



The College of Emergency Medicine

CLINICAL AUDITS

EXECUTIVE SUMMARY 2011

This report summarises the results from the three 2010 CEM national audits (Vital Signs, Renal Colic and Feverish Children), which are all first time audits so there is no specific comparative data from previous years. We will however re-audit each of these conditions over the next few years so that we can monitor trends.

This Executive Summary has now become a regular feature of the activity of the Clinical Effectiveness Committee as the College continues to focus on clinical quality.

The audits were conducted against the standards of the College of Emergency Medicine which were first published in 2002, and have been developed and refined over the last nine years by the Standards and Audit Subcommittee.

In 2010 88% of Emergency Departments (EDs) in England & Wales participated in the national audit programme which completed on 8th February 2011. This level of participation in itself represents an impressive improvement since the programme started in 2004. In the last 3 years alone participation has risen from 55% to 88% of EDs in England & Wales. On 28th April 2011 each Trust received individualised reports of their audit results and direct comparisons with national results so their performance can be clearly seen.

Key results are detailed below¹

RENAL COLIC

This is the first time this audit has been conducted against the standards which were developed and published in 2010.

Evaluation of the severity of pain and administration of appropriate analgesia in a timely way is one of the most valued and widely accepted standards in Emergency Medicine. It is for this reason that the College seeks to assess analgesia in at least one component of every annual audit programme.

Severity of pain

- 61% of all patients with renal colic presented with severe pain and 39% moderate pain. The variation between EDs in the percentage of patients in severe pain (from 5% to 100%) raises some questions about the consistency of the assessment of pain.

¹ Results quoted in the body of this summary are average (mean) values calculated over all audited patients unless stated otherwise.

Recording of pain score on arrival

- This is the first time we have seen any departments achieving 100% on this standard in adults, and they are to be congratulated.
- 7% of EDs recorded the pain score for every patient, whereas 10% of EDs did so for less than a third of their patients.
- 72% recording in 2010 compares with 59% in the Fractured Neck of Femur and 56% in the Pain in Children audits of 2009.

There has been a progressive improvement in the recording of pain scores between 2003 and 2010 (in 2003, the national median was 12%; in 2009 it was 62% and now 76%).

Recommendation 1: Recording pain score on arrival should be routine. We are improving each year but “keep going” is the clear message. It is in the EDs below the 25th centile where the potential for improvement is the greatest and the patient experience can be enhanced the most. If you are one of those departments our recommendation is that the senior medical and nursing staff make this a focus over the next 3 months. The audit programme starting in August 2011 will give you an opportunity to demonstrate definite progress.

Analgesia within 60min

- One participating department met the CEM target that 98% in severe pain and 95% of those with moderate pain receive analgesia within 60min.
- Between 2003 and 2007 there was a considerable improvement in the proportion of patients receiving analgesia within 60 min across CEM audits, but this has levelled off in the last 3 years. For patients presenting with renal colic, 74% received analgesia in 60min for severe pain and 61% in 60min for those in moderate pain.

Analgesia within 30min

- 45% of those in severe pain and 35% of those in moderate pain received analgesia within 30 minutes. Two EDs met the CEM target of 75% receiving analgesia within 30min.

Analgesia within 20min

- 9% of departments met the CEM standard that 50% of patients in severe pain receive analgesia within 20min.

Recommendation 2: If your department is one of the 10% where 48% of patients with severe pain and 64% with moderate pain wait longer than one hour for analgesia our recommendation is that the senior medical and nursing staff consider a specific initiative on ‘time to analgesia’ in order to show a good improvement in the next round of audits. Most hospitals still have some patients presenting with severe pain who receive inadequate analgesia.

Recommendation 3: The Standards & Audit subcommittee should review the 20min standard and consult with the speciality.

Prescribing appropriate analgesia

- 73% of patients had their pain managed wholly and 10% partially in accordance with local or national guidelines and this represents a 20% improvement since other audits in 2007. It fell in 2008 & 2009, so we have regained lost ground.
- 19% of departments do not yet have a local guideline for the management of pain, or are not using the CEM standards.

Recommendation 4: If your department is one of the 19% without a guideline for the management of pain we would recommend that one is developed and implemented as soon as possible.

VITAL SIGNS

The Vital Signs standards were developed through a partnership between the College of Emergency Medicine, the Royal College of Nursing, the Faculty of Emergency Nursing and the Emergency Nurse Consultants Association.

