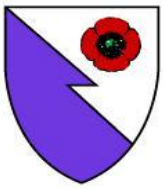


The College of
Emergency Medicine

CEM Clinical Audits 2012-13

Renal Colic

Introduction

This report shows results from the audit of the treatment of adult patients presenting to your Emergency Department (ED) in severe or moderate pain with renal colic against the clinical standards set by the College of Emergency Medicine (CEM) Clinical Effectiveness Committee (CEC). It compares your department with the other 171 departments that made audit returns.

Nationally, 7661 cases from 172 EDs (including 86% of relevant EDs in England) were included in the audit.

The CEM standards

1. Patients should have their pain score recorded
2. Patients in severe pain (pain score 7 to 10) should be offered or receive appropriate analgesia, according to local guidelines:
   50% within 20 minutes of arrival or triage whichever is the earliest
   75% within 30 minutes of arrival or triage whichever is the earliest
   98% within 60 minutes of arrival or triage whichever is the earliest
3. Patients with moderate pain (pain score 4 to 6) should be offered or receive analgesia, according to local guidelines:
   75% within 30 minutes of arrival or triage whichever is the earliest
   90% within 60 minutes of arrival or triage whichever is the earliest
4. 90% of patients with severe pain should have documented evidence of re-evaluation and action within 60 minutes of receiving the first dose of analgesic
5. 75% of patients with moderate pain should have documented evidence of re-evaluation and action within 60 minutes
6. If analgesia is not prescribed and the patient has moderate or severe pain the reason should be documented in the notes
7. Patients should have a dipstick urinalysis performed and the result recorded in the notes
8. Patients should be considered for a locally agreed radiological investigation, with the action plan documented in the notes
9. Patients should have FBC & renal function performed and the result recorded in the notes before discharge
10. Patients over 60 should have AAA excluded by appropriate investigation
11. Outpatient review, GP follow up or speciality referral should be made in accordance with local policy

The audits

Renal colic is one of three CEM clinical audits for 2012-13, the others being feverish children and fractured neck of femur. It assesses change since the previous audit in 2010.

In August 2012 letters were sent to nominated Consultant contacts and Audit Departments in each hospital asking them to participate in the latest round of audits. Audit tools were made available on the CEM website and sent directly by e-mail.

Participants were asked to collect data from ED notes of 50 or more patients presenting with suspected renal colic and severe or moderate pain . The audit tool summarised the data entered automatically and the summaries were then e-mailed to the CEM for analysis.

It should be noted that from 2012 (including this audit) all data collected is shared with the Care Quality Commission (CQC) and placed in the public domain.

The format of this report

The table overleaf shows your ED's audit results (in the bright yellow cells). Comparative results from the 2010 audits are shown alongside (italicised in the paler shaded cells). National results are also shown (in the cells shaded blue) so that EDs can consider their performance against that of other departments.

By showing the lower and upper quartiles of performance as well as the median values, the table indicates the variations in performance between less well and better performing departments.

More detailed information about the distributions of key audit results and contextual information can be obtained from the charts on subsequent pages of the report. Please bear in mind the comparatively small sample sizes when interpreting the charts and results.

