patients in pain are a source of distress and stress to both staff and other patients
- Patients have an expectation that their pain will be dealt with

There are many advantages in assessing pain as part of the triage process. First, it ensures that a patient’s pain is managed at the earliest opportunity – the provision of appropriate analgesia and consequent reduction in pain may lead to the possibility of re-categorisation to a lower priority. Patient anxiety is reduced and communication is improved. Without pain assessment the provision of appropriate analgesia at triage is not possible.
Chapter 4

Pain assessment at triage

Pain assessment is an integral part of the Manchester triage methodology. This is a deliberate and explicit recognition of the importance of pain and it is recognised that the result is that patients are categorised into a higher priority than was traditionally the case.

If a patient’s pain is to be assessed formally at triage, and the outcome of that assessment is to help determine the urgency with which that patient is to be seen, then all triage practitioners must be competent in assessing pain, and the pain assessment must be valid and reproducible. It is unrealistic to expect that only the patient’s subjective assessment will be taken into consideration during this process. By the same token it is inappropriate that the triage practitioners make their own subjective assessment of the patient’s pain in isolation.

Pain assessment in the Emergency Department

This can be difficult because patients may be under pressure to say that their pain is severe so as to justify their attendance, and some patients, particularly children, may deny that they have pain to avoid having treatment or being admitted to hospital. Some practitioners’ assessment and management of pain may be influenced by ‘traditional’ pathways of care. For example, patients who have fractures are offered immediate analgesia, but patients with abdominal pain may not be offered analgesia until the surgeons have seen them.

There may be concerns by staff that a patient will score pain higher if it is thought that this will result in a quicker treatment, but the objective assessment of pain will ameliorate this.

Pain assessment tools

Many Emergency Departments now use a formal pain assessment tool, but many such tools suffer from the fact that they were developed for use with postoperative and chronically ill patients.

There are three main types of pain assessment tools:

- Verbal descriptor scales
- Visual analogue scales
- Pain behaviour tools
Pain assessment as part of the triage process

**Verbal descriptor scales**
These scales consist of a number of word descriptors, usually three or five, which are numerically ranked. The most common descriptors are as follows:

- None
- Slight
- Moderate
- Severe
- Agonising

and the numerical value increases with the severity of the pain. The verbal descriptor scale is short and relatively easy for the patient to use and has been employed in the Emergency Department environment (Table 4.1).

**Table 4.1**

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>It provides a score which is easy for any practitioner to analyse</td>
<td>The use of a single word from a limited list may not reflect the pain that the patient is experiencing</td>
</tr>
<tr>
<td>It probably produces reliable data</td>
<td>It is not suitable for patients who do not speak English</td>
</tr>
<tr>
<td>It can be modified for use in children</td>
<td>It is the patient’s subjective assessment</td>
</tr>
</tbody>
</table>

**Visual analogue scales**
These scales usually consist of a straight line representing varying levels of pain with verbal anchors at each end.

<table>
<thead>
<tr>
<th>NO PAIN</th>
<th>PAIN AS BAD AS IT COULD BE</th>
</tr>
</thead>
</table>

Patients can mark anywhere on the line. Verbal descriptors can also be added beneath the line in addition to the word anchors. The line can also be broken down to facilitate scoring for evaluation or comparative purposes.
Table 4.2

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy and fast to use and score</td>
<td>Some patients choose to mark the line near one of the verbal anchors</td>
</tr>
<tr>
<td>These scales may be more sensitive than verbal</td>
<td>Certain patients find these scales too abstract to use, in particular those in severe pain, those with lower educational abilities or those with impaired motor coordination. The elderly can have some difficulty in using these scales</td>
</tr>
<tr>
<td>descriptors</td>
<td></td>
</tr>
<tr>
<td>If used correctly they are reproducible and</td>
<td></td>
</tr>
<tr>
<td>reliable</td>
<td></td>
</tr>
</tbody>
</table>

Pain behaviour tools

These tools have been developed relying on the principle that patients who are in pain exhibit certain behaviours and physiological changes. These tools can measure the following:

- Verbal response
- Body language
- Facial expression
- Behavioural changes
- Conscious level
- Physiological changes

A number of different tools exist, each based on combining a number of the above factors, but have some disadvantages in use (Table 4.3).

Table 4.3

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can be used in patients with communication</td>
<td>Complex scales; comparison and scoring are difficult</td>
</tr>
<tr>
<td>problems</td>
<td>The patient’s subjective assessment is not included</td>
</tr>
<tr>
<td></td>
<td>Difficult to ensure that pain alone underlies the observed changes</td>
</tr>
<tr>
<td></td>
<td>Time consuming, taking 5–15 minutes to use</td>
</tr>
</tbody>
</table>
Pain assessment as part of the triage process

The ideal pain assessment tool

An ideal tool for use in the Emergency Department should be simple and quick to use, should have been validated and must give reliable, reproducible results. These results should take account of both patient and observer data.

The pain ruler

No single pain assessment tool is better than another, although some would seem to be more suited to particular clinical areas than others. The pain ruler is a well-established pain assessment tool which would seem to lend itself for use in the Emergency Department setting more than some others. In particular, the advantages are as follows:

- It measures the intensity of pain and the effects on normal function
- It combines the use of verbal descriptors and a visual analogue scale
- It is fast and easy to use
- It is easily weighted to allow pain assessment to be part of the triage process
- By helping in the normal function assessment, the triage practitioner can become involved in the pain assessment process
- It promotes dialogue, which in turn encourages patients that their pain is being taken seriously
- It produces a score facilitating ongoing assessment
- The outcome of the assessment is quick and easy to document
- It can easily be adapted for use in children

A pain ruler offers scores of 0–10 but this is grouped into no pain, mild pain, moderate pain and severe pain, which is congruent with other pain scoring tools. These descriptions are used in the presentational flow charts. A pain ruler is shown in Figure 4.1.
This can be supplemented by a faces scale for use in small children as shown in Figure 4.2.
Pain assessment as part of the triage process

Pain assessment at triage

Pain assessment is a skilled process in any environment and the assessment carried out during triage is no exception. There are particular constraints in this setting reflecting the emergency nature of the patients and the lack of assessment time. Nevertheless, an accurate assessment of the patient’s pain into one of the categories shown in the flow chart is essential if proper and timely care is to be given. The triage practitioner must take into account a number of factors that influence the patients’ perception of their pain.

![Flowchart showing pain assessment](chart.png)

**Age**

Children may imagine the worst possible outcome of their pain. They use catastrophic thinking which increases their anxiety and fear and may therefore enhance their perception of pain. The practitioner must be able to recognise the signs of pain in pre-verbal children and the pain ruler can be adapted for this.
Many elderly people suffer from multiple pain problems and may consider a significant pain level to be normal. Many accept pain and cope well with it.

**Assessment skill**
- Recognise patients whose age affects pain assessment
- Is pain perception increased or decreased?
- How can this be overcome?

**Previous experience of pain**
Patients are influenced by their previous experiences of pain. They may compare this pain to previous episodes as to whether this is more or less severe. They will also be influenced by how the pain was managed previously.

**Assessment skill**
- Recognise whether the patient has had similar pain before
- What is different now?
- How did the patient manage the pain before?

**Culture**
Illness behaviour, and therefore pain behaviour, has a strong cultural component, and because of different cultural and social influences not all individuals express pain in the same way. Pain behaviour continues to be reinforced throughout life by the social group to which the individual belongs.

Particular cultural groups do not feel pain less than others, they only differ in how they respond to, or express, their pain. It is essential that the triage practitioners recognise that their own cultural and social background will inevitably influence how they interpret a patient’s pain behaviour. This identifies one particular difficulty with relying on assessment tools that consider only the patient’s (or the practitioner’s) subjective assessment.

**Assessment skill**
- Recognise your own and the patient’s cultural background
- How does this affect the patient’s pain perception?
- How does this affect the observer’s interpretation of behaviour?
Pain assessment as part of the triage process

Anxiety
There is a link between high anxiety levels and high pain scoring. Patients can be anxious for a number of reasons: they may be concerned about the effect of the illness/accident on their ability to carry out their everyday activities, and they may be anxious about attending hospital or worried about what is actually wrong with them.

There are considerable benefits in addressing a patient’s pain at triage, in that the patient is shown at the earliest opportunity that his or her pain is being taken seriously. Reassurance and explanation from the triage practitioner at this time may play a part in effectively reducing the level of pain.

Assessment skill
- Recognise the level of anxiety of the patient
- What lies behind the patient’s anxiety?
- How does this affect the patient’s perception of pain?

Disruption to patient’s usual activities
Any individual functions at a level which is what he, or she, considers to be normal. Pain can destroy the patient’s ability to perform at that level, affecting their physical and emotional well-being, their financial situation and their position within society. Patients’ perception of their pain will be influenced to some extent by how the pain will stop them functioning normally. It may not be possible to fully assess the level of disruption to the patient’s usual activities, but the practitioner may be able to help the patient to focus on the effect of the pain by asking pertinent questions such as: Does the pain stop them eating/drinking/sleeping/breathing properly? Does the pain stop them walking/sitting? Does the pain stop them working/going to school?

Assessment skill
- Recognise the degree to which normal daily activities are disrupted
- How can the degree of disruption be assessed?
- How does the degree of disruption relate to the patient’s perception of pain?

If a patient scores his pain as 10 but then is able to perform all his usual activities, the practitioner should consider other factors that may be influencing the patient’s assessment of his pain.
Other considerations

Some patients may not be able to participate in the pain assessment process. They may be confused, have learning difficulties or be too distressed. Likewise, they may not be able to read or understand English. Consider each patient as an individual and think about other tools that you could use instead.

Assessment skill

- Recognise that no single assessment tool is appropriate for every patient presenting with pain
- Can this patient participate using this method of assessment?
- What other methods of pain assessment are more appropriate?
CHAPTER 5
Patient management, triage and the triage practitioner

Introduction

There is a difference between absolute clinical priority, as defined using the method in this book, and relative priority within and between triage categories. In overview, the process of triage, as outlined here, is quite simple – patients are assigned to a triage category and then managed in order of priority and time of attendance. However, there are many other factors apart from clinical priority which may, from time to time, influence how the patient is handled within the Emergency Department. This chapter outlines these factors and discusses their importance. Clinical priority and the findings that determine it are clearly very important, but failure to recognise other factors can be detrimental to both departmental function and quality of care for individual patients.

Type of patient

There are a number of issues about the nature of individual patients that affect their management in addition to their clinical priority. These are summarised below.

Children

Children may need specific consideration, especially in Emergency Departments without separate paediatric facilities. They are almost always accompanied by someone else (usually a parent – but teachers, relatives or social workers may also be present), as well as siblings and friends who, although well, need entertaining. Children have very short attention spans and get bored, frightened and tired very easily. They may become distressed and
agitated because of communication and understanding difficulties, and this makes later handling more difficult.

Children who can be distracted by a play specialist, or in a separate waiting room with age-specific facilities, probably do not need any specific consideration other than frequent reassessment. It is helpful if child-friendly food and drink, e.g. snacks and drinks in cartons, bottles, etc., are available (provided the carer of any child who may need a general anaesthetic or sedation is aware of the need to keep the child nil by mouth).

It may be worthwhile having a policy for children who present late in the evening or at night. The child who is very tired may prove impossible to examine and treat, so a relatively early examination may be considered.

Elders
Relative immobility can cause increased discomfort in the waiting room and may cause difficulty for the patient in reaching the toilet or going for refreshments. A person who is normally able to cope well in familiar surroundings may become quite confused and disorientated in the Emergency Department. The elderly are very prone to pressure damage to tissues, which can develop after only half an hour on a hospital trolley. If they cannot be seen quickly for treatment, they need frequent nursing attention. They may have problems with continence which, if not anticipated, may lead to embarrassment. Cognitive difficulties may lead to them providing little information. Practitioners should be aware of these issues and consider the relative needs of this group of patients.

Patients with physical disability or learning difficulties
Apart from the extremes of age, there will be patients who have particular difficulties. These include those with special needs, poor sight, poor hearing, etc. Persons who can cope quite well in the community under controlled circumstances may have great difficulties in the strange environment of the Emergency Department. Communications again become particularly important, and it may be appropriate for such patients to be seen relatively quickly.

Abusive/aggressive patients
There are few things worse than having a full waiting room, with one or more patients (or more often relatives or friends of patients) constantly demanding attention. Although the guiding principle must be that these patients are not given priority just because they shout louder, the distress they cause to others must be taken into consideration. An initial
attempt to communicate departmental policy may be followed by a number of actions. The patient may be placed in an individual cubicle to wait in order to minimise the disruption to the waiting room. Alternatively, such patients can be seen, treated and discharged rapidly for the benefit of others. If all else fails, the patient (or the patient’s relatives) may be asked to leave, assisted, as necessary, by security or the police.

**Patients under the influence of alcohol**

These patients are difficult to assess because of the effect of alcohol on conscious level and on pain perception. They need frequent reassessment to check that they are not deteriorating or developing a problem not immediately apparent at triage. Disruptive drunk patients should be managed as outlined above.

**Frequent attenders**

Most departments have a number of patients who are frequent attenders. It is undoubtedly tempting to place these patients in the non-urgent category without proper assessment. Beware, even this patient group develop organic pathology, injure themselves or have a serious complication of their disease. These patients (even those with predominantly social problems) are in fact more likely to develop illnesses or sustain injuries than the general population. Each attendance should be treated as a new visit and proper assessment should be undertaken; this avoids underestimation of possible serious causes for attending.

**Patients who re-attend**

There are occasions when patients return to the department, usually because their original presenting complaint has not resolved or they have developed a complication. Sometimes the patient’s expectations of the natural progress of an injury or illness are unrealistic. The patient may also return having failed to wait for definitive treatment on a prior occasion. The patient should be allocated a triage category according to the symptoms presenting at the time of triage, and not according to the original triage category. Some departments may have policies recommending that such patients are reviewed by a senior doctor if available. It may also be appropriate to offer some of these patients a review clinic appointment for assessment by a senior doctor if the problem does not seem to need immediate treatment.
Chapter 5

Clinic patients
Most Emergency Departments hold review clinics. Some services hold clinics in an area away from the department, and, although they may see Emergency Department staff, these patients would not impinge on the triage practitioner role. If the clinic is held within the Emergency Department, then it is usual for these patients to have a different priority and/or route through the department. It is important that the triage practitioner explains to the new patients that there are clinic patients who may be called out of turn.

Patients referred by other agencies
Many departments allow their facilities to be used by other teams for patient assessment. These patients are usually pre-arranged or accepted patients from primary care physicians. They are often patients who are accepted for possible admission and many have a relatively high clinical priority. These patients must be triaged in the same way as Emergency Department patients. If the patient is triaged as first priority it would be usual for the Emergency Department team to initiate resuscitation, unless the referral team is in the department. The triage practitioner should inform the referral team of the triage category of the patients in order to try and ensure that these patients are treated with a similar degree of urgency as Emergency Department patients. It may also be appropriate for the triage practitioner to ask departmental clinical staff to provide analgesia or initiate immediate investigations, in order to smooth the patients’ stay in the department.

Some patients may have been brought in by the police (for instance under mental health legislation), by social services or by other professional services. Triage practitioners should be aware of the pressures on staff from other agencies and consider this when deciding on the management of such patients, but the triage priority would not change.

Departmental factors
Any department that deals with emergencies may at times be overwhelmed by the influx of patients. Sometimes, it only takes one seriously ill patient, or an absent member of staff, to produce a standstill. Each department needs to develop means of coping with this. An accurate triage assessment is an essential first step in good departmental management.
Patient management, triage and the triage practitioner

Both the workload and the staffing of the department will vary according to the time of day. Frequently overnight there is reduced clinical staffing. This may cause increased waiting times and difficulties in the waiting room, particularly if there are patients who are aggressive or under the influence of alcohol.

**Fast tracking, streaming and matching resources to demand**

Streaming is a term used to describe the splitting of patients into different groups who are then seen by staff dedicated to that particular group or stream. Once within a particular stream the patient is not affected by pressures elsewhere in the system. This is similar to the concept of ‘fast tracking’, where particular groups of patients (usually those with relatively minor injuries and illnesses) are identified and seen by dedicated staff to improve the flow. The main difference is that streaming is delivered as a planned intervention, rather than as a reactive one.

The Manchester Triage System can be used to facilitate streaming. This is discussed in detail in chapter 8.

**Role of the triage practitioner**

The triage practitioner’s main role is the accurate prioritisation of patients and this must be the prime objective. The triage practitioner needs to become accomplished at rapid assessment – this involves quick decision making and suitable delegation of tasks. Long conversations with patients should be avoided, as should exhaustive history taking. Clinical observations, such as temperature/pulse, etc., need to be delegated if they are not required to establish priority as they are too time consuming.

In small departments, the triage practitioner will see all patients coming into the department. In others, there may be separate practitioners dealing with patients who arrive on foot or by ambulance. The mode of arrival of the patient does not always correlate with the seriousness of the presenting problem. (Patients with trivial complaints may call the emergency services and patients with a myocardial infarction may arrive by car.) Therefore there must be close liaison between triage and clinical areas to ensure that patients are placed in the appropriate location. The triage method outlined in this book should assist this process by standardising triage practice.

Rapid influxes of patients may require the triage practitioner to seek assistance from another member of staff. The triage process is integral to
the clinical management of most departments, and a variety of additional tasks may be undertaken.

**First aid/analgesia**
The triage practitioner may need to provide or facilitate some first aid treatment, and recognise the need to provide analgesics if required (see chapter 4). Application of a sling or dressing will immediately improve the patient’s comfort and help minimise further trauma and bleeding.

**Patient information**
The triage practitioner is the first clinical contact for the patient, and talking the patient through the illness and probable course in the department alleviates much distress and anxiety. Patients appreciate knowing the waiting time, the probable time spent in the department, whether any investigations may be ordered and possible treatment. This information can be provided quickly for most common conditions.

**Health promotion**
The triage practitioner (if time allows) can usefully act as a health promoter. The patient is usually quite receptive to health care advice when an adverse event has occurred. If possible brief advice about relevant topics, such as locked cabinets for medications, cycle helmets and smoking cessation, may be appropriate. It is helpful if patient information leaflets are available.

**Disposition of patients around the department**
The triage practitioner will often have to decide where to place the patients in the department. This will depend on departmental facilities and policies. Patients who are distressed, in pain, bleeding or at extremes of age may be best placed in cubicles away from the general waiting room. Patients who need to be lying down for examination (e.g. those suffering from knee injuries, back complaints and abdominal pain) should be placed in an area where they can lie down. Ill patients may well walk into the department and need to be placed in the appropriate area of the department. To achieve this, the triage practitioner needs to be continuously aware of the occupancy of the department and the current disposition of patients.

**Managing the waiting room**
Until they have been seen by a clinician, the patients’ main contact is the triage practitioner. Further advice may be sought by these patients, and
criticisms delivered. The triage practitioner needs to keep the occupants of
the waiting room informed of the current approximate waiting time. Con-
stant observation and reassessment are necessary in order to spot those
patients whose condition is changing. Triage is a dynamic process and
patients often need regular reassessment. This might occur after an inter-
vension, e.g. the administration of analgesic, or after an appropriate length
of time. Patients may be re-triaged into a lower category after pain relief or
given higher priority if they deteriorate. No one can anticipate all problems
and it is not a ‘failure’ of accurate assessment to change the triage category
according to further developments in the patient’s condition, or indeed
with further information that may be acquired. The waiting room should
be considered to be a clinical area and the domain and responsibility of the
triage practitioner.
CHAPTER 6
Auditing the triage process

Introduction

When the Manchester Triage Group set out its aims at its very first meeting in November 1994, it clearly identified the need for a robust audit methodology. The reasons for this were, very simply, that the MTS was designed to reduce unwarranted variations in the triage process and this reduction could only be ensured by audit. Audit, in this context at least, is a quality management procedure; since triage is a fundamental cornerstone of clinical risk management, failure to ensure the quality of triage may have serious consequences.

Fortunately the Manchester Triage methodology is eminently auditable. The presentation–discriminator–priority progression (the process) by which individual triage practitioners arrive at their conclusions is easy for an auditor to note and easily assessable for accuracy by a trained assessor.

In addition to the process of triage discussed above, audit can also address other issues such as completeness of notes and adherence with terminology (it is not unusual for harassed triage practitioners to ‘invent’ a new discriminator if the actual discriminator has slipped their mind).

The aim of this chapter is to describe a robust triage audit method for the MTS and also to outline some of the results that have been found in audits around the world.

Audit method

At a basic level, the accuracy of individual triage practitioners underpins the whole quality agenda. Thus the most robust triage audit continuously assesses practitioners for accuracy and is linked by reflective practice and, if necessary, additional training to improved performance. The method outlined below is an audit of individual practitioner triage activity and is
Auditing the triage process designed to audit the quality of decision making against the MTS standard, along with standards of record keeping and documentation.

- All triage practitioners are identified
- All episodes of triage are identified
- Episodes are all assigned to individual practitioners
- 2% of episodes per practitioner (minimum of 10 episodes) are randomly selected
- Episodes are assessed by a senior trained triage practitioner
- Completeness of episodes is expressed as a simple proportion
- Accuracy of episodes is expressed as a simple proportion
- Number of incomplete episodes is fed back to the practitioner
- Overall accuracy is fed back to the practitioner
- Any causes of inaccurate triage are fed back to the practitioner

To ensure consistency of audit, 10% of episodes assessed are performed independently by a second senior practitioner and any differences moderated by discussion. Continuous audit can be time consuming but is an excellent means of assessing standards of triage activity and decision making. A monthly audit is advised when MTS is introduced to a clinical area. Even in large departments triaging 100,000 patients each year, the number audited is only 2000 cases per year or 160 per month. The frequency of audit may be reduced to 3–6-monthly thereafter. The criteria in Table 6.1 have been shown to capture the essential components of a safe and reproducible triage system.

**Table 6.1**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct use of presentational flow chart</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific discriminators correctly selected (record as seen on triage record)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain score recorded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct triage category assigned (based on patient presentation and discriminators)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrated ability to navigate the computerised triage system (where applicable)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triage record legible and named</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-triaged where necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 6

Two important measures of the triage process are obtained: completeness and accuracy.

**Completeness**
An episode is complete if all the steps necessary to reach the conclusion have been undertaken. The method requires that the practitioner excludes *all* the discriminators in any higher priority. Thus if SpO₂ appears as a discriminator in the chart selected, then the episode would be incomplete if no result was recorded. The most common error is to fail to record a pain score.

**Accuracy**
An episode is recorded as accurate if both the presentation and discriminator selected are appropriate. It is important to realise that there may be appropriate alternatives (indeed the system is designed to ensure that this can occur); thus audit should be carried out by a practitioner with sufficient experience to make this judgment.

**Targets**
- 0% episodes incomplete
- 95% accuracy
- 95% agreement between assessors
Auditing the triage process

Triage practitioner
Select 2% (min 10) records

A Total

Presentation appropriate?
No → B Inaccurate
Yes

Sufficient information?
No → C Incomplete
Yes

Discriminator appropriate?
No

% incomplete = C/A × 100

Yes

Check A = B + C + D

D Accurate

% accuracy = D/A × 100
Triage in practice

The triage audit will have a number of additional effects on the triage process. It is not possible to carry out the audit without accurate triage notes; any deficiencies in record making will be highlighted. For instance, failure to record a pain score will mean that the auditor cannot be sure whether the triage priority assignment is correct. This will then be marked as an incomplete episode, thus encouraging pain assessment. Similarly, failure to record required physiological measurements, such as peak expiratory flow rate (PEFR) in asthma or temperature in the unwell child, will result in incomplete episodes. Feedback on a regular basis will improve these assessments. Experience has shown that this is an early ‘win’ from audit.

Example of a regional audit process

To compare the accuracy of the triage process across a health region in England, 100 triage episodes from each centre were audited by trained senior triage practitioners. Each triage record was reviewed by two practitioners and 10% of the records were triaged independently by further senior triage practitioners. A strong inter-observer agreement was found. Accuracy was found to vary from 68% to 95%. This allowed informed interpretation of the findings of the audit which demonstrated marked variation in case mix (triage spectrum) across the region. Furthermore, a strong association between computerised triage systems and accurate triage was demonstrated.

National triage audit

The MTS was introduced in Portugal as a national system in 2001 having been trialed in a number of hospitals prior to that time. The system is administered by the Portuguese Triage Group (GPT) which has insisted on audit as an integral part of triage in all its codes of practice. All hospitals implementing MTS are required to audit continuously and report the results of the audit to the GPT at an annual meeting. This audit has shown high overall accuracy.

Interestingly, audit has also demonstrated that the average triage intervention time is between 60 and 120 seconds, which contradicts the assertion that the MTS slows down the Emergency Department process. It would appear that slowing occurs because of tasks other than prioritisation carried out by triage practitioners as part of the initial assessment.
CHAPTER 7

Telephone triage

Introduction

The recognition of the need for formalised telephone triage and its development first occurred in the United States. Telephone triage was first described as a useful tool in the emergency setting in the United Kingdom in 1991. Various benefits have been attributed to this strategy including reduced attendance at the Emergency Department due to explanations and self-care advice, redirection of patients to more appropriate agencies, identification of problems before the patient attends the department, cost effectiveness and patient empowerment.

Giving advice by telephone has always been an integral part of the ED nurse’s role although early studies suggested that patient assessment by telephone was subjective, poorly structured and carried out by untrained personnel. Decisions were made hastily without ascertaining the full facts. Recommendations arising from these studies were that a designated telephone advisor should be the first point of contact for telephone advice, protocols for informed advice for common problems should be developed and that adequate documentation was essential. Where these strategies have been implemented in practice, telephone assessment or triage has been found to be a safe and effective method of prioritisation. Formalised advice giving by telephone has the potential to be a valuable tool in many settings – a fact that was recognised in the development of national telephone advice helplines.

Telephone triage is distinct from telephone advice in that triage occurs when a formalised process of decision making takes place that allows
identification of clinical priority, then allocation to predetermined categories of urgency of need for medical evaluation and care.

**Telephone triage methodology**

When undertaken effectively, triage involves a decision about clinical priority, which is based on presentation rather than diagnosis. Telephone triage should be undertaken in exactly the same way. The methodology described here builds on the effective face-to-face triage methodology taught by the Manchester Triage Group. The possible outcomes are, however, simplified from the five-category system as there are fewer options available to the telephone triage practitioner.

The decisions which must be made are as follows:

- Does the patient need immediate and urgent care? (‘medicine now’)
- Do they need care within the next few hours? (‘medicine soon’)
- Can medical or other care be delayed? (‘medicine later’)
- Advice only – where the problem can be managed by giving self-care advice

Patients who are in the ‘medicine now’ category are best served by the Emergency Ambulance Service and Emergency Departments, whatever the patients’ locations. Those requiring ‘medicine soon’ or ‘medicine later’ may have care delivered in a number of locations and by various providers. Thus, the time to care in the ‘medicine soon’ category will vary, depending upon those services available in that health economy. A mapping exercise should be undertaken locally to agree the appropriate dispositions arising from the triage decision (see chapter 8). It is essential that the practitioner undertaking telephone triage uses up-to-date details about current local services, such as dental emergency arrangements, telephone numbers of primary care facilities and the location of all-night pharmacies.

**Making the decision**

On receiving the telephone call, the practitioner must gather some basic information from the caller about the nature of the problem. This will dictate which presentational flow chart is selected.