This is the first time this audit has been conducted against the standards which were developed and published in 2010

The reception of patients and the initial encounter with clinical staff is where the patient journey begins. The clinical priority is determined by the presenting symptoms and the recording of vital signs, and this is a foundation of clinical quality. Historically much communication has been verbal, and there has not been a standard practice for recording the patient action plan which is required by these standards.

Recording of vital signs

- Pulse (97%), BP (97%), O₂ saturation (96%) and respiratory rate (92%) were well recorded. Temperature (88%) and GCS or AVPU (77%) were less well recorded. When the patient is alert and talking GCS/AVPU is not routinely recorded in all departments.

Time to recording of vital signs

- The proportion of departments measuring the six vital signs within 20mins was in the region of 50% - 60%.
- One in 10 EDs met the standard in less than 33% of cases for pulse, 32% for BP, oxygen saturation and respiratory rate, 31% for temperature and 18% for GCS (or AVPU).
- The percentage of audited notes where abnormal vital signs were observed varied greatly between EDs (from 8% to 98%) which suggests considerable variation in patient acuity. The national mean value was 41%.

Repeat measurement of vital signs within 60min

- This standard was met for pulse in 25% of cases, BP and O₂ saturation 23%, respiratory rate 22%, GCS (or AVPU) in 17% and temperature in 16% of cases. One in 10 EDs met the standard in less than 5% of cases for oxygen saturation, 4% for pulse and respiratory rate, 3% for BP and not at all for temperature and GCS (or AVPU).
- Patients may have left the ED before vital signs could be repeated.

Communicated to the Nurse in Charge

- Nationally there was evidence in the notes that abnormal vital signs had been communicated to the nurse in charge in 23% of relevant cases. In 34% of EDs there was no evidence in the notes that this had ever been done. (One respondent commented "It was often not clear when abnormal signs were communicated to the nurse in charge and in some cases it is the same person". Another comment: "The senior nurse is not in the assessment area and it is expected that abnormal signs will be recognised from the notes").

Taking appropriate action

- Nationally there was evidence in the notes that in 47% of relevant cases showing abnormal vital signs appropriate action had been taken.

Recommendation 1: It is the joint recommendation of the College of Emergency Medicine, the Royal College of Nursing, the Faculty of Emergency Nursing and the Emergency Nurse Consultants Association that a written departmental policy be developed for measuring and recording of vital signs so that a culture of expectation in communication and recording becomes embedded in the working pattern of all staff. Medical staff should routinely look at vital signs and request repeats as needed.

Recommendation 2: Triage training needs to be reinforced so that it can be streamlined, reliable and efficient.

Recommendation 3: Review of rotas so that they reflect patient arrival as far as possible. Repeat measurement of vital signs within 60min was always going to be a challenging standard to achieve. This is clearly crucial in the seriously ill or injured, and almost certainly well done in many cases, but in patients with relatively minor deviation from the normal it can easily be overlooked when the department is busy. There may need to be a more sensitive way of auditing this group of patients.

Recommendation 4: The Standards and Audit subcommittee, with partner organisations, will review and refine this standard.

Recommendation 5: Now that the audit has been done awareness has been raised, both of the standards and the current benchmark. Departments should make a renewed effort to improve triage and reception of patients to identify high risk patients early and ensure that appropriate action is taken. We look forward to the next audit when we hope to see the first step of an incremental improvement in the quality of care on arrival.

FEVERISH CHILDREN

This is the first time the CEM has developed standards directly from a NICE guideline (Feverish Illness in children 47 – May 2007) and audited against those standards in the national audit programme.

Recording of vital signs

- Pulse (89%), temperature (96%), O₂sats (87%) and respiratory rate (78%) were well recorded. BP (47%) and GCS or AVPU (63%) were less well recorded. When the child is alert and talking GCS is not routinely recorded in all departments.

Recommendation 1: Temperature and pulse are regularly recorded. In recent years there has been concern about the frequency with which the respiratory rate is recorded, particularly as this is the most sensitive indicator of severity of illness. 78% recording is somewhat reassuring, but it would be good to see respiratory rate recorded as often as temperature and pulse.

Time to recording of vital signs

- Nationally, 65% of these measurements were taken within 20 minutes of the patient's arrival or triage. However, there was considerable variation between EDs (from 0% to 100% within 20 minutes).

