The College of Emergency Medicine

CEM Clinical Audits 2012/13

Feverish children, Renal colic, Fractured neck of femur

Executive Summary

Introduction
The Clinical Effectiveness Committee continues to put quality care at the top of its agenda. 2012 was particularly important as we are reporting on the second round audits of feverish children and renal colic, both of which were done for the first time in 2010. Fractured next of femur has been done 6 times therefore the performance trends are of particular significance.

Please note that percentage values stated throughout this summary are mean (average values) calculated from all audited patients unless stated otherwise.

Feverish children

General:
There is an upward trend in achieving the recommended standards of care, which is both commendable and demonstrates that emergency departments are working hard to improve quality, despite the pressures of increasing patient numbers and staff shortages.

Specific comments:
Standard 1: **Children presenting to Emergency Departments (EDs) with medical conditions should have vital signs measured and recorded as part of the routine assessment.**
In 2012 ***100%*** *had temperature (****96%*** *in 2010),* ***96%*** *pulse (****89%*** *in 2010) and* ***94%*** *O_2 saturation (****87%*** *in 2010) measured. Measurement of respiratory rate has improved the most and is now* ***89%*** *(****78%*** *in 2010). GCS/AVPU was only measured in* ***79%*** *(but this is up from* ***63%*** *in 2010).* The best performing departments record GCS/AVPU in **94%**, which shows what can be achieved.

Standard 2: **Discharged children in whom no diagnosis is found and with amber features, as defined in the NICE guideline, should be provided with an appropriate 'safety net'.**
In the 2010 audit a safety net was provided in ***77%*** *of cases, however this was not maintained in 2012, dropping to* ***73%****.* **26%** of departments do not have provision of a safety net information leaflet as a formal policy, and where this is the case we recommend that this be addressed without delay.

Standard 3: **90% of children with amber features and without an apparent source of infection should <u>not</u> be prescribed antibiotics.**
*Both the 2010 and 2012 audits demonstrate that antibiotics are being appropriately withheld in the majority of children (****79%*** *on average). In 2012 antibiotics were prescribed in* ***21%*** *of audited cases, but the percentage ranged from* ***0%*** *to* ***64%*** *nationally****.*** We recommend that departments with a prescription rate that is greater than the median of **18%** should review their practice and make changes to reduce antibiotic prescribing where this is not indicated.

Standard 4: **Children with fever and without an apparent source of infection but with one or more red features should have FBC, CRP, blood culture and urinalysis performed.**
Recommended investigations were obtained in ***58%*** *of high risk patients, though it is not evident if the results were checked in approximately* ***26%*** *of cases. These results suggest that in* ***42%*** *of departments red*

flags are not always acted upon, or the NICE guideline has not been fully implemented. This indicator did not improve between 2010 and 2012. We recommend that all departments, and particularly those below the **50th centile**, should take initiatives to teach and reinforce the importance of the NICE Guideline for both medical and nursing staff.

Renal colic

General:
Overall there has been little change between the results of the 2010 and 2012 audits.

Specific Comments:
Standard 1: **Pain score should be recorded on arrival.**
*Nationally, recording of the pain score rose from **72%** in 2010 to in **77%** in 2012. **14%** of EDs recorded the pain score for every patient (**7%** in 2010). This upward trend in the evaluation of pain is a positive national finding.* If your department is not part of this improving trend, there may be a problem that needs to be addressed.

Standard 2: **Analgesia should be prescribed according to local or CEM guidelines.**
*In the 2012 audit analgesia was prescribed wholly in accord with local or CEM guidelines in **69%** (**73%** in 2010).* Unfortunately there was no improvement between the two audits.

Standard 3: **Patients in severe pain (pain score 7 to 10) or moderate pain (pain score 4 to 6) should receive analgesia: 75% within 30min and 100% within 60min of arrival.**
***72%** of those in severe pain and **61%** of those in moderate pain received analgesia within 60 minutes. Most departments still have **some** patients presenting with severe pain who receive inadequate analgesia.*
The timely administration of effective analgesia remains a challenge across the UK, and on-going vigilance is required in this area.