Once the decision has been made, questioning techniques are used to elicit information in order to decide what priority should be allocated. The methodology is reductive – working from more serious to less serious
discriminators, and the triage practitioner is prompted to cover all possibilities by the information contained on the flow charts.
Chapter 7

The practitioner must decide whether the criteria for each discriminator are fulfilled, and which of the discriminators present leads to the highest clinical priority. Discriminator definitions remain the same when undertaking triage by telephone. The questions normally asked by the triage practitioner must be modified to take into account the remoteness of the patient, the levels of anxiety and the possibility that the caller is not the patient.

Some discriminators appear in the face-to-face charts which do not appear in the telephone triage edition of *Emergency Triage*. This is because for some discriminators it is impossible to ascertain whether the discriminator is fulfilled or not without seeing the patient. Those discriminators are therefore not used in telephone triage.

Some examples of questions relating to particular discriminators, along with the discriminator definitions, are shown in Table 7.1.

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Questions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute onset after injury</td>
<td>Did this start after you fell/were hit, etc.?</td>
<td>Onset of symptoms immediately or shortly after a recent physically traumatic event</td>
</tr>
<tr>
<td></td>
<td>When did this start?</td>
<td></td>
</tr>
<tr>
<td>Acutely avulsed tooth</td>
<td>When did your tooth come out?</td>
<td>A tooth that has been avulsed intact within the previous 24 hours</td>
</tr>
<tr>
<td></td>
<td>Was this the result of injury?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is it complete with a root?</td>
<td></td>
</tr>
<tr>
<td>Acutely short of breath</td>
<td>Have you suddenly become short of breath?</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td></td>
<td>Are you more short of breath than normal?</td>
<td></td>
</tr>
<tr>
<td>Altered conscious level</td>
<td>Do they open their eyes or move when you speak to them or gently shake their shoulders?</td>
<td>Not fully alert. Either responding to voice or pain only or unresponsive</td>
</tr>
<tr>
<td>Cardiac pain</td>
<td>Where is the pain?</td>
<td>Classically a severe dull ‘gripping’ or ‘heavy’ pain in the centre of the chest, radiating to the left arm or to the neck. May be associated with sweating and nausea</td>
</tr>
<tr>
<td></td>
<td>Have you had pain like this before?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is it like?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does it go to your arm or neck?</td>
<td></td>
</tr>
<tr>
<td>Direct trauma to the neck</td>
<td>Have you been hit on your neck?</td>
<td>This may be top to bottom (loading) for instance when something falls on the head, bending (forwards, backwards or to the side), twisting or distracting such as in hanging</td>
</tr>
<tr>
<td></td>
<td>What exactly happened?</td>
<td></td>
</tr>
</tbody>
</table>
Table 7.1 (Continued)

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Questions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>High risk of self-harm</td>
<td>What are you (they) going to do?</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient’s behaviour. Patients who have a significant history of self-harm, who are actively trying to harm themselves or who are actively trying to leave with the intent of harming themselves are at high risk</td>
</tr>
<tr>
<td></td>
<td>Do you want to kill yourself?</td>
<td></td>
</tr>
<tr>
<td>Inconsolable by parent</td>
<td>Can you calm them down at all?</td>
<td>Children whose crying or distress does not respond to attempts by their parents to comfort them fulfill this criteria</td>
</tr>
<tr>
<td></td>
<td>Do they settle at all when you cuddle them?</td>
<td></td>
</tr>
<tr>
<td>Signs of dehydration</td>
<td>Do you (they) have a dry tongue?</td>
<td>These include: dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output</td>
</tr>
<tr>
<td></td>
<td>Do you (they) look dry?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are you (they) passing as much urine as normal?</td>
<td></td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Do you (they) have a stiff neck?</td>
<td>Classically a stiff neck together with headache and photophobia</td>
</tr>
<tr>
<td></td>
<td>Does the light hurt your (their) eyes?</td>
<td></td>
</tr>
</tbody>
</table>

Interim advice

Because the patient is remote from the triage practitioner, interim advice may be necessary in order to promote recovery or prevent deterioration in the condition of the patient before medical help is accessed. For example, if the triage practitioner obtains information that the patient is not breathing properly or has a compromised airway, then life-saving basic life support advice must be given to the caller so that resuscitation can be attempted until help arrives. Similarly if a child is unwell and is triaged to ‘medicine later’, it may be appropriate to give the carer advice on simple measures to alleviate symptoms such as fever and diarrhoea. Interim advice should be available for each discriminator. Some examples are shown in Table 7.2.
Table 7.2

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Interim advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently fitting</td>
<td>Attempt to place the patient in a recovery position (describe if necessary).</td>
</tr>
<tr>
<td></td>
<td>Loosen clothing. Do not attempt to place anything into the mouth</td>
</tr>
<tr>
<td>History of overdose</td>
<td>Do not try to induce vomiting. If lips are burning after ingestion of a</td>
</tr>
<tr>
<td>or poisoning</td>
<td>corrosive substance try frequent sips of cold water</td>
</tr>
<tr>
<td>Hot child</td>
<td>Remove warm clothing. Administer paracetamol elixir if available, dosing</td>
</tr>
<tr>
<td></td>
<td>according to the manufacturer’s recommendations</td>
</tr>
<tr>
<td>Open fracture</td>
<td>Do not move the limb. Place pads or cushions around it to keep it still.</td>
</tr>
<tr>
<td></td>
<td>Cover the wound with a clean pad or towel</td>
</tr>
</tbody>
</table>

Once details of the patient’s presenting symptoms have been obtained, a priority category allocated and any appropriate interim advice given, then advice on transport may be necessary. Protocols for this may be agreed locally, depending on the telephone triage setting. Advice must also be given about what to do should the condition or circumstances of the patient change in the interim.

**Pain**

Pain assessment is an integral part of the triage decision-making process but presents special problems in a telephone triage situation. Not only is observation impossible, but the time taken to elicit specific information about pain may be limited and the patient or carer’s understanding of what the triage practitioner means when asked about pain scales may be suboptimal.

The pain evaluation tool within the telephone triage system has been modified to reflect these difficulties. Severe pain is used as a discriminator to prioritise the patient into the ‘medicine now’ category in all cases. Severe pain warrants urgent investigation and management. Pain does not feature in any other decisions about clinical priority, which must be made on the basis of other information gained by the practitioner.

**The telephone triage practitioner**

Telephone triage, like face-to-face triage, should be undertaken by experienced practitioners. The availability of protocols and charts does not remove the need for expert clinical knowledge. Arguably the decisions
made in telephone triage call for a higher level of skill and knowledge than when the patient is present. Furthermore, the questioning skills of the practitioner must be very highly developed in order to obtain the most useful information from a troubled caller in the least possible time.

Like face-to-face triage, telephone triage works well when it is carried out correctly and less well when arbitrary decisions are made, or important aspects such as pain are ignored. Systems must be auditable and this relies on good training of competent practitioners using their skills and knowledge and the tools available to them to the best effect.

The telephone triage methodology provides an effective and auditable tool for the prioritisation of patients presenting to immediate care settings by telephone.
CHAPTER 8
Beyond prioritisation

The Manchester Triage System was designed to be a robust, auditable clinical risk management tool that identified the clinical priority of individual patients. However, as has been mentioned earlier in this book, the process itself and the outcome of the process can also be useful beyond prioritisation. Two such uses are described here.

Monitoring of physiological parameters

Triage is a dynamic process and should be undertaken periodically on all patients while they are waiting for treatment. In this way any change in status can be identified and the triage category can be modified if necessary. The need for monitoring does not stop after first clinician contact – it is very important that any deterioration is identified as soon as possible so that appropriate reassessment can be undertaken and any treatments started. The similarity between post triage monitoring (dynamic triage) and post clinical assessment monitoring is self-evident.

In some areas of the hospital, ongoing monitoring uses an ‘early warning score’ format very successfully. In the Emergency Department, however, this may require clinicians to learn and implement a new assessment tool. The discriminators within the MTS, particularly those addressing ABCD life threat, lend themselves well to ongoing assessment and can easily be adapted into an early warning tool (Table 8.1). The use of these MTS-based physiological parameters ensures Emergency Department clinicians are familiar with this process and can quickly identify deterioration (or improvement) in the patient’s condition that might need intervention.
Beyond prioritisation

Table 8.1

<table>
<thead>
<tr>
<th></th>
<th>Red</th>
<th>Orange</th>
<th>Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airway</td>
<td>Airway compromise</td>
<td>Very low SpO₂</td>
<td>Low SpO₂</td>
</tr>
<tr>
<td>Breathing</td>
<td>Inadequate breathing</td>
<td>Acutely short of breath</td>
<td></td>
</tr>
<tr>
<td>Circulation</td>
<td>Shock</td>
<td>Abnormal pulse</td>
<td>Uncontrollable minor</td>
</tr>
<tr>
<td></td>
<td>Exsanguinating</td>
<td>Marked tachycardia</td>
<td>haemorrhage</td>
</tr>
<tr>
<td></td>
<td>haemorrhage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td>Unresponsive child</td>
<td>Altered conscious level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hypoglycaemia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As with all monitoring tools, it is change rather than absolute score that is important. Thus the new appearance of a red discriminator should indicate immediate clinical reassessment, while the recognition of an orange or yellow discriminator should precipitate clinical action within 10 or 60 minutes, respectively. This approach has the advantage of using a tool with which the nursing staff are familiar, within a framework that is also well known.

Other uses of the triage consultation

Often the triage event includes more than the assessment and prioritisation of patients. In addition to being asked to prioritise patients and deliver basic first aid, practitioners may also be expected to do the following:

- Administer analgesia
- Refer patients directly for radiological investigations – in particular those with upper and lower limb injuries
- Triage patients to self-care, pharmacy services, GP non-urgent appointments or Out of Hours Service
- Initiate agreed patient pathways to facilitate direct referral to inpatient specialties

In many cases these activities will require a higher level of decision making than has previously been expected. There will be some associated training needs in the assessment of patients and understanding of the referral process in order for the clinician to make the choice of service that best meets the patient’s needs.
The benefits of ‘value added’ or extended triage are that patients have access to pain management at the point of entry, where a delay in definitive treatment may be encountered. There is likely to be a reduction in the total time spent in the department if patients present to the treating clinician with radiographs ready for interpretation. Patients may avoid unnecessary delay if directed to alternative services/specialties from triage.

The downside to this approach is obvious; introducing more intervention in the assessment will result in longer consultation times and may create a significant delay for patients entering the system, thus introducing an element of risk. To offset this problem it is feasible to have more than one triage practitioner operating at any given time to ensure all patients are triaged without significant delay. As previously noted, the time needed for accurate prioritisation is only 60–120 seconds and it is therefore disingenuous to blame the triage event itself for any delays that result from widening the remit of initial assessment.

Presentation–priority matrix mapping

As the idea of the inappropriate patient becomes replaced by the concepts of inappropriate care delivery and patient choice, multiple entry gates to emergency care and the ‘emergency care village’ become realities. Clinicians must be equipped with tools that enable them to decide safely and effectively where patients might be best managed.

It became clear while reviewing the second edition of *Emergency Triage* that the outcome of the prioritisation process could be captured to inform decisions about the most appropriate disposition of the patient. In particular the combination of the presentational chart used and the priority allocated (the presentation–priority matrix, PPM) could be matched to particular types of emergency care provision. Thus a patient presenting with a limb problem and allocated to the green/4/standard priority should be seen in the Minor Treatment Area, while a patient with chest pain allocated to the orange/2/very urgent priority is best managed in the Resuscitation Room.

The MTS consists of 53 presentations most with five priorities – making a total of 258 presentation–priority combinations. A mapping exercise should be undertaken to consider appropriate dispositions for each of these priority presentations. The dispositions available will be subject to local emergency care provision, for example the lack of an Emergency Eye Unit will change where patients with eye problems are managed. An
identified lack of a service may stimulate debate with the local commissioners in order to provide a more appropriate service for patients.

**Explanation of the process**
When making decisions as to the most appropriate disposition for patients it is important to identify a range of stakeholders who will work to develop the matrix, finally reaching a consensus decision. Where patients will be directed across a range of services it is useful to engage different providers and different professionals to give a balanced view of how patients will be directed.

**Completing the PPM**
- Establish the list of dispositions to which patients can be directed (see examples below)
- Provide each stakeholder with a blank matrix and a copy of the 3rd edition of *Emergency Triage*; this is strictly an open book exercise to ensure each stakeholder bases their decisions on the same methodology the triage practitioners will be using
- The stakeholders should individually use a reductionist approach (start at priority 1/red and work along the priorities to priority 5/blue) to consider for each of the presentation charts which disposition is appropriate for the patient in a particular priority, for example:
  - Unwell adult – priority 1 – inadequate breathing = Resuscitation Room
  - Dental problems – priority 4 – recent mild pain = Dental Service
  - Limb problem – priority 3 – moderate pain = Minor Treatment Area
- All completed matrices should be collated; where consensus is not reached further iteration is required until a clear map of agreed dispositions is produced
- This process can and should be repeated at intervals to ensure any change in services is represented in the matrix

**The dispositions**
This example illustrates an agreed list for an emergency service that forms the basis of dispositions within the presentation–priority matrix (Table 8.2). Triage practitioners use the matrix to inform their decisions of where to best place a patient within that system. The triage practitioner will need to exercise judgment as to which is the most appropriate, as the decision may also be influenced by the availability of services across the
## Chapter 8

### Table 8.2 Presentation–priority matrix 2011

<table>
<thead>
<tr>
<th>Condition</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain in adults</td>
<td>R</td>
<td>Ma</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Abdominal pain in children</td>
<td>R</td>
<td>R/Ma</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Abscesses and local infection</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Abused or neglect child</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>Mi</td>
</tr>
<tr>
<td>Allergy</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Apparently drunk</td>
<td>R</td>
<td>R/Ma</td>
<td>Ma</td>
<td>Mi</td>
<td>SC</td>
</tr>
<tr>
<td>Assault</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>SC</td>
</tr>
<tr>
<td>Asthma</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Back pain</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Behaving strangely</td>
<td>R</td>
<td>Ma</td>
<td>Mi/PSY</td>
<td>Ma</td>
<td>Mi/PSY</td>
</tr>
<tr>
<td>Bites and stings</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Burns and scalds</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>SC</td>
</tr>
<tr>
<td>Chemical exposure</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Chest pain</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Collapsed adult</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Crying baby</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
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<tr>
<td>Dental problems</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>Dent</td>
<td>Dent</td>
</tr>
<tr>
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<td>R</td>
<td>R/Ma</td>
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<td>PC</td>
<td>PC</td>
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<tr>
<td>Diarrhoea and vomiting</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>PC</td>
<td>SC</td>
</tr>
<tr>
<td>Ear problems</td>
<td>R</td>
<td>Ma</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Eye problems</td>
<td>Ma</td>
<td>Ma</td>
<td>Mi/eye</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Facial problems</td>
<td>R</td>
<td>R/Ma</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Falls</td>
<td>R</td>
<td>R/Ma</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Fits</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Foreign body</td>
<td>R</td>
<td>R/Ma</td>
<td>Mi</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>GI bleeding</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
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### Table 8.2 (Continued)

<table>
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<th>Condition</th>
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<td>R</td>
<td>Ma</td>
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<td>Mi</td>
<td>SC</td>
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<td>Irritable child</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Limb problems</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Limping child</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Major trauma</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental illness</td>
<td>R</td>
<td>Ma</td>
<td>PSY</td>
<td>PSY</td>
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<tr>
<td>Neck pain</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
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<tr>
<td>Overdose and poisoning</td>
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<td>Ma</td>
<td>Ma</td>
<td>Mi</td>
<td>Mi</td>
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<tr>
<td>Palpitations</td>
<td>R</td>
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<td>Ma</td>
<td>PC</td>
<td>PC</td>
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<tr>
<td>Pregnancy</td>
<td>R</td>
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<td>Ma</td>
<td>PC</td>
<td>PC</td>
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<tr>
<td>PV bleeding</td>
<td>R</td>
<td>R/Ma</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Rashes</td>
<td>R</td>
<td>R</td>
<td>Mi</td>
<td>PC</td>
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<td>Self-harm</td>
<td>R</td>
<td>R</td>
<td>Mi/PSY</td>
<td>Mi/PSY</td>
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</tr>
<tr>
<td>Sexually acquired infection</td>
<td>R</td>
<td>R/Ma</td>
<td>Mi</td>
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<td>SC</td>
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<tr>
<td>Shortness of breath in adults</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Shortness of breath in children</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Sore throat</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>PC</td>
<td>SC</td>
</tr>
<tr>
<td>Testicular pain</td>
<td>R</td>
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<td>Mi</td>
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</tr>
<tr>
<td>Torso injury</td>
<td>R</td>
<td>R</td>
<td>Mi</td>
<td>Mi</td>
<td>PC</td>
</tr>
<tr>
<td>Unwell adult</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Unwell baby</td>
<td>R</td>
<td>R</td>
<td>Ma</td>
<td>Mi</td>
<td>Mi</td>
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<tr>
<td>Unwell child</td>
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<td>R</td>
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<td>Unwell newborn</td>
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<td>PC</td>
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<tr>
<td>Worried parent</td>
<td>R</td>
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<td>Ma</td>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>Wounds</td>
<td>R</td>
<td>R/Ma</td>
<td>Mi</td>
<td>Mi</td>
<td>SC</td>
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24 hours, the current pressures on them, the triage discriminator and the patients’ choices.

<table>
<thead>
<tr>
<th>Triage disposition code</th>
<th>Disposition description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Resuscitation Room</td>
</tr>
<tr>
<td>Ma</td>
<td>Major Treatment Area</td>
</tr>
<tr>
<td>Mi</td>
<td>Minor Treatment Area</td>
</tr>
<tr>
<td>PC</td>
<td>Primary Care</td>
</tr>
<tr>
<td>SC</td>
<td>Self-care</td>
</tr>
<tr>
<td>PHAR</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>PSY</td>
<td>Psychiatric Assessment/Crisis Team</td>
</tr>
<tr>
<td>DENT</td>
<td>Dental Service</td>
</tr>
<tr>
<td>SHC</td>
<td>Sexual Health Clinic</td>
</tr>
<tr>
<td>EYE</td>
<td>Eye Hospital or Clinic</td>
</tr>
</tbody>
</table>

It is apparent that Mi and PC dispositions are professionally led rather than patient led. It would be possible to provide both these services within a single area – perhaps an ‘Urgent Care Centre’ or ‘Rapid Assessment and Treatment Unit’, both of which approximately map onto the current ‘minor end’ of many Emergency Departments. There is obvious potential for many of these emergency/urgent care services to coalesce within an ‘emergency care village’ that also offers out of hours primary care provision.

The psychiatric disposition will be provided differently throughout the world and may include psychiatry and psychiatric nursing. Many Emergency Departments have Emergency Psychiatric Nursing Teams and some are developing Psychiatric Assessment Unit functions.

Emergency Dental Service and Eye Emergency Clinic dispositions will depend on local provision. The Sexual Health Clinic disposition will again depend on location and opening times of local provision, although the specialist nature of the care delivered will dictate that most patients not requiring immediate or very urgent care are redirected. Other dispositions may be available locally and should be used where appropriate, however, the decision will also depend on opening times and the location of any such facilities. There may be a tendency to place more than one disposition against a priority. Where services are not 24/7, or two or more services are acceptable and patients can make a choice, the triage practitioner will exercise judgment as to which is the most appropriate.
Beyond prioritisation

Black boxes in Table 8.2 indicate that the MTS does not have the presentation–priority outcome indicated by the box, e.g. mental illness does not have a priority 5 (blue) in the system.

This ‘pigeon holing’ can be used to drive pathways of care in systems that have taken to ‘streaming’. Particular presentation–priority combinations (e.g. wounds–green, chest pain–orange) may be appropriate to particular streams (minor injuries and resuscitation, respectively, in the examples given). An unpopulated priority matrix is included on each of the presentational flow charts in order to stimulate discussion around context-specific dispositions.

Future uses

The MTS has undoubtedly been used to assist in other processes within hospital and pre-hospital practice. Whenever any uses beyond prioritisation are considered it should always be remembered that the system was designed to prioritise Emergency Department patients and any utility in processes other than this must be proved rather than assumed.
# Presentational flow chart index

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain in adults</td>
<td>64</td>
</tr>
<tr>
<td>Abdominal pain in children</td>
<td>66</td>
</tr>
<tr>
<td>Abscesses and local infections</td>
<td>68</td>
</tr>
<tr>
<td>Abused or neglected child</td>
<td>70</td>
</tr>
<tr>
<td>Allergy</td>
<td>72</td>
</tr>
<tr>
<td>Apparently drunk</td>
<td>74</td>
</tr>
<tr>
<td>Assault</td>
<td>76</td>
</tr>
<tr>
<td>Asthma</td>
<td>78</td>
</tr>
<tr>
<td>Back pain</td>
<td>80</td>
</tr>
<tr>
<td>Behaving strangely</td>
<td>82</td>
</tr>
<tr>
<td>Bites and stings</td>
<td>84</td>
</tr>
<tr>
<td>Burns and scalds</td>
<td>86</td>
</tr>
<tr>
<td>Chemical exposure</td>
<td>88</td>
</tr>
<tr>
<td>Chest pain</td>
<td>90</td>
</tr>
<tr>
<td>Collapsed adult</td>
<td>92</td>
</tr>
<tr>
<td>Crying baby</td>
<td>94</td>
</tr>
<tr>
<td>Dental problems</td>
<td>96</td>
</tr>
<tr>
<td>Diabetes</td>
<td>98</td>
</tr>
<tr>
<td>Diarrhoea and vomiting</td>
<td>100</td>
</tr>
<tr>
<td>Ear problems</td>
<td>102</td>
</tr>
<tr>
<td>Eye problems</td>
<td>104</td>
</tr>
<tr>
<td>Facial problems</td>
<td>106</td>
</tr>
<tr>
<td>Falls</td>
<td>108</td>
</tr>
<tr>
<td>Fits</td>
<td>110</td>
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<tr>
<td>Foreign body</td>
<td>112</td>
</tr>
<tr>
<td>GI bleeding</td>
<td>114</td>
</tr>
<tr>
<td>Headache</td>
<td>116</td>
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</table>

(Continued)

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## Presentational flow chart index

<table>
<thead>
<tr>
<th>Presentation</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head injury</td>
<td>118</td>
</tr>
<tr>
<td>Irritable child</td>
<td>120</td>
</tr>
<tr>
<td>Limb problems</td>
<td>122</td>
</tr>
<tr>
<td>Limping child</td>
<td>124</td>
</tr>
<tr>
<td>Major trauma</td>
<td>126</td>
</tr>
<tr>
<td>Mental illness</td>
<td>128</td>
</tr>
<tr>
<td>Neck pain</td>
<td>130</td>
</tr>
<tr>
<td>Overdose and poisoning</td>
<td>132</td>
</tr>
<tr>
<td>Palpitations</td>
<td>134</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>136</td>
</tr>
<tr>
<td>PV bleeding</td>
<td>138</td>
</tr>
<tr>
<td>Rashes</td>
<td>140</td>
</tr>
<tr>
<td>Self-harm</td>
<td>142</td>
</tr>
<tr>
<td>Sexually acquired infection</td>
<td>144</td>
</tr>
<tr>
<td>Shortness of breath in adults</td>
<td>146</td>
</tr>
<tr>
<td>Shortness of breath in children</td>
<td>148</td>
</tr>
<tr>
<td>Sore throat</td>
<td>150</td>
</tr>
<tr>
<td>Testicular pain</td>
<td>152</td>
</tr>
<tr>
<td>Torso injury</td>
<td>154</td>
</tr>
<tr>
<td>Unwell adult</td>
<td>156</td>
</tr>
<tr>
<td>Unwell baby</td>
<td>158</td>
</tr>
<tr>
<td>Unwell child</td>
<td>160</td>
</tr>
<tr>
<td>Unwell newborn</td>
<td>162</td>
</tr>
<tr>
<td>Urinary problems</td>
<td>164</td>
</tr>
<tr>
<td>Worried parent</td>
<td>166</td>
</tr>
<tr>
<td>Wounds</td>
<td>168</td>
</tr>
<tr>
<td>Major incident – primary</td>
<td>170</td>
</tr>
<tr>
<td>Major incident – secondary</td>
<td>172</td>
</tr>
</tbody>
</table>
Presentational flow charts

**Abdominal pain in adults**

1. Airway compromise
   - Inadequate breathing
   - Shock
   - **RED**

2. Vomiting blood
   - Passing fresh or altered blood PR
   - PV blood loss and 20 weeks pregnant or more
   - Very hot
   - Pain radiating to the back
   - Severe pain
   - **ORANGE**

3. History of acutely vomiting blood
   - Black or redcurrant stools
   - Persistent vomiting
   - Possibly pregnant
   - Hot
   - Shoulder tip pain
   - Moderate pain
   - **YELLOW**

4. Vomiting
   - Recent mild pain
   - Recent problem
   - **GREEN**

5. **BLUE**
Notes accompanying abdominal pain in adults

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhoea and vomiting</td>
<td>This is a presentation defined flow diagram. Abdominal pain is a common cause of presentation of surgical emergencies. A number of general discriminators are used including Life threat and Pain. Specific discriminators are included in the ORANGE and YELLOW categories to ensure that the more severe pathologies are appropriately triaged. In particular, discriminators are included to ensure that patients with moderate and severe GI bleeding and those with signs of retroperitoneal or diaphragmatic irritation are given sufficiently high categorisation.</td>
</tr>
<tr>
<td>GI bleeding</td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vomiting blood</td>
<td>Vomited blood may be fresh (bright or dark red) or coffee ground in appearance</td>
</tr>
<tr>
<td>Passing fresh or altered blood PR</td>
<td>In active massive GI bleeding dark red blood will be passed per rectum (PR). As GI transit time increases this becomes darker, eventually becoming melaena</td>
</tr>
<tr>
<td>PV blood loss and 20 weeks pregnant or more</td>
<td>Any loss of blood PV in a woman known to be beyond the 20th week of pregnancy</td>
</tr>
<tr>
<td>Pain radiating to the back</td>
<td>Pain that is also felt in the back either intermittently or constantly</td>
</tr>
<tr>
<td>History of acutely vomiting blood</td>
<td>Frank haematemesis, vomiting of altered blood (coffee ground) or of blood mixed in the vomit within the past 24 hours</td>
</tr>
<tr>
<td>Black or redcurrant stools</td>
<td>Any blackness fulfils the criteria of black stool while a dark red stool, classically seen in intussusceptions, is redcurrant stool</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes</td>
</tr>
<tr>
<td>Possibly pregnant</td>
<td>Any woman whose normal menstruation has failed to occur is possibly pregnant. Furthermore any woman of childbearing age who is having unprotected sex should be considered to be potentially pregnant</td>
</tr>
<tr>
<td>Shoulder tip pain</td>
<td>Pain felt in the tip of the shoulder. This often indicates diaphragmatic irritation</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Any emesis fulfils this criterion</td>
</tr>
</tbody>
</table>
Abdominal pain in children

- Airway compromise
- Inadequate breathing
- Shock

- Vomiting blood
- Passing fresh or altered blood PR
- Purpura
- Non-blanching rash
- Hot baby
- Very hot
- Severe pain