Recommendation 2: The main concern is the delay to recording of vital signs as this leaves a 'risk period' when the sick child is unrecognised and may deteriorate. This is particularly concerning in the 10% of departments where only 7% of patients had vital signs recorded within 20min of arrival. If you are one of these departments we would recommend a multi-disciplinary implementation plan to modify culture and practice.

Prescription of antibiotics

- Antibiotics were prescribed in 20% of all audited cases. Across departments this percentage ranged from 0% to 62%.

Prescription of antibiotics – Amber patients

- 81% of departments met the CEM standard that antibiotics should not be prescribed in this group of patients. Nationally antibiotics were prescribed in only 5% of amber patients without an apparent source of infection.

Comment: One of the most important results of this audit is that we have demonstrated that antibiotics are not being prescribed for the vast majority of this patient group, and that this recommendation has been successfully implemented.

Provision of a safety net

- Nationally an appropriate safety net was provided in 77% of cases. 36% of EDs did so for at least 90% of relevant patients included in the audit.

Recommendation 3: If your department has no formal policy for safety net provision we would recommend that this is addressed without delay.

Risk profiles

- Nationally, 10% of patients were assessed as high (red) risk, 32% as medium (amber) risk and 58% as low (green) risk. There was considerable variation between EDs in the casemix : for example the percentage of high risk patients included in the audit ranged from 0% to 40%, and the percentage of low risk patients from 0% to 96%.

Comment: Variation of this extent raises questions about the consistency of risk assessment as well as variations in casemix.

Investigations requested and recorded – Red patients

Nationally, 41% of high risk patients had no apparent source of infection, but there was considerable variation between EDs (from 0% to 100%). The CEM standard is that these patients should have FBC, CRP, blood culture and urinalysis performed.

- FBC results were recorded in 37% of relevant cases; in a further 25% of cases the test was performed but no result was recorded in the notes.
- CRP results were recorded in 36% of relevant cases; in a further 24% of cases the test was performed but no result was recorded in the notes.
- Blood culture results were recorded in 24% of relevant cases; in a further 31% of cases the test was performed but no result was recorded in the notes.
- Urinalysis results were recorded in 38% of relevant cases; in a further 19% of cases the test was performed but no result was recorded in the notes.

Recommendation 4: 60% of high risk patients have appropriate tests taken, though it is not evident if the results were checked in approximately 25% of cases. It is good practice to record results in the notes as this demonstrates clearly that they have been checked by at least one person. The implication of these findings is that in 40% of departments there is a problem in recognising the relevant red flags and / or the NICE guideline has not been

successfully implemented. There is a need for training and supervision for medical and nursing staff so that the NICE guideline is both understood and becomes part of routine practice.

Availability of written advice

- 69% of EDs have written advice to give to the parent/s or carer/s of children on discharge.

Access to NICE traffic light system

- 81% of EDs have an immediately accessible copy (printed or electronic) of the NICE guideline traffic light system.

GENERAL RECOMMENDATIONS

1. The College of Emergency Medicine recommends that Commissioners, Trust Boards and Emergency Departments review the results of their audit performance in comparison to the national averages.

Managers and clinicians should work together to address issues and make necessary changes.

2. The NHS has passed through a period when the time target in Emergency Departments has been the main focus of attention. This was very much needed as the long waits were a serious clinical risk, and patient care was compromised as a result. We have now entered a period when the quality of care for patients during their time in the ED is becoming the focus of attention, while maintaining good patient flows.

A new impetus is needed to raise standards and improve the patient experience.

3. We have seen that a concerted effort can improve the quality of care for patients by setting standards and undertaking national audit.

A three year audit programme is in place to support this.

4. The College recommends that all EDs participate in the CEM national clinical audit programme. 12% of departments did not participate in the audit programme this year, and these are likely to be less well performing departments, though we cannot demonstrate this. The current focus on quality indicators means that a failure to participate in national clinical audit is likely to be viewed in a poor light by the public, commissioners and Care Quality Commission.

The Chair of the Standards and Audit subcommittee should contact non-participant departments to offer advice and support.

Dr Stephen Nash (Chair)

On behalf of the Standards and Audit Sub-Committee
Clinical Effectiveness Committee
The College of Emergency Medicine