The Royal College of Emergency Medicine

Safe Efficient Effective Care

Service Design and Delivery

Introduction

Patients who present to the Emergency Department (ED) are typically unselected on arrival, although some may have already been seen by a clinician, or have been directed to the department following a pre-hospital assessment such as NHS111. A critical function of all EDs is to have reliable processes that can sort patients, in accordance with their clinical need. These processes are likely to vary between Urgent and Emergency Care systems because of the differences between such systems in different locations. There is not, therefore, a "one size fits all" approach. This document aims to offer general principles to underpin local processes, and to standardise the terminology used.

Summary of key recommendations

- The front door of the Emergency Department should be managed by the ED and fall within its quality improvement and governance systems
- Gatekeeping to the ED by non-Emergency Department services is not supported
- Triaging patients is appropriate where demand outstrips the resources required to make a detailed assessment in a timely fashion (usually within 15 minutes or less)
- Emergency Departments use simple or complex streaming, as part of their initial assessment processes. Both processes should be resourced to meet variation in demand, and be delivered by trained clinical staff.
- Navigation to other services, may precede streaming. However, safety may be improved if streaming is used as an alternative.
- The use of rapid assessment systems for ambulatory or trolley patients is a matter for local decision making. Such systems require dedicated resources.
- The use of Early Warning Scores in the ED as part of initial assessment processes is supported. Early Warning Scores should not be used as a sole measure of acuity, or as the basis for triage / streaming / assessment decisions.

Scope of document

This document defines and describes processes currently being used to deliver initial assessment of Emergency Department patients. It replaces and builds on the Triage Position Statement published by The Clinical Effectiveness Committee of the College of Emergency Medicine (and ENCA, FEN and RCN) in April 2011. It recognises that the systems utilised have altered and evolved, and will continue to do so. There is also a recognition that a paucity of good quality research into this area makes the provision of advice based on high quality evidence difficult.

The initial assessment of patients during a Major Incident is not covered by this document.

Initial Assessment

Objectives of Initial Assessment

There are three main objectives of good quality initial assessment:

1. Improving safety
2. Identifying acuity to ensure that the most time-critical patients are treated by the right service within appropriate time frames, and that appropriate prioritisation occurs for the remainder.
3. Improving efficiency in the system to ensure that patients do not wait unnecessarily for investigations or diagnostic decision making.

All the assessment processes described below incorporate these objectives to varying degrees.

Key principles

- The front door of the Emergency Department should be managed by the ED and fall within its quality improvement and governance systems
- Where clinicians from other services work within initial assessment systems there should be joint development of those systems, and shared governance arrangements.
- Any process of navigation or streaming, should be designed so that patient safety is paramount.
- Any initial assessment process should improve the quality of care provided for patients
- If patients are advised to attend the ED by other NHS services, navigation and streaming decisions should acknowledge this.

Linkage with the rest of the system

In an ideal system ED initial assessment would be linked to pre-hospital assessment and triage, although the risk of diagnostic anchoring, and confirmation bias, should be acknowledged, and assessment should be repeated to detect any deterioration. Access to patient records and notes is helpful.

Gatekeeping vs navigation vs streaming

Gatekeeping by non- Emergency Department services

Patients who self-refer, are referred by NHS111 or primary care or are conveyed to ED by ambulance, should not be further assessed by any third party service. Such gatekeeping is potentially unsafe and may lead to treatment delays.

Registration

RCEM recommends that all patients attending the Emergency Department should be registered within five minutes of arrival. Queues for registration should be actively managed to avoid occult waits for triage. Should navigation occur ahead of registration, the contact should be recorded irrespective of the patient disposition, and this record should be linked to any subsequent ED notes, to ensure that an audit trail is maintained.

Navigation

Navigation refers to the process of directing patients to appropriate services prior to a formal process of clinical assessment.

Navigation should not involve redirection to off-site services.

Navigation is best and most safely undertaken by a clinician (e.g. an experienced nurse).

This function may sometimes be performed by a non-clinician, provided safeguards exist to minimise risk to the patient. For instance, a receptionist may navigate a patient to a co-located Urgent/Primary Care Centre based on a clear set of written criteria, with joint governance arrangements, provided the wait to be seen in that locality is not excessive and the criteria and outcomes are regularly reviewed to ensure safety. Non-clinical staff undertaking navigation should be trained and assessed in the use of appropriate criteria, in order to minimise the clinical risk to the patient (e.g. patients presenting with chest pain should be assessed urgently by a clinician). RCEM strongly recommends that the norm for navigation is it is undertaken by clinically trained staff.