- History of acutely vomiting blood
- Black or redcurrant stools
- Persistent vomiting
- Visible abdominal mass
- Inconsolable by parents
- Inappropriate history
- Hot
- Moderate pain

- Vomiting
- Recent mild pain
- Recent problem

Color coding:
- Red (HIGH RISK)
- Orange (MODERATE RISK)
- Yellow (LOW RISK)
- Green (NO RISK)

Legend:
1. Red
2. Orange
3. Yellow
4. Green
5. Blue
Presentational flow charts

Notes accompanying abdominal pain in children

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhoea and vomiting</td>
<td>This is a presentation defined flow diagram. Children who present with abdominal pain may have a range of pathologies and this chart has been designed to allow them to be accurately prioritised. A number of general discriminators are used including Life threat and Pain. Specific discriminators are included to ensure the children who are actively bleeding, and those who have the signs or symptoms of more severe pathologies such as intussusception, are seen urgently</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vomiting blood</td>
<td>Vomited blood may be fresh (bright or dark red) or coffee ground in appearance</td>
</tr>
<tr>
<td>Passing fresh or altered blood PR</td>
<td>In active massive GI bleeding dark red blood will be passed PR. As GI transit time increases this becomes darker, eventually becoming melaena</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Signs of severe pain</td>
<td>Young children and babies in severe pain cannot complain. They will usually cry out continuously and inconsolably and be tachycardic. They may well exhibit signs such as pallor and sweating</td>
</tr>
<tr>
<td>History of acutely vomiting blood</td>
<td>Frank haematemesis, vomiting of altered blood (coffee ground) or of blood mixed in the vomit within the past 24 hours</td>
</tr>
<tr>
<td>Black or recurrant stools</td>
<td>Any blackness fulfils the criteria of black stool while a dark red stool, classically seen in intussusceptions, is recurrant stool</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes</td>
</tr>
<tr>
<td>Visible abdominal mass</td>
<td>A mass in the abdomen that is visible to the naked eye</td>
</tr>
<tr>
<td>Inconsolable by parents</td>
<td>Children whose crying or distress does not respond to attempts by their parents to comfort them fulfil this criterion</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Any emesis fulfils this criterion</td>
</tr>
</tbody>
</table>
Abscesses and local infections

- Airway compromise
  - Inadequate breathing
  - Shock

  → RED

- Vascular compromise
  - Subcutaneous gas
  - Hot baby
  - Very hot
  - Severe pain

  → ORANGE

- Hot joint
  - Pain on joint movement
  - Hot
  - Moderate pain

  → YELLOW

- Warm
  - Recent mild pain
  - Recent problem

  → GREEN

- Blue

1 2 3 4 5
Notes accompanying abscesses and local infections

See also | Chart notes
---|---
Bites and stings | This is a presentation defined flow diagram designed to allow prioritisation of patients who present with a variety of obvious local infections and abscesses. Underlying conditions may vary from life-threatening orbital cellulitis to acneiform spots. A number of general discriminators are used including Life threat, Pain and Temperature. Specific discriminators have been included to allow identification of more urgent conditions such as gas gangrene and septic arthritis

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
</table>
Vascular compromise | There will be a combination of pallor, coldness, altered sensation and pain with or without absent pulses distal to the injury |
Subcutaneous gas | Gas under the skin can be detected by feeling for a ‘cracking’ on touch. There may be gas bubbles and a line of demarcation |
Hot joint | Any warmth around a joint fulfils this criterion. Often accompanied by redness |
Pain on joint movement | This can be pain on either active (patient) movement or passive (examiner) movement |
Presentational flow charts

Abused or neglected child

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive

Responds to voice or pain only
- Uncontrollable major hemorrhage
- High risk of self-harm
- Severe pain

Uncontrollable minor hemorrhage
- Signs of dehydration
- Widespread rash or blistering
- Marked distress
- Vaginal trauma
- History of unconsciousness
- History of head injury
- Moderate risk of self-harm
- Moderate pain

Colors:
- RED
- ORANGE
- YELLOW
- GREEN

1 2 3 4 5
Notes accompanying abused or neglected child

**See also**

**Chart notes**

This is a presentation defined flow diagram designed to allow prioritisation of patients who present with signs of abuse or neglect. This chart is not designed to triage illness or injury but rather to triage children whose presentation is abuse or neglect. If the presentation is physical illness or injury, it would be more appropriate to use different charts. A number of general discriminators are used including Life threat, Conscious level and Pain. Specific discriminators have been included to allow prioritisation of the most urgent cases.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unresponsive</td>
<td>Patients who fail to respond to either verbal or painful stimuli are unresponsive</td>
</tr>
<tr>
<td>Responds to voice or pain only</td>
<td>Responds to a vocal or painful stimulus</td>
</tr>
<tr>
<td>High risk of self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient’s behaviour. Patients who have a significant history of self-harm, who are actively trying to harm themselves or who are actively trying to leave with the intent of harming themselves are at high risk</td>
</tr>
<tr>
<td>Signs of dehydration</td>
<td>These include dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output</td>
</tr>
<tr>
<td>Widespread rash or blistering</td>
<td>Any discharging or blistering eruption covering more than 10% of the body surface area</td>
</tr>
<tr>
<td>Marked distress</td>
<td>Patients who are markedly physically or emotionally upset fulfil this criterion</td>
</tr>
<tr>
<td>Vaginal trauma</td>
<td>Any history or other evidence of direct trauma to the vagina fulfils this criterion</td>
</tr>
<tr>
<td>History of head injury</td>
<td>A history of a recent physically traumatic event involving the head. Usually this will be reported by the patient but if the patient has been unconscious this history should be sought from a reliable witness</td>
</tr>
<tr>
<td>Moderate risk of self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient’s behaviour. Patients without a significant history of self-harm, who are not actively trying to harm themselves, who are not actively trying to leave with the intent of harming themselves, but who profess the desire to harm themselves are at moderate risk</td>
</tr>
</tbody>
</table>
Presentational flow charts

Allergy

- Airway compromise
- Inadequate breathing
- Stridor
- Shock
- Unresponsive child

- Oedema of the tongue
- Facial oedema
- Unable to talk in sentences
- Very low SpO2
- New abnormal pulse
- Altered conscious level
- Significant history of allergy
- Severe pain or itch

- Low SpO2
- Widespread rash or blistering
- Moderate pain or itch

- Local inflammation
- Recent mild pain or itch
- Recent problem

RISK

1 2 3 4 5

RED ORANGE YELLOW GREEN BLUE
Notes accompanying allergy

This is a presentation defined flow diagram designed to allow prioritisation of patients who present with symptoms and signs that may indicate allergy. Patients with allergic reactions range from those with life-threatening anaphylaxis to those with an itchy insect bite. A number of general discriminators are used including Life threat, Conscious level and Pain. Specific discriminators have been included to allow prioritisation of the most urgent conditions.

### See also

<table>
<thead>
<tr>
<th>Condition</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>This is a presentation defined flow diagram designed to allow prioritisation of patients who present with symptoms and signs that may indicate allergy. Patients with allergic reactions range from those with life-threatening anaphylaxis to those with an itchy insect bite. A number of general discriminators are used including Life threat, Conscious level and Pain. Specific discriminators have been included to allow prioritisation of the most urgent conditions.</td>
</tr>
<tr>
<td>Bites and stings</td>
<td></td>
</tr>
<tr>
<td>Collapsed adult</td>
<td></td>
</tr>
<tr>
<td>Unwell adult</td>
<td></td>
</tr>
</tbody>
</table>

### Specific discriminators

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oedema of the tongue</td>
<td>Swelling of the tongue of any degree</td>
</tr>
<tr>
<td>Facial oedema</td>
<td>Diffuse swelling around the face, usually involving the lips</td>
</tr>
<tr>
<td>Unable to talk in sentences</td>
<td>Patients who are so breathless that they cannot complete relatively short sentences in one breath</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Significant history of allergy</td>
<td>A known sensitivity with severe reaction (e.g. to nuts or bee sting) is significant</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Widespread rash or blistering</td>
<td>Any discharging or blistering eruption covering more than 10% of the body surface area</td>
</tr>
<tr>
<td>Local inflammation</td>
<td>Local inflammation will involve pain, swelling and redness confined to a particular site or area</td>
</tr>
</tbody>
</table>
Presentational flow charts

Apparently drunk

Airway compromise
Inadequate breathing
Shock
Unresponsive child
Currently fitting
Hypoglycaemia

Altered conscious level not wholly attributable to alcohol
New neurological deficit less than 24 hrs old
Inadequate history
Cold

Altered conscious level wholly attributable to alcohol
New neurological deficit more than 24 hrs old
History of unconsciousness
History of head injury
Inappropriate history

Recent injury
Recent mild pain
Notes accompanying apparently drunk

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaving strangely</td>
<td>This is a presentation defined flow diagram. A large number of patients attend for emergency treatment in an apparently drunken state. This chart implicitly recognises that not all these patients are drunk and is designed to ensure accurate identification and prioritisation of patients who are suffering from conditions which make them appear drunk, or from such severe drunkenness that their life is threatened. A number of general discriminators have been used including <em>Life threat</em>, <em>Conscious level in children</em> and <em>Blood glucose level</em>. Specific discriminators have been included to ensure that patients with an inadequate history of alcohol ingestion are seen rapidly and treated. If there is any doubt then the patient should be seen very urgently</td>
</tr>
<tr>
<td>Collapsed adult</td>
<td></td>
</tr>
<tr>
<td>Head injury</td>
<td></td>
</tr>
</tbody>
</table>

Specific discriminators | Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Altered conscious level</td>
<td>A patient who is not fully alert, with a history of alcohol ingestion, and in whom there may be other causes of reduced conscious level fulfils this discriminator definition</td>
</tr>
<tr>
<td><em>not wholly</em> attributable to alcohol</td>
<td></td>
</tr>
<tr>
<td>New neurological deficit</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>less than 24 hrs old</td>
<td></td>
</tr>
<tr>
<td>Inadequate history</td>
<td>If there is no clear and unequivocal history of acute alcohol ingestion, and if head injury, drug ingestion, underlying medical condition, etc. cannot be definitively excluded then the history is inadequate</td>
</tr>
<tr>
<td>Altered conscious level</td>
<td>A patient who is not fully alert, with a clear history of alcohol ingestion and in whom there is no doubt that all other causes of reduced conscious level have been excluded fulfils this discriminator definition</td>
</tr>
<tr>
<td>wholly attributable to alcohol</td>
<td></td>
</tr>
<tr>
<td>New neurological deficit</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>more than 24 hrs old</td>
<td></td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious</td>
</tr>
<tr>
<td>History of head injury</td>
<td>A history of a recent physically traumatic event involving the head. Usually this will be reported by the patient but if the patient has been unconscious this history should be sought from a reliable witness</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of non-accidental injury in vulnerable children and adults and may be the sentinel for abuse</td>
</tr>
</tbody>
</table>
Presentational flow charts

Assault

Airway compromise
Inadequate breathing
Exsanguinating haemorrhage
Shock
Unresponsive child

Acutely short of breath
Uncontrollable major haemorrhage
Altered conscious level
New neurological deficit less than 24 hrs old
Significant mechanism of injury
Severe pain

Uncontrollable minor haemorrhage
New neurological deficit more than 24 hrs old
History of unconsciousness
Inappropriate history
Moderate pain

Deformity
Swelling
Recent mild pain
Recent problem

RISK
LIMIT

RED

ORANGE

YELLOW

GREEN

BLUE

1 2 3 4 5
Notes accompanying assault

See also | Chart notes
---|---
Head injury | This is a presentation defined flow diagram. Assault is a common presentation, and patients with non-specific conditions following assault may be triaged using this chart. Patients who have specific injuries are better triaged using the charts that pertain to those injuries. A number of general discriminators are used including *Life threat*, *Haemorrhage* and *Pain*. Specific discriminators are included to identify patients who have a significant history of injury which may indicate a more urgent requirement for treatment.
Torso injury
Wounds

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>New neurological deficit</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>less than 24 hrs old</td>
<td></td>
</tr>
<tr>
<td>Significant mechanism of injury</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer</td>
</tr>
<tr>
<td>New neurological deficit</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>more than 24 hrs old</td>
<td></td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Deformity</td>
<td>This will always be subjective. Abnormal angulation or rotation is implied</td>
</tr>
<tr>
<td>Swelling</td>
<td>An abnormal increase in size</td>
</tr>
</tbody>
</table>
Presentational flow charts

Asthma

1. Airway compromise
   - Inadequate breathing
   - Shock
   - Unresponsive child
   - RED

2. Unable to talk in sentences
   - Very low SpO₂
   - Very low PEFR
   - New abnormal pulse
   - Altered conscious level
   - Significant respiratory history
   - Very hot
   - ORANGE

3. Low SpO₂
   - Low PEFR
   - No improvement with own asthma medications
   - Hot
   - YELLOW

4. Wheeze
   - Productive cough
   - Recent problem
   - GREEN

5. BLUE
Notes accompanying asthma

See also

<table>
<thead>
<tr>
<th>Allergy</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortness of breath in adults</td>
<td>This is a presentation defined flow diagram which is intended for use in patients who present with the symptoms and signs of known asthma. The severity of asthmatic patients at presentation varies from those whose lives are threatened to those requiring a repeat prescription of inhalers. A number of general discriminators are used including Life threat, Conscious level (in adults and children) and Oxygen saturation. Specific discriminators are included to indicate those signs and symptoms that indicate severe and life-threatening asthma.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chart notes</th>
<th>Specific discriminators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to talk in sentences</td>
<td>Patients who are so breathless that they cannot complete relatively short sentences in one breath</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>Very low PEFR</td>
<td>The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their ‘best’ PEFR and this may be used. If the ratio of measured to predicted is less than 33% then this criterion is fulfilled</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Significant respiratory history</td>
<td>A history of previous life-threatening episodes of a respiratory condition (e.g. chronic obstructive pulmonary disease, COPD) is significant as is brittle asthma</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Low PEFR</td>
<td>The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their ‘best’ PEFR and this may be used. If the ratio of measured to predicted is less than 50% then this criterion is fulfilled</td>
</tr>
<tr>
<td>No improvement with own asthma medications</td>
<td>This history should be available from the patient. A failure to improve with bronchodilator therapy given by the GP or paramedic is equally significant</td>
</tr>
<tr>
<td>Wheeze</td>
<td>This can be audible wheeze or a feeling of wheeze. Very severe airway obstruction is silent (no air can move)</td>
</tr>
<tr>
<td>Productive cough</td>
<td>A cough that is productive of phlegm, whatever the colour</td>
</tr>
</tbody>
</table>
Presentational flow charts

Back pain

- Airway compromise
- Inadequate breathing
- Shock
  - RED

- New neurological deficit less than 24 hrs old
- Significant mechanism of injury
- Very hot
- Abdominal pain
- Severe pain
  - ORANGE

- New neurological deficit more than 24 hrs old
- Direct trauma to the back
- Unable to walk
- Hot
- Inappropriate history
- Colicky pain
- Moderate pain
  - YELLOW

- Recent mild pain
- Recent problem
  - GREEN

- 1 2 3 4 5
Notes accompanying back pain

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain in adults</td>
<td>This is a presentation defined flow diagram. Back pain may present to the Emergency Department either as an acute event or as an acute exacerbation of a chronic problem. A number of general discriminators are used including Life threat, Pain and Temperature. Specific discriminators have been selected in order to allow for appropriate categorisation of more urgent problems. In particular, discriminators are included to allow appropriate classification of abdominal aneurysm and patients with neurological signs and symptoms following disc prolapse.</td>
</tr>
<tr>
<td>Abdominal pain in children</td>
<td></td>
</tr>
<tr>
<td>Neck pain</td>
<td></td>
</tr>
</tbody>
</table>

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Significant mechanism of injury</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer.</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>Any pain felt in the abdomen. Abdominal pain associated with back pain may indicate abdominal aortic aneurysm, while association with PV bleeding may indicate ectopic pregnancy or miscarriage.</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Direct trauma to the back</td>
<td>This may be top to bottom (loading), for instance when people fall and land on their feet, bending (forwards, backwards or to the side) or twisting.</td>
</tr>
<tr>
<td>Unable to walk</td>
<td>It is important to try and distinguish between patients who have pain and difficulty walking and those who cannot walk. Only the latter can be said to be unable to walk.</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.</td>
</tr>
<tr>
<td>Colicky pain</td>
<td>Pain that comes and goes in waves. Renal colic tends to come and go over 20 minutes or so.</td>
</tr>
</tbody>
</table>
Presentational flow charts

Behaving strangely

- Airway compromise
- Inadequate breathing
- Shock
- Hypoglycaemia
- Unresponsive child

RED

Altered conscious level
- New neurological deficit less than 24 hrs old
- History of overdose or poisoning
- High risk of self-harm
- High risk of harm to others

ORANGE

- New neurological deficit more than 24 hrs old
- History of head injury
- History of unconsciousness
- Significant psychiatric history
- Moderate risk of self-harm
- Moderate risk of harm to others

YELLOW

GREEN
Notes accompanying behaving strangely

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparently drunk Mental illness</td>
<td>This is a presentation defined flow diagram. Patients who are behaving strangely may have either a psychiatric or a physical cause for their presentation. This chart is designed to allow the accurate prioritisation of both these groups of patients. A number of general discriminators have been used including Life threat and Conscious level. Specific discriminators are used and in particular the concepts of risk of harm to others and risks of self-harm are introduced.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/l</td>
</tr>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>History of overdose or poisoning</td>
<td>This information may come from others or may be deduced if medication is missing</td>
</tr>
<tr>
<td>High risk of self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients who have a significant history of self-harm, who are actively trying to harm themselves or who are actively trying to leave with the intent of harming themselves are at high risk.</td>
</tr>
<tr>
<td>High risk of harm to others</td>
<td>The presence of a potential risk of harm to others can be judged by looking at posture (tense, clenched), speech patterns (loud, using threatening words) and motor behaviour (restless, pacing). High risk should be assumed if weapons and potential victims are available, or if self-control is lost</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>History of head injury</td>
<td>A history of a recent physically traumatic event involving the head. Usually this will be reported by the patient but if the patient has been unconscious this history should be sought from a reliable witness</td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious</td>
</tr>
<tr>
<td>Significant psychiatric history</td>
<td>A history of a major psychiatric illness or event</td>
</tr>
<tr>
<td>Moderate risk of self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients without a significant history of self-harm, who are not actively trying to harm themselves, who are not actively trying to leave with the intent of harming themselves, but who profess the desire to harm themselves are at moderate risk</td>
</tr>
<tr>
<td>Moderate risk of harm to others</td>
<td>The presence of a potential risk of harm to others can be judged by looking at posture (tense, clenched), speech patterns (loud, using threatening words) and motor behaviour (restless, pacing). Moderate risk should be assumed if there is any indication of potential harm to others</td>
</tr>
</tbody>
</table>
**Bites and stings**

- **RED**
  - Airway compromise
  - Inadequate breathing
  - Stridor
  - Exsanguinating haemorrhage
  - Shock
  - Unresponsive child

- **ORANGE**
  - Facial oedema
  - Oedema of the tongue
  - Unable to talk in sentences
  - Uncontrollable major haemorrhage
  - Very low \( \text{SpO}_2 \)
  - Altered conscious level
  - High lethality envenomation
  - Significant history of allergy
  - Hot baby
  - Very hot
  - Severe pain or itch

- **YELLOW**
  - Low \( \text{SpO}_2 \)
  - Uncontrollable minor haemorrhage
  - Moderate lethality envenomation
  - Widespread rash or blistering
  - Hot
  - Moderate pain or itch

- **GREEN**
  - Local infection
  - Local inflammation
  - Recent mild pain
  - Recent problem
Notes accompanying bites and stings

**See also** | **Chart notes**
---|---
Abscesses and local infections | This is a presentation defined flow diagram designed to allow accurate prioritisation of patients who present following bites and stings. Bites may, of course, range from those delivered by insects to those delivered by large animals; therefore, there is a complete range of priority covered by this presentation. A number of general discriminators are used including Life threat, Haemorrhage and Pain. Specific discriminators have been added to the chart to allow accurate identification of patients requiring more urgent treatment because of more severe injury or the development of allergic reactions.

**Specific discriminators** | **Explanation**
---|---
Facial oedema | Diffuse swelling around the face, usually involving the lips
Oedema of the tongue | Swelling of the tongue of any degree
Unable to talk in sentences | Patients who are so breathless that they cannot complete relatively short sentences in one breath
Very low SpO₂ | This is a saturation of less than 95% on O₂ therapy or less than 92% on air
High lethality envenomation | Lethality is the potential of the envenomation to cause harm. Local knowledge may allow identification of the venomous creature, but advice may be required. If in doubt, assume a high risk
Significant history of allergy | A known sensitivity with severe reaction (e.g. to nuts or bee sting) is significant
Low SpO₂ | This is a saturation of less than 95% on air
Moderate lethality envenomation | Lethality is the potential of the substance taken to cause serious illness or death. Advice from a poisons centre may be required to establish the level of risk to the patient
Widespread rash or blistering | Any discharging or blistering eruption covering more than 10% of the body surface area
Local infection | Local infection usually manifests as inflammation (pain, swelling and redness) confined to a particular site or area, with or without a collection of pus
Local inflammation | Local inflammation will involve pain, swelling and redness confined to a particular site or area
Presentational flow charts

**Burns and scalds**

- Airway compromise
- Inadequate breathing
  - Stridor
  - Shock
  - Unresponsive child

- Facial oedema
- Inhalational injury
- Acutely short of breath
- Very low SpO₂
- Altered conscious level
- High lethality chemical
- Significant mechanism of injury
- Severe pain

- Low SpO₂
- Smoke exposure
- Electrical injury
- Moderate lethality chemical
- Inappropriate history
- Moderate pain

- Local infection
- Local inflammation
- Recent mild pain
- Recent problem

RISK LIMIT

**RED**

**ORANGE**

**YELLOW**

**GREEN**

**BLUE**
Notes accompanying burns and scalds

This is a presentation defined flow diagram. There is a complete range of severity with this presentation and the chart has been designed to allow accurate identification of patients within each category. A number of general discriminators are used including Life threat, Conscious level and Pain. Specific discriminators have been added to allow identification of patients who have suffered inhalation injury, and those in whom the mechanism suggests that further investigation and treatment may be appropriate.

### Specific discriminators

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial oedema</td>
<td>Diffuse swelling around the face, usually involving the lips</td>
</tr>
<tr>
<td>Inhalation injury</td>
<td>A history of being confined in a smoke-filled space is the most reliable indicator of smoke inhalation. Carbon deposits around the mouth and nose and hoarse voice may present. History is also the most reliable way of diagnosing inhalation of chemicals – there will not necessarily be any signs</td>
</tr>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>High lethality chemical</td>
<td>Lethality is the potential of the chemical to cause harm. Advice may be required to establish the level of risk. If in doubt, assume a high risk</td>
</tr>
<tr>
<td>Significant mechanism of injury</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Smoke exposure</td>
<td>Smoke inhalation should be assumed if the patient has been confined in a smoke-filled space. Physical signs such as oral or nasal soot are less reliable but significant if present</td>
</tr>
<tr>
<td>Electrical injury</td>
<td>Any injury caused or possibly caused by an electric current. This includes AC and DC and both artificial and natural sources</td>
</tr>
<tr>
<td>Moderate lethality chemical</td>
<td>Lethality is the potential of the chemical to cause harm. Advice may be required to establish the level of risk. If in doubt, assume a high risk</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Local infection</td>
<td>Local infection usually manifests as inflammation (pain, swelling and redness) confined to a particular site or area, with or without a collection of pus</td>
</tr>
<tr>
<td>Local inflammation</td>
<td>Local inflammation will involve pain, swelling and redness confined to a particular site or area</td>
</tr>
</tbody>
</table>
Presentational flow charts

**Chemical exposure**

- **RED**
  - Airway compromise
  - Stridor
  - Inadequate breathing
  - Shock
  - Unresponsive child
  - Currently fitting
  - Acute chemical eye injury

- **ORANGE**
  - Oedema of the tongue
  - Facial oedema
  - Very low SpO₂
  - New abnormal pulse
  - Altered conscious level
  - High lethality chemical
  - Risk of continued contamination
  - Severe pain

- **YELLOW**
  - Low SpO₂
  - Widespread discharge or blistering
  - Moderate lethality chemical
  - Inappropriate history
  - Moderate pain

- **GREEN**
  - Recent mild pain
  - Recent problem

- **BLUE**

**Risk Limit**
Notes accompanying chemical exposure

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overdose and poisoning</td>
<td>This is a presentation defined flow diagram. While this presentation is not common it is important because it is often the chief complaint of the patient. The signs and symptoms do not necessarily fit easily into any other presentational group. A number of general discriminators are used including Life threat, Conscious level, Pain and Oxygen saturation. Specific discriminators, which include those for the shortness of breath, have been added to appropriate categories. Acute chemical eye injury appears in the RED category and Risk of continued contamination appears in the ORANGE</td>
</tr>
<tr>
<td>Shortness of breath in adults</td>
<td></td>
</tr>
<tr>
<td>Shortness of breath in children</td>
<td></td>
</tr>
</tbody>
</table>

Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stridor</td>
<td>This may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open</td>
</tr>
<tr>
<td>Acute chemical eye injury</td>
<td>Any substance splashed into or placed into the eye within the past 24 hours that caused stinging, burning or reduced vision should be assumed to have caused chemical injury</td>
</tr>
<tr>
<td>Oedema of the tongue</td>
<td>Swelling of the tongue of any degree</td>
</tr>
<tr>
<td>Facial oedema</td>
<td>Diffuse swelling around the face, usually involving the lips</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>High lethality chemical</td>
<td>Lethality is the potential of the chemical to cause harm. Advice may be required to establish the level of risk. If in doubt, assume a high risk</td>
</tr>
<tr>
<td>Risk of continued contamination</td>
<td>If chemical exposure is likely to continue (usually due to lack of adequate decontamination) then this discriminator applies. Risks to health care workers must not be forgotten if this situation occurs</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Widespread discharge or blistering</td>
<td>Any discharging or blistering eruption covering more than 10% of the body surface area</td>
</tr>
<tr>
<td>Moderate lethality chemical</td>
<td>Lethality is the potential of the chemical to cause harm. Advice may be required to establish the level of risk. If in doubt, assume a high risk</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.</td>
</tr>
</tbody>
</table>
Presentational flow charts

Chest pain

Airway compromise
Inadequate breathing
Shock
RED

Acute short of breath
Very low O₂₂
New abnormal pulse
Cardiac pain
Severe pain
ORANGE

Low O₂₂
Persistent vomiting
Significant cardiac history
Pleuritic pain
Moderate pain
YELLOW

Vomiting
Recent mild pain
Recent problem
GREEN

BLUES

1 2 3 4 5
Notes accompanying chest pain

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Cardiac pain</td>
<td>Classically a severe dull ‘gripping’ or ‘heavy’ pain in the centre of the chest, radiating to the left arm or to the neck. May be associated with sweating and nausea</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes</td>
</tr>
<tr>
<td>Significant cardiac history</td>
<td>A known recurrent dysrhythmia that has life-threatening effects is significant, as is a known cardiac condition which may deteriorate rapidly</td>
</tr>
<tr>
<td>Pleuritic pain</td>
<td>A sharp, localised pain in the chest that worsens on breathing, coughing or sneezing</td>
</tr>
</tbody>
</table>
Collapsed adult

