



The College of  
Emergency Medicine



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## **CEM Clinical Audits: Fractured Neck of Femur 2008**

None - Coll. Emergency Medicine Audits

INT. GROUP: All trusts  
COMP. SET: All trusts  
YEAR(S): 2008, 2004  
DATABASE: cemf\_2008\_database with errorlog.xls

## Introduction

This report shows results from an audit of the treatment of patients presenting in emergency departments with a fractured neck of femur (#NOF) against the clinical standards of the College of Emergency Medicine (CEM) Clinical Effectiveness Committee. It compares your department with 112 other departments that made audit returns.

5,543 #NOF cases from 113 emergency departments (ED) were included in the 2008 audit.

This report has been prepared by the Care Quality Commission in partnership with the College.

## History of the audits

This audit follows on from the successful earlier audits of ED treatment of fractured neck of femur patients in 2004, 2005 and 2007. There have been similar audits of the treatment of paracetamol overdose, pain in children, urinary retention and moderate/severe asthma in adults. These audits were developed in association with the CEM, initially by the Audit Commission's Acute Hospital Portfolio and then by the Healthcare Commission as part of its programme of service reviews. The Care Quality Commission is continuing this work as part of its work on clinical quality.

In September 2008, letters were sent to nominated contact Consultants and audit departments in each trust asking them to participate in the latest round of audits. Audit tools were made available on the Healthcare Commission and CEM websites.

Participants were asked to collect data from ED notes on 50 or more patients presenting with a fractured neck of femur. The audit tool summarised the data entered automatically. These summaries were then e-mailed to the College, who passed them to the Commission for the preparation of this report.

## Next Steps

Should you think that any of the figures or charts in this report misrepresent the results of your audit, please inform CEM by e-mailing [philip.mcmillan@collemergencymed.ac.uk](mailto:philip.mcmillan@collemergencymed.ac.uk) or telephoning 020 7067 1269.

Details of CEM audits for 2009 will be circulated shortly with a view to starting the audits in August 2009. The Care Quality Commission's support for the CEM audits will now be provided through its work on clinical quality with the view to publishing the results as comparative data. Some more information can be found at [http://www.collemergencymed.ac.uk/CEM/Clinical Effectiveness Committee/CEC Standards and Audit](http://www.collemergencymed.ac.uk/CEM/Clinical%20Effectiveness%20Committee/CEC%20Standards%20and%20Audit)

## Results for this department since 2004

The fractured neck of femur audit is now in its fourth round, and the table below shows your department's results for each round. It also includes national results for 2008 (in blue) so that departments can consider their performance against that of other departments. The table on the page 4 summarises the national results for each round of the audit.

**Table 1: ED's results since 2004 compared with national results for 2008**

	National results 2008			Results for this department			
	Lower quartile	Median	Upper Quartile	2008	2007	2005	2004
<b>How promptly after arrival was analgesia provided? (%)</b>							
Pre-hospital admin.	0	0	7				
Within 20 minutes	12	19	28				
Within 30 minutes	22	28	38				
Within 60 minutes	40	51	62				
<b>How promptly after arrival was analgesia provided for patients in severe pain? (%)</b>							
Pre-hospital admin.	0	0	7				
Within 20 minutes	10	18	33				
Within 30 minutes	24	38	50				
Within 60 minutes	59	68	78				
<b>How promptly after arrival was analgesia provided for patients in moderate pain? (%)</b>							
Pre-hospital admin.	0	5	10				
Within 20 minutes	9	17	36				
Within 30 minutes	18	27	42				
Within 60 minutes	41	55	70				
<b>Was analgesia provided in accordance with need? (%)</b>							
Pain score recorded	36	68	82				
Accepting analgesia	68	76	85				
In line with guidelines	56	71	78				
Not offered, no reason	2	4	8				
<b>Time from arrival to imaging and admission (%)</b>							
X-ray within 1 hour	28	42	53				
Admitted within 1 hour	0	0	2				
Admitted within 2 hours	4	8	18				
Admitted within 4 hours	82	88	94				
<b>Time to surgery (%) (from date of arrival to first operation)</b>							
On same or next day	46	57	68				
2 days	71	82	88				
3 or more days	12	18	29				
<b>Supplementary figures</b>							
Severe pain	15	26	44				
Severe or moderate pain	55	67	79				
Ambulance notes available	51	85	96				
No. cases audited	50	50	50				

## Summarised National Results since 2004

The table below summarises the national results for current round of the audit alongside previous rounds to show how performance has generally improved.

In 2004 189 departments participated, in 2005 61 departments, in 2007 143 departments and in 2008 112 departments took part.

