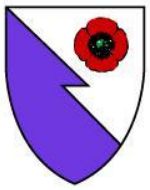


The College of
Emergency Medicine

CEM Clinical Audits 2013

Consultant Sign-off

National Findings

Introduction

This report shows results from audits against the consensus based clinical standard set by the College of Emergency Medicine (CEM) Clinical Effectiveness Committee (CEC) for consultant sign-off in the Emergency Department (ED) and published by CEM in December 2010. It compares EDs that made audit returns with the national averages.
The purpose of the audit was to identify current levels of compliance with the College standard, the extent to which these have changed since the 2011 audit and the impact of this standard on current practice, in order to inform subsequent review.
In total, 9377 cases from 125 EDs, of which 112 were in England (58% of English EDs), were included in the 2013 audit.

The CEM standard

The following patient groups should be reviewed by a consultant in Emergency Medicine (EM) prior to discharge (i.e. discharge home or to their usual place of residence) from the ED:

- Adults (over 17 years of age) with non-traumatic chest pain
- Febrile children less than 1 year old
- Patients making an unscheduled return to the ED with the same condition within 72 hours of discharge from the ED.

If, due to insufficient numbers of consultant staff, an EM consultant is not immediately available on the "shop floor" of the ED, then review may be carried out by a senior trainee in EM (ST4 or above), or by a staff grade or similar substantive career grade doctor with sufficient ED experience to be designated to undertake this role by the EM consultant medical staff.

There are many other presentations that carry a similar risk (e.g. headache and acute abdominal pain in the elderly), and individual departments may wish to add these and other conditions locally when staffing allows.
Junior doctors should have formulated a clear diagnosis or differential diagnosis and documented their proposed action plan prior to seeking EM consultant sign-off. The consultant review should be recorded in the patient's clinical notes, and should normally include the patient being seen and reviewed in person by the EM consultant. If the consultant is unable to make a contemporaneous note in the patient's ED record they should countersign the notes at the next opportunity, making a record of the date and time that this occurred.

Background to the audit

In December 2010 the CEM published a standard for "Consultant Sign-Off" in UK and Republic of Ireland Emergency Departments. This included an undertaking to audit and review the standard. The present audit of Consultant Sign-Off is a follow-up to one conducted in November 2011. It is one of four CEM clinical audit topics for 2012-13, the others being Feverish Children, Fractured Neck of Femur, and Renal Colic.

The Department of Health (DH) subsequently adopted "Consultant Sign-Off" as a quality indicator for Emergency Departments in England. There is currently no national data for this indicator. All English EDs need to collect and publish headline data relating to this quality indicator (the percentage "signed off" by a consultant for each of the three conditions) as detailed in the NHS Operating Framework and national indicators guidance.

This national audit of "Consultant sign-off" has been undertaken by the CEM, and is independent of the DH. However the CEM has agreed to share data from EDs in England with the DH. The College audit report and its summary findings will also be made public.
The College invited all EDs in the UK to participate in the audit. For reasons of space, the totals shown in this report are for all participating EDs but similar results are also available for England-only performance.

Participating departments were asked to collect data consecutively between Thursday 14th February 2013 (9 a.m.) and Thursday 28th February 2013 (9 a.m.) on up to 40 patients in each of the sign-off groups. They were requested to include all patients in each of the three diagnostic groups seen in the ED during this period, regardless of whether they were admitted or discharged.
The audit tool developed by the CEM summarised the data entered automatically and the summaries were then e-mailed to the CEM for analysis.

The format of this report

The tables and charts overleaf show UK averages and distributions. Some tables and charts relate to all audited patients, whilst others relate only to patients who were discharged from the ED: this distinction is always clearly indicated. There is a more detailed breakdown of these figures in the appendix. Please bear in mind the small sample sizes when interpreting the results: a larger audit has the potential to provide more representative figures over a longer period of time.

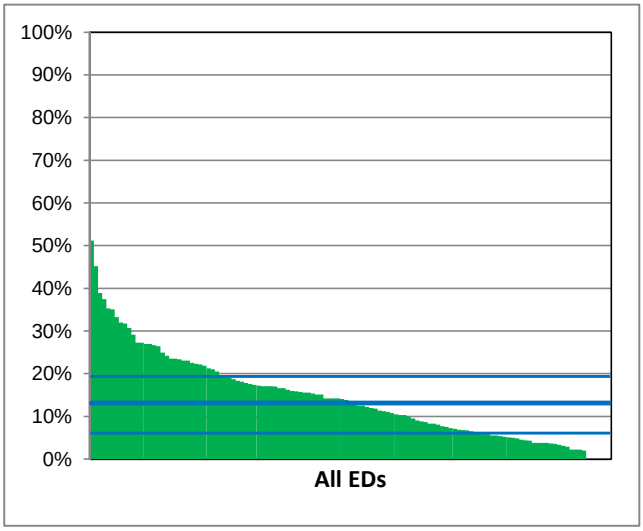
Seniority of doctors seeing audited patients

Table 1	Discharged Patients (only)											
					UK Totals							
% of discharged patients					first seen by		seen by		discussed with		ED notes reviewed after discharge	
						2013	2011	2013	2011	2013	2011	2013
a consultant / associate specialist					n/a	**11%**	12%	**14%**	12%	**13%**	7%	**7%**
a ST4 or more senior doctor*					n/a	**41%**	44%	**48%**	31%	**36%**	12%	**9%**

* consultant, associate specialist, staff grade, specialty doctor, senior clinical fellow, or ST4-7+