When implementing navigation any perceived advantages should be weighed against possible risks, and consideration given to implementing simple streaming as an alternative.

Streaming

Streaming is the process of allocating patients to different physical areas / services, pathways or processes, in order to improve efficiency and effectiveness**.** The main objective of streaming is to ensure that the patient is directed to the correct location / service and to the correct person to manage their clinical needs. Streaming should always be performed by a trained clinician. Streaming may include streaming to co-located or specialist services (e.g. co-located primary care services, ophthalmology services). Patients may be streamed (redirected) to off-site services. For streaming to be effective it needs to be brief, in order to avoid queues developing. However, the overall system used must incorporate safeguards to provide further assessment of those patients in whom it is clinically required.

Simple Streaming

Simple Streaming is based on a clinical assessment alone. Good quality streaming will typically involve taking a brief history and performing basic observations. Streaming may be combined with triage, and calculation of an EWS for appropriate patients. Undertaking basic first aid measures, providing simple analgesia and simple tests (e.g. a capillary blood glucose or urine HCG) in this setting is reasonable, however commencing complex investigations is not.

Simple streaming will enable the streamer to direct the patient into the appropriate physical area of the department, in order to match the patient's needs to departmental capability. The process of triage, followed by streaming to majors or minors etc., represents the simplest form of streaming

Simple streaming may also involve direction of patients to co-located or specialist services.

Complex Streaming

More advanced, or complex, streaming refers to the process of assessment in which there is a more detailed assessment of the patient. Complex streaming involves an assessment of priority and acuity as well as ensuring the patient is managed by the correct service within the correct timeframe. In addition, there is the initiation of investigations (such as requesting blood or radiological tests) that aims to bring the clinical decision making processes forward.

Streaming Standard

Streaming should be performed as soon as possible and ideally be within 15 minutes of the patient's arrival in the ED. For this to be achieved capacity must be planned to meet variation in demand, and not average demand.

Rapid assessment systems

See and Treat

See and Treat refers to a system of directly seeing patients who have been deemed to be presenting with a minor illness or injury, without further triage or assessment. The advantage of this is that they are seen directly by a single, appropriately trained clinician, who can complete the episode of care for that patient. Patients may be navigated to the See and Treat stream using appropriate protocols. Patients may also be streamed to See and Treat. However, the department must ensure that safeguards are in place to ensure that patients who require immediate attention are not waiting in the See and Treat stream at any time.

See and Treat Standard

Patients waiting to be seen in the See and Treat stream should not wait for longer than one hour to be seen. If the wait is longer than this, the patients should have an assessment by a clinician (triage, streaming etc.).

Senior Doctor Triage (SDT), Rapid Assessment and Treatment (RAT) and Early Senior Assessment (ESA)

Senior Doctor Assessment, Rapid Assessment and Treatment and Early Senior Assessment all describe the same process: a senior clinician is based as far forward in the ED process as possible, and sees the patient as soon as possible after their arrival. That clinician (typically, but not exclusively, a senior Emergency Department doctor) can make decisions about that patient's care and disposition much earlier in the patient's stay than would have previously been the case. This should enable time-critical conditions to be identified and interventions delivered rapidly. Evidence about the effectiveness of SDT/RAT/ESA, mostly with respect to the benefits of rapid decision making is currently scarce.

Typically, SDT/RAT/ESA requires a team of individuals (nursing and support staff, as well as a decision-making clinician) to deliver effectively. It takes longer than streaming or triage, often up to 20-30 minutes depending on the patient. However, it has the potential to add value to the process of assessing the patient because of the involvement of a decision-making clinician. SDT/RAT/ESA is the most advanced form of complex streaming. SDT/RAT/ESA can safely replace all other forms of initial assessment, provided that the wait for accessing SDT/RAT/ESA is not excessive. This will clearly depend on the numbers of patients arriving in the department at any one time, and the ability of the department to manage these numbers.

Implementing and sustaining SDT/RAT/ESA can be challenging. It is not resource neutral. It requires dedicated staff and space to work, and is demanding and physically tiring to undertake.

Triage vs Early Warning Scores

Triage prioritises patients where demand exceeds capacity to fully assess them within an appropriate time frame. Early Warning Scores help identify the physiologically disrupted or deteriorating patient. The two are not mutually exclusive.