By using the lower quartile, the median and the upper quartile the table indicates the range in performance between less well, average and better performing departments.

Table 2: National results since 2004

	2008			2007			2005			2004		
	Lower quartile	Median	Upper quartile	Lower quartile	Median	Upper quartile	Lower quartile	Median	Upper quartile	Lower quartile	Median	Upper quartile

**How promptly after arrival was analgesia provided? (%)**

Pre-hospital admin.	0	0	7	0	0	0						
Within 20 minutes	12	19	28	10	19	27	7	13	21	6	10	17
Within 30 minutes	22	28	38	20	28	38	17	27	37	13	19	27
Within 60 minutes	40	51	62	41	53	60	37	53	63	33	43	57

**How promptly after arrival was analgesia provided for patients in severe pain? (% pts)**

Pre-hospital admin.	0	0	7									
Within 20 minutes	10	18	33	10	21	29	15	20	36	10	17	24
Within 30 minutes	24	38	50	20	35	57	33	42	46	18	30	45
Within 60 minutes	59	68	78	55	70	84	63	76	82	45	65	75

**How promptly after arrival was analgesia provided for patients in moderate pain? (% pts)**

Pre-hospital admin.	0	5	10									
Within 20 minutes	9	17	36	7	17	28						
Within 30 minutes	18	27	42	19	27	40						
Within 60 minutes	41	55	70	45	58	67						

**Was analgesia provided in accordance with need? (% of pts)**

Pain score recorded	36	68	82	33	66	87	20	42	73	7	28	70
Analgesia accepted	68	76	85	70	79	85	73	81	90	73	80	88
In line with guidelines	56	71	78	55	70	80	62	80	90	43	70	83
Not offered, no reason	2	4	8	0	3	8						

**Time from arrival to imaging and admission (%)**

X-ray within 1 hour	28	42	53	22	40	59	13	36	48	18	32	50
Admitted within 1 hour	0	0	2	0	0	0	0	0	3	0	0	3
Admitted within 2 hours	4	8	18	3	8	18	7	20	37	4	13	27
Admitted within 4 hours	82	88	94	78	90	95	77	90	95	53	72	85

**Time from arrival to surgery (% of pts where data)**

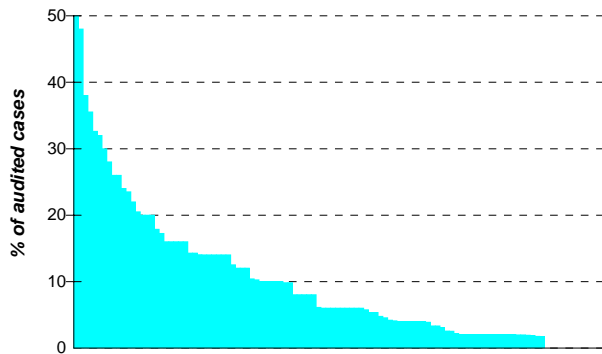
Same or next day	46	57	68	38	55	69						
2 days	71	82	88	68	80	86						
3 or more days	12	18	29	14	20	32						

**Supplementary figures (% of relevant patients)**

Severe pain	15	26	44	15	26	44	23	43	53	14	28	41
Severe or moderate pain	55	67	79	55	67	79						
Ambulance notes available	51	85	96	50	80	93						

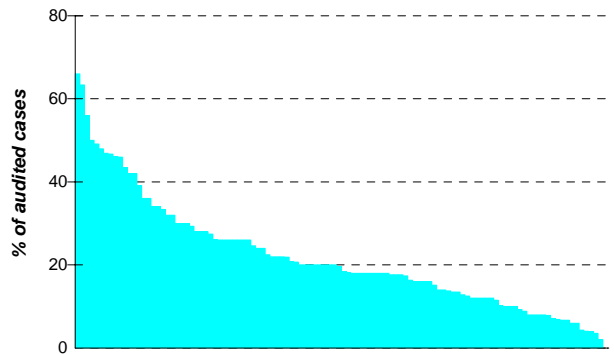
## How promptly was analgesia provided?