Airway compromise
Inadequate breathing
Shock
Hypoglycaemia
Currently fitting

Acutely short of breath
Very low SpO₂
New abnormal pulse
Altered conscious level
New neurological deficit less than 24 hrs old
Purpura
Non-blanching rash
Significant history of allergy
Very hot
Cold
Cardiac pain
Severe pain

History of unconsciousness
New neurological deficit more than 24 hrs old
Inappropriate history
Hot
Moderate pain

Warmth
Recent mild pain
Recent problem
Notes accompanying collapsed adult

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparently drunk</td>
<td>This is a presentation defined flow diagram. Presentation with collapse is not uncommon in an Emergency Department and this chart is designed to allow rapid triage of patients who present in this way. A number of general discriminators are used including Life threat, Conscious level, Pain and Temperature. Specific discriminators have been added to the chart to try and rule out more serious pathology. As with all charts, those pathologies (such as myocardial infarction) which can potentially benefit from early intervention are deliberately categorised highly.</td>
</tr>
<tr>
<td>Falls</td>
<td></td>
</tr>
<tr>
<td>Fits</td>
<td></td>
</tr>
<tr>
<td>Unwell adult</td>
<td></td>
</tr>
</tbody>
</table>

**Specific discriminators**

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/l</td>
</tr>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Significant history of allergy</td>
<td>A known sensitivity with severe reaction (e.g. to nuts or bee sting) is significant</td>
</tr>
<tr>
<td>Cardiac pain</td>
<td>Classically a severe dull ‘gripping’ or ‘heavy’ pain in the centre of the chest, radiating to the left arm or to the neck. May be associated with sweating and nausea</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.</td>
</tr>
</tbody>
</table>
94 Presentational flow charts

Crying baby

Airway compromise
Inadequate breathing
Shock
Unresponsive

Floppy
Responds to voice or pain only
Purpura
Non-blanching rash
Hot baby
Very hot
Signs of severe pain

History of unconsciousness
Unable to feed
Inconsolable by parents
Prolonged or uninterrupted crying
Inappropriate history
Hot
Signs of moderate pain

Atypical behaviour
Warm
Recent signs of mild pain
Recent problem

1. RED
2. ORANGE
3. YELLOW
4. GREEN
5. BLUE
Notes accompanying crying baby

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unwell baby</td>
<td>This is a presentation defined flow diagram. This chart has been designed to allow accurate prioritisation of children who are defined. A number of general discriminators have been used including Life threat, Conscious level and Pain. Specific discriminators include those that allow recognition of more specific pathologies such as sepsis, or that indicate that a more serious pathology might exist. The risk limit sits between ORANGE and YELLOW and therefore no children can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment.</td>
</tr>
<tr>
<td>Unwell child</td>
<td></td>
</tr>
<tr>
<td>Worried parent</td>
<td></td>
</tr>
</tbody>
</table>

**Specific discriminators**

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floppy</td>
<td>Parents may describe their children as floppy. Tone is generally reduced – the most noticeable sign is often lolling of the head.</td>
</tr>
<tr>
<td>Responds to pain</td>
<td>Response to a painful stimulus. Standard peripheral stimuli should be used – a pencil or pen is used to apply pressure to the finger nail bed. This stimulus should not be applied to the toes since a spinal reflex may cause flexion even in brain death. Supraorbital ridge pressure should not be used since reflex grimacing may occur.</td>
</tr>
<tr>
<td>Responds to voice</td>
<td>Response to a vocal stimulus. It is not necessary to shout the patient's name. Children may fail to respond because they are afraid.</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it.</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler.</td>
</tr>
<tr>
<td>Signs of severe pain</td>
<td>Young children and babies in severe pain cannot complain. They will usually cry out continuously and inconsolably and be tachycardic. They may well exhibit signs such as pallor and sweating.</td>
</tr>
<tr>
<td>Unable to feed</td>
<td>This is usually reported by the parents. Children who will not take any solid or liquid (as appropriate) by mouth.</td>
</tr>
<tr>
<td>Inconsolable by</td>
<td>Children whose crying or distress does not respond to attempts by their parents to comfort them fulfill this criterion.</td>
</tr>
<tr>
<td>parents</td>
<td></td>
</tr>
<tr>
<td>Prolonged or</td>
<td>A child who has cried continuously for 2 hours or more fulfills this criterion.</td>
</tr>
<tr>
<td>uninterrupted</td>
<td></td>
</tr>
<tr>
<td>crying</td>
<td></td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.</td>
</tr>
<tr>
<td>Signs of moderate</td>
<td>Young children and babies in moderate pain cannot complain. They will usually cry intermittently and are often intermittently consolable.</td>
</tr>
<tr>
<td>pain</td>
<td></td>
</tr>
<tr>
<td>Atypical behaviour</td>
<td>A child who is behaving in a way that is not usual in the given situation. The carers will often volunteer this information. Such children are often referred to as fractious or ‘out of sorts’.</td>
</tr>
</tbody>
</table>
Presentational flow charts

Dental problems

- Airway compromise
  - Inadequate breathing
  - Shock
  - RED

- Uncontrollable major haemorrhage
  - Very hot
  - Severe pain
  - ORANGE

- Acutely avulsed tooth
  - Uncontrollable minor haemorrhage
  - Inappropriate history
  - Hot
  - Moderate pain
  - YELLOW

- Facial swelling
  - Warm
  - Recent mild pain
  - Recent problem
  - GREEN

- BLUE
Notes accompanying dental problems

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial problems</td>
<td>This is a presentation defined flow diagram designed to allow accurate prioritisation of patients presenting problems affecting the teeth or gums. A number of general discriminators have been used including Life threat, Pain, Haemorrhage and Temperature. Acute avulsion of a tooth has been included in the urgent (YELLOW) category since speed of reimplantation affects outcome. It is important to ensure that preconceptions about disposal do not affect accurate triage of patients with these presentations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acutely avulsed tooth</td>
<td>A tooth that has been avulsed intact within the previous 24 hours</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Facial swelling</td>
<td>Swelling around the face which may be localised or diffuse</td>
</tr>
</tbody>
</table>
Presentational flow charts

Diabetes

Airway compromise
Inadequate breathing
Shock
Unresponsive
Hypoglycaemia

Altered conscious level
Hyperglycaemia with ketosis
Hot baby
Very hot
Severe pain
Cold

Hyperglycaemia
Persistent vomiting
Hot
Moderate pain

Vomiting
Warm
Recent mild pain
Recent problem

RED
ORANGE
YELLOW
GREEN

1 2 3 4 5
Notes accompanying diabetes

This is a presentation defined flow diagram designed to allow categorisation of patients who present with known cases of diabetes. A number of general discriminators are used including Life threat, Conscious level (both adult and child), Blood glucose level and Temperature.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/l</td>
</tr>
<tr>
<td>Hyperglycaemia with ketosis</td>
<td>Glucose greater than 11 mmol/l with urinary ketones or signs of acidosis (deep sighing respiration, etc.)</td>
</tr>
<tr>
<td>Hyperglycaemia</td>
<td>Glucose greater than 17 mmol/l</td>
</tr>
</tbody>
</table>
100  Presentational flow charts

Diarrhoea and vomiting

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive child

RED

- Floppy
- Altered conscious level
- Fails to react to parents
- Vomiting blood
- Passing fresh or altered blood PR
- Hot baby
- Very hot
- Severe pain

ORANGE

- History of acutely vomiting blood
- Black or redcurrant stool
- Persistent vomiting
- Signs of dehydration
- Hot
- Moderate pain

YELLOW

- Vomiting
- Warm
- Recent mild pain
- Recent problem

GREEN

- BLUE

1 2 3 4 5
Notes accompanying diarrhoea and vomiting

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain in adults</td>
<td>This is a presentation defined flow diagram designed to allow categorisation of patients who present with diarrhoea and/or vomiting. Most patients who present with diarrhoea or vomiting do not have high priority. However, a number may have serious underlying pathology. A number of general discriminators are used including Life threat and Pain. Specific discriminators have been included to ensure that patients suffering from GI bleeding, and those with dehydration and other severe effects of diarrhoea and vomiting, are included in the appropriate categories</td>
</tr>
<tr>
<td>Abdominal pain in children</td>
<td></td>
</tr>
<tr>
<td>GI bleeding</td>
<td></td>
</tr>
</tbody>
</table>

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floppy</td>
<td>Parents may describe their children as floppy. Tone is generally reduced – the most noticeable sign is often lolling of the head</td>
</tr>
<tr>
<td>Fails to react to parents</td>
<td>Failure to react in any way to a parent's face or voice. Abnormal reactions and apparent lack of recognition of a parent are also worrying signs</td>
</tr>
<tr>
<td>Vomiting blood</td>
<td>Vomited blood may be fresh (bright or dark red) or coffee ground in appearance</td>
</tr>
<tr>
<td>Passing fresh or altered blood PR</td>
<td>In active massive GI bleeding dark red blood will be passed PR. As GI transit time increases this becomes darker, eventually becoming melaena</td>
</tr>
<tr>
<td>History of acutely vomiting blood</td>
<td>Frank haematemesis, vomiting of altered blood (coffee ground) or of blood mixed in the vomit within the past 24 hours</td>
</tr>
<tr>
<td>Black or redcurrant stool</td>
<td>Any blackness fulfils the criteria of black stool while a dark red stool, classically seen in intussusceptions, is redcurrant stool</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes</td>
</tr>
<tr>
<td>Signs of dehydration</td>
<td>These include dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output</td>
</tr>
</tbody>
</table>
Presentational flow charts

Ear problems

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive child

- Altered conscious level
- Uncontrollable major haemorrhage
- Hot baby
- Very hot
- Severe pain

- Uncontrollable minor haemorrhage
- History of head injury
- Persistent vomiting
- Inappropriate history
- Hot
- Moderate pain

- Auricular haematoma
- Vertigo
- Recent hearing loss
- Warm
- Recent mild pain
- Recent problem

Colors:
- RED
- ORANGE
- YELLOW
- GREEN
- BLUE
Notes accompanying ear problems

**See also** | **Chart notes**
---|---
Facial problems | This is a presentation defined flow diagram designed to allow accurate prioritisation of patients presenting with conditions affecting the ear. A number of general discriminators are used including *Life threat*, *Pain*, *Haemorrhage* and *Temperature*.
Head injury | 

**Specific discriminators** | **Explanation**
---|---
History of head injury | A history of a recent physically traumatic event involving the head. Usually this will be reported by the patient but if the patient has been unconscious this history should be sought from a reliable witness.
Persistent vomiting | Vomiting that is continuous or that occurs without any respite between episodes.
Inappropriate history | When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.
Auricular haematoma | A tense haematoma (usually post traumatic) in the outer ear.
Vertigo | An acute feeling of spinning or dizziness, possibly accompanied by nausea and vomiting.
Recent hearing loss | Loss of hearing in one or both ears within the previous week.
Presentational flow charts

Eye problems

- Acute chemical eye injury: RED
- Penetrating eye injury
  - Acute complete loss of vision
  - Severe pain
  - Hot baby
  - Very hot: ORANGE
- Recent reduced visual acuity
  - Inappropriate history
  - Hot
  - Moderate pain: YELLOW
- Red eye
  - Foreign body sensation
  - Diplopia
  - Recent mild pain
  - Recent problem: GREEN

--blue: BL
Notes accompanying eye problems

**See also** | **Chart notes**
--- | ---
Facial problems | This is a presentation defined flow diagram designed to allow accurate prioritisation of patients attending with conditions affecting the eye. Pain is used as a general discriminator. A number of specific discriminators have been used including a history of Acute chemical injury, which indicates that immediate action is required, a history of Penetrating eye injury or sudden or Acute complete loss of vision and an assessment of visual acuity

**Specific discriminators** | **Explanation**
--- | ---
Acute chemical eye injury | Any substance splashed into or placed into the eye within the past 12 hours that caused stinging, burning or reduced vision should be assumed to have caused chemical injury
Penetrating eye injury | A recent physically traumatic event involving penetration of the globe
Acute complete loss of vision | Loss of vision in one or both eyes within the preceding 24 hours that has not returned to normal
Recent reduced visual acuity | Any reduction in corrected visual acuity within the past 7 days
Inappropriate history | When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children
Red eye | Any redness to the eye. A red eye may be painful or painless and may be complete or partial
Foreign body sensation | A sensation of something in the eye, often expressed as scraping or grittiness
Diplopia | Double vision that resolves when one eye is closed
Facial problems

**RED**
- Airway compromise
- Inadequate breathing
- Exsanguinating haemorrhage
- Shock
- Unresponsive child

**ORANGE**
- Uncontrollable major haemorrhage
- Altered conscious level
- New neurological deficit less than 24 hrs old
- Hot baby
- Very hot
- Severe pain

**YELLOW**
- Uncontrollable minor haemorrhage
- New neurological deficit more than 24 hrs old
- Gross deformity
- Recent reduced visual acuity
- Acutely avulsed tooth
- History of unconsciousness
- Bleeding disorder
- Inappropriate history
- Hot
- Moderate pain

**GREEN**
- Facial swelling
- Auricular haematoma
- Diplopia
- Altered facial sensation
- Red eye
- Warm
- Recent mild pain
- Recent problem

**BLUE**

1. Presentational flow charts

2. Facial problems

3. Airway compromise

4. Inadequate breathing

5. Exsanguinating haemorrhage

6. Shock

7. Unresponsive child

8. Uncontrollable major haemorrhage

9. Altered conscious level

10. New neurological deficit less than 24 hrs old

11. Hot baby

12. Very hot

13. Severe pain

14. Uncontrollable minor haemorrhage

15. New neurological deficit more than 24 hrs old

16. Gross deformity

17. Recent reduced visual acuity

18. Acutely avulsed tooth

19. History of unconsciousness

20. Bleeding disorder

21. Inappropriate history

22. Hot

23. Moderate pain

24. Facial swelling

25. Auricular haematoma

26. Diplopia

27. Altered facial sensation

28. Red eye

29. Warm

30. Recent mild pain

31. Recent problem
Notes accompanying facial problems

**See also** | **Chart notes**
--- | ---
Dental problems | This presentation defined flow diagram has been designed to allow accurate prioritisation of patients attending with problems affecting the face. A number of general discriminators have been used including *Life threat, Haemorrhage and Pain*.
Ear problems
Eye problems
Head injury

**Specific discriminators** | **Explanation**
--- | ---
New neurological deficit less than 24 hrs old | Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.
New neurological deficit more than 24 hrs old | Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.
Gross deformity | This will always be subjective. Gross and abnormal angulation or rotation is implied.
Recent reduced visual acuity | Any reduction in corrected visual acuity within the past 7 days.
Acutely avulsed tooth | A tooth that has been avulsed intact within the previous 24 hours.
History of unconsciousness | There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious.
Bleeding disorder | Congenital or acquired bleeding disorder.
Inappropriate history | When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.
Facial swelling | Swelling around the face which may be localised or diffuse.
Auricular haematoma | A tense haematoma (usually post traumatic) in the outer ear.
Diplopia | Double vision that resolves when one eye is closed.
Altered facial sensation | Any alteration of sensation on the face.
Red eye | Any redness to the eye. A red eye may be painful or painless and may be complete or partial.
Presentational flow charts

Falls

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive child
- Currently fitting
- Hypoglycaemia

- New abnormal pulse
- Uncontrollable major haemorrhage
- Altered conscious level
- New acute neurological deficit less than 24 hrs old
- Significant mechanism of injury
- Very hot
- Cold
- Severe pain

- Uncontrollable minor haemorrhage
- New neurological deficit more than 24 hrs old
- Gross deformity
- Open fracture
- History of unconsciousness
- Inappropriate history
- Hot
- Moderate pain

RISK LIMIT

- Recent mild pain
- Deformity
- Swelling
- Recent problem

BLUE

1 2 3 4 5

RED ORANGE YELLOW GREEN
Presentational flow charts

Notes accompanying falls

### Specific discriminators

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/l</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>New acute neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Significant mechanism of injury</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Gross deformity</td>
<td>This will always be subjective. Gross and abnormal angulation or rotation is implied</td>
</tr>
<tr>
<td>Open fracture</td>
<td>All wounds in the vicinity of a fracture should be regarded with suspicion. If there is any possibility of communication between the wound and the fracture, then the fracture should be assumed to be open</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Deformity</td>
<td>This will always be subjective. Abnormal angulation or rotation is implied</td>
</tr>
<tr>
<td>Swelling</td>
<td>An abnormal increase in size</td>
</tr>
</tbody>
</table>
Presentational flow charts

Fits

- Airway compromise
- Inadequate breathing
- Currently fitting
- Shock
- Unresponsive child
- Hypoglycaemia

RED

- Altered conscious level
- New neurological deficit less than 24 hrs old
- Signs of meningism
- Non-blanching rash
- Purpura
- History of overdose or poisoning
- Hot baby
- Very hot

ORANGE

- New neurological deficit more than 24 hrs old
- History of head injury
- Inappropriate history
- Hot

YELLOW

- Headache
- Warm
- Recent mild pain
- Recent problem

GREEN

BLUE
Notes accompanying fits

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently fitting</td>
<td>Patients who are in the tonic or clonic stages of a grand mal convulsion and patients currently experiencing partial fits fulfill this criterion</td>
</tr>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/L</td>
</tr>
<tr>
<td>New neurological deficit</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>History of overdose or poisoning</td>
<td>This information may come from others or may be deduced if medication is missing</td>
</tr>
<tr>
<td>New neurological deficit</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>History of head injury</td>
<td>A history of a recent physically traumatic event involving the head. Usually this will be reported by the patient but if the patient has been unconscious this history should be sought from a reliable witness</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Headache</td>
<td>Any pain around the head that is not related to a particular anatomical structure. Facial pain is not included</td>
</tr>
</tbody>
</table>
Presentational flow charts

Foreign body

- Airway compromise
- Stridor
- Inadequate breathing
- Exsanguinating haemorrhage
- Shock
- Unresponsive child

SUBJECT

- Uncontrollable major haemorrhage
- Altered conscious level
- Penetrating eye injury
- Significant mechanism of injury
- Severe pain

SUBJECT

- Uncontrollable minor haemorrhage
- Inappropriate history
- Moderate pain

SUBJECT

- Red eye
- Local infection
- Local inflammation
- Recent mild pain
- Recent problem

1. RED
2. ORANGE
3. YELLOW
4. GREEN
5. BLUE
Notes accompanying foreign body

See also

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torso injury</td>
<td>This is a presentation defined flow diagram designed to allow accurate prioritisation of patients who present with foreign bodies in any part of their anatomy. The severity of such cases can range from the inconvenient to the life threatening and this chart is designed to differentiate between these. A number of general discriminators have been used including Life threat, Haemorrhage and Pain. The only specific discriminator that relates to anatomical site is that of Penetrating eye injury</td>
</tr>
</tbody>
</table>

Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stridor</td>
<td>This may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open</td>
</tr>
<tr>
<td>Penetrating eye injury</td>
<td>A recent physically traumatic event involving penetration of the globe</td>
</tr>
<tr>
<td>Significant mechanism</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer</td>
</tr>
<tr>
<td>of injury</td>
<td>Inappropriate history: When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Red eye</td>
<td>Any redness to the eye. A red eye may be painful or painless and may be complete or partial</td>
</tr>
<tr>
<td>Local infection</td>
<td>Local infection usually manifests as inflammation (pain, swelling and redness) confined to a particular site or area, with or without a collection of pus</td>
</tr>
<tr>
<td>Local inflammation</td>
<td>Local inflammation will involve pain, swelling and redness confined to a particular site or area</td>
</tr>
</tbody>
</table>
114 Presentational flow charts

GI bleeding

- Airway compromise
  - Inadequate breathing
  - Exsanguinating haemorrhage
  - Shock
  - Unresponsive child

- Vomiting blood
  - Passing fresh or altered blood PR
  - Altered conscious level
  - Significant history of GI bleed
  - Severe pain

- History of acutely vomiting blood
  - Black or redcurrant stool
  - Bleeding disorder
  - Persistent vomiting
  - Moderate pain

- Vomiting
  - Recent mild pain
  - Recent problem

Risk Limit

Blue

Green

Yellow

Orange

Red
Notes accompanying GI bleeding

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain in adults</td>
<td>This is a presentation defined flow diagram. Patients may present with GI bleeding either as vomiting altered or unaltered blood, or by passing blood PR. A number of general discriminators are used including Life threat and Pain. Specific discriminators have been selected to indicate the current severity of the GI bleeding. Thus patients vomiting blood or those passing fresh or altered blood PR have a higher category than those with a history of vomiting.</td>
</tr>
<tr>
<td>Abdominal pain in children</td>
<td></td>
</tr>
<tr>
<td>Diarrhoea and vomiting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vomiting blood</td>
<td>Vomited blood may be fresh (bright or dark red) or coffee ground in appearance</td>
</tr>
<tr>
<td>Passing fresh or altered</td>
<td>In active massive GI bleeding dark red blood will be passed PR. As GI transit time increases this becomes darker, eventually becoming melaena</td>
</tr>
<tr>
<td>blood PR</td>
<td></td>
</tr>
<tr>
<td>Significant history of GI</td>
<td>Any history of massive GI bleeding or of any GI bleed associated with oesophageal varices</td>
</tr>
<tr>
<td>bleed</td>
<td></td>
</tr>
<tr>
<td>History of acutely vomiting</td>
<td>Frank haematemesis, vomiting of altered blood (coffee ground) or of blood mixed in the vomit within the past 24 hours</td>
</tr>
<tr>
<td>blood</td>
<td></td>
</tr>
<tr>
<td>Black or redcurrant stool</td>
<td>Any blackness fulfils the criteria of black stool while a dark red stool, classically seen in intussusceptions, is redcurrant stool</td>
</tr>
<tr>
<td>Bleeding disorder</td>
<td>Congenital or acquired bleeding disorder</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes</td>
</tr>
</tbody>
</table>
Presentational flow charts

**Headache**

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive child
- Currently fitting

**RED**

- Altered conscious level
- New neurological deficit less than 24 hrs old
- Signs of meningism
- Purpura
- Non-blanching rash
- Abrupt onset
- Acute complete loss of vision
- Very hot
- Severe pain

**ORANGE**

- New neurological deficit more than 24 hrs old
- Recent reduced visual acuity
- Temporal scalp tenderness
- History of unconsciousness
- Persistent vomiting
- Inappropriate history
- Hot
- Moderate pain

**YELLOW**

- Vomiting
- Warm
- Recent mild pain
- Recent problem

**GREEN**

- 1  2  3  4  5
Notes accompanying headache

See also | Chart notes
--- | ---
Head injury | This is a presentation defined flow diagram. A large number of conditions can present with headache and a number of these require urgent intervention. A number of general discriminators are used including Life threat, Conscious level, Pain and Temperature. Specific discriminators have been used to identify severe causes such as subarachnoid haemorrhage and meningococcaemia. New neurological signs or symptoms together with reduction in visual acuity and tenderness of the scalp are used to indicate the need for urgent clinical review.

Neck pain

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
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<tbody>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia.</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it.</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler.</td>
</tr>
<tr>
<td>Abrupt onset</td>
<td>Onset within seconds or minutes. May cause waking in sleep.</td>
</tr>
<tr>
<td>Acute complete loss of vision</td>
<td>Loss of vision in one or both eyes within the preceding 24 hours that has not returned to normal.</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Recent reduced visual acuity</td>
<td>Any reduction in corrected visual acuity within the past 7 days.</td>
</tr>
<tr>
<td>Temporal scalp tenderness</td>
<td>Tenderness on palpation over the temporal area (especially over the artery).</td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious.</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes.</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.</td>
</tr>
</tbody>
</table>
Presentational flow charts

**Head injury**

- **Red**
  - Airway compromise
  - Inadequate breathing
  - Exsanguinating haemorrhage
  - Shock
  - Unresponsive child
  - Currently fitting

- **Orange**
  - Uncontrollable major haemorrhage
  - Altered consciousness level
  - New neurological deficit less than 24 hrs old
  - Significant mechanism of injury
  - Severe pain

- **Yellow**
  - Uncontrollable minor haemorrhage
  - New neurological deficit more than 24 hrs old
  - Persistent vomiting
  - History of unconsciousness
  - Bleeding disorder
  - Inappropriate history
  - Moderate pain

- **Green**
  - Scalp haematoma
  - Vomiting
  - Recent mild pain
  - Recent problem

- **Blue**
  - Low risk
  - Low risk
  - Low risk
  - Low risk
  - Low risk
Notes accompanying head injury

This is a presentation defined flow diagram. Head injury is an extremely common presentation and its effects may vary from life-threatening extradural haemorrhage to minimal scalp injury. A number of general discriminators have been used including Life threat, Conscious level (both in adults and children), Haemorrhage and Pain. Specific discriminators are included to select those patients with significant mechanism and the development of neurological signs and symptoms to a higher priority.

Specific discriminators

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fits</td>
<td>This is a presentation defined flow diagram. Head injury is an extremely common presentation and its effects may vary from life-threatening extradural haemorrhage to minimal scalp injury. A number of general discriminators have been used including Life threat, Conscious level (both in adults and children), Haemorrhage and Pain. Specific discriminators are included to select those patients with significant mechanism and the development of neurological signs and symptoms to a higher priority.</td>
</tr>
<tr>
<td>Headache</td>
<td></td>
</tr>
<tr>
<td>Neck pain</td>
<td></td>
</tr>
</tbody>
</table>

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently fitting</td>
<td>Patients who are in the tonic or clonic stages of a grand mal convulsion and patients currently experiencing partial fits fulfil this criterion.</td>
</tr>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Significant mechanism of injury</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer.</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes.</td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious.</td>
</tr>
<tr>
<td>Bleeding disorder</td>
<td>Congenital or acquired bleeding disorder.</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.</td>
</tr>
<tr>
<td>Scalp haematoma</td>
<td>A raised bruised area to the scalp (bruises below the hair line at the front are to the forehead).</td>
</tr>
</tbody>
</table>
Presentational flow charts

Irritable child

Airway compromise
Inadequate breathing
Shock
Unresponsive
Hypoglycaemia

RED

Very low SpO₂
Responds to voice or pain only
Signs of meningism
Purpura
Non-blanching rash
History of overdose or poisoning
Very hot
Severe pain

ORANGE

Very low SpO₂
Prolonged or uninterrupted crying
Not feeding
Not distractible
Inappropriate history
Hot
Moderate pain

YELLOW

Atypical behaviour
Recent signs of mild pain
Warm
Recent problem

GREEN

BLUE
Notes accompanying irritable child

This is a presentation defined flow diagram. It is designed to be used in children over the age of 12 months. A number of general discriminators have been used including Life threat, Conscious level and Pain. Specific discriminators include those that allow recognition of more specific pathologies such as septicaemia, or which indicate that a more serious pathology might exist. The risk limit sits between ORANGE and YELLOW and therefore no children can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment.