Results for this ED compared with national findings

Chart			CEM Standard	This department		National Results					
						Lower quartile		Median ✠		Upper quartile	
				2012	2010	2012	2010	2012	2010	2012	2010
	Was analgesia provided in accordance with local or national guidelines?										
1	Pain score recorded (%)		100%	*	*	64%	58%	80%	76%	96%	92%
2	Analgesia in accordance with guidelines (%)	- wholly		*	*	58%	58%	70%	75%	82%	87%
		- wholly/partly		*	*	73%	72%	83%	84%	90%	92%
	Analgesia accepted (as % offered)			*	*	78%	92%	83%	95%	89%	98%
	Not offered due to pre-hospital admin (%)			*	*	0%	0%	0%	0%	3%	3%
	Not offered, no reason recorded (%)		0% ^	*	*	0%	0%	2%	2%	6%	6%
3	% of patients in severe pain			*	*	49%	53%	66%	65%	76%	77%
	% of patients in moderate pain			*	*	24%	23%	34%	35%	51%	47%
	How promptly after arrival was analgesia provided? *(%)*										
4	Within 20 minutes			*	*	14%	13%	21%	22%	32%	33%
	Within 30 minutes			*	*	28%	27%	36%	39%	47%	51%
	Within 60 minutes			*	*	55%	57%	65%	68%	76%	77%
5	**How promptly after arrival was analgesia provided for patients in severe pain?** *(% relevant pts)*										
	Within 20 minutes		50%	*	*	14%	17%	24%	26%	35%	37%
	Within 30 minutes		75%	*	*	29%	32%	41%	44%	54%	57%
	Within 60 minutes		98%	*	*	62%	64%	73%	75%	85%	85%
	How promptly after arrival was analgesia provided for patients in moderate pain? *(% relevant pts)*										
	Within 20 minutes			*	*	11%	10%	18%	19%	33%	33%
	Within 30 minutes		75%	*	*	22%	20%	32%	30%	45%	49%
	Within 60 minutes		90%	*	*	47%	47%	60%	61%	75%	77%
	Was pain re-evaluated?										
6	Analgesia re-evaluated (%)			*	*	32%	30%	45%	44%	58%	58%
	<60 mins after initial admin (% all patients)			*	*	6%	6%	14%	13%	22%	18%
	<60 mins (% patients in severe pain)		90%	*	*	8%	8%	17%	16%	28%	27%
	<60 mins (% patients in moderate pain)		75%	*	*	3%	0%	11%	9%	19%	17%
	Were appropriate investigations carried out and the results recorded in the notes before discharge? *(%)*										
7	Dipstick urinalysis		100%	*	*	82%	80%	88%	87%	94%	94%
8	Considered for a radiological investigation		100%	*	*	70%	74%	88%	86%	94%	93%
9	FBC		100%	*	*	42%	37%	55%	52%	73%	68%
10	Renal function		100%	*	*	41%	36%	56%	50%	71%	66%
11	AAA excluded (% of patients aged >60yrs)		100%	*	*	0%	0%	13%	13%	40%	25%
	How long did patients stay in the ED? (%)										
12	2 hours or less			*		4%		7%		12%	
	4 hours or less			*		78%		89%		96%	
	Fast track procedure? (% of responding EDs)			#N/A				18%			
	Was follow-up organised in accordance with local policy? *(% excl EDs with no local policy)*										
13	OP review/GP follow up/speciality ref'l		100%	*	*	86%	87%	93%	94%	98%	98%

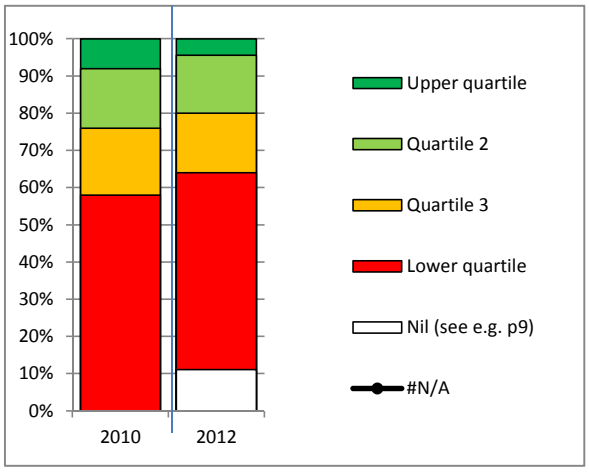
^ This standard applies to patients in severe or moderate pain

✠ The median value of each indicator is that where equal numbers of participating EDs had results above and below that value. These median figures may differ from the "national" results quoted in the body of this report which are mean (average) values calculated over all audited patients.

* No values are shown where fewer than five patients relevant to the denominator of a specific indicator were included in the audit.

Was analgesia in accordance with local and national guidelines?