**Chart 01: No analgesia on arrival due to pre-hospital administration**



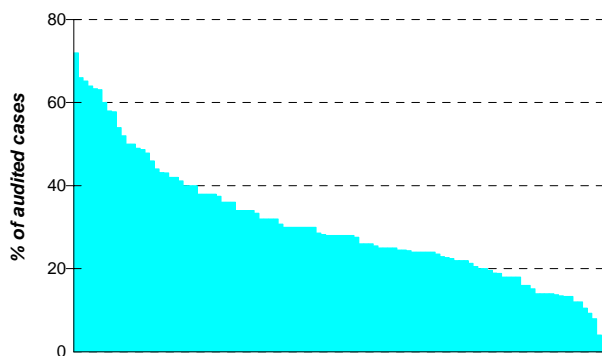
*Results for All trusts within All trusts*

**Chart 02: Analgesia within 20 minutes**



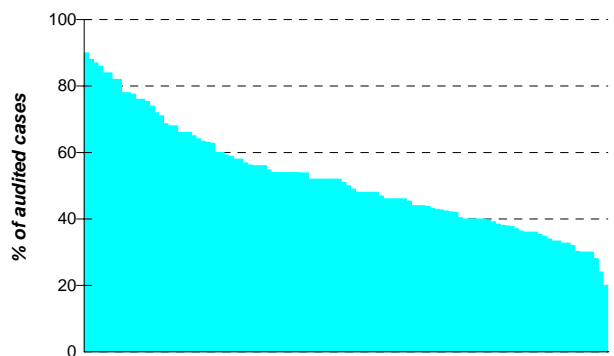
*Results for All trusts within All trusts*

**Chart 03: Analgesia within 30 minutes**



*Results for All trusts within All trusts*

**Chart 04: Analgesia within 60 minutes**



*Results for All trusts within All trusts*

### Comments:

These charts show the results of the 2008 audit in your department (picked out in a different colour and with a small asterisk below the axis) in comparison with those from other participating A&E departments.

The charts show percentages of audited cases in which it was documented by the ED notes that adequate analgesia was provided before arrival in ED and those where it was first offered or provided within (respectively) 20, 30 and 60 minutes of the patient's arrival. (The charts are cumulative: e.g. those receiving analgesia in 20 minutes are included in the figures for 30 and 60 minutes.)

Nationally, 10% of audited patients received adequate pain relief before arrival, 22% within 20 minutes of arrival, 30% within 30 minutes and 52% within 60 minutes of arrival in A&E.

(Note that the denominators of these indicators also include any cases for which the times at which analgesia was offered or provided were not documented in the notes).

## Trends in promptness of analgesia

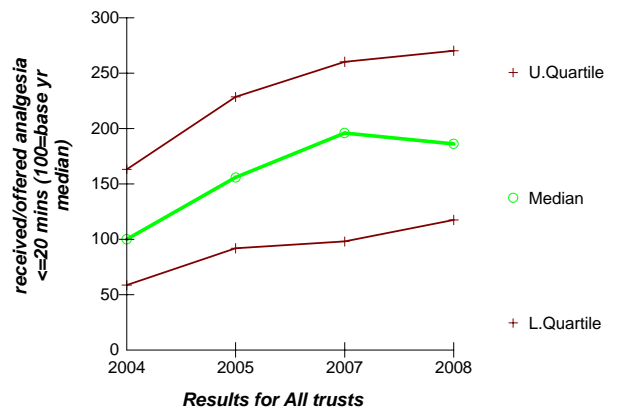
### Comments:

The trend charts on this page (and those later in this report) show how rapidly practice in your department has changed over successive audits compared to that of other emergency departments. The comparative set may vary from year to year as not all departments participated in each round of the audit.

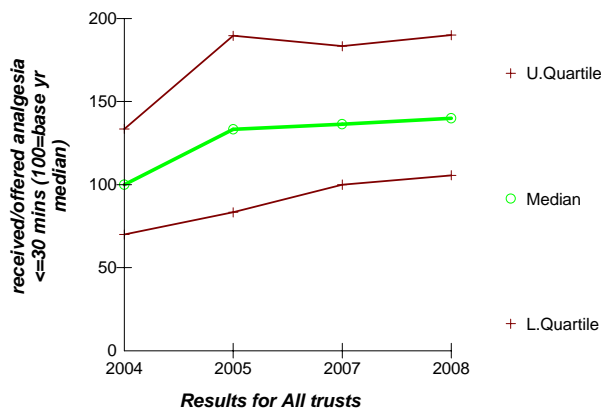
All of the values shown on these trend charts are in relation to the national median score in the first audit (i.e. a current score greater than 100 represents improvement on the overall national result of the first audit).