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/l</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>History of overdose or poisoning</td>
<td>This information may come from others or may be deduced if medication is missing</td>
</tr>
<tr>
<td>Signs of severe pain</td>
<td>Young children and babies in severe pain cannot complain. They will usually cry out continuously and inconsolably and be tachycardic. They may well exhibit signs such as pallor and sweating</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Prolonged or uninterrupted crying</td>
<td>A child who has cried continuously for 2 hours or more fulfils this criterion</td>
</tr>
<tr>
<td>Not feeding</td>
<td>Children who will not take any solid or liquid (as appropriate) by mouth. Children who will take the food but always vomit afterwards may also fulfil this criterion</td>
</tr>
<tr>
<td>Not distractible</td>
<td>Children who are distressed by pain or other things who cannot be distracted by conversation or play fulfil this criterion</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Signs of moderate pain</td>
<td>Young children and babies in moderate pain cannot complain. They will usually cry intermittently and are often intermittently consolable</td>
</tr>
<tr>
<td>Atypical behaviour</td>
<td>Children who are behaving in a way that is not usual in the given situation. The carers will often volunteer this information. Such children are often referred to as fractious or ‘out of sorts’</td>
</tr>
</tbody>
</table>
Limb problems

Airway compromise
Inadequate breathing
Exsanguinating haemorrhage
Shock

Acutely short of breath
Uncontrollable major haemorrhage
Vascular compromise
New neurological deficit less than 24 hrs old
Critical skin
Severe pain

Uncontrollable minor haemorrhage
New neurological deficit more than 24 hrs old
Gross deformity
Open fracture
Bleeding disorder
Inappropriate history
Pleuritic pain
Moderate pain

Risk

Deformity
Swelling
Recent mild pain
Recent problem

RED

ORANGE

YELLOW

GREEN

BLUE
Notes accompanying limb problems

This is a presentation defined flow diagram. Injuries to the limbs are the commonest presentation to Emergency Departments and, while rarely life-threatening, may cause considerable morbidity. A number of general discriminators are used including Life threat, Haemorrhage and Pain. Specific discriminators are included to ensure that limb-threatening injuries are seen and treated urgently. Discriminators are also included to remind the triage practitioner to consider the signs and symptoms of thromboembolic disease and its complications.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>Vascular compromise</td>
<td>There will be a combination of pallor, coldness, altered sensation and pain with or without absent pulses distal to the injury</td>
</tr>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Critical skin</td>
<td>A fracture or dislocation may leave fragments or ends of bone pressing so hard against the skin that the viability of the skin is threatened. The skin will be white and under tension</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Gross deformity</td>
<td>This will always be subjective. Gross and abnormal angulation or rotation is implied</td>
</tr>
<tr>
<td>Open fracture</td>
<td>All wounds in the vicinity of a fracture should be regarded with suspicion. If there is any possibility of communication between the wound and the fracture, then the fracture should be assumed to be open</td>
</tr>
<tr>
<td>Bleeding disorder</td>
<td>Congenital or acquired bleeding disorder</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Pleuritic pain</td>
<td>A sharp, localised pain in the chest that worsens on breathing, coughing or sneezing</td>
</tr>
<tr>
<td>Deformity</td>
<td>This will always be subjective. Abnormal angulation or rotation is implied</td>
</tr>
<tr>
<td>Swelling</td>
<td>An abnormal increase in size</td>
</tr>
</tbody>
</table>
124 Presentational flow charts

Limping child

Airway compromise
Inadequate breathing
Shock

RED

Vascular compromise
Purpura
Non-blanching rash
Hot baby
Very hot
Severe pain

ORANGE

Hot joint
Pain on joint movement
Bleeding disorder
Inappropriate history
Hot
Moderate pain

YELLOW

Deformity
Swelling
Warm
Recent mild pain
Recent problem

GREEN

BLUE
Notes accompanying limping child

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limb injuries</td>
<td>This is a presentation defined flow diagram. Children who present with limp range from those who have suffered a minor soft tissue injury to the foot or ankle to those who have developed septic arthritis of the hip. This chart is designed to allow accurate prioritisation of such children. A number of general discriminators are used including Life threat, Pain and Temperature. Specific discriminators have been included to allow children with more urgent pathologies that threaten distal function to be accurately identified, and to spot quickly those in whom the limp is a sinister sign of systemic disease. The risk limit sits between ORANGE and YELLOW and therefore no children can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular compromise</td>
<td>There will be a combination of pallor, coldness, altered sensation and pain with or without absent pulses distal to the injury</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Hot joint</td>
<td>Any warmth around a joint fulfils this criterion. Often accompanied by redness</td>
</tr>
<tr>
<td>Pain on joint movement</td>
<td>This can be pain on either active (patient) movement or passive (examiner) movement</td>
</tr>
<tr>
<td>Bleeding disorder</td>
<td>Congenital or acquired bleeding disorder</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Deformity</td>
<td>This will always be subjective. Abnormal angulation or rotation is implied</td>
</tr>
<tr>
<td>Swelling</td>
<td>An abnormal increase in size</td>
</tr>
</tbody>
</table>
Presentational flow charts

Major trauma

Airway compromise
Inadequate breathing
Exsanguinating haemorrhage
Shock
Unresponsive child

Acutely short of breath
Uncontrollable major haemorrhage
Altered conscious level
New neurological deficit less than 24 hrs old
Significant mechanism of injury
Severe pain

Uncontrollable minor haemorrhage
History of unconsciousness
Significant medical history
Moderate pain

Use another chart
Notes accompanying major trauma

Most health care providers know what is implied by major trauma but it is a strange presentation in that it is defined not by the patients or their injuries, but on some judgement of that injury by the carers. For this reason it is impossible to categorise a patient with this presentation as less than urgent. If it is necessary to do this, then a deliberate decision needs to be made that the original description of the patient as having suffered major trauma was incorrect, and the patient should be categorised using a different presentational flow diagram. A number of general discriminators have been used including Life threat, Haemorrhage, Conscious level (both adult and child) and Pain. Specific discriminators are designed to ensure that patients with a significant mechanism of injury are given a high enough urgency, and that those with pre-existing medical conditions and/or the development of new neurological signs are seen in good time.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Significant mechanism of injury</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer</td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious</td>
</tr>
<tr>
<td>Significant medical history</td>
<td>Any pre-existing medical condition requiring continual medication or other care</td>
</tr>
</tbody>
</table>
Mental illness

1. Airway compromise
   - Inadequate breathing
   - Shock
   - Hypoglycaemia
   - Unresponsive child
   - RED

2. Altered conscious level
   - High risk of self-harm
   - High risk of harm to others
   - ORANGE

3. Moderate risk of self-harm
   - Moderate risk of harm to others
   - Marked distress
   - Significant psychiatric history
   - Disruptive
   - YELLOW

4. GREEN

1 2 3 4 5
Notes accompanying mental illness

This is a presentation defined flow diagram that has been designed to allow clinical prioritisation of patients who present with known or newly declared mental illness. This includes patients who attended with a chief complaint which would indicate mental illness. A number of general discriminators have been used including Life threat and Conscious level. This chart is designed to allow assessment of both physical and psychiatric aspects of the presentation. Specific discriminators are included to allow accurate prioritisation of patients with a known significant psychiatric history and those who have varying degrees of risk of causing harm to others or to themselves. Patients who are disruptive or who are suffering severe distress are placed in the urgent category.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmoI</td>
</tr>
<tr>
<td>High risk of self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients who have a significant history of self-harm, who are actively trying to harm themselves or who are actively trying to leave with the intent of harming themselves are at high risk</td>
</tr>
<tr>
<td>High risk of harm to others</td>
<td>The presence of a potential risk of harm to others can be judged by looking at posture (tense, clenched) speech patterns (loud, using threatening words) and motor behaviour (restless, pacing). High risk should be assumed if weapons and potential victims are available, or if self-control is lost</td>
</tr>
<tr>
<td>Moderate risk of self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients without a significant history of self-harm, who are not actively trying to harm themselves, who are not actively trying to leave with the intent of harming themselves, but who profess the desire to harm themselves are at moderate risk</td>
</tr>
<tr>
<td>Moderate risk of harm to others</td>
<td>The presence of a potential risk of harm to others can be judged by looking at posture (tense, clenched), speech patterns (loud, using threatening words) and motor behaviour (restless, pacing). Moderate risk should be assumed if there is any indication of potential harm to others</td>
</tr>
<tr>
<td>Marked distress</td>
<td>Patients who are markedly physically or emotionally upset fulfil this criterion</td>
</tr>
<tr>
<td>Significant psychiatric history</td>
<td>A history of a major psychiatric illness or event</td>
</tr>
<tr>
<td>Disruptive</td>
<td>Disruptive behaviour is behaviour that affects the smooth running of the department. It may be threatening</td>
</tr>
</tbody>
</table>
Neck pain

Airway compromise
Inadequate breathing
Shock

RED

New neurological deficit less than 24 hrs old
Signs of meningism
Purpura
Non-blanching rash
Very hot
Severe pain

ORANGE

New neurological deficit more than 24 hrs old
Direct trauma to the neck
Hot
Moderate pain

YELLOW

Recent mild pain
Recent problem

GREEN

BLUE

1 2 3 4 5
Notes accompanying neck pain

See also | Chart notes
---|---
Back pain | This is a presentation defined flow diagram. Pain in the neck may arise because of local pathology or meningeal irritation. This chart is designed to allow rapid identification of patients presenting with symptoms or signs that indicate more urgent pathologies. A number of general discriminators are used including Life threat, Pain and Temperature. The specific discriminators that indicate meningitis are included under the ORANGE category.
Headache

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia.</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it.</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler.</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>Direct trauma to the neck</td>
<td>This may be top to bottom (loading), for instance when something falls on the head, bending (forwards, backwards or to the side), twisting or distracting such as in hanging.</td>
</tr>
</tbody>
</table>
Presentational flow charts

Overdose and poisoning

Airway compromise
Inadequate breathing
Shock
Unresponsive child
Currently fitting
Hypoglycaemia

Very low $\text{SpO}_2$
New abnormal pulse
Altered conscious level
High lethality
High risk of further self-harm

Low $\text{SpO}_2$
Marked distress
Moderate lethality
Moderate risk of further self-harm
History of unconsciousness
Significant psychiatric history

1. Red
2. Orange
3. Yellow
4. Green
Notes accompanying overdose and poisoning

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-harm</td>
<td>This is a presentation defined flow diagram. The flow chart has been designed to allow both the physical and psychiatric aspects of overdose to be considered, and to ensure accurate prioritisation of patients from both perspectives. It also allows prioritisation of patients who have been accidentally (or deliberately) poisoned by others. A number of general discriminators have been used including Life threat and Unconscious level (in both children and adults). Specific discriminators include the assessed lethality of the overdose (which can be decided following discussion with a poisons centre) and an assessment of the risk of further attempts at self-harm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/l</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>High lethality</td>
<td>Lethality is the potential of the substance taken to cause harm. Advice from a poisons centre may be required to establish the level of risk of serious illness or death. If in doubt, assume a high risk</td>
</tr>
<tr>
<td>High risk of further self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient’s behaviour. Patients who have a significant history of self-harm, who are actively trying to harm themselves or who are actively trying to leave with the intent of harming themselves are at high risk</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Marked distress</td>
<td>Patients who are markedly physically or emotionally upset fulfil this criterion</td>
</tr>
<tr>
<td>Moderate lethality</td>
<td>Lethality is the potential of the substance taken to cause serious illness or death. Advice from a poisons centre may be required to establish the level of risk to the patient</td>
</tr>
<tr>
<td>Moderate risk of further self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient’s behaviour. Patients without a significant history of self-harm, who are not actively trying to harm themselves, who are not actively trying to leave with the intent of harming themselves, but who profess the desire to harm themselves are at moderate risk</td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious</td>
</tr>
<tr>
<td>Significant psychiatric history</td>
<td>A history of a major psychiatric illness or event</td>
</tr>
</tbody>
</table>
Presentational flow charts

Palpitations

Airway compromise
Inadequate breathing
Shock

RED

Acutely short of breath
New abnormal pulse
Altered conscious level
History of overdose or poisoning
Cardiac pain
Very hot

ORANGE

History of unconsciousness
Current palpitation
Significant cardiac history
Hot

YELLOW

Recent problem

GREEN

BLUE
Notes accompanying palpitations

### Specific discriminators

<table>
<thead>
<tr>
<th>Discriminator</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>History of overdose or poisoning</td>
<td>This information may come from others or may be deduced if medication is missing</td>
</tr>
<tr>
<td>Cardiac pain</td>
<td>Classically a severe dull ‘gripping’ or ‘heavy’ pain in the centre of the chest, radiating to the left arm or to the neck. May be associated with sweating and nausea</td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious</td>
</tr>
<tr>
<td>Current palpitation</td>
<td>A feeling of the heart racing (often described as a fluttering) that is still present</td>
</tr>
<tr>
<td>Significant cardiac history</td>
<td>A known recurrent dysrhythmia that has life-threatening effects is significant, as is a known cardiac condition which may deteriorate rapidly</td>
</tr>
</tbody>
</table>
Presentational flow charts

Pregnancy

- Airway compromise
- Inadequate breathing
- Currently fitting
- Exsanguinating haemorrhage
- Shock
- Unresponsive child
- Prolapsed umbilical cord
- Presenting foetal parts

Current Risk Level: RED

- Heavy PV blood loss
- PV blood loss and 20 weeks pregnant or more
- Altered conscious level
- In active labour
- History of fitting
- Very hot
- Severe pain

Current Risk Level: ORANGE

- High blood pressure
- PV blood loss
- History of trauma
- Inappropriate history
- Hot
- Shoulder tip pain
- Moderate pain

Current Risk Level: YELLOW

- Warm
- Recent mild pain

Current Risk Level: GREEN

- 1
- 2
- 3
- 4
- 5
Notes accompanying pregnancy

### See also | Chart notes
---|---
Pv bleeding | This is a presentation defined flow diagram. Pregnant women may attend the Emergency Department at all stages of pregnancy and with a variety of complaints. Some may be unaware of their pregnancy. A number of general discriminators have been used including Pain and Conscious level. Specific discriminators are designed to allow early recognition of complications of pregnancy at all stages.

### Specific discriminators | Explanation
---|---
Prolapsed umbilical cord | Prolapse of any part of the umbilical cord through the cervix.
Presenting foetal parts | Crowning or presentation of any other foetal part in the vagina.
Heavy PV blood loss | PV loss is extremely difficult to assess. The presence of large clots or constant flow fulfils this criterion. The use of a large number of sanitary towels is suggestive of heavy loss.
PV blood loss and 20 weeks pregnant or more | Any loss of blood PV in a woman known to be beyond the 20th week of pregnancy.
In active labour | A woman who is having regular and frequent painful contractions fulfils this criterion.
History of fitting | Any observed or reported fits that have occurred during the period of illness or following an episode of trauma.
High blood pressure | A history of raised blood pressure or a raised blood pressure on examination.
Pv blood loss | Any loss of blood PV.
History of trauma | A history of a recent physically traumatic event.
Inappropriate history | When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.
Shoulder tip pain | Pain felt in the tip of the shoulder. This often indicates diaphragmatic irritation.
Presentational flow charts

PV bleeding

- Airway compromise
- Inadequate breathing
- Exsanguinating haemorrhage
- Shock
- Unresponsive child

RED

- Heavy PV blood loss
- PV blood loss and 20 weeks pregnant or more
- Altered conscious level
- Very hot
- Severe pain

ORANGE

- Vaginal trauma
- Possibly pregnant
- Inappropriate history
- Abdominal pain
- Shoulder tip pain
- Hot
- Moderate pain

YELLOW

- Recent mild pain
- Recent problem

GREEN

- 1
- 2
- 3
- 4
- 5

BLUE
Notes accompanying PV bleeding

### See also

**Abdominal pain**

**Pregnancy**

This is a presentation defined flow diagram. PV bleeding may occur in pregnant and non-pregnant women and may have a large number of undefined causes. A number of general discriminators are used including Life threat, Haemorrhage and Pain.

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy PV blood loss</td>
<td>PV loss is extremely difficult to assess. The presence of large clots or constant flow fulfils this criterion. The use of a large number of sanitary towels is suggestive of heavy loss.</td>
</tr>
<tr>
<td>PV blood loss and 20 weeks pregnant or more</td>
<td>Any loss of blood PV in a woman known to be beyond the 20th week of pregnancy</td>
</tr>
<tr>
<td>Vaginal trauma</td>
<td>Any history or other evidence of direct trauma to the vagina fulfils this criterion</td>
</tr>
<tr>
<td>Possibly pregnant</td>
<td>Any woman whose normal menstruation has failed to occur is possibly pregnant. Furthermore, any woman of childbearing age who is having unprotected sex should be considered to be potentially pregnant</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of non-accidental injury in vulnerable children and adults and may be the sentinel for abuse</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>Any pain felt in the abdomen. Abdominal pain associated with back pain may indicate abdominal aortic aneurysm, while association with PV bleeding may indicate ectopic pregnancy or miscarriage</td>
</tr>
<tr>
<td>Shoulder tip pain</td>
<td>Pain felt in the tip of the shoulder. This often indicates diaphragmatic irritation</td>
</tr>
</tbody>
</table>
Presentational flow charts

Rashes

- Airway compromise
- Inadequate breathing
- Stridor
- Shock
- Unresponsive child

- Oedema of the tongue
- Facial oedema
- Acutely short of breath
- Altered conscious level
- Purpura
- Non-blanching rash
- Significant history of allergy
- Hot baby
- Very hot
- Severe pain or itch

- Widespread discharge or blistering
- Inappropriate history
- Hot
- Moderate pain or itch

- Warm
- Recent mild pain or itch
- Recent problem

1. RED
2. ORANGE
3. YELLOW
4. GREEN
5. BLUE
Notes accompanying rashes

**See also** | **Chart notes**
---|---
Allergy | This is a presentation defined flow diagram. A rash may signify serious disease such as meningococcal septicemia, or may be a sign of a chronic, non-acute problem such as psoriasis. Two general discriminators – *Life threat* and *Temperature* – are used in this chart. A larger number of specific discriminators are included in the ORANGE and YELLOW categories to ensure that more serious conditions are suitably triaged. In particular, purpura and associations of acute anaphylaxis appear at the ORANGE level.
Bites and stings
Unwell adult
Unwell child

**Specific discriminators** | **Explanation**
---|---
Stridor | This may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open.
Oedema of the tongue | Swelling of the tongue of any degree.
Facial oedema | Diffuse swelling around the face, usually involving the lips.
Acutely short of breath | Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath.
Purpura | A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it.
Non-blanching rash | A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler.
Significant history of allergy | A known sensitivity with severe reaction (e.g. to nuts or bee sting) is significant.
Widespread discharge or blistering | Any discharging or blistering eruption covering more than 10% of the body surface area.
Inappropriate history | When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children.
Presentational flow charts

**Self-harm**

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive child

**RED**

- Acutely short of breath
- Uncontrollable major haemorrhage
- Altered conscious level
- High risk of further harm
- Significant mechanism of injury
- Severe pain

**ORANGE**

- Uncontrollable minor haemorrhage
- Marked distress
- Moderate risk of further self-harm
- Significant psychiatric history
- Inappropriate history
- Moderate pain

**YELLOW**

**GREEN**
Notes accompanying self-harm

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental illness</td>
<td>This is a presentation defined flow diagram. This flow diagram has been designed to allow accurate prioritisation of patients who have caused physical harm to themselves. This chart is designed to allow assessment of both physical and psychiatric aspects of the presentation. A separate chart entitled Overdose and poisoning has been designed as well. A number of general discriminators are used including Life threat, Haemorrhage, Conscious level and Pain. Specific discriminators are included to allow accurate prioritisation of patients with significant mechanisms of injury and those who have various degrees of risk of further self-harm</td>
</tr>
<tr>
<td>Overdose and poisoning</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acutely short of breath</td>
<td>Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath</td>
</tr>
<tr>
<td>High risk of further harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients who have a significant history of self-harm, who are actively trying to harm themselves or who are actively trying to leave with the intent of harming themselves are at high risk</td>
</tr>
<tr>
<td>Significant mechanism of injury</td>
<td>Penetrating injuries (stab or gunshot) and injuries with high energy transfer</td>
</tr>
<tr>
<td>Marked distress</td>
<td>Patients who are markedly physically or emotionally upset fulfil this criterion</td>
</tr>
<tr>
<td>Moderate risk of further self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients without a significant history of self-harm, who are not actively trying to harm themselves, who are not actively trying to leave with the intent of harming themselves, but who profess the desire to harm themselves are at moderate risk</td>
</tr>
<tr>
<td>Significant psychiatric history</td>
<td>A history of a major psychiatric illness or event</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
</tbody>
</table>
Presentational flow charts

**Sexually acquired infection**

- **RED**
  - Airway compromise
  - Inadequate breathing
  - Shock

- **ORANGE**
  - Altered conscious level
  - Purpura
  - Non-blanching rash
  - Known or likely immunosuppression
  - Very hot
  - Severe pain

- **YELLOW**
  - Widespread discharge or blistering
  - Hot joint
  - Pain on joint movement
  - Hot
  - Testicular pain
  - Moderate pain

- **GREEN**
  - Discharge
  - Warm
  - Recent mild pain
  - Recent problem

- **BLUE**
Notes accompanying sexually acquired infection

This is a presentation defined flow diagram which has been included to allow prioritisation of patients who attend with known or obvious sexual acquired infection. A number of general discriminators are used including Life threat, Pain and Temperature. Specific discriminators have been added to allow identification of more urgent conditions such as gonococcaemia. It is important to ensure that preconceptions about the disposal of these patients do not prevent appropriate triage.

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Known or likely immunosuppression</td>
<td>Any patient who is known or likely to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
</tr>
<tr>
<td>Widespread discharge or blistering</td>
<td>Any discharging or blistering eruption covering more than 10% of the body surface area</td>
</tr>
<tr>
<td>Hot joint</td>
<td>Any warmth around a joint fulfils this criterion. Often accompanied by redness</td>
</tr>
<tr>
<td>Pain on joint movement</td>
<td>This can be pain on either active (patient) movement or passive (examiner) movement</td>
</tr>
<tr>
<td>Testicular pain</td>
<td>Pain in the testicles</td>
</tr>
<tr>
<td>Discharge</td>
<td>In the context of sexually acquired infection this is any discharge from the penis or abnormal discharge from the vagina</td>
</tr>
</tbody>
</table>
146  Presentational flow charts

**Shortness of breath in adults**

1. **Airway compromise**
   - Stridor
   - Drooling
   - Inadequate breathing
   - Shock

2. **Unable to talk in sentences**
   - Very low SpO$_2$
   - Exhaustion
   - Very low PEFR
   - New abnormal pulse
   - Altered conscious level
   - Significant respiratory history
   - Acute onset after injury
   - Cardiac pain
   - Very hot

3. **Low SpO$_2$**
   - Low PEFR
   - Pleuritic pain
   - Hot

4. **Wheeze**
   - Productive cough
   - Chest injury
   - Recent problem

**Color Coding**

- **RED**: Airway compromise
- **ORANGE**: Unable to talk in sentences
- **YELLOW**: Low SpO$_2$
- **GREEN**: Wheeze
- **BLUE**: Other symptoms
Presentational flow charts

Notes accompanying shortness of breath in adults

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>This is a presentation defined flow diagram. Shortness of breath may be the presenting symptom for a number of cardiovascular and respiratory problems. A number of general discriminators are used including Life threat and Oxygen saturation. Specific discriminators include those which are present in severe asthma, COPD and ischaemic heart disease</td>
</tr>
<tr>
<td>Shortness of breath in children</td>
<td></td>
</tr>
<tr>
<td>Unwell adult</td>
<td></td>
</tr>
</tbody>
</table>

Specific discriminators | Explanation

Stridor | This may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open

Drooling | Saliva running from the mouth as a result of being unable to swallow

Unable to talk in sentences | Patients who are so breathless that they cannot complete relatively short sentences in one breath

Very low SpO2 | This is a saturation of less than 95% on O2 therapy or less than 92% on air

Exhaustion | Exhausted patients appear to reduce the effort they make to breathe despite continuing respiratory insufficiency. This is pre-terminal

Very low PEFR | The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their ‘best’ PEFR and this may be used. If the ratio of measured to predicted is less than 33% then this criterion is fulfilled

New abnormal pulse | A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children

Significant respiratory history | A history of previous life-threatening episodes of a respiratory condition (e.g. COPD) is significant, as is brittle asthma

Acute onset after injury | Onset of symptoms immediately within 24 hours of a physically traumatic event

Cardiac pain | Classically a severe dull ‘gripping’ or ‘heavy’ pain in the centre of the chest, radiating to the left arm or to the neck. May be associated with sweating and nausea

Low SpO2 | This is a saturation of less than 95% on air

Low PEFR | The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their ‘best’ PEFR and this may be used. If the ratio of measured to predicted is less than 50% then this criterion is fulfilled

Pleuritic pain | A sharp, localised pain in the chest that worsens on breathing, coughing or sneezing

Wheeze | This can be audible wheeze or a feeling of wheeze. Very severe airway obstruction is silent (no air can move)

Productive cough | A cough that is productive of phlegm, whatever the colour

Chest injury | Any injury to the area below the clavicles and above the level of the lowest rib. Injury to the lower part of the chest can cause underlying damage to abdominal organs
Shortness of breath in children

- Airway compromise
  - Stridor
  - Drooling
  - Inadequate breathing
  - Shock
  - Unresponsive
  - RED

- Unable to talk in sentences
  - Very low SpO₂
  - Increased work of breathing
  - Exhaustion
  - Very low PEFR
  - New abnormal pulse
  - Responds to voice or pain only
  - Significant respiratory history
  - Acute onset after injury
  - Hot baby
  - Very hot
  - ORANGE

- Low SpO₂
  - Low PEFR
  - Inappropriate history
  - Pleuritic pain
  - Hot
  - YELLOW

- Wheeze
  - Productive cough
  - Chest injury
  - Recent problem
  - GREEN

- BLUE

1. 2. 3. 4. 5.
Notes accompanying shortness of breath in children

See also

<table>
<thead>
<tr>
<th>Unwell child</th>
<th>Asthma</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is a presentation defined flow diagram that applies to children under the age of 14 years. A number of general discriminators are used including Life threat and Oxygen saturation. Specific discriminators have been included to allow accurate identification of children who are suffering the severe effects of asthma and those in whom there is more serious pathology. Accurate peak flow reading is difficult in young children and in such cases this discriminator should be ignored. Peak flow readings when obtained should always be related to the expected peak flow for age and sex. The risk limit sits between ORANGE and YELLOW and therefore no children can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment</td>
<td></td>
</tr>
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<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
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<td>Stridor</td>
<td>This may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open</td>
</tr>
<tr>
<td>Drooling</td>
<td>Saliva running from the mouth as a result of being unable to swallow</td>
</tr>
<tr>
<td>Unable to talk in sentences</td>
<td>Patients who are so breathless that they cannot complete relatively short sentences in one breath</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>Increased work of breathing</td>
<td>Increased work of breathing is shown as increased respiratory rate, use of accessory muscles and grunting</td>
</tr>
<tr>
<td>Exhaustion</td>
<td>Exhausted patients appear to reduce the effort they make to breathe despite continuing respiratory insufficiency. This is pre-terminal</td>
</tr>
<tr>
<td>Very low PEFR</td>
<td>The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their 'best' PEFR and this may be used. If the ratio of measured to predicted is less than 33% then this criterion is fulfilled</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Significant respiratory history</td>
<td>A history of previous life-threatening episodes of a respiratory condition (e.g. COPD) is significant, as is brittle asthma</td>
</tr>
<tr>
<td>Acute onset after injury</td>
<td>Onset of symptoms immediately within 24 hours of a physically traumatic event</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Low PEFR</td>
<td>The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their ‘best’ PEFR and this may be used. If the ratio of measured to predicted is less than 50% then this criterion is fulfilled</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Pleuritic pain</td>
<td>A sharp, localised pain in the chest that worsens on breathing, coughing or sneezing</td>
</tr>
<tr>
<td>Wheeze</td>
<td>This can be audible wheeze or a feeling of wheeze. Very severe airway obstruction is silent (no air can move)</td>
</tr>
<tr>
<td>Productive cough</td>
<td>A cough that is productive of phlegm, whatever the colour</td>
</tr>
<tr>
<td>Chest injury</td>
<td>Any injury to the area below the clavicles and above the level of the lowest rib. Injury to the lower part of the chest can cause underlying damage to abdominal organs</td>
</tr>
</tbody>
</table>
150  Presentational flow charts