Standard 4: **90% of patients should have documented evidence of re-evaluation of pain and appropriate action within 120 minutes of the first dose of analgesic.**
*In 2012 **47%** of all patients had their pain re-evaluated (**45%** in 2010). In one ED, all audited patients had their pain re-evaluated, but in another department just **2%** of the audited patients had documented evidence that their pain was re-evaluated. In the best performing ED, **85%** of patients in severe pain had their pain re-evaluated within 60 minutes; but in **69%** of EDs, less than a quarter of patients in severe pain had their analgesia re-evaluated within this time.*
We recommend that this standard is reviewed by the CEM Clinical Effectiveness Committee.

Standard 7: **Patients should have a dipstick urinalysis performed and the result recorded in the notes before discharge.**
*Urinalysis was performed in **92%** of patients and the result recorded in **87%** of cases (range **52%** to **100%**).*

Standard 8: **Patients should be considered for a locally agreed radiological investigation, with the action plan documented in the notes.**
*A radiological investigation was considered in **80%**, and the result recorded in the notes in **64%** of cases (range **4%** to **100%**). An action plan was documented in **93%** of these cases.*

Standard 9: **Patients should have FBC and renal function performed and the result recorded in the notes before discharge.**
*FBC test was performed in **92%** of patients, and the result recorded in **57%** of cases (**52%** in 2010); (range **0%** to **100%**).*
*Renal function test was performed in **93%** of patients, and the result recorded in **56%** of cases (**52%** in 2010); (range **0%** to **100%**).*

Standard 10: **Patients over 60 should have AAA (abdominal aortic aneurysm) excluded by appropriate investigation.**
Only a minority of EDs included 5 patients aged 60 or more, and it is therefore difficult to draw any firm conclusions in relation to this standard.
The performance of recommended investigations, and recording of results in the notes, is at a high standard, but can still be improved upon.

Standard 11: **Outpatient review, GP follow up or speciality referral should be made in accordance with local policy.**
*Appropriate follow-up was arranged in **90%** of cases (**91%** in 2010). No follow-up was arranged in **5%** of cases, and in a further **5%** this could not be ascertained from the notes.*
All departments should have a clear follow-up policy that is consistently applied.

Fractured neck of femur

General:
Fractured neck of femur has been audited six times, which is more than any other condition. There have been some encouraging improvements in quality, which demonstrates what can be done when we focus on quality and use audit as a tool to improve care. It is also apparent that more could be done in many EDs to meet the CEM clinical standards effectively.

Specific comments:
Pain score should be recorded on arrival.
*The most significant improvement has been a rise in the recording of pain scores from **32%** in 2004 to **67%** in 2012. However in **25%** of departments pain score is recorded in less than **50%** of patients. In a very few departments the pain score was not recorded or re-evaluated for **any** patients.* To enhance the care we deliver, it is essential that we maintain this improving trend.

Patients in severe pain (pain score 7 to 10) or moderate pain (pain score 4 to 6) should receive analgesia: 75% within 30min and 100% within 60min of arrival.
*The median number of patients receiving analgesia within 60 minutes rose from **43%** in 2004 to **53%** in 2007 but has fallen back to **40%** in 2012. In **73%** of EDs at least half of all #NOF patients are still waiting for analgesia 60 minutes after arrival.*
Administering analgesia to the elderly remains an important challenge in the majority of EDs.

90% of patients should have documented evidence of re-evaluation of pain and appropriate action within 120 minutes of the first dose of analgesic.
*Re-evaluation of pain has risen from **28%** in 2009 to **35%** in 2012.* This is an area that needs further attention, to improve quality in this patient group.

90% should receive an X-ray within 60 minutes of arrival.
*X-ray within 60 minutes has risen from **33%** in 2004 to **41%** in 2008 and **45%** in 2012. However in **26%** of departments a quarter of patients waited more than 2 hours for an X-ray.*

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