**Good performance is indicated if the thick red line (your results) is now either above the line denoting the upper quartile performance of all participating departments, or is converging towards it.**

**Chart 02T: Analgesia within 20 minutes – trend over successive audits**



**Chart 03T: Analgesia within 30 minutes – trend over successive audits**



**Chart 04T: Analgesia within 60 minutes – trend over successive audits**

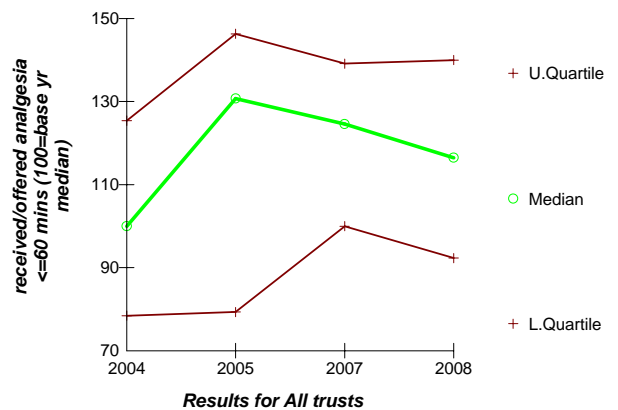


Chart 02T suggests that nationally there was sustained improvement in the percentage of audited patients receiving pain relief within 20 minutes of arrival (or prior to arrival) to 2007. However, results for 2008 suggests this trend had ended: there was some improvement by the least well performing departments, but not in the average department.

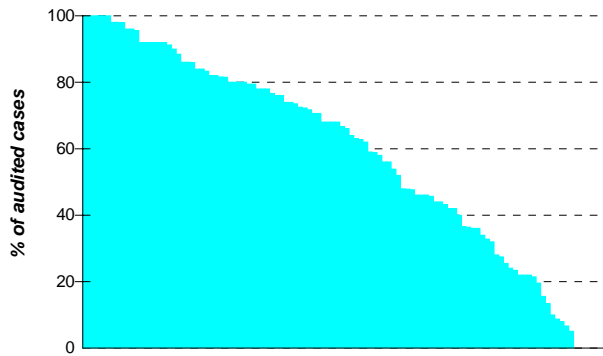
Chart 03T also shows improvement, however most of this occurred by 2005. Since then the least well performing departments have improved, but there has been little change by the better performing departments.

Charts 04T shows improvement by the least well performing departments up to 2007. For the average and best performing departments the improvements before 2005 has now levelled off.

Note that the latest data are not fully comparable with those from earlier audits as the 2007 and 2008 results include analgesia prior to arrival at the emergency department as also being within 20, 30 and 60 minutes of arrival.

Was analgesia provided in accordance with need?

Chart 05: Pain score recorded

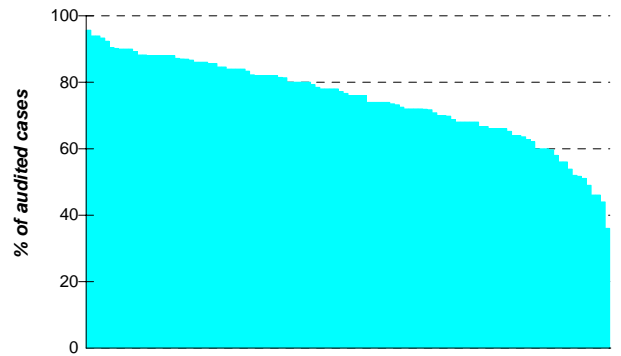


Results for All trusts within All trusts

The percentage of audited cases for which pain was assessed by the ED and a score recorded in the notes.

Nationally this was done in 59% of audited #NOF cases.

Chart 06: Analgesia accepted

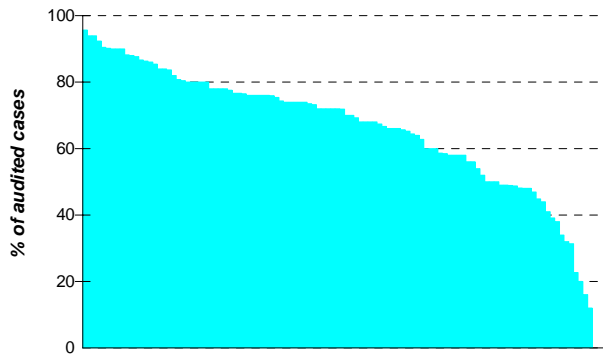


Results for All trusts within All trusts

The percentage of audited cases in which analgesia was accepted in the ED.

The national result was 75%.