**Sore throat**

- **RED**
  - Airway compromise
  - Stridor
  - Drooling
  - Inadequate breathing
  - Shock
  - Unresponsive child

- **ORANGE**
  - Altered conscious level
  - Known or likely immunosuppression
  - Special risk of infection
  - Hot baby
  - Very hot
  - Severe pain

- **YELLOW**
  - Rapid onset
  - History of recent foreign travel
  - Hot
  - Moderate pain

- **GREEN**
  - Warm
  - Recent mild pain
  - Recent problem

- **BLUE**
  - **RISK LIMIT**
Notes accompanying sore throat

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortness of breath in adults</td>
<td>This is a presentation defined flow diagram designed to allow accurate prioritisation for patients attending with sore throat. As problems with the throat can affect the airway there are a number of conditions that have this presentation and have a high priority.</td>
</tr>
<tr>
<td>Shortness of breath in children</td>
<td>A number of general discriminators are used including Life threat, Pain and Temperature. Specific discriminators have been included to indicate where there is a high chance of more serious pathology.</td>
</tr>
<tr>
<td>Unwell adult</td>
<td></td>
</tr>
<tr>
<td>Unwell child</td>
<td></td>
</tr>
</tbody>
</table>

**Specific discriminators**  

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stridor</td>
<td>This may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open</td>
</tr>
<tr>
<td>Drooling</td>
<td>Saliva running from the mouth as a result of being unable to swallow</td>
</tr>
<tr>
<td>Known or likely</td>
<td>Any patient who is known or likely to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
</tr>
<tr>
<td>immunosuppression</td>
<td></td>
</tr>
<tr>
<td>Special risk of infection</td>
<td>Known exposure to a dangerous pathogen, or travel to an area with an identified, current, serious infectious risk</td>
</tr>
<tr>
<td>Rapid onset</td>
<td>Onset within the preceding 12 hours</td>
</tr>
<tr>
<td>History of recent foreign</td>
<td>Recent significant foreign travel (within 2 weeks)</td>
</tr>
<tr>
<td>travel</td>
<td></td>
</tr>
</tbody>
</table>
Presentational flow charts

Testicular pain

Airway compromise
Inadequate breathing
Shock

RED

Scrotal gangrene
Age 25 years or less
Hot baby
Very hot
Severe pain

ORANGE

Scrotal cellulitis
Persistent vomiting
Hot
Colicky pain
Moderate pain

YELLOW

Scrotal trauma
Vomiting
Recent mild pain
Recent problem

GREEN

BLUE

RISK
LIMIT

1 2 3 4 5
Notes accompanying testicular pain

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain</td>
<td>This is a presentation defined flow diagram. Testicular pain may have a number of pathologies, the most urgent of which is testicular torsion. A number of general discriminators are used including Life threat, Pain and Temperature. Specific discriminators included in the ORANGE category are designed to indicate those patients who have a high chance of torsion of the testes and the most severe infections</td>
</tr>
</tbody>
</table>

### Specific discriminators

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrotal gangrene</td>
<td>Dead, blackened skin around the scrotum and groin. Early gangrene may not be black but may appear like a full-thickness burn with or without flaking</td>
</tr>
<tr>
<td>Age 25 years or less</td>
<td>A person aged 25 years or less</td>
</tr>
<tr>
<td>Scrotal cellulitis</td>
<td>Redness and swelling around the scrotum</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes</td>
</tr>
<tr>
<td>Colicky pain</td>
<td>Pain that comes and goes in waves. Renal colic tends to come and go over 20 minutes or so</td>
</tr>
<tr>
<td>Scrotal trauma</td>
<td>Any recent physically traumatic event involving the scrotum</td>
</tr>
</tbody>
</table>
Presentational flow charts

### Torso injury

- **RED**
  - Airway compromise
  - Inadequate breathing
  - Exsanguinating haemorrhage
  - Shock
  - Unresponsive child

- **ORANGE**
  - Acutely short of breath
  - Uncontrollable major haemorrhage
  - Altered conscious level
  - Externalisation of organs
  - Significant mechanism of injury
  - Severe pain

- **YELLOW**
  - Uncontrollable minor haemorrhage
  - Inappropriate history
  - Pleuritic pain
  - Moderate pain

- **GREEN**
  - Local infection
  - Local inflammation
  - Recent mild pain
  - Recent problem

- **BLUE**

---

<table>
<thead>
<tr>
<th>Risk</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Notes accompanying torso injury

**See also** | **Chart notes**
--- | ---
Assault | This is a presentation defined flow diagram designed to allow accurate prioritisation of patients who have suffered injuries to the front or back of the chest and abdomen. A number of general discriminators are used including *Life threat*, *Haemorrhage* and *Pain*. Specific discriminators have been used to allow the identification of patients who are suffering from less obvious but severe internal injury. These would include patients who are acutely short of breath and those with a history suggestive of significant trauma.
Major trauma
Wounds

**Specific discriminators** | **Explanation**
--- | ---
Acutely short of breath | Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath
Externalisation of organs | Herniation or frank extrusion of internal organs
Significant mechanism of injury | Penetrating injuries (stab or gunshot) and injuries with high energy transfer
Inappropriate history | When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children
Pleuritic pain | A sharp, localised pain in the chest that worsens on breathing, coughing or sneezing
Local infection | Local infection usually manifests as inflammation (pain, swelling and redness) confined to a particular site or area, with or without a collection of pus
Local inflammation | Local inflammation will involve pain, swelling and redness confined to a particular site or area
Presentational flow charts

Unwell adult

- Airway compromise
- Inadequate breathing
- Shock
- Hypoglycaemia
- Currently fitting

RED

- Very low SpO₂
- New abnormal pulse
- Altered conscious level
- New neurological deficit less than 24 hrs old
- Signs of meningism
- Purpura
- Non-blanching rash
- Known or likely immunosuppression
- Special risk of infection
- Very hot
- Cold
- Severe pain

ORANGE

- Low SpO₂
- New neurological deficit more than 24 hrs old
- Widespread discharge or blistering
- Rapid onset
- History of recent foreign travel
- Significant haematological history
- Hot
- Moderate pain

YELLOW

- Warm
- Recent mild pain
- Recent problem

GREEN

- 1
- 2
- 3
- 4
- 5
### Presentational flow charts

Notes accompanying unwell adult

**See also**

**Chart notes**

Collapsed adult

This is a non-specific presentation defined flow diagram. A number of general discriminators are used including *Life threat, Conscious level, Pain and Temperature*. Specific discriminators have been included to ensure that patients with, for example, meningococcaemia are placed in the appropriate category.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/L</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Very low SpO\textsubscript{2}</td>
<td>This is a saturation of less than 95% on O\textsubscript{2} therapy or less than 92% on air</td>
</tr>
<tr>
<td>New neurological deficit less than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Known or likely</td>
<td>Any patient who is known to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
</tr>
<tr>
<td>immunosuppression</td>
<td>Special risk of infection</td>
</tr>
<tr>
<td>Known or likely</td>
<td>Known exposure to a dangerous pathogen, or travel to an area with an identified, current, serious infectious risk</td>
</tr>
<tr>
<td>immunosuppression</td>
<td>Low SpO\textsubscript{2}</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Widespread discharge or blistering</td>
<td>Any discharging or blistering eruption covering more than 10% of the body surface area</td>
</tr>
<tr>
<td>Rapid onset</td>
<td>Onset within the preceding 12 hours</td>
</tr>
<tr>
<td>History of recent foreign travel</td>
<td>Recent significant foreign travel (within 2 weeks)</td>
</tr>
<tr>
<td>Significant</td>
<td>A patient with a haematological disorder that is known to deteriorate rapidly</td>
</tr>
<tr>
<td>haematological history</td>
<td></td>
</tr>
</tbody>
</table>
Presentational flow charts

Unwell baby (up to 12 months)

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive
- Currently fitting
- Hypoglycaemia

\[ \text{RED} \]

- Very low $\text{SpO}_2$
- New abnormal pulse
- Responds to voice or pain only
- Fails to react to parents
- Signs of meningism
- Purpura
- Known or likely immunosupression
- Non-blanching rash
- Hot baby
- Cold
- Signs of severe pain

\[ \text{ORANGE} \]

- Low $\text{SpO}_2$
- Signs of dehydration
- Not feeding
- Not passing urine
- Inappropriate history
- Significant haematological history
- Signs of moderate pain

\[ \text{YELLOW} \]

- Warm
- Recent mild pain
- Recent problem

\[ \text{GREEN} \]

- Blue

1 2 3 4 5
Notes accompanying unwell baby (up to 12 months)

See also

Crying baby
Unwell newborn
Worried parent

Chart notes
This is a presentation defined flow diagram designed to allow accurate prioritisation of babies who present with non-specific illness. A number of general discriminators are used including Life threat, Conscious level, Pain and Temperature. A number of specific discriminators have been included to allow identification of more serious pathology such as meningococcaemia, etc. **For any child aged 28 days or under the Unwell newborn chart should be used.** The risk limit sits between ORANGE and YELLOW and therefore no babies can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
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<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmol/l</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Fails to react to parents</td>
<td>Failure to react in any way to a parent’s face or voice. Abnormal reactions and apparent lack of recognition of a parent are also worrying signs</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
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<tr>
<td>Known or likely immunosuppression</td>
<td>Any patient who is known or likely to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
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<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Signs of dehydration</td>
<td>These include dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output</td>
</tr>
<tr>
<td>Not feeding</td>
<td>Children who will not take any solid or liquid (as appropriate) by mouth. Children who will take the food but always vomit afterwards may also fulfil this criterion</td>
</tr>
<tr>
<td>Not passing urine</td>
<td>Failure to produce and pass urine. This may be difficult to judge in children (and the elderly) and reference to the number of nappies or pads used may be useful</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Significant haematological history</td>
<td>A patient with a haematological disorder that is known to deteriorate rapidly</td>
</tr>
</tbody>
</table>
Presentational flow charts

Unwell child

Airway compromise
Inadequate breathing
Shock
Unresponsive
Currently fitting
Hypoglycaemia

RED

Very low SpO₂
New abnormal pulse
Responds to voice or pain only
Fails to react to parents
Signs of meningism
Purpura
Known or likely immunosuppression
Non-blanching rash
Very hot
Cold
Severe pain

ORANGE

Low SpO₂
Signs of dehydration
Not feeding
Not passing urine
Inappropriate history
Significant haematological history
Hot
Moderate pain

YELLOW

Atypical behaviour
Warm
Recent mild pain
Recent problem

GREEN

BLUE
Notes accompanying unwell child

This is a presentation defined flow diagram designed to allow accurate prioritisation of children over the age of 12 months who present with non-specific illness. A number of general discriminators are used including Life threat, Conscious level, Pain and Temperature. A number of specific discriminators have been included to allow identification of more serious pathology such as meningococcaemia, etc. The risk limit sits between ORANGE and YELLOW and therefore no children can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment.

### Specific discriminators

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<td>Hypoglycaemia</td>
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<tr>
<td>Very low SpO₂</td>
<td>A saturation of less than 95% on O₂ therapy or less than 92% on air</td>
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<tr>
<td>New abnormal pulse</td>
<td>Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Fails to react to parents</td>
<td>Failure to react in any way to a parent’s face or voice. Abnormal reactions and apparent lack of recognition of a parent are also worrying signs</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Known or likely immunosuppression</td>
<td>Any patient who is known or likely to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Signs of dehydration</td>
<td>These include dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output</td>
</tr>
<tr>
<td>Not feeding</td>
<td>Children who will not take any solid or liquid (as appropriate) by mouth. Children who will take the food but always vomit afterwards may also fulfil this criterion</td>
</tr>
<tr>
<td>Not passing urine</td>
<td>Failure to produce and pass urine. This may be difficult to judge in children (and the elderly) and reference to the number of nappies or pads used may be useful</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Significant haematological history</td>
<td>A patient with a haematological disorder that is known to deteriorate rapidly</td>
</tr>
<tr>
<td>Atypical behaviour</td>
<td>Children who are behaving in a way that is not usual in the given situation. The carers will often volunteer this information. Such children are often referred to as fractious or ‘out of sorts’</td>
</tr>
</tbody>
</table>
Presentational flow charts

Unwell newborn (up to 28 days)

Airway compromise
Inadequate breathing
Shock
Unresponsive
Currently fitting
Hypoglycaemia

Very low SpO₂
New abnormal pulse
Responds to voice or pain only
Fails to react to parents
Signs of meningism
Purpura
Non-blanching rash
Hot baby
Cold
Signs of severe pain

Low SpO₂
Signs of dehydration
Not feeding
Not passing urine
Jaundice
Inappropriate history
Warm newborn
Signs of moderate pain

Recent mild pain
Recent problem

RISK LIMIT

RED
ORANGE
YELLOW
GREEN

BLUE

1 2 3 4 5
Notes accompanying unwell newborn (up to 28 days)

This is a presentation defined flow diagram designed to allow accurate prioritisation of newborns (up to 28 days) who present with non-specific illness. A number of general discriminators are used including Life threat, Conscious level, Pain and Temperature. A number of specific discriminators have been included to allow identification of more serious pathology such as meningococcaemia, etc. The risk limit sits between ORANGE and YELLOW and therefore no newborns can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment.

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypoglycaemia</td>
<td>Glucose less than 3 mmoM</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>Age-appropriate definitions of bradycardia and tachycardia should be used in children</td>
</tr>
<tr>
<td>Fails to react to parents</td>
<td>Failure to react in any way to a parent’s face or voice. Abnormal reactions and apparent lack of recognition of a parent are also worrying signs</td>
</tr>
<tr>
<td>Signs of meningism</td>
<td>Classically a stiff neck together with headache and photophobia</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>Signs of severe pain</td>
<td>Young children and babies in severe pain cannot complain. They will usually cry out continuously and in consolably and be tachycardic. They may well exhibit signs such as pallor and sweating</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Signs of dehydration</td>
<td>These include dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output</td>
</tr>
<tr>
<td>Not feeding</td>
<td>Children who will not take any solid or liquid (as appropriate) by mouth. Children who will take the food but always vomit afterwards may also fulfil this criterion</td>
</tr>
<tr>
<td>Not passing urine</td>
<td>Failure to produce and pass urine. This may be difficult to judge in children (and the elderly) and reference to the number of nappies or pads used may be useful</td>
</tr>
<tr>
<td>Jaundice</td>
<td>Neonatal jaundice</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Signs of moderate pain</td>
<td>Young children and babies in moderate pain cannot complain. They will usually cry intermittently and are often intermittently consolable</td>
</tr>
</tbody>
</table>
Presentational flow charts

Urinary problems

1. Airway compromise
   Inadequate breathing
   Exsanguinating haemorrhage
   Shock
   → RED

2. Priapism
   Known or likely immunosuppression
   Hot baby
   Very hot
   Severe pain
   → ORANGE

3. Frank haematuria
   Persistent vomiting
   Retention of urine
   Hot
   Colicky pain
   Moderate pain
   → YELLOW

4. Vomiting
   Dysuria
   Recent mild pain
   Recent problem
   → GREEN

5. BLUE
Notes accompanying urinary problems

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexually acquired infection</td>
<td>This is a presentation defined flow diagram. A lot of patients who present with urinary problems are in pain and some may have serious underlying pathology. A number of general discriminators are used including Life threat, Pain and Temperature. Specific discriminators have been included to ensure that patients suffering from urinary retention and those with infections are included in the appropriate categories</td>
</tr>
<tr>
<td>Testicular pain</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priapism</td>
<td>Sustained penile erection</td>
</tr>
<tr>
<td>Known or likely immunosuppression</td>
<td>Any patient who is known to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
</tr>
<tr>
<td>Frank haematuria</td>
<td>Red discolouration of the urine caused by blood</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes</td>
</tr>
<tr>
<td>Retention of urine</td>
<td>Inability to pass urine per urethra associated with an enlarged bladder. This condition is usually very painful unless there is altered sensation</td>
</tr>
<tr>
<td>Colicky pain</td>
<td>Pain that comes and goes in waves. Renal colic tends to come and go over 20 minutes or so</td>
</tr>
<tr>
<td>Dysuria</td>
<td>Pain or difficulty in passing urine. Pain is typically described as stinging or hot</td>
</tr>
</tbody>
</table>
Presentational flow charts

**Worried parent**

- Airway compromise
- Inadequate breathing
- Shock
- Unresponsive

**RED**

- Very low SpO₂
- Flappy
- Responds to voice or pain only
- Fails to react to parents
- Purpura
- Non-blanching rash
- History of overdose or poisoning
- Known or likely immunosuppression
- Hot baby
- Very hot
- Severe pain

**ORANGE**

- Low SpO₂
- Signs of dehydration
- Not feeding
- Not passing urine
- Inconsolable by parents
- Prolonged or interrupted crying
- Inappropriate history
- Hot
- Moderate pain

**YELLOW**

- Atypical behaviour
- Warm
- Recent mild pain
- Recent problem

**GREEN**

**BLUE**
Notes accompanying worried parent

See also

| Crying baby       | This is a presentation defined flow diagram that has been designed to allow accurate prioritisation of children who are brought to the attention of the service because of parental worry. Parents know their children better than anyone else and although many of these children will not have serious pathology it is essential that these presentations are taken seriously. A number of general discriminators are used including Life threat, Conscious level, Pain and Temperature. Specific discriminators have been added to the chart to allow identification of more serious pathologies which are apparent or may potentially exist. The risk limit sits between ORANGE and YELLOW and therefore no children can be categorised as YELLOW, GREEN or BLUE until all the specific and general discriminators outlined under the RED and ORANGE categories have been specifically excluded. This may take longer than the time available for initial assessment |
| Irritable child   | |
| Unwell baby       | |
| Unwell child      | |
| Unwell newborn    | |

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air</td>
</tr>
<tr>
<td>Floppy</td>
<td>Parents may describe their children as floppy. Tone is generally reduced – the most noticeable sign is often lolling of the head</td>
</tr>
<tr>
<td>Fails to react to parents</td>
<td>Failure to react in any way to a parent’s face or voice. Abnormal reactions and apparent lack of recognition of a parent are also worrying signs</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler</td>
</tr>
<tr>
<td>History of overdose or poisoning</td>
<td>This information may come from others or may be deduced if medication is missing</td>
</tr>
<tr>
<td>Known or likely immunosuppression</td>
<td>Any patient who is known to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Signs of dehydration</td>
<td>These include dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output</td>
</tr>
<tr>
<td>Not feeding</td>
<td>Children who will not take any solid or liquid (as appropriate) by mouth. Children who will take the food but always vomit afterwards may also fulfil this criterion</td>
</tr>
<tr>
<td>Not passing urine</td>
<td>Failure to produce and pass urine. This may be difficult to judge in children (and the elderly) and reference to the number of nappies or pads used may be useful</td>
</tr>
<tr>
<td>Inconsolable by parents</td>
<td>Children whose crying or distress does not respond to attempts by their parents to comfort them fulfil this criterion</td>
</tr>
<tr>
<td>Prolonged or interrupted crying</td>
<td>A child who has cried continuously for 2 hours or more fulfils this criterion</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Atypical behaviour</td>
<td>Children who are behaving in a way that is not usual in the given situation. The carers will often volunteer this information. Such children are often referred to as fractious or ‘out of sorts’</td>
</tr>
</tbody>
</table>
Presentational flow charts

Wounds

1. Airway compromise
   - Inadequate breathing
   - Exsanguinating haemorrhage
   - Shock
   - Red

2. Uncontrollable major haemorrhage
   - New neurological deficit less than 24 hrs old
   - Distal vascular compromise
   - Hot baby
   - Very hot
   - Severe pain
   - Orange

3. Uncontrollable minor haemorrhage
   - New neurological deficit more than 24 hrs old
   - Vaginal trauma
   - Inappropriate history
   - Hot
   - Moderate pain
   - Yellow

4. Local infection
   - Local inflammation
   - Recent mild pain
   - Recent problem
   - Green

5. Blue
### Presentational flow charts

**Notes accompanying wounds**

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assault</td>
<td>This is a presentation defined flow diagram. Many patients attend all forms of emergency care suffering from wounds of varying nature. These vary from severe life-threatening lacerations to minor abrasions. This chart is designed to allow an accurate prioritisation of these patients. A number of general discriminators have been used including Life Threat, Haemorrhage and Pain. Specific discriminators have been included to allow identification of patients with signs and symptoms suggesting injuries that pose a threat to function</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distal vascular compromise</td>
<td>There will be a combination of pallor, coldness, altered sensation and pain with or without absent pulses distal to the injury</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hrs old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function</td>
</tr>
<tr>
<td>Vaginal trauma</td>
<td>Any history or other evidence of direct trauma to the vagina fulfils this criterion</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Local infection</td>
<td>Local infection usually manifests as inflammation (pain, swelling and redness) confined to a particular site or area, with or without a collection of pus</td>
</tr>
<tr>
<td>Local inflammation</td>
<td>Local inflammation will involve pain, swelling and redness confined to a particular site or area</td>
</tr>
</tbody>
</table>
170 Presentational flow charts

**Major incident – primary**

- **Walking?**
  - Yes: GREEN
  - No:
    - **DEAD**
    - Not at all:
    - Spontaneously:
      - **Breathing?**
        - Yes: RED
        - No:
          - **Respiratory rate abnormal**
            - Yes:
            - **Capillary refill time abnormal**
              - Yes: YELLOW
              - No: RED
            - No: RED
          - No: YELLOW
### Presentational flow charts

Notes accompanying major incident – primary

<table>
<thead>
<tr>
<th>See also</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major incidents – secondary</td>
<td>Triage during a major incident has a completely different aim from that during the day-to-day running of emergency services. To achieve this aim (which is to initially save as many lives as possible and then to deliver the best care possible within the existing resources) a different approach has been taken. Rather than select the most seriously ill first, in this instance the least ill are selected. Rather than using general and specific discriminators, very broad brush discriminators are used that allow rough division of patients into three categories. This chart describes the first 'sorting' triage method for use in major incidents. It is designed to allow rapid imposition of order when a large number of untriaged casualties arrive at once. It does not pick out the most severe first, rather selecting the most numerous (walking) and then subcategorising the stretcher patients as dead, red or yellow. Inevitably this quick method is not totally accurate, and other methods should be used once time allows. No longer than 15 seconds should be spent on each patient</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific discriminators</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>The ability to walk (whatever the injury) is used as a discriminator to select patients of the standard category</td>
</tr>
<tr>
<td>Breathing after airway opened</td>
<td>Patients who cannot breathe after their airway is opened are considered dead unless considerable life support resources exist</td>
</tr>
<tr>
<td>Respiratory rate abnormal</td>
<td>Casualties whose respiratory rate is abnormal either by being too high (over 29 breaths/min) or too low (less than 10 breaths/min) are categorised as RED</td>
</tr>
<tr>
<td>Capillary refill time abnormal</td>
<td>Casualties whose capillary refill is prolonged (more than 2 seconds) are categorised as RED</td>
</tr>
<tr>
<td>Pulse abnormal</td>
<td>If the capillary refill time cannot be measured then casualties whose pulse is raised over 120/min are categorised as RED All other patients are placed in the YELLOW category</td>
</tr>
</tbody>
</table>
Presentational flow charts

172

Major incident – secondary

- TRTS 10 or less → RED
- TRTS 11 → YELLOW
- TRTS 12 → GREEN
Notes accompanying major incident – secondary

See also

<table>
<thead>
<tr>
<th>Major incidents – primary</th>
<th>Chart notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The primary major incident triage methodology is used to rapidly screen a large number of patients into broad brush categories. The Triage Revised Trauma Score (TRTS) is a slightly more refined physiological approach to the triage of a large number of casualties. It is based on the coded values of three physiological parameters. Priorities are allocated from the TRTS as follows:</td>
<td></td>
</tr>
<tr>
<td>1–10: Priority 1 (RED)</td>
<td></td>
</tr>
<tr>
<td>11: Priority 2 (YELLOW)</td>
<td></td>
</tr>
<tr>
<td>12: Priority 3 (GREEN)</td>
<td></td>
</tr>
<tr>
<td>0: Priority 4</td>
<td></td>
</tr>
</tbody>
</table>

Specific discriminators

<table>
<thead>
<tr>
<th>TRTS</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory rate (breaths/min)</td>
<td>Triage Revised Trauma Score</td>
</tr>
<tr>
<td>10–29</td>
<td>4</td>
</tr>
<tr>
<td>&gt;29</td>
<td>3</td>
</tr>
<tr>
<td>6–9</td>
<td>2</td>
</tr>
<tr>
<td>1–5</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Systolic blood pressure (mmHg)</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>4</td>
</tr>
<tr>
<td>76–89</td>
<td>3</td>
</tr>
<tr>
<td>50–75</td>
<td>2</td>
</tr>
<tr>
<td>1–49</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Glasgow Coma Scale score</td>
<td></td>
</tr>
<tr>
<td>13–15</td>
<td>4</td>
</tr>
<tr>
<td>9–12</td>
<td>3</td>
</tr>
<tr>
<td>6–8</td>
<td>2</td>
</tr>
<tr>
<td>4–5</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
Discriminator dictionary

Abdominal pain Any pain felt in the abdomen. Abdominal pain associated with back pain may indicate abdominal aortic aneurysm, while association with PV bleeding may indicate ectopic pregnancy or miscarriage

Abrupt onset Onset within seconds or minutes. May cause waking in sleep

Acute chemical eye injury Any substance splashed into or placed into the eye within the past 12 hours that caused stinging, burning or reduced vision should be assumed to have caused chemical injury

Acute complete loss of vision Loss of vision in one or both eyes within the preceding 24 hours that has not returned to normal

Acute onset after injury Onset of symptoms immediately within 24 hours of a physically traumatic event

Acutely avulsed tooth A tooth that has been avulsed intact within the previous 24 hours

Acutely short of breath Shortness of breath that comes on suddenly, or a sudden exacerbation of chronic shortness of breath

Age less than 25 years Less than 25 years old

Airway compromise An airway may be compromised either because it cannot be kept open or because the airway protective reflexes (that stop inhalation) have been lost. Failure to keep the airway open will result either in intermittent total obstruction or in partial obstruction. This will manifest itself as snoring or bubbling sounds during breathing

Altered blood Darker than fresh blood and often smelling more like melaena

Altered conscious level Not fully alert. Either responding to voice or pain only or unresponsive

Altered conscious level not wholly attributable to alcohol A patient who is not fully alert, with a history of alcohol ingestion, and in whom there may be other causes of reduced conscious level

Altered conscious level wholly attributable to alcohol A patient who is not fully alert, with a clear history of alcohol ingestion and in whom there is no doubt that all other causes of reduced conscious level have been excluded

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### Discriminator dictionary