Chart 1: Was a pain score recorded (%)



(NOTE: see last page for explanation of charts)

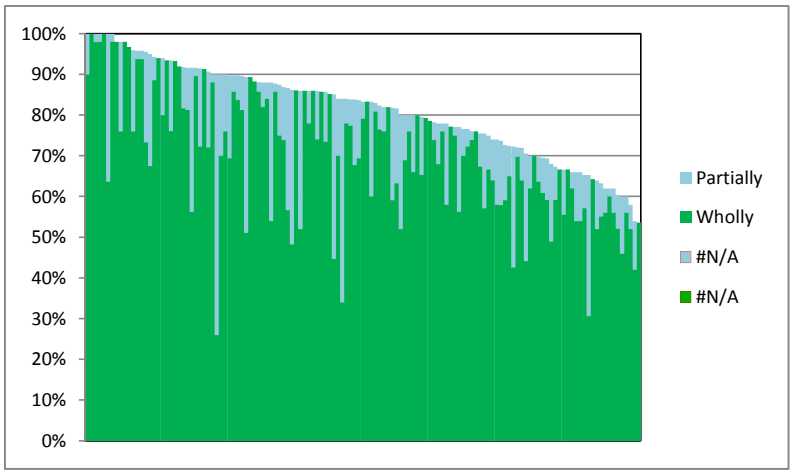
The black line on this chart show how the recording of pain scores by your ED has changed since the last audits in 2010 - an upward slope indicates improvement. Your results are shown against coloured bars representing the range of performance by other EDs in the two audits.

The CEM standard is that a pain score be recorded for every patient presenting with renal colic. Nationally, a pain score was recorded in **77%** of audited cases (*72%* in 2010). **14%** of EDs recorded the pain score for every patient (*7%* in 2010) , but a similar number did so for less than half of those audited.

Comment & recommendations:

- **77%** recording of pain score in 2012 compares with *72%* in the 2010 renal colic audit, *62%* in 2009 (#NOF audit) and *56%* in 2009 (pain in children audit). This upward trend in the evaluation of pain is a positive national finding.

Chart 2: Was analgesia provided in accordance with guidelines?



The numerators of the percentages are the numbers of audited cases in each ED in which analgesia given or offered was (a) wholly or (b) partially in accordance with local guidelines. The chart excludes EDs that said they had no local guidelines (**19%**).

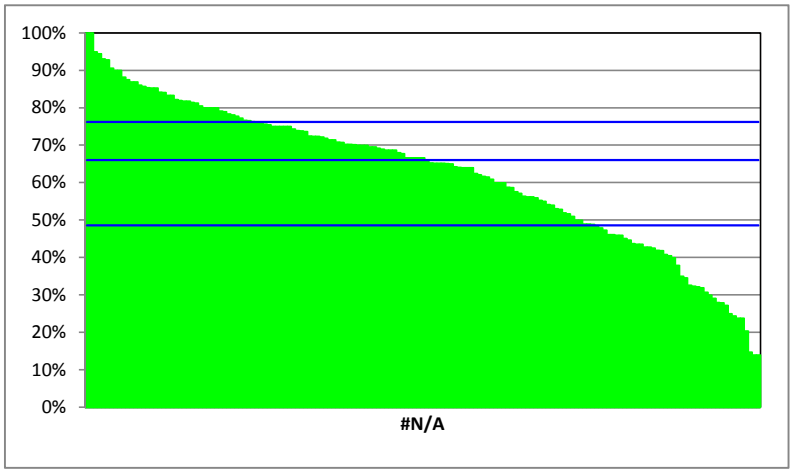
The denominators are the number of cases in which analgesia was offered; i.e. it excludes the **5%** of cases in which no analgesia was offered (**2%** because of adequate pre-hospital analgesia; **3%** no reason recorded).

Nationally, analgesia was wholly in accord with local guidelines in **69%** (*73%* in 2010) and partially in accord in a further **10%** of cases.

Comment:

- Unfortunately there has been no improvement in national performance against this standard.