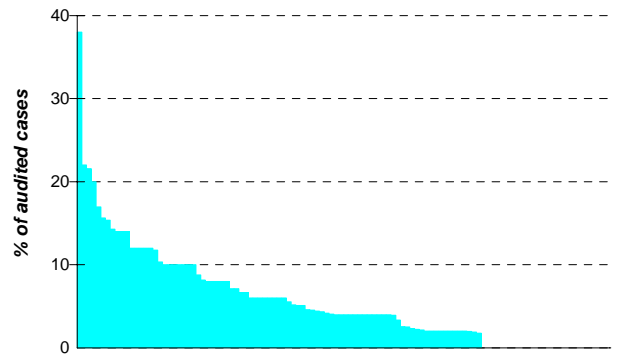
Chart 07: Analgesia within guidelines



Results for All trusts within All trusts

Nationally, analgesia was judged to have been provided according to CEM guidelines in 65% of the #NOF cases audited during 2007.

Chart 08: No reason recorded why analgesia not provided



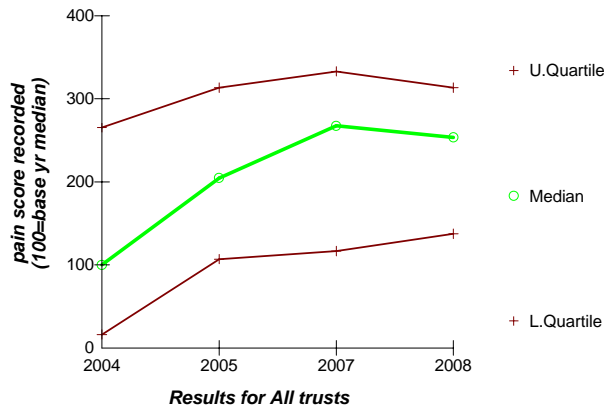
Results for All trusts within All trusts

The percentage of all audited #NOF cases in which no analgesia was provided in EDs and the reason for this was not recorded in the notes. On this chart, a **LOW** value is desirable

Nationally this occurred in only 6% of audited cases, but it was over as 12% in 10% of departments.

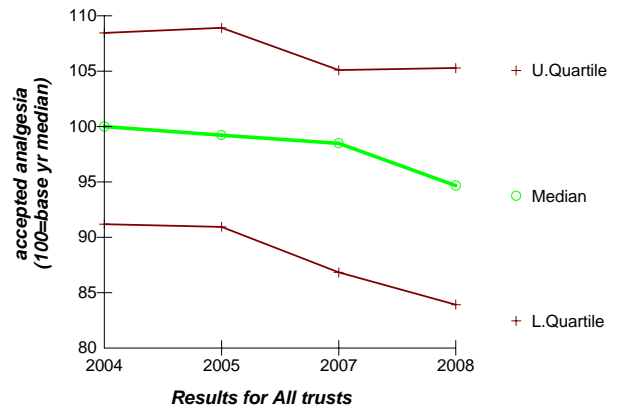
Trends in provision of analgesia

Chart 05T: Pain score recorded – trend over successive audits



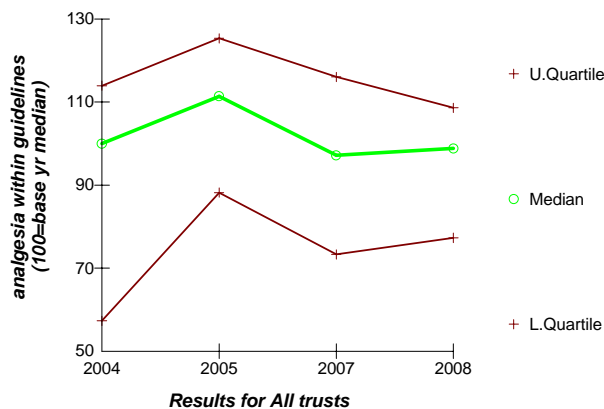
Nationally, the improvement in the assessment and recording of pain by A&E departments was greatest up to 2005. The slight drop in 2008's figures may be due to problems in the audit tool. However, some EDs reported the ambulance assessment where their records had no information.

Chart 06T: Analgesia accepted - trend over successive audits



Nationally, the percentage of audited cases in accepting analgesia has declined. If this has happened in your ED the reasons should be investigated (The rise in pre-hospital analgesia provided by ambulance staff is allowed for as where this happened patients were included in the totals for those receiving analgesia.)

Chart 07T: Analgesia within guidelines - trend over successive audits



Trends in the percentage of audited cases in which analgesia was judged to have been provided according to CEM guidelines.

Nationally, the chart suggests that the improvement seen between the first two audits has not been sustained. However, it is possible that standards of assessment have also become more rigorous over the intervening years.

**NOTE:** The trend charts on this page show how rapidly practice in your department has changed over successive audits compared to that of other EDs. The comparative set may vary from year to year as not all departments participated in each round of the audit.