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altered facial sensation</td>
<td>Any alteration of sensation on the face.</td>
</tr>
<tr>
<td>Atypical behaviour</td>
<td>Children who are behaving in a way that is not usual in the given situation. The carers will often volunteer this information. Such children are often referred to as fractious or 'out of sorts'.</td>
</tr>
<tr>
<td>Auricular haematoma</td>
<td>A tense haematoma (usually post traumatic) in the outer ear.</td>
</tr>
<tr>
<td>Black or redcurrant stool</td>
<td>Any blackness fulfils the criteria of black stool while a dark red stool, classically seen in intussusceptions, is redcurrant stool.</td>
</tr>
<tr>
<td>Bleeding disorder</td>
<td>Congenital or acquired bleeding disorder.</td>
</tr>
<tr>
<td>Breathing after airway opened</td>
<td>In major incidents the presence of breathing after simple airway opening manoeuvres allows the respiratory rate to be counted. Absence of breathing when the airway is open indicates death.</td>
</tr>
<tr>
<td>Capillary refill time</td>
<td>The capillary refill time is the time taken for the nail bed capillaries to refill after pressure has been applied for 5 seconds. The normal time is less than 2 seconds. This sign is less useful if the patient is cold.</td>
</tr>
<tr>
<td>Capillary refill time abnormal</td>
<td>Major incident casualties whose capillary refill is prolonged (more than 2 seconds) are categorised as RED.</td>
</tr>
<tr>
<td>Cardiac pain</td>
<td>Classically a severe, dull, 'gripping' or 'heavy' pain in the centre of the chest, radiating to the left arm or to the neck. May be associated with sweating and nausea.</td>
</tr>
<tr>
<td>Chest injury</td>
<td>Any injury to the area below the clavicles and above the level of the lowest rib. Injury to the lower part of the chest can cause underlying damage to abdominal organs.</td>
</tr>
<tr>
<td>Cold</td>
<td>If the skin feels cold the patient is clinically said to be cold. The temperature should be taken as soon as possible – a core temperature less than 35°C is cold.</td>
</tr>
<tr>
<td>Colicky pain</td>
<td>Pain that comes and goes in waves. Renal colic tends to come and go over 20 minutes or so.</td>
</tr>
<tr>
<td>Critical skin</td>
<td>A fracture or dislocation may leave fragments or ends of bone pressing so hard against the skin that the viability of the skin is threatened. The skin will be white and under tension.</td>
</tr>
<tr>
<td>Current palpitation</td>
<td>A feeling of the heart racing (often described as a fluttering) that is still present.</td>
</tr>
<tr>
<td>Currently fitting</td>
<td>Patients who are in the tonic or clonic stages of a grand mal convulsion, and patients currently experiencing partial fits.</td>
</tr>
<tr>
<td>Deformity</td>
<td>This will always be subjective. Abnormal angulation or rotation is implied.</td>
</tr>
<tr>
<td>Diplopia</td>
<td>Double vision that resolves when one eye is closed.</td>
</tr>
<tr>
<td>Direct trauma to the back</td>
<td>This may be top to bottom (loading), for instance when people fall and land on their feet, bending (forwards, backwards or to the side) or twisting.</td>
</tr>
<tr>
<td>Direct trauma to the neck</td>
<td>This may be top to bottom (loading), for instance when something falls on the head, bending (forwards, backwards or to the side), twisting or distracting such as in hanging.</td>
</tr>
</tbody>
</table>
### Discriminator dictionary

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discharge</strong></td>
<td>In the context of sexually acquired infection this is any discharge from the penis or abnormal discharge from the vagina</td>
</tr>
<tr>
<td><strong>Disruptive</strong></td>
<td>Disruptive behaviour is behaviour that affects the smooth running of the department. It may be threatening</td>
</tr>
<tr>
<td><strong>Distal vascular compromise</strong></td>
<td>There will be a combination of pallor, coldness, altered sensation and pain with or without absent pulses distal to the injury</td>
</tr>
<tr>
<td><strong>Drooling</strong></td>
<td>Saliva running from the mouth as a result of being unable to swallow</td>
</tr>
<tr>
<td><strong>Dysuria</strong></td>
<td>Pain or difficulty in passing urine. Pain is typically described as stinging or hot</td>
</tr>
<tr>
<td><strong>Electrical injury</strong></td>
<td>Any injury caused or possibly caused by an electric current. This includes AC and DC and both artificial and natural sources</td>
</tr>
<tr>
<td><strong>Exhaustion</strong></td>
<td>Exhausted patients appear to reduce the effort they make to breathe despite continuing respiratory insufficiency. This is pre-terminal</td>
</tr>
<tr>
<td><strong>Exsanguinating haemorrhage</strong></td>
<td>Haemorrhage which is occurring at such a rate that death will ensue unless bleeding is stopped</td>
</tr>
<tr>
<td><strong>Externalisation of organs</strong></td>
<td>Herniation or frank extrusion of internal organs</td>
</tr>
<tr>
<td><strong>Facial oedema</strong></td>
<td>Diffuse swelling around the face, usually involving the lips</td>
</tr>
<tr>
<td><strong>Facial swelling</strong></td>
<td>Swelling around the face which may be localised or diffuse</td>
</tr>
<tr>
<td><strong>Fails to react to parents</strong></td>
<td>Failure to react in any way to a parent’s face or voice. Abnormal reactions and apparent lack of recognition of a parent are also worrying signs</td>
</tr>
<tr>
<td><strong>Floppy</strong></td>
<td>Parents may describe their children as floppy. Tone is generally reduced – the most noticeable sign is often lolling of the head</td>
</tr>
<tr>
<td><strong>Foreign body sensation</strong></td>
<td>A sensation of something in the eye, often expressed as scraping or grittiness</td>
</tr>
<tr>
<td><strong>Frank haematuria</strong></td>
<td>Red discolouration of the urine caused by blood</td>
</tr>
<tr>
<td><strong>Fresh blood</strong></td>
<td>Unaltered blood – readily identified by both the patient and their carers</td>
</tr>
<tr>
<td><strong>Gross deformity</strong></td>
<td>This will always be subjective. Gross and abnormal angulation or rotation is implied</td>
</tr>
<tr>
<td><strong>Head injury</strong></td>
<td>Any traumatic event involving the head</td>
</tr>
<tr>
<td><strong>Headache</strong></td>
<td>Any pain around the head that is not related to a particular anatomical structure. Facial pain is not included</td>
</tr>
<tr>
<td><strong>Heavy PV blood loss</strong></td>
<td>PV loss is extremely difficult to assess. The presence of large clots or constant flow fulfils this criterion. The use of a large number of sanitary towels is suggestive of heavy loss</td>
</tr>
<tr>
<td><strong>High blood pressure</strong></td>
<td>A history of raised blood pressure or a raised blood pressure on examination</td>
</tr>
<tr>
<td><strong>High lethality</strong></td>
<td>Lethality is the potential of the substance taken to cause harm. Advice from a poisons centre may be required to establish the level of risk of serious illness or death. If in doubt, assume a high risk</td>
</tr>
</tbody>
</table>
Discriminator dictionary

High lethality chemical  Lethality is the potential of the chemical to cause harm. Advice may be required to establish the level of risk. If in doubt, assume a high risk.

High lethality envenomation  Lethality is the potential of the envenomation to cause harm. Local knowledge may allow identification of the venomous creature, but advice may be required. If in doubt, assume a high risk.

High risk of (further) harm to others  The presence of a potential risk of harm to others can be judged by looking at posture (tense, clenched), speech patterns (loud, using threatening words) and motor behaviour (restless, pacing). High risk should be assumed if weapons and potential victims are available, or if self-control is lost.

High risk of (further) self-harm  An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients who have a significant history of self-harm, who are actively trying to harm themselves or who are actively trying to leave with the intent of harming themselves are at high risk.

History of acutely vomiting blood  Frank haematemesis, vomiting of altered blood (coffee ground) or of blood mixed in the vomit within the past 24 hours.

History of fitting  Any observed or reported fits that have occurred during the period of illness or following an episode of trauma.

History of head injury  A history of a recent physically traumatic event involving the head. Usually this will be reported by the patient but if the patient has been unconscious this history should be sought from a reliable witness.

History of overdose or poisoning  This information may come from others or may be deduced if medication is missing.

History of recent foreign travel  Recent significant foreign travel (within 2 weeks).

History of trauma  A history of a recent physically traumatic event.

History of unconsciousness  There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious.

Hot  If the skin feels hot the person is clinically said to be hot. The temperature should be taken as soon as possible – a temperature of 38.5°C and greater is hot.

Hot baby  If the skin is hot, the child is clinically said to be hot. The temperature should be taken as soon as possible – a temperature of 38.5°C and greater is hot. A baby is a child less than 1 year old.

Hot joint  Any warmth around a joint. Often accompanied by redness.

Hyperglycaemia  Glucose greater than 17 mmol/l.

Hyperglycaemia with ketosis  Glucose greater than 11 mmol/l with urinary ketones or signs of acidosis (deep sighing respiration, etc.).

Hypoglycaemia  Glucose less than 3 mmol/l.
### Discriminator dictionary

<table>
<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
<tbody>
<tr>
<td>In active labour</td>
<td>A woman who is having regular and frequent painful contractions</td>
</tr>
<tr>
<td>Inability to bear weight</td>
<td>Inability to carry the full weight of the body through one or both lower limbs. This may be because of pain or loss of function</td>
</tr>
<tr>
<td>Inadequate breathing</td>
<td>Patients who are failing to breathe well enough to maintain adequate oxygenation have inadequate breathing. There may be an increased work of breathing, signs of inadequate breathing or exhaustion</td>
</tr>
<tr>
<td>Inadequate history</td>
<td>If there is no clear and unequivocal history of acute alcohol ingestion, and if head injury, drug ingestion, underlying medical condition, etc. cannot be definitely excluded, then the history is inadequate</td>
</tr>
<tr>
<td>Inappropriate history</td>
<td>When the history (story) given does not explain the physical findings it is termed inappropriate. This is important as it is a marker of safeguarding concerns in both adults and children</td>
</tr>
<tr>
<td>Inconsolable by parents</td>
<td>Children whose crying or distress does not respond to attempts by their parents to comfort them</td>
</tr>
<tr>
<td>Increased work of breathing</td>
<td>Increased work of breathing is shown as increased respiratory rate, use of accessory muscles and grunting</td>
</tr>
<tr>
<td>Inhalational injury</td>
<td>A history of being confined in a smoke-filled space is the most reliable indicator of smoke inhalation. Carbon deposits around the mouth and nose and hoarse voice may be present. History is also the most reliable way of diagnosing inhalation of chemicals – there will not necessarily be any signs</td>
</tr>
<tr>
<td>Jaundice</td>
<td>Neonatal jaundice</td>
</tr>
<tr>
<td>Known or likely immunosuppression</td>
<td>Any patient who is known or likely to be immunosuppressed including those on immunosuppressive drugs (including long-term steroids)</td>
</tr>
<tr>
<td>Lethality</td>
<td>The potential of the substance taken to cause illness or death. Advice from a poisons centre may be required to establish this. If in doubt, assume a high risk</td>
</tr>
<tr>
<td>Local infection</td>
<td>Local infection usually manifests as inflammation (pain, swelling and redness) confined to a particular site or area, with or without a collection of pus</td>
</tr>
<tr>
<td>Local inflammation</td>
<td>Local inflammation will involve pain, swelling and redness confined to a particular site or area</td>
</tr>
<tr>
<td>Low PEFR</td>
<td>The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their ‘best’ PEFR and this may be used. If the ratio of measured to predicted is less than 50% then this criterion is fulfilled</td>
</tr>
<tr>
<td>Low SpO₂</td>
<td>This is a saturation of less than 95% on air</td>
</tr>
<tr>
<td>Marked distress</td>
<td>Patients who are markedly physically or emotionally upset</td>
</tr>
<tr>
<td>Moderate itch</td>
<td>An itch that is bearable but intense</td>
</tr>
<tr>
<td>Moderate lethality</td>
<td>Lethality is the potential of the substance taken to cause serious illness or death. Advice from a poisons centre may be required to establish the level of risk to the patient</td>
</tr>
</tbody>
</table>
## Discriminator dictionary

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<tr>
<td>Moderate lethality chemical</td>
<td>Lethality is the potential of the chemical to cause harm. Advice may be required to establish the level of risk. If in doubt, assume a high risk.</td>
</tr>
<tr>
<td>Moderate lethality envenomation</td>
<td>Lethality is the potential of the envenomation to cause harm. Local knowledge may allow identification of the venomous creature, but advice may be required.</td>
</tr>
<tr>
<td>Moderate pain</td>
<td>Pain that is bearable but intense (see chapter 4).</td>
</tr>
<tr>
<td>Moderate risk of (further) harm to others</td>
<td>The presence of a potential risk of harm to others can be judged by looking at posture (tense, clenched), speech patterns (loud, using threatening words) and motor behaviour (restless, pacing). Moderate risk should be assumed if there is any indication of potential harm to others.</td>
</tr>
<tr>
<td>Moderate risk of (further) self-harm</td>
<td>An initial view of the risk of self-harm can be formed by considering the patient's behaviour. Patients without a significant history of self-harm, who are not actively trying to harm themselves, who are not actively trying to leave with the intent of harming themselves, but who profess the desire to harm themselves are at moderate risk.</td>
</tr>
<tr>
<td>New abnormal pulse</td>
<td>A bradycardia (less than 60/min in adults), a tachycardia (more than 100/min in adults) or an irregular rhythm. Age-appropriate definitions of bradycardia and tachycardia should be used in children.</td>
</tr>
<tr>
<td>New neurological deficit less than 24 hours old</td>
<td>Any loss of neurological function that has come on within the previous 24 hours. This might include altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>New neurological deficit more than 24 hours old</td>
<td>Any loss of neurological function including altered or lost sensation, weakness of the limbs (either transiently or permanently) and alterations in bladder or bowel function.</td>
</tr>
<tr>
<td>No improvement with own asthma medications</td>
<td>This history should be available from the patient. A failure to improve with bronchodilator therapy given by the GP or paramedic is equally significant.</td>
</tr>
<tr>
<td>Non-blanching rash</td>
<td>A rash that does not blanch (go white) when pressure is applied to it. Often tested using a glass tumbler to apply pressure as any colour change can be observed through the bottom of the tumbler.</td>
</tr>
<tr>
<td>Not distractible</td>
<td>Children who are distressed by pain or other things who cannot be distracted by conversation or play.</td>
</tr>
<tr>
<td>Not feeding</td>
<td>Children who will not take any solid or liquid (as appropriate) by mouth. Children who will take the food but always vomit afterwards may also fulfil this criterion.</td>
</tr>
<tr>
<td>Not passing urine</td>
<td>Failure to produce and pass urine. This may be difficult to judge in children (and the elderly) and reference to the number of nappies or pads used may be useful.</td>
</tr>
<tr>
<td>Oedema of the tongue</td>
<td>Swelling of the tongue of any degree.</td>
</tr>
</tbody>
</table>
### Discriminator dictionary

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<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Open fracture</td>
<td>All wounds in the vicinity of a fracture should be regarded with suspicion. If there is any possibility of communication between the wound and the fracture then the fracture should be assumed to be open.</td>
</tr>
<tr>
<td>Pain on joint movement</td>
<td>This can be pain on either active (patient) movement or passive (examiner) movement.</td>
</tr>
<tr>
<td>Pain radiating to the back</td>
<td>Pain that is also felt in the back either intermittently or constantly.</td>
</tr>
<tr>
<td>Passing fresh or altered blood PR</td>
<td>In active massive GI bleeding, dark red blood will be passed PR. As GI transit time increases this becomes darker, eventually becoming melaena.</td>
</tr>
<tr>
<td>Penetrating eye injury</td>
<td>A recent physically traumatic event involving penetration of the globe.</td>
</tr>
<tr>
<td>Penetrating trauma</td>
<td>A recent physically traumatic event that involves discrete penetration of anybody area by a knife, bullet or other object.</td>
</tr>
<tr>
<td>Persistent vomiting</td>
<td>Vomiting that is continuous or that occurs without any respite between episodes.</td>
</tr>
<tr>
<td>Pleuritic pain</td>
<td>A sharp, localised pain in the chest that worsens on breathing, coughing or sneezing.</td>
</tr>
<tr>
<td>Possibly pregnant</td>
<td>Any woman whose normal menstruation has failed to occur is possibly pregnant. Furthermore any woman of childbearing age who is having unprotected sex should be considered to be potentially pregnant.</td>
</tr>
<tr>
<td>Presenting foetal parts</td>
<td>Crowning or presentation of any other foetal part in the vagina.</td>
</tr>
<tr>
<td>Priapism</td>
<td>Sustained penile erection.</td>
</tr>
<tr>
<td>Productive cough</td>
<td>A cough that is productive of phlegm, whatever the colour.</td>
</tr>
<tr>
<td>Prolapsed umbilical cord</td>
<td>Prolapse of any part of the umbilical cord through the cervix.</td>
</tr>
<tr>
<td>Prolonged or uninterrupted crying</td>
<td>A child who has cried continuously for 2 hours or more.</td>
</tr>
<tr>
<td>Pulse abnormal</td>
<td>If the capillary refill time cannot be measured in adults then major incident casualties whose pulse is raised over 120 beats/min are categorised RED. Age-appropriate procedures should be used in children.</td>
</tr>
<tr>
<td>Purpura</td>
<td>A rash on any part of the body that is caused by small haemorrhages under the skin. A purpuric rash does not blanch (go white) when pressure is applied to it.</td>
</tr>
<tr>
<td>PV blood loss</td>
<td>Any loss of blood PV.</td>
</tr>
<tr>
<td>PV blood loss and 20 weeks pregnant or more</td>
<td>Any loss of blood PV in a woman known to be beyond the 20th week of pregnancy.</td>
</tr>
<tr>
<td>Rapid onset</td>
<td>Onset within the preceding 12 hours.</td>
</tr>
<tr>
<td>Recent hearing loss</td>
<td>Loss of hearing in one or both ears within the previous week.</td>
</tr>
<tr>
<td>Recent injury</td>
<td>An injury occurring within the last week.</td>
</tr>
<tr>
<td>Recent mild itch</td>
<td>Any itch that has occurred in the past 7 days.</td>
</tr>
<tr>
<td>Recent mild pain</td>
<td>Any pain that has occurred within the past 7 days.</td>
</tr>
<tr>
<td>Recent problem</td>
<td>A problem arising in the last week.</td>
</tr>
<tr>
<td>Recent reduced visual acuity</td>
<td>Any reduction in corrected visual acuity within the past 7 days.</td>
</tr>
</tbody>
</table>
**Discriminator dictionary**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recent signs of mild pain</strong></td>
<td>Young children and babies in pain cannot complain. They will usually cry occasionally and may act atypically</td>
</tr>
<tr>
<td><strong>Red eye</strong></td>
<td>Any redness to the eye. A red eye may be painful or painless and may be complete or partial</td>
</tr>
<tr>
<td><strong>Respiratory rate</strong></td>
<td>Major incident casualties whose respiratory rate is abnormal either by being too high (over 29) or too low (less than 10) are categorised as RED</td>
</tr>
<tr>
<td><strong>Responds to pain</strong></td>
<td>Response to a painful stimulus. Standard peripheral stimuli should be used – a pencil or pen is used to apply pressure to the finger nail bed. This stimulus should not be applied to the toes since a spinal reflex may cause flexion even in brain death. Supraorbital ridge pressure should not be used since reflex grimacing may occur</td>
</tr>
<tr>
<td><strong>Responds to voice</strong></td>
<td>Response to a vocal stimulus. It is not necessary to shout the patient's name. Children may fail to respond because they are afraid</td>
</tr>
<tr>
<td><strong>Retention of urine</strong></td>
<td>Inability to pass urine per urethra associated with an enlarged bladder. This condition is usually very painful unless there is altered sensation</td>
</tr>
<tr>
<td><strong>Risk of continued contamination</strong></td>
<td>If chemical exposure is likely to continue (usually due to lack of adequate decontamination) then this discriminator applies. Risks to health care workers must not be forgotten if this situation occurs</td>
</tr>
<tr>
<td><strong>Risk of harm to others</strong></td>
<td>The potential of the patient to actively attempt to harm others. This may be assessed by considering the state of mind, body posture and behaviour. If in doubt, assume a high risk</td>
</tr>
<tr>
<td><strong>Risk of self-harm</strong></td>
<td>The potential of the patient to actively attempt further self-harm. If in doubt, assume a high risk</td>
</tr>
<tr>
<td><strong>Scalp haematoma</strong></td>
<td>A raised bruised area to the scalp (bruises below the hair line at the front are to the forehead)</td>
</tr>
<tr>
<td><strong>Scrotal cellulitis</strong></td>
<td>Redness and swelling around the scrotum</td>
</tr>
<tr>
<td><strong>Scrotal gangrene</strong></td>
<td>Dead, blackened skin around the scrotum and groin. Early gangrene may not be black but may appear like a full-thickness burn with or without flaking</td>
</tr>
<tr>
<td><strong>Scrotal trauma</strong></td>
<td>Any recent physically traumatic event involving the scrotum</td>
</tr>
<tr>
<td><strong>Severe itch</strong></td>
<td>An itch that is unbearable</td>
</tr>
<tr>
<td><strong>Severe pain</strong></td>
<td>Pain that is unbearable – often described as the worst ever (see chapter 4)</td>
</tr>
<tr>
<td><strong>Shock</strong></td>
<td>Shock is inadequate delivery of oxygen to the tissues. The classic signs include sweating, pallor, tachycardia, hypotension and reduced conscious level</td>
</tr>
<tr>
<td><strong>Shoulder tip pain</strong></td>
<td>Pain felt in the tip of the shoulder. This often indicates diaphragmatic irritation</td>
</tr>
<tr>
<td><strong>Significant cardiac history</strong></td>
<td>A known recurrent dysrhythmia that has life-threatening effects is significant, as is a known cardiac condition which may deteriorate rapidly</td>
</tr>
</tbody>
</table>
**Discriminator dictionary**

**Significant haematological history**
A patient with a haematological disorder that is known to deteriorate rapidly

**Significant history of allergy**
A known sensitivity with severe reaction (e.g. to nuts or bee sting) is significant

**Significant history of GI bleed**
Any history of massive GI bleeding or of any GI bleed associated with oesophageal varices

**Significant mechanism of injury**
Penetrating injuries (stab or gunshot) and injuries with high energy transfer

**Significant psychiatric history**
A history of a major psychiatric illness or event

**Significant respiratory history**
A history of previous life-threatening episodes of a respiratory condition (e.g. COPD) is significant, as is brittle asthma

**Signs of dehydration**
These include dry tongue, sunken eyes, increased skin turgor and, in small babies, a sunken anterior fontanelle. Usually associated with a low urine output

**Signs of meningism**
Classically a stiff neck together with headache and photophobia

**Signs of moderate pain**
Young children and babies in moderate pain cannot complain. They will usually cry intermittently and are often intermittently consolable

**Signs of severe pain**
Young children and babies in severe pain cannot complain. They will usually cry out continuously and inconsolably and be tachycardic. They may well exhibit signs such as pallor and sweating

**Smoke exposure**
Smoke inhalation should be assumed if the patient has been confined in a smoke-filled space. Physical signs such as oral or nasal soot are less reliable but significant if present

**Special risk of infection**
Known exposure to a dangerous pathogen, or travel to an area with an identified, current, serious infectious risk

**Stridor**
This may be an inspiratory or expiratory noise, or both. Stridor is heard best on breathing with the mouth open

**Subcutaneous gas**
Gas under the skin can be detected by feeling for a ‘crackling’ on touch. There may be gas bubbles and a line of demarcation

**Swelling**
An abnormal increase in size

**Temporal scalp tenderness**
Tenderness on palpation over the temporal area (especially over the artery)

**Testicular pain**
Pain in the testicles

**TRTS**
Triage revised trauma score: this is calculated using the coded respiratory rate (0–4), the systolic blood pressure (0–4) and the Glasgow Coma Scale score (0–4) to give a score from 0 to 12. This scoring system is shown on most triage labels

**Unable to feed**
This is usually reported by the parents. Children who will not take any solid or liquid (as appropriate) by mouth

**Unable to talk in sentences**
Patients who are so breathless that they cannot complete relatively short sentences in one breath
### Discriminator dictionary

<table>
<thead>
<tr>
<th>Condition</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to walk</td>
<td>It is important to try and distinguish between patients who have pain and difficulty walking and those who cannot walk. Only the latter can be said to be unable to walk.</td>
</tr>
<tr>
<td>Uncontrollable major haemorrhage</td>
<td>A haemorrhage that is not rapidly controlled by the application of sustained direct pressure and in which blood continues to flow heavily or soak through large dressings quickly.</td>
</tr>
<tr>
<td>Uncontrollable minor haemorrhage</td>
<td>A haemorrhage that is not rapidly controlled by the application of sustained direct pressure and in which blood continues to flow slightly or ooze.</td>
</tr>
<tr>
<td>Unresponsive</td>
<td>Patients who fail to respond to either verbal or painful stimuli.</td>
</tr>
<tr>
<td>Unresponsive child</td>
<td>A child who fails to respond to either verbal or painful stimuli.</td>
</tr>
<tr>
<td>Vaginal trauma</td>
<td>Any history or other evidence of direct trauma to the vagina.</td>
</tr>
<tr>
<td>Vascular compromise</td>
<td>There will be a combination of pallor, coldness, altered sensation and pain with or without absent pulses distal to the injury.</td>
</tr>
<tr>
<td>Vertigo</td>
<td>An acute feeling of spinning or dizziness, possibly accompanied by nausea and vomiting.</td>
</tr>
<tr>
<td>Very hot</td>
<td>If the skin feels very hot the patient is clinically said to be very hot. The temperature should be taken as soon as possible – a temperature of 41°C or greater is very hot.</td>
</tr>
<tr>
<td>Very low PEFR</td>
<td>The PEFR predicted after consideration of the age and sex of the patient. Some patients may know their 'best' PEFR and this may be used. If the ratio of measured to predicted is less than 33% then this criterion is fulfilled.</td>
</tr>
<tr>
<td>Very low SpO₂</td>
<td>This is a saturation of less than 95% on O₂ therapy or less than 92% on air.</td>
</tr>
<tr>
<td>Visible abdominal mass</td>
<td>A mass in the abdomen that is visible to the naked eye.</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Any emesis.</td>
</tr>
<tr>
<td>Vomiting blood</td>
<td>Vomited blood may be fresh (bright or dark red) or coffee ground in appearance.</td>
</tr>
<tr>
<td>Walking</td>
<td>In a major incident any patient who can walk fulfils this criterion.</td>
</tr>
<tr>
<td>Warm newborn</td>
<td>If the skin feels warm the patient is clinically said to be warm. The temperature should be taken as soon as possible – a child of 28 days or under with a temperature of 37.5–38.4°C is warm.</td>
</tr>
<tr>
<td>Warmth</td>
<td>If the skin feels warm the patient is clinically said to be warm. The temperature should be taken as soon as possible – a temperature greater than 37.5°C is warm.</td>
</tr>
<tr>
<td>Wheeze</td>
<td>This can be audible wheeze or a feeling of wheeze. Very severe airway obstruction is silent (no air can move).</td>
</tr>
<tr>
<td>Widespread discharge or blistering</td>
<td>Any discharging or blistering eruption covering more than 10% of the body surface area.</td>
</tr>
<tr>
<td>Widespread rash or blistering</td>
<td>Any rash or blistering eruption covering more than 10% of the body surface area.</td>
</tr>
</tbody>
</table>
Index