Chart 3: Percentage of pa□ents in severe pain



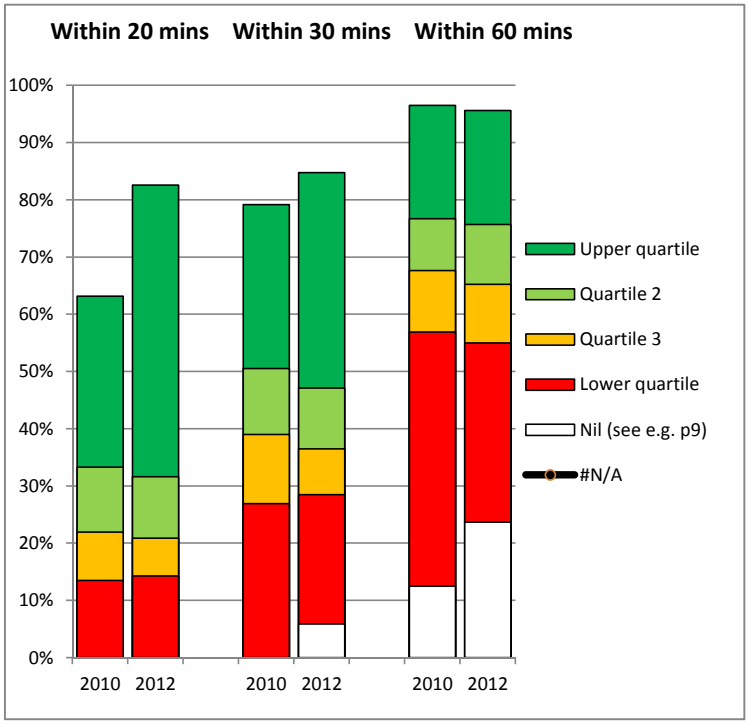
Nationally, **60%** of patients for whom a pain score was recorded were assessed to be in severe pain (*61%* in 2010) and **40%** in moderate pain (*39%* in 2010). The variation between EDs in the percentage of patients in severe pain (from **0%** to **100%**) raises some questions about the consistency of this assessment and/or patient casemix.

Comment & recommendation:

- Most departments still have *some* patients presenting with severe pain who receive inadequate analgesia.

How promptly was analgesia provided?

Chart 4: Time from arrival to analgesia



The black line on this chart shows how the recording of pain scores by your ED has changed since the last audits in 2010 - an upward slope indicates improvement. Your results are shown against coloured bars representing the range of performance by other EDs in the two audits.

Nationally, **24%** of those audited patients offered analgesia received it within 20 minutes of their arrival or triage, **38%** within 30 minutes, and **66%** within 60 minutes. The remaining **34%** waited longer than 60 minutes. These average percentages are similar to those found by the 2010 audit, although the chart shows fewer patients waiting over 60minutes for analgesia and, in the best departments, more given pain relief within 20minutes of arrival.

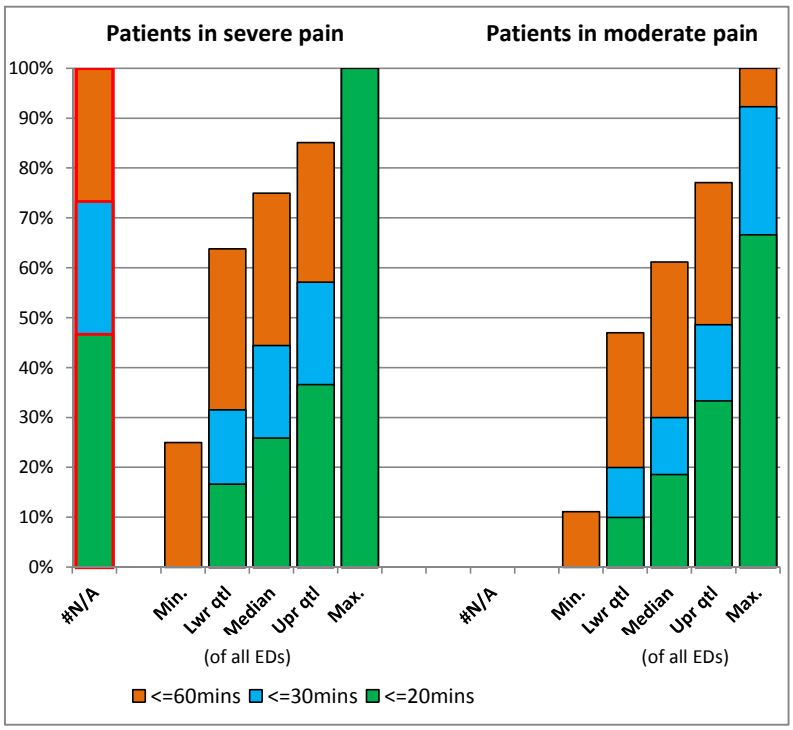
However, there was considerable variation between EDs. The percentage of patients waiting more than an hour for analgesia varied from **4%** to **76%.**

There was no marked difference in promptness of analgesia in the ED according to whether or not pre-hospital analgesia had been given.

Comment & recommendation:

- These results are similar to those of the 2010 audit. The timely administration of effective analgesia remains a challenge across the UK.