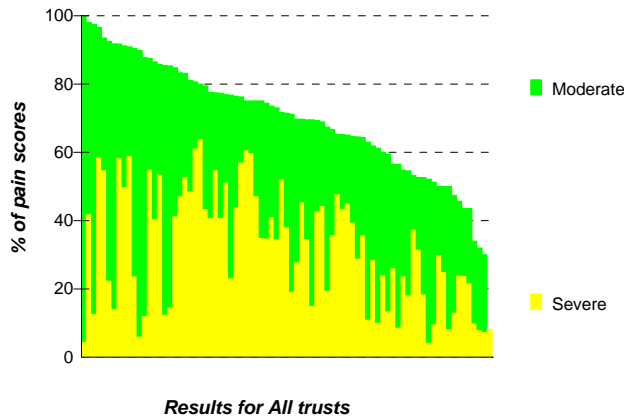
All of the values shown on these trend charts are in relation to the national median score in the first audit (i.e. a current score greater than 100 represents improvement on the overall national result of the first audit).

**Good performance on each chart is indicated if the thick red line (your results) is now either above the line denoting the upper quartile performance of all participating departments, or is converging towards it.**



Provision of analgesia: context

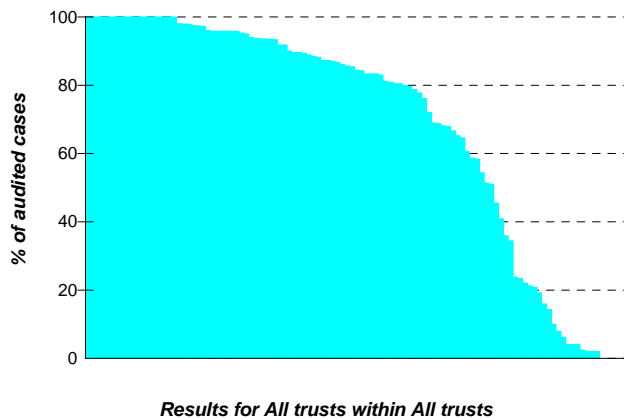
Chart 09: Percentages of patients in severe or moderate pain



Nationally, 32% of those audited #NOF patients for whom a pain score was recorded in the A&E notes were judged to be in severe pain when first assessed in the ED. A further 37% were judged to be in moderate pain.

(It is assumed that the remaining 32% of patients with a recorded pain score were assessed as being in little or no pain on arrival in the ED).

Chart 10: Ambulance notes available

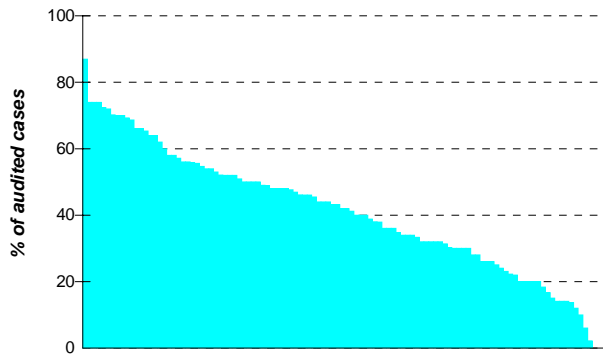


Most patients with #NOF will arrive at the ED by ambulance. The percentage of audited cases for which the ambulance notes were either filed with the ED notes or were readily available electronically.

Nationally this was so for 70% of audited cases.

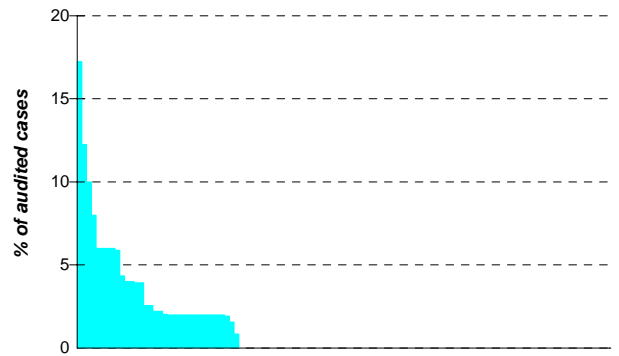
**Time to imaging and admission**

**Chart 12: X-rayed within 60 minutes of arrival at the ED**



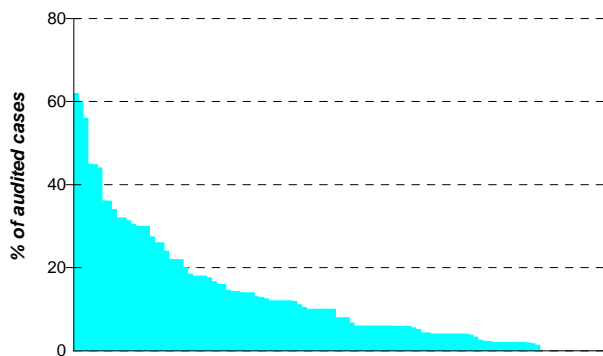
*Results for All trusts within All trusts*