Triage

A number of algorithms have been developed to sort patients, according to a combination of their presenting complaint and measured physiological parameters, at the time of arrival in the ED. This is referred to as triage. The main function of triage is to prioritise patients in a system where the demand for patient care outstrips the ability of the system to deliver it at the time of presentation. It must be performed by a member of the clinical team. This clinician must have been trained in the specific method of triage that is being applied, and demonstrate competency in its delivery. When applied consistently by trained clinicians, triage is reproducible. It should be ideally be delivered within 15 minutes of the arrival of the patient in the department. The resource allocated to delivery of triage will depend on the number of patients arriving in the ED at any specified time and the time allowed to complete the triage process. Capacity must be planned to meet variation in demand (both in terms of patient numbers and the time taken to complete triage), rather than average demand.

Triage is a face-to-face contact with the patient and should be performed in an environment that has sufficient privacy to allow the exchange of confidential information. However, it should not be isolated from the rest of the clinical space in a way that would hinder the clinician(s) performing the role to seek assistance from colleagues if required (for clinical or personal safety reasons). Consideration should also be given to visualisation of the waiting environment.

Staff undertaking the triage role should be registered healthcare professionals experienced in emergency/urgent care who have received specific training and can demonstrate developed interpersonal skills. Individual departments should have an agreed and documented triage training process for staff, which is audited. Training should include supervised practice and effective coaching.
The most well-established and commonly used triage process in the UK and Ireland is the Manchester Triage System.

Triage systems are designed for the full spectrum of patients presenting to the ED, and have been validated for use in EDs.

Triage Standard

Triage is a face-to-face encounter that should occur within 15 minutes of arrival or registration and should normally require less than 5 minutes contact.

Early Warning Scores (EWS)

Adult (NEWS) and Paediatric Early Warning (PEWS) scores have been developed to produce a common language with respect to identification of the unwell and deteriorating patient. It is recommended that EDs implement Early Warning Scores for those patients attending the Emergency Department, in whom there is a concern about the possibility of abnormal physiology. This provides a baseline from which to identify deterioration or improvement, may help to identify those patients in the department who are more unwell, improves integration with initiatives where EWS is being included, and improves communication with other clinical teams who are using EWS. Early warning scores should not be used in isolation for streaming, assessment or triage of the undifferentiated patient as this creates a risk of missing those with significant pathology that hasn't disrupted physiological parameters at the point of presentation. They should not be used in obstetric patients (consider using a modified obstetric early warning score). They will not add benefit to the care of patients already known to be critically ill and who are receiving appropriate treatment. Standard in-hospital responses recommended as part of EWS may require modification, taking account of local systems and resources. EWS can be misleading if not repeated regularly.

Early Warning Systems were designed for use in inpatient areas, and have subsequently been adopted for use in EDs. They are not applicable to the full spectrum of patients presenting to the ED. Their use in EDs has not been extensively validated.

EWS Standard (if EWS implemented)

If EWS are implemented all patients in whom there is a concern about the possibility of abnormal physiology should have observations performed and an appropriate EWS calculated, ideally within 15 minutes of arrival in the department. The EWS should be repeated in accordance with local guidelines.

Research Recommendation

There is limited good quality evidence regarding the efficacy and safety for assessment process other than traditional triage. This area is appropriate for further research.

Useful references

Transforming urgent and emergency care services in England Safer, faster, better: good practice in delivering urgent and emergency care. A guide for local health and social care communities:
http://www.nhs.uk/NHSEngland/keogh-review/Documents/safer-faster-better.pdf

Conclusion

The above describes a variety of techniques for assessing and sorting the undifferentiated patient on their arrival in the Emergency Department. Some will co-exist within a single department and a system that works for one department may not fit into the Urgent and Emergency Care System of another. All the processes described are dynamic, and as such clinicians must be prepared to intervene if the initial assessment or disposition of the patient is proven to be incorrect.

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Glossary of Terms

Redirection
"Sending people away" to an appropriate off-site or separately managed service

Navigation
Directing patients to the most appropriate co-located service, practitioner or stream prior to clinical assessment or triage.

Triage
Identifying acuity, and prioritising patients on that basis

Simple Streaming
Brief clinical assessment and directing patients to the most appropriate service, practitioner or stream. May include triage. May include redirection.

Complex Streaming
Initial assessment and triage. Involves directing patients to the most appropriate service, practitioner or stream and commencement of investigations in order to bring the clinical processes forward. May include redirection.

See and Treat
The patient is seen initially by an experienced clinician who can complete their entire episode of care.

Senior Doctor Triage, Rapid Assessment and Treatment or Early Senior Assessment
The patient is seen on arrival by a senior clinician who can make a rapid, detailed, clinical assessment and commence appropriate investigations and treatment. Represents a form of complex streaming

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