Chart 5: Comparison of ⍰mes from arrival to analgesia for pa⍰ents in severe pain and those in moderate pain



Nationally there was little difference in the percentage of patients in severe and in moderate pain offered analgesia within 20 minutes of their arrival or triage. There has been a modest improvement in the time to analgesia within 30 minutes of arrival and also those given pain relief within one hour of arrival.

8% of EDs met the CEM standard that 50% of patients in severe pain receive analgesia within 20 minutes.

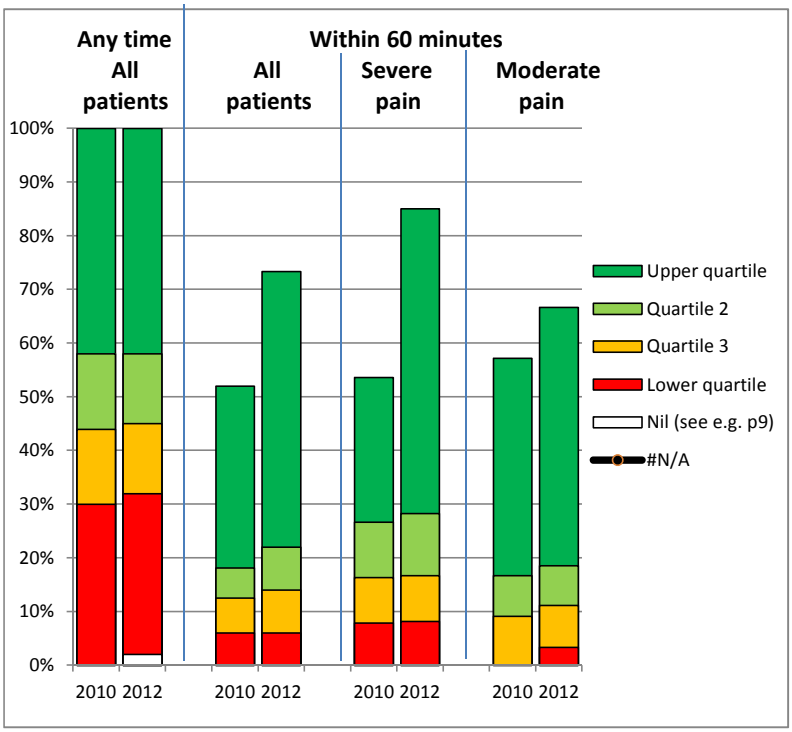
42% of those in severe pain and **35%** of those in moderate pain received analgesia within 30 minutes. Three EDs met the CEM target that **75%** of those in moderate or severe pain receive analgesia within 30 minutes.

72% of those in severe pain and **61%** of those in moderate pain received analgesia within 60 minutes.

In 10% of EDs, **50%** of those in severe pain and **67%** of those in moderate pain waited longer than an hour for analgesia, a worse result than in 2010 (*48%* and *64%* respectively).

Was analgesia re-evaluated?

Chart 6: Percentage of pa□ents whose analgesia was re-evaluated



The CEM standard is that **90%** of patients with severe pain and **75%** of those with moderate pain should have documented evidence of re-evaluation and action within 60 minutes of receiving the first dose of analgesic.

Nationally **47%** of all patients had their pain re-evaluated (*45%* in 2010). In one ED, all audited patients had had their analgesia re-evaluated (although not all within 60 minutes); but in another department just **2%** of the audited patients had documented evidence that their pain was re-evaluated.

Comment:

- **47%** in this audit is a clear improvement from *28%* in the 2009 #NOF audit. This is encouraging and a clear demonstration of progress that needs to be maintained.

Severe Pain:

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.

Nationally, **20%** of patients in severe pain had documented evidence of re-evaluation and action within 60 minutes of receiving the first dose of analgesic.

Moderate Pain:

In **85%** of EDs, less than a quarter of patients in moderate pain had documented evidence that their pain was re-evaluated within 60 minutes.

Nationally, **13%** of patients with moderate pain had documented evidence of re-evaluation and action within 60 minutes of receiving the first dose of

Were appropriate investigations carried out and the results recorded?