**Chart 13: Admitted within 1 hour of arrival at the ED**



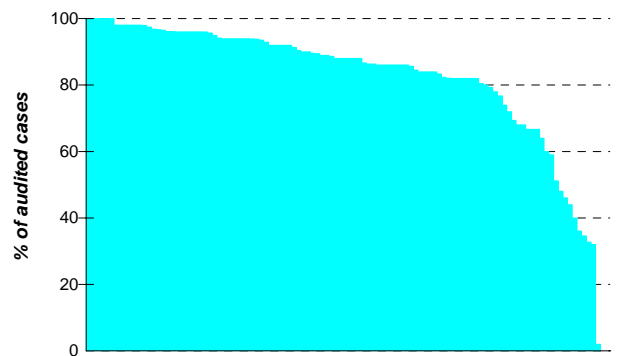
*Results for All trusts within All trusts*

**Chart 14: Admitted within 2 hours of arrival at the ED**



*Results for All trusts within All trusts*

**Chart 15: Admitted within 4 hours of arrival at the ED**



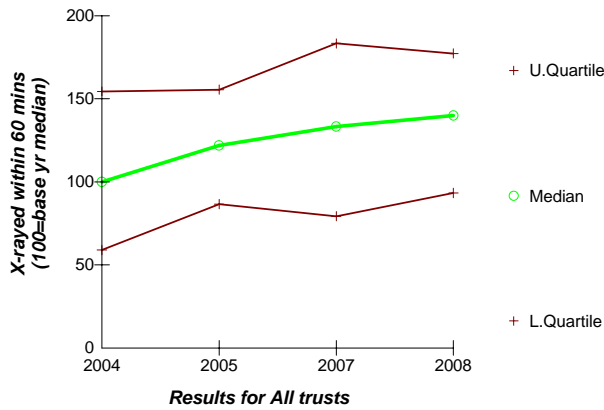
*Results for All trusts within All trusts*

Nationally, 41% of audited #NOF patients were X-rayed within 60 minutes of arrival at the ED. Overall, 13% of patients were admitted within 2 hours and 82% within 4 hours of arrival in A&E. It is likely that no time of admission was recorded in the A&E notes for some of the remaining 19% of audited patients, or were otherwise unavailable when the audit was carried out.

(It is difficult to both X-ray and admit a patient within 1 hour, as can be seen by comparing charts 12 and 13.)

## Trends in time to imaging and admission

**Chart 12T: X-rayed within 60 minutes of arrival at the ED – trend**

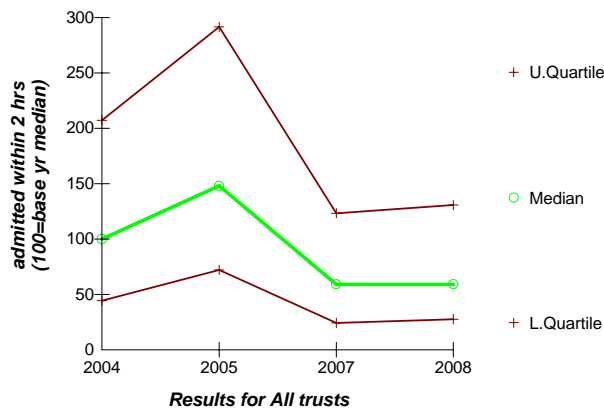


These trend charts show changes over successive audits in how quickly fractured neck of femur patients were X-rayed and admitted to hospital.

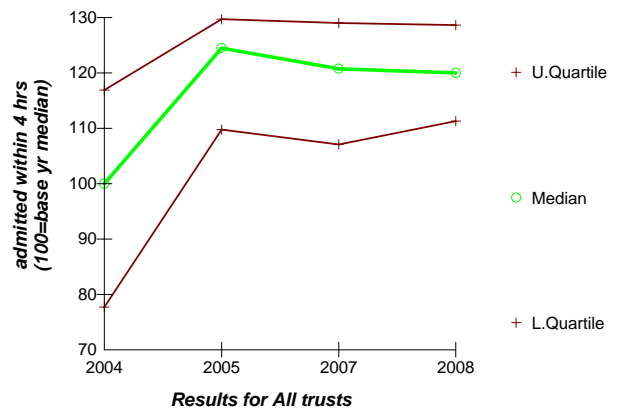
All of the values shown on these trend charts are in relation to the national median score in the first audit (i.e. a current score greater than 100 represents improvement on the overall national result of the first audit).