Page references for the presentational flow charts and chart notes are given in bold type, e.g. chest pain 90–1.

abdominal pain, 26, 64–7, 81, 115, 153, 174
abdominal pain in children, 66–7, 115
abnormal pulse, 79, 89, 91, 109, 133, 135, 147, 149, 157, 159, 161, 171, 179, 180
aortic aneurysm, 171
abrupt onset, 117, 174
abuse, 68–9
abused child, 70–1
abusive patients, 36–7, 83, 129, 176, 177, 179, 181
accuracy, definition, 44
acidosis, 177
acute illness, 19–20, 174
adults, 35–41, 169 see also babies; children
abusive or aggressive, 36–7, 83, 129, 177, 179, 181
apparently drunk, 15, 37, 74–5, 129
behaving strangely, 82–3, 129, 175
clinic patients, 37, 38
collapsed, 92–3, 109, 135, 157
confused, 34
conscious level, 14–16, 75, 83, 93, 119, 174, 176, 177, 183
cultural differences, 32
drunkenness, 15, 37, 75, 174
deafness, 15, 37, 182
dizziness, 15, 37
elderly people, 32, 36
frequent attenders, 37
history, 7–9, 22–3, 32, 177, 178, 179, 181–2
inappropriate history, 178
interim advice, 51–2
learning difficulties, 34, 36
management of expectations, 37
mental illness, 83, 182
monitoring of, 5, 10, 24, 36, 41, 54–5, 171
pain assessment, 18–19, 25–34, 52, 179, 180, 181
physical disabilities, 36
presentation, 3, 9–10, 11–21, 25–34, 56–61
see also presentational flow charts
relatives and carers, 35, 127, 161, 166–7
self-harm, 83, 129, 133, 177, 179, 181
temperature, 17–18, 175
unable to talk, 73, 85, 182
unable to walk, 81, 183
urinary problems, 164–5
waiting times, 1–3, 35–6, 37, 40–1, 56
aggressive patients, 36–7, 83, 129, 176, 177, 179, 181
airway compromise, 14, 51, 113, 141, 151, 171, 174
alcohol, 15, 37, 75, 129, 174
allergy, 72–3, 85, 93, 141, 182
ambulance service, 48
analgesia, 26, 40, 56
anxiety, 25, 26, 31, 33, 34
aortic aneurysm, 139
apparently drunk, 15, 37, 74–5, 129, 174
assault, 76–7, 155, 169
asthma, 46, 78–9, 147, 149, 179
auditing, 4, 5, 10, 22, 42–6
regional and national audits, 46
auricular haematoma, 103, 107, 175
babies
conscius level, 15–16, 95, 101, 159
crying, 94–5, 121, 159, 161, 163
dehydration, 71, 101, 159, 163, 182
inconsolable, 67, 95, 178
not feeding, 95, 159, 163, 179, 182
pain assessment, 30, 31, 67, 95, 121, 159, 181, 182
safeguarding concerns, 159, 163
temperature, 18, 177, 183
unwell, 158–9, 162–5, 167
urinary problems, 159, 163
back pain, 49, 65, 80–1, 139, 175
behaving strangely, 82–3, 129, 175
children, 95, 121, 161, 167, 175
behaviour, disruptive, 176
bites and stings, 84–5, 141, 177
bleeding, 16–17, 107, 119, 123, 175
GI bleeding, 101, 114–15, 180, 182
haematuria, 165, 176
PV bleeding, 65, 81, 137, 176, 180
vomiting blood, 65, 67, 101, 115, 177
Index

blistering, 71, 73, 89, 141, 157, 183
blood disorders, 157, 159, 174, 180, 182
blood pressure, 173, 176
bradycardia, 79, 89, 91, 109, 133, 135, 147, 149, 157, 159, 161, 171, 179, 180
breathing, 14, 171, 175, 177, 178, 183
cough, 79, 147
PEFR (peak expiratory flow rate), 46, 79, 147, 149, 178
shortness of breath, 77, 87, 93, 123, 127, 143, 146–9, 174
stridor, 14, 89, 113
TRTS (Triage Revised Trauma Score), 172–3, 182
unable to talk, 73, 79, 147, 149, 182
burns and scalds, 86–7
capillary refill time, 171, 175
cardiac history, 181
cardiac pain, 91, 93, 135, 175
carers, accompanying patients, 35, 127, 159, 161, 163, 166–7
chemical exposure, 87, 88–9
chemical eye injury, 89, 105, 174
chest injury, 147, 175
chest pain, 91, 123, 135, 147, 149, 155, 180
childbirth, 137, 178, 180
children
abdominal pain, 66–7
abuse/neglect, 70–1
behaving strangely, 95, 121, 161, 167, 175
conscious level, 15–16, 71, 95, 101, 159, 161, 163, 167, 176, 183
crying baby, 94–5, 121
dehydration, 71, 101, 159, 161, 163, 167, 182
head injury, 71, 118–19
inconsolable, 67, 95, 167, 178
interim advice, 51
irritable, 120–1, 161
limb problems, 123, 124–5
not feeding, 95, 121, 159, 161, 163, 167, 179, 182
pain assessment, 26, 30, 31, 67, 95, 121, 159, 179, 181, 182
parents and carers, 35, 159, 161, 163, 166–7
safeguarding concerns, 67, 71, 81, 87, 89, 93, 159, 161, 163, 167
self-harm, 71
shortness of breath, 148–9, 151
temperature, 18, 177, 183
unwell, 46, 141, 149, 151, 158–63
urinary problems, 159, 161, 163, 167
clinic patients, 37, 38
clinical management, 3–4
documentation, 21–2, 42, 46
risk limits, 20
clinical priority, 1–4, 10, 11–21, 35–41
acute, 19–20
conscious level, 14–16, 174, 176, 177
haemorrhage, 16–17
life threat, 13–14, 16, 51, 54–5
major incidents, 170–3
pain assessment, 18–19, 25–34, 52
presentation.priority matrix, 5, 56–61
re-evaluation of, 5, 10, 24, 36, 41
cold temperature, 18, 175
colicky pain, 81, 153, 165, 175
collapsed adult, 92–3, 109, 135, 157
communication skills, 22–3
completeness, definition, 44
conscious level, 14–16, 75, 83, 119, 135, 173, 174, 177
childbirth, 15–16, 71, 159, 161, 163, 167, 176, 183
contamination risks, 89, 181
cough, 79, 147
critical skin, 123, 175
cross-cultural communication, 32
crying baby, 94–5, 161
culture, and response to pain, 32
decision-making process, 6–10, 54–61
strategies, 7–8
telephone triage, 47–53
decontamination, 181
deductive reasoning, 7
deformity, definition, 175, 176
dehydration, 71, 101, 159, 161, 163, 167, 182
dental problems, 60, 96–7, 107, 174
diabetes, 98–9
diagnosis, 3
conscious level, 14–16, 174, 177
decision-making process, 8, 54–61
haemorrhage, 16–17
life threat, 13–14, 16, 51, 54–5, 181
pain assessment, 18–19, 25–34, 52, 179, 180
secondary triage, 20
diabetes, 65, 67, 100–1
diplopia, 105, 175
direct trauma, 81, 175
disabled patients, 36
discharge, 89
discharge (STIs), 145, 176
discharges see blistering
discriminators, 3, 10, 13–21, 174–43, 190–1
seepresentational flow charts
conscious level, 14–16, 174, 176, 177
children, 15–16, 176, 183
life threat, 13–14, 16, 51, 54–5
pain assessment, 18–19, 25–34, 52
in telephone triage, 48–52
temperature, 17–18, 46, 175, 183
TRTS (Triage Revised Trauma Score), 172–3, 182
dislocation, 175
disruptive behaviour, 129, 176
distal vascular compromise, 169, 176
documentation, 20, 21–2, 42, 46
drooling, 14, 147, 149, 151, 176
drugs, 15
drunkenness, 15, 37, 75, 129, 174
dynamic triage, 5, 10, 24, 36, 41, 54–5
during major incidents, 171
dysuria, 165, 176
ear problems, 102–3, 175, 180
Early Warning Scores, 5
ectopic pregnancy, 81, 139
elderly people, 28, 32, 36, 179
electrical injury, 87, 176
emergency departments, 35–41
auditing and evaluation of, 4, 5, 10, 22, 42–6
management of major incidents, 170–3
referrals from primary care providers, 37–8
Index 187

referrals to other services, 56–61
role in telephone triage, 48
role of triage practitioner, 39–41
workload, 38–9
epilepsy, 111
exhaustion, 147, 149, 176
exsanguinating haemorrhage, 16, 176
eye problems, 56–7, 60, 104–5, 107, 113, 117, 174, 180, 181
facial problems, 106–7, 141, 175
oedema, 73, 85, 87, 97, 176
falls, 108–9
families, accompanying patients, 35, 127, 159, 161, 163, 166–7
first aid, 26, 40
first contact by clinician, 1–3, 35–6, 37, 40–1, 56
fits, 110–11, 119, 137, 175, 177
floppy child, 95, 101, 167, 176
foreign body, 105, 112–13
foreign travel, 151, 157, 177, 182
fracture, 175
frequent attenders, 37
gangrene, 153, 181
general discriminators, 13–21, 190–1
GI bleeding, 101, 114–15, 180, 182
Glasgow Coma Scale score, 173
grand mal convulsion, 111
haematological disorders, 157, 159, 182
haematuria, 177
haemorrhage, 16–17, 176, 183
head injury, 75, 77, 103, 107, 111, 117, 118–19, 176, 177
headache, 111, 116–17, 176
hearing loss, 103, 180
heart, 91, 93, 123, 134–5, 175, 181
hermiation, 176
history, patient, 7–9, 22–3, 32, 177, 178, 179, 181–2
inappropriate history, 178
hospital security, 37
hot babies, 18, 177
hot joint, 69, 125, 145, 177
hyperglycaemia, 99, 177
hypoglycaemia, 93, 99, 109, 111, 121, 133, 157, 161, 177
hypothessing, 8 see also diagnosis
immunosuppression, 145, 151, 157, 159, 161, 165, 167
inappropriate history, 67, 75, 77, 81, 87, 89, 93, 178
inconsolable child, 167, 178
inductive reasoning, 7
infection, 68–9, 85, 87, 113, 151, 155, 157, 169, 178, 182
inflammation, 73, 85, 87, 113, 155, 169, 178
inhalational injury, 87, 178, 182
injury, 16–17, 81, 109, 113, 175, 177, 180, 181, 182, 183
children, 71, 123, 124–5
head injury, 75, 77, 103, 107, 111, 117, 118–19
major trauma, 126–7
neck and back, 81, 131
torso, 91, 147, 149, 154–5
interim advice (telephone triage), 51–2
interview, structuring, 6, 22–3, 46, 48–52, 55–6
intuition, 8
irritable child, 120–1, 161
itching, 178
jaundice, neonatal, 163
joints, hot, 69, 125, 145, 177
ketosis, 99, 177
labour (childbirth), 137, 178
lethality, 85, 87, 89, 133, 176–7, 178–9
life threat, 13–14, 16, 51, 54–5, 170–3, 181
limb problems, 122–3
limping child, 124–5
major incidents, 170–3
major trauma, 126–7, 155
Manchester Triage Provider Course, 4
melaena, 174, 180
meningism, 111, 117, 121, 131, 157, 159, 161, 163, 182
mental illness, 83, 128–9, 133, 143, 182
mental representation, 8
methodology, 3, 11–24
miscarriage, 81, 139
monitoring, 5, 10, 24, 36, 41, 54–5
during major incidents, 171
neck pain, 130–1, 175
neglected child, 70–1
neonatal jaundice, 163
neurological deficit, 75, 77, 81, 93, 107, 109, 111, 117, 119, 123, 131, 157, 169, 179
newborns, 159, 160–1, 167, 183 see also babies
non-blanching rash, 67, 93, 95, 111, 117, 121, 125, 131, 145, 157, 159, 161, 163, 167, 179, 180
oedema, 73, 85, 87, 89, 141, 176, 179
open fracture, 109, 123, 180
organs, extrusion and herniation, 155, 176
pain assessment, 18–19, 25–34, 52, 179, 180
abdominal pain, 26, 64–7, 81, 115, 153, 174
analgesia, 26, 40, 56
chest pain, 90–1, 93, 123, 135, 155, 175
children, 26, 30, 31, 67, 95, 115, 121, 159, 161, 163, 178, 179, 182
elderly people, 32
joints, 69, 145
neck and back, 80–1, 130–1
testicular pain, 145, 152–3
tools, 26–30
palpitations, 134–5
parents, 35, 159, 161, 163, 166–7
patients, 35–41, 169
abusive or aggressive, 36–7, 83, 129, 177, 179, 181
apparently drunk, 15, 37, 74–5, 129
babies see babies
behaving strangely, 82–3, 129, 175
patients (continued)
  children see children
  clinic patients, 37, 38
  collapsed adult, 157
  confused, 34
  conscious level, 14–16, 75, 83, 93, 119, 174, 176, 177, 183
cultural differences, 32
  drunkenness, 15, 37, 75, 174
  elderly people, 28, 32, 36, 179
  frequent attenders, 37
  history, 7–9, 22–3, 32, 177, 178, 179, 181–2
  allergies and asthma, 73, 79, 93
  inappropriate history, 67, 75, 77, 81, 87, 89, 93, 178
  interim advice, 51–2
  learning difficulties, 34, 36
  management of expectations, 37
  mental illness, 83, 182
  monitoring of, 5, 10, 24, 36, 41, 54–5, 171
  pain assessment, 18–19, 25–34, 52, 179, 180, 181
  physical disabilities, 36
  presentation, 3, 9–10, 11–21, 25–34, 56–61
  see also presentational flow charts
  relatives and carers, 35, 127, 161, 166–7
  self-harm, 83, 129, 133, 177, 179, 181
  temperature, 17–18, 179
  unable to talk, 73, 85, 182
  unable to walk, 81, 183
  urinary problems, 164–5
  waiting times, 1–3, 35–6, 37, 40–1, 56
pattern recognition, 8
PEFR (peak expiratory flow rate), 46, 79, 147, 149, 178
pleuritic pain, 91, 123, 147, 149, 155, 180
  police, 37, 38
Portuguese Triage Group (PTG), 46
  possibly pregnant, 180
practitioners
  and abusive/aggressive patients, 36–7, 83, 176, 177, 179, 181
  auditing and evaluation of, 4, 5, 10, 22, 42–6
  communication with patients, 6, 22–3, 26, 31–4, 35–7, 46, 159, 163
  cross-cultural communication, 32
  telephone triage, 47–53
  contamination risks, 89, 181
  infection risks, 151, 157, 182
  training and professional development, 4, 7, 10, 52–3, 55–6
  pregnancy, 65, 81, 136–7, 139, 178, 180
presentation–priority matrix, 5, 56–61
  presentational flow charts, 3, 9–10, 11–21, 65–173
  abdominal pain, 64–7, 115
  in children, 66–7, 115
  abscesses and local infections, 68–9
  abused or neglected child, 70–1
  allergy, 72–3, 85, 93, 141
  apparently drunk, 74–5
  assault, 76–7, 159, 169
  asthma, 46, 78–9, 147, 149
  back pain, 80–1, 139
  behaving strangely, 82–3, 129
  children, 95, 121, 161
bites and stings, 84–5, 141
  burns and scalds, 86–7
  chemical exposure, 87, 88–9
  chest pain, 90–1, 93, 123, 135, 147, 149, 155
  collapsed adult, 92–3, 109, 135
  crying baby, 94–5, 161
dental problems, 96–7, 107
diabetes, 98–9
diarrhoea and vomiting, 65, 67, 91, 100–1
ear problems, 102–3
eye problems, 104–5, 107, 113, 117
  facial problems, 73, 85, 87, 97, 106–7, 141, 175, 176
falls, 108–9
fits, 110–11, 119, 137, 175, 177
  foreign body, 112–13
  GI bleeding, 101, 114–15
  head injury, 75, 77, 103, 107, 111, 118–19
  children, 71, 118–19
  headache, 116–17
  irritable child, 120–1, 161
  limb problems, 122–3
  major incidents, 170–3
  major trauma, 126–7, 155
  mental illness, 83, 128–9, 133, 143
  neck pain, 130–1
  overdose or poisoning, 87, 89, 111, 121, 132–3, 135, 143, 167
  palpitations, 134–5
  pregnancy, 65, 81, 136–7
  PV bleeding, 65, 81, 137, 138–9
  rashes, 67, 71, 73, 85, 93, 95, 111, 117, 121, 125, 131, 140–1, 145, 157, 159, 161, 163, 167
  self-harm, 83, 129, 133, 142–3
  children, 71
  shortness of breath, 77, 87, 93, 123, 127, 143, 146–9, 151, 155
  in children, 148–9, 151
  sore throat, 150–1
  in telephone triage, 48–52
  testicular pain, 145, 152–3
  torso injury, 91, 147, 149, 154–5
  unwell adult, 135, 141, 147, 151, 156–7
  unwell baby, 158–9
  unwell child, 141, 149, 151, 160–1
  unwell newborn, 159, 162–3, 167
  urinary problems, 164–5
  babies and children, 159, 161, 163
  worried parent, 95, 121, 161, 166–7
  wounds, 155, 168–9
pre-verbal children, pain assessment, 30, 31
  see also babies
priapism, 165
primary care physicians, referral from, 38
prioritization categories, 1–4, 10, 11–21, 35–41
  acuteness, 19–20
  conscious level, 14–16, 174, 176, 177
  haemorrhage, 16–17
  life threat, 13–14, 16, 51, 54–5
  major incidents, 170–3
  pain assessment, 18–19, 25–34, 52
presentation–priority matrix, 5, 56–61
  re-evaluation of, 5, 10, 24, 36, 41
productive cough, 79, 147
professional development (triage practitioners), 4, 7, 10, 52–3, 55–6
psychiatric clinic, 60
psychiatric illness, 83, 128–9, 133, 143, 182
pulse, 14, 89, 91, 109, 133, 135, 147, 149, 157, 159, 161, 171, 179, 180
purpura, 67, 93, 95, 111, 117, 121, 125, 131, 145, 157, 159, 161, 167, 180
PV bleeding, purpura, symptoms, 3, 10, 13–21, 174–83, 190–1
radiography, referral to, 55–6
rashes, rapid onset, definition, 180
respiratory disorders, 182
respiration, 14,
responsiveness, 14–16,
resuscitation, 51
reassess, 5, 10, 24, 36, 41, 54–5
during major incidents, 171
red eye, 105, 107, 113, 181
relatives, accompanying patients, 35, 127, 159, 161, 163, 166–7
repetitive hypothesising, 8 see also diagnosis
respiration, 14, 171, 175, 177, 178, 183
cough, 79, 147
PEFR (peak expiratory flow rate), 46, 79, 147, 149, 178
shortness of breath, 77, 87, 93, 123, 127, 143, 146–9, 174
stridor, 14, 89, 113
TRTS (Triage Revised Trauma Score), 172–3, 182
unable to talk, 73, 79, 147, 182
respiratory disorders, 182 see also asthma
unresponsive child, 15, 183
children, 71, 159, 161, 163, 167, 176, 183

safeguarding concerns, 67, 71, 81
scalp haematoma, 119
scrotum and testes, 145, 152–3, 181, 182
security, 37
self-harm, 83, 129, 133, 142–3, 177, 179, 181
children, 71
sexually transmitted infections, 144–5, 176
shock, 14, 181
shortness of breath, 77, 87, 93, 123, 127, 143, 146–9, 151, 155, 174
in children, 148–9, 151
shoulder tip pain, 65, 137, 139, 181
smoke inhalation, 87, 178, 182
sore throat, 150–1
stings, 84–5, 141, 177
streaming (patient care), 4–5, 39
stridor, 14, 89, 113, 141, 147, 149, 151
subcutaneous gas, 69, 162
swelling, 77, 109
symptoms, 3, 10, 13–21, 174–83, 190–1 see also presentational flow charts
conscious level, 14–16, 174, 176, 177
children, 15–16, 176, 183
life threat, 13–14, 16, 51, 54–5, 170–3, 181
pain assessment, 18–19, 25–34, 52
in telephone triage, 48–52
temperature, 17–18, 46, 175, 183
TRTS (Triage Revised Trauma Score), 172–3, 182
tachycardia, 79, 89, 91, 109, 133, 135, 147, 149, 157, 159, 161, 171, 179, 180
tears, 60, 96–7, 174
telephone triage, 47–53
temperature, 17–18, 46, 175, 177, 183
temporal scalp tenderness, 117, 182
testicular pain, 145, 152–3, 182
tongue, 73, 85, 89, 141
torso injury, 91, 147, 149, 154–5
training (triage practitioners), 4, 7, 10, 52–3, 55–6
trauma, 16–17, 81, 109, 113, 175, 177, 180, 181, 182, 183
in children, 71, 123, 124–5
head injury, 75, 77, 103, 107, 111, 117, 118–19
major trauma, 126–7
neck and back, 81, 131
torso, 91, 147, 149, 154–5
triage:
auditing, 4, 5, 10, 22, 42–6
definitions and nomenclature, 1–3
major incidents, 170–3
methodology, 3, 11–24, 25–34, 35–41, 54–61
secondary triage, 20
telephone triage, 47–53
non-emergency applications, 5
TRTS (Triage Revised Trauma Score), 172–3, 182
unable to talk, 73, 79, 85, 147, 149, 182
unable to walk, 81
unconsciousness, 79, 119, 177
United Kingdom triage scale, 2–3
unresponsive child, 15, 183
unwell adult, 135, 141, 147, 151, 156–7
unwell baby, 158–9
unwell child, 46, 149, 151, 160–1
unwell newborn, 159, 162–3, 167
urinary problems, 164–5
babies and children, 159, 161, 163
vaginal discharge, 145
vaginal trauma, 71, 139, 169, 183
vascular compromise, 69, 123, 125, 183
venom, lethality, 85, 177
vertigo, 103
visible abdominal mass, 67
vision loss, 105, 107, 117, 174, 180
vomiting, 65, 67, 91, 100–1, 103, 115, 117, 119, 153, 165, 177, 180
waiting times, 1–3, 35–6, 37, 40–1, 56
wheeze, 147, 149, 183
women
abdominal pain, 64–5
childbirth, 137, 178, 180
pregnancy, 65, 81, 136–7, 139, 178, 180
vaginal trauma, 139, 169, 183
worried parent, 95, 121, 161, 166–7
wounds, 155, 168–9, 180
### General discriminators

<table>
<thead>
<tr>
<th>General discriminator</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airway compromise</td>
<td>An airway may be compromised either because it cannot be kept open or because the airway protective reflexes (that stop inhalation) have been lost. Failure to keep the airway open will result either in intermittent total obstruction or in partial obstruction. This will manifest itself as snoring or bubbling sounds during breathing.</td>
</tr>
<tr>
<td>Inadequate breathing</td>
<td>Patients who are failing to breathe well enough to maintain adequate oxygenation have inadequate breathing. There may be an increased work of breathing, signs of inadequate breathing or exhaustion.</td>
</tr>
<tr>
<td>Exsanguinating haemorrhage</td>
<td>Haemorrhage which is occurring at such a rate that death will ensue unless bleeding is stopped.</td>
</tr>
<tr>
<td>Shock</td>
<td>Shock is inadequate delivery of oxygen to the tissues. The classic signs include sweating, pallor, tachycardia, hypotension and reduced conscious level.</td>
</tr>
<tr>
<td>Unresponsive child</td>
<td>A child who fails to respond to either verbal or painful stimuli.</td>
</tr>
<tr>
<td>Currently fitting</td>
<td>Patients who are in the tonic or clonic stages of a grand mal convolution, and patients currently experiencing partial fits.</td>
</tr>
<tr>
<td>Altered conscious level responds to pain</td>
<td>Response to a painful stimulus. Standard peripheral stimuli should be used – a pencil or pen is used to apply pressure to the finger nail bed. This stimulus should not be applied to the toes since a spinal reflex may cause flexion even in brain death. Supraorbital ridge pressure should not be used since reflex grimacing may occur.</td>
</tr>
<tr>
<td>Responds to voice</td>
<td>Response to a vocal stimulus. It is not necessary to shout the patient’s name. Children may fail to respond because they are afraid.</td>
</tr>
<tr>
<td>Uncontrollable major haemorrhage</td>
<td>A haemorrhage that is not rapidly controlled by the application of a sustained direct pressure and in which blood continues to flow heavily or soak through large dressings quickly.</td>
</tr>
<tr>
<td>Very hot</td>
<td>If the skin feels very hot the patient is clinically said to be very hot. The temperature should be taken as soon as possible – a temperature of 41°C or greater is very hot.</td>
</tr>
<tr>
<td>Hot baby</td>
<td>If the skin is hot, the child is clinically said to be hot. The temperature should be taken as soon as possible – a temperature of 38.5°C and greater is hot. A baby is a child less than 1 year old.</td>
</tr>
<tr>
<td>Cold</td>
<td>If the skin feels cold the patient is clinically said to be cold. The temperature should be taken as soon as possible – a core temperature less than 35°C is cold.</td>
</tr>
<tr>
<td>Severe pain</td>
<td>Pain that is unbearable – often described as the worst ever (see chapter 4).</td>
</tr>
<tr>
<td>Uncontrollable minor haemorrhage</td>
<td>A haemorrhage that is not rapidly controlled by the application of sustained direct pressure and in which blood continues to flow slightly or ooze.</td>
</tr>
<tr>
<td>History of unconsciousness</td>
<td>There may be a reliable witness who can state whether the patient was unconscious (and for how long). If not, a patient who is unable to remember the incident should be assumed to have been unconscious.</td>
</tr>
<tr>
<td>Primary pain</td>
<td>Pain that is unbearable but intense (see chapter 4).</td>
</tr>
<tr>
<td>Warmth</td>
<td>If the skin feels warm the patient is clinically said to be warm. The temperature should be taken as soon as possible – a temperature greater than 37.5°C is warm.</td>
</tr>
<tr>
<td>Recent mild pain</td>
<td>Any pain that has occurred within the past 7 days.</td>
</tr>
<tr>
<td>Recent problem</td>
<td>A problem arising in the last week.</td>
</tr>
</tbody>
</table>
General discriminators

**RED**
- Airway compromise
- Inadequate breathing
- Exsanguinating haemorrhage
- Shock
- Unresponsive child
- Currently fitting

**ORANGE**
- Uncontrollable major haemorrhage
- New abnormal pulse
- Altered conscious level
- Very hot
- Hot baby
- Cold
- Severe pain

**YELLOW**
- Uncontrollable minor haemorrhage
- History of unconsciousness
- Hot
- Moderate pain

**GREEN**
- Warmth
- Recent mild pain
- Recent problem

**BLUE**
The following titles are available from the Advanced Life Support Group:

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<thead>
<tr>
<th>Title</th>
<th>Year</th>
<th>ISBN</th>
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<tr>
<td>Paediatric and Neonatal Critical Care Transport</td>
<td>2003</td>
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<td>Major Incident Medical Management and Support: The Practical Approach</td>
<td>2005</td>
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<td>Safe Transfer and Retrieval of Patients: The Practical Approach,</td>
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<td>Paediatric and Neonatal Safe Transfer and Retrieval: The Practical</td>
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**Australia and NZ Adaptations**

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