Chart 7: Dipstick urinalysis

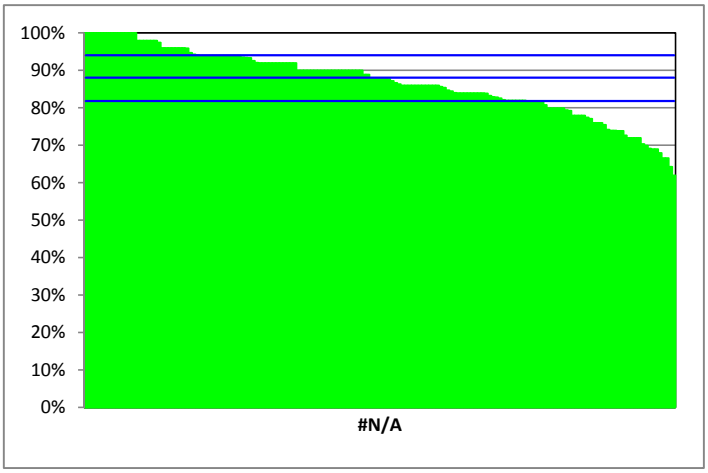


Chart 8: Considered for a radiological investigation

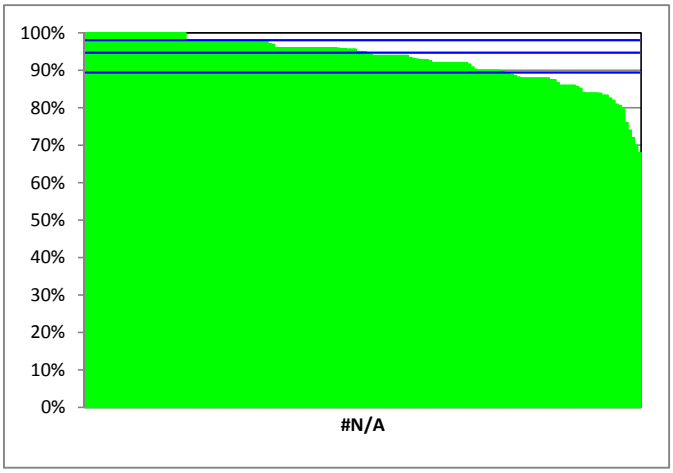


Chart 9: FBC

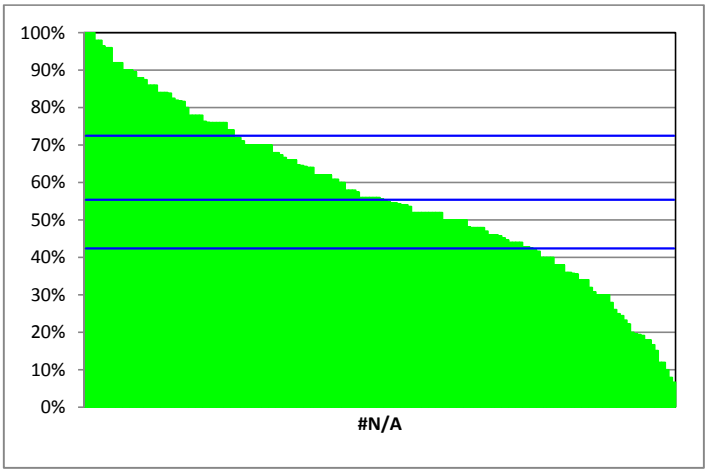
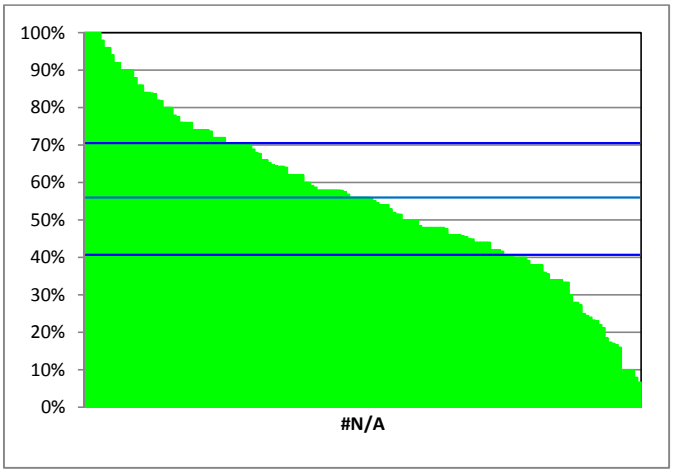