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**Chart 14T: Admitted within 2 hours of arrival at the ED - trend**



**Chart 15T: Admitted within 4 hours of arrival at the ED - trend**

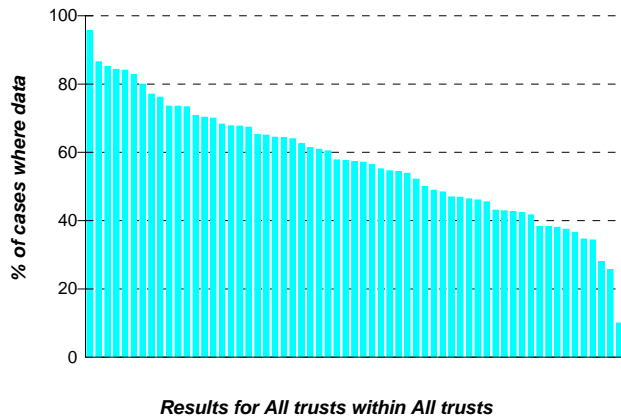


Nationally, there has been modest sustained improvement in the promptness with which #NOF patients are X-rayed.

As would be expected with the national (England) 4 hour target for total time in the ED, there has also been some improvement in the percentage of #NOF patients recorded as admitted within 4 hours. However since 2005 performance has changed little

## Time to surgery (from date of arrival to first operation)

**Chart 16: Operation on day of admission or following day**

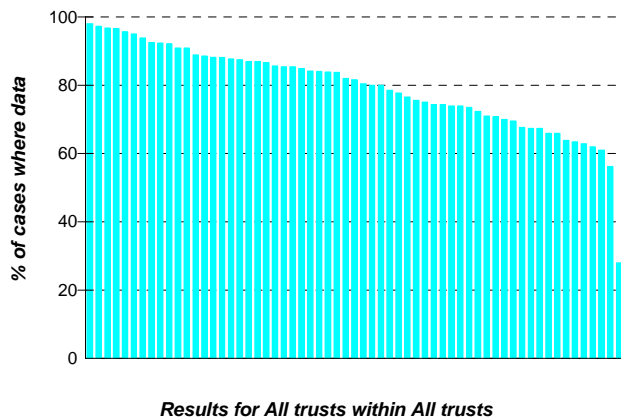


The audit returns requested information on the date of first operation compared to that of arrival where this could be ascertained. 62% of returns included this information for all patients. (It was 44% in 2007.)

The charts on this page include only those departments who reported the day of operation for 20 or more of their patients. The denominators are numbers of cases for which the day of operation was reported.

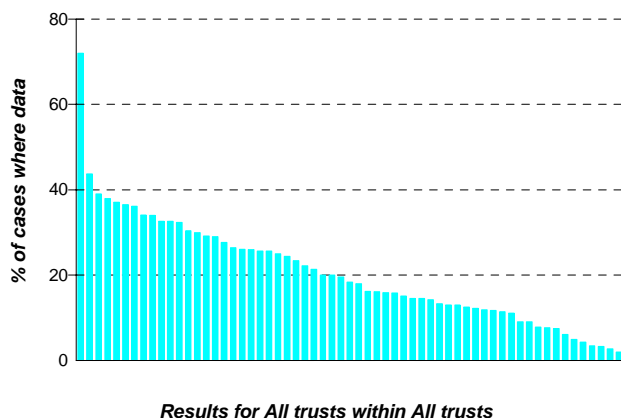
Overall, 56% of audited cases for which the data were available received an operation on the day of admission or following day, and 79% within 2 days. Both these figures represent a small increase on those for 2007.

**Chart 17: Operation within 2 days of admission**



However, it is likely that the figures above underestimate the percentages of patients waiting more than 2 days as it is these cases for which it will have been more difficult to ascertain the date of the first operation.

**Chart 18: Operation 3 or more days after admission**



A **LOW** value on this chart represents good practice.

Nationally, 21% of those #NOF patients for whom the date of operation could be ascertained at the time of the audit waited three or more days for an operation, substantially reducing their chance of full recovery. However, those cases for which the operation date was not recorded on the audit returns is also likely to include substantial numbers that waited excessive times for a first operation.