Chart 10: Renal Function



Charts 7 - 10 show the extent to which these CEM standards were met:

• Patients should have a dipstick urinalysis performed and the result recorded in the notes before discharge - nationally this test was performed on **92%** of patients and the result recorded in **87%** of cases (range 52% to 100%);

• Patients should be considered for a locally agreed radiological investigation, with the action plan documented in the notes - nationally 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 found to have been documented in **93%** of cases;

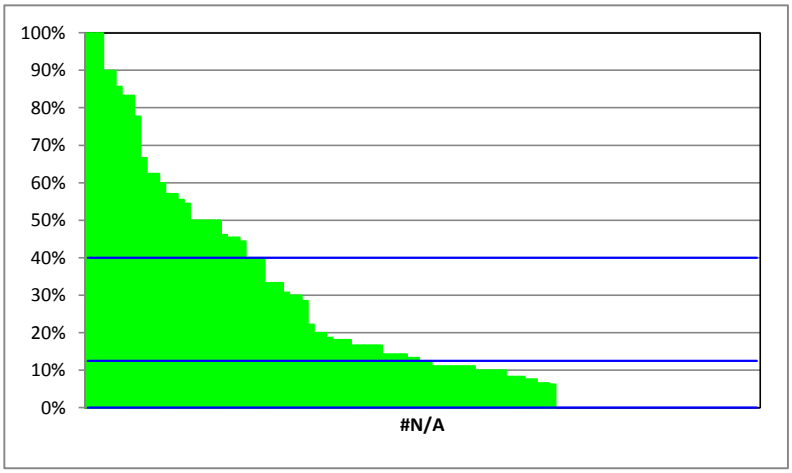
• Patients should have a FBC and the result recorded in the notes before discharge - nationally this test was performed on **92%** of patients and the result recorded in **57%** of cases (*52%* in 2010); (range 0% to 100%);

• Patients should have a renal function test performed and the result recorded in the notes before discharge - nationally this test was performed on **93%** of patients and the result recorded in **56%** of cases (*52%* in 2010); (range 0% to 100%);

Comment:
• There has been little change since 2010.
• Documentation remains an area for improvement, in keeping with recognised best practice.

Patients aged over 60: Was AAA excluded?

Chart 11: Was AAA excluded and the result recorded?



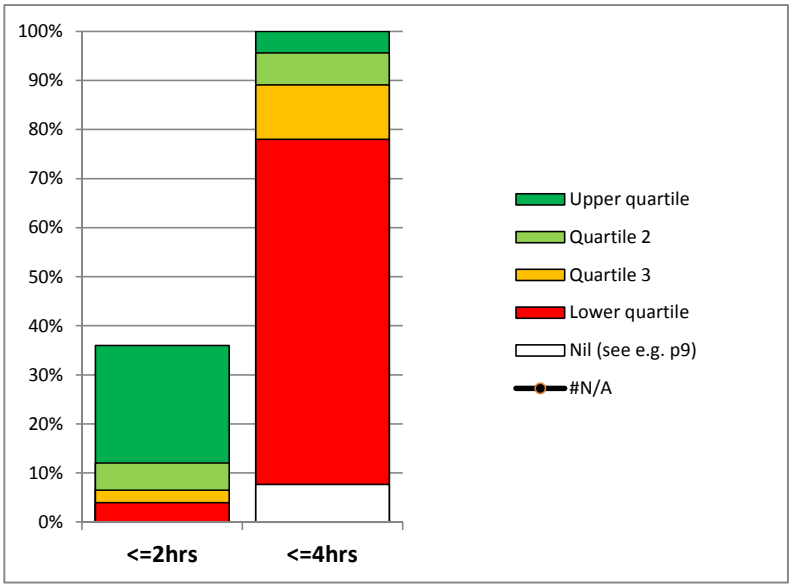
The CEM standard is that patients over 60 should have AAA (abdominal aortic aneurysm) excluded by appropriate investigation. Chart 11 shows results only for a minority of EDs whose audits included at least 5 patients aged 60 or over.

Denominators of the percentages shown for each ED have been calculated as the number of cases audited less the number shown as not applicable (because the patient was under 60).

National results may be unreliable because the percentage of patients over 60 included in the audits was small.

How long did patients stay in the ED?

Chart 12: Percentages of patients leaving the ED within 2 and 3 hours of arrival

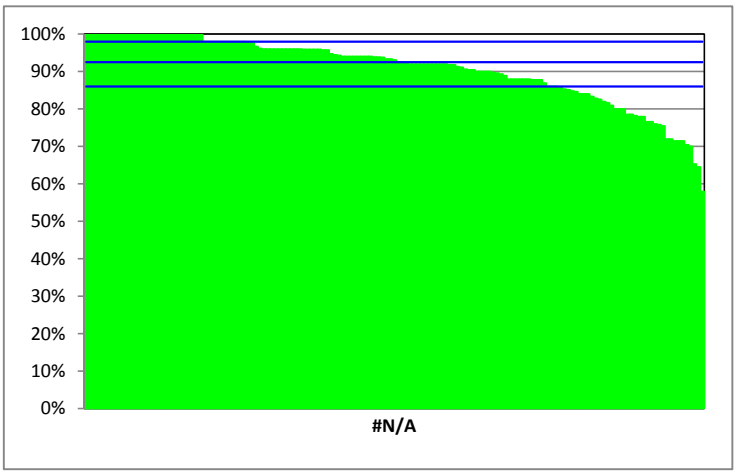


18% of EDs operate a fast track policy for patients with renal colic.

Nationally, **84%** of patients included in the audit left the ED within 4 hours. However, there is substantial variation between EDs. In **5%** of EDs, less than half of the audited patients left within 4 hours.

Was follow-up organised in accordance with local policy?

Chart 13: Was an outpa□ent review, GP follow up, or speciality referral organised?



The CEM standard is that an outpatient review, GP follow up or speciality referral should be made in accordance with local policy. Chart 13 excludes EDs that said that they had no local policy. Audit results also exclude the 1% of cases where follow-up was said not to be applicable.

Nationally, it was recorded in the notes that appropriate follow-up had been arranged in **90%** of cases (*91%* in 2010). No follow-up had been arranged in **5%** of cases, and in a further **5%** this could not be ascertained from the notes.

Comment & recommendation:
- These results are very similar to 2010.
- All departments should have a clear follow-up policy that is consistently applied.

Thank you

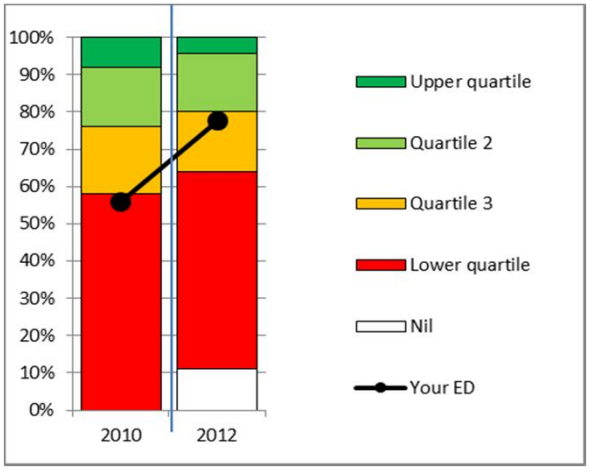
for taking part in this national audit. We hope that you find the results useful.

Should you wish to comment on this report or feel that any of the figures or charts in this report misrepresent the results of your audit, please contact the CEM by e-mailing philip.mcmillan@collemergencymed.ac.uk or telephoning 020 7067 1269.

Details of CEM national audit programmes can be found at:

http://www.collemergencymed.ac.uk/Shop-Floor/Clinical Audit/Current Audits

Example Chart



The columns display the range of performance achieved by EDs in the 2 audits conducted on renal colic (2010 and 2012).

The coloured bands display the range of performance per quartile. In 2010 the lowest performing quartile (red) ranged from 0% to 58%. The upper quartile of performance (green) ranged from 92% to 100%.

You can see an overall improvement nationally in this example. The black line on the charts denotes your ED. In this example, the ED improved from 56% in 2010 to 78% in 2012.

The bottom of column 2012 is white (nil) and indicates that no EDs recorded the pain score in less than 11% of patients.

NOTE: On some charts the upper quartile may not be visible. This means all EDs in the upper quartile achieved 100%.