Chart 1: Percentages of discharged patients (only) seen …

… by a consultant or associate specialist



... by a doctor of seniority ST4 or above*

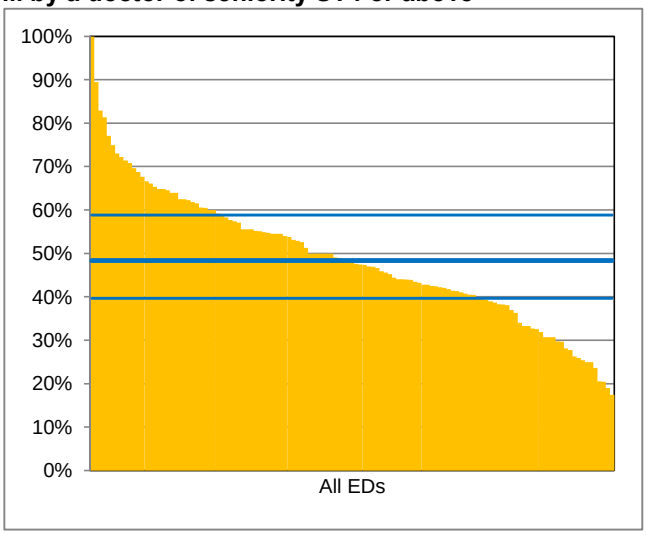
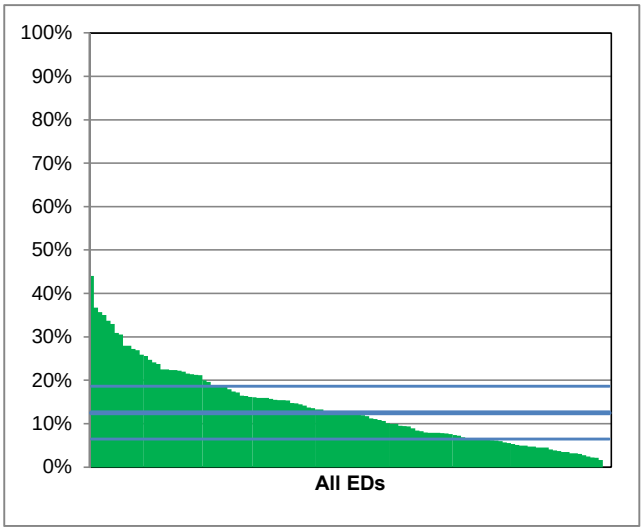


Table 2	All audited patients											
					UK Totals							
% of all audited patients					first seen		seen by		discussed with		ED notes reviewed	
						2013	2011	2013	2011	2013	2011	2013
a consultant / associate specialist					n/a	**10%**	11%	**13%**	11%	**12%**	7%	**7%**
a ST4 or more senior doctor*					n/a	**40%**	41%	**46%**	30%	**33%**	12%	**8%**

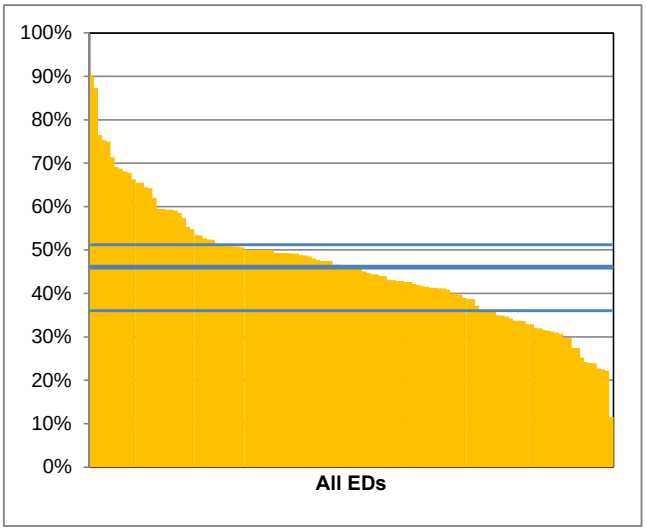
* consultant, associate specialist, staff grade, specialty doctor, senior clinical fellow, or ST4-7+

Chart 2: Percentages of <u>all</u> audited patients seen …

… by a consultant or associate specialist



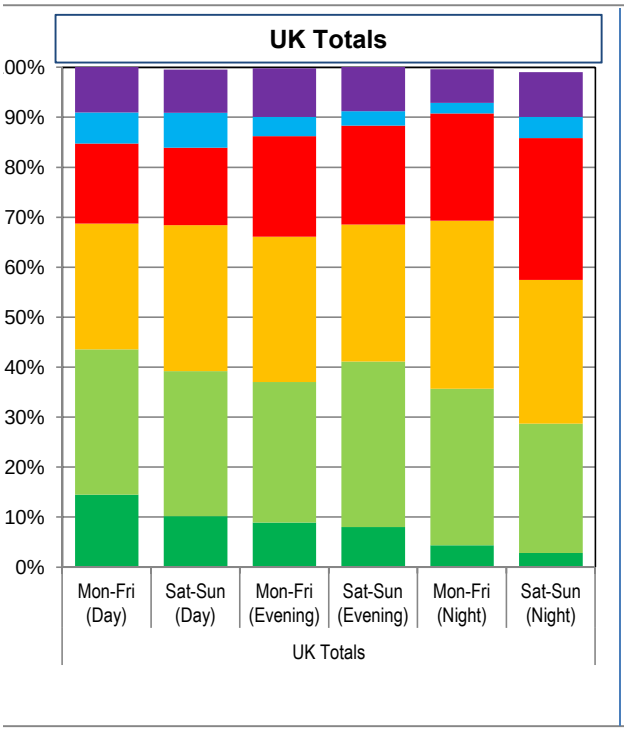
... by a doctor of seniority ST4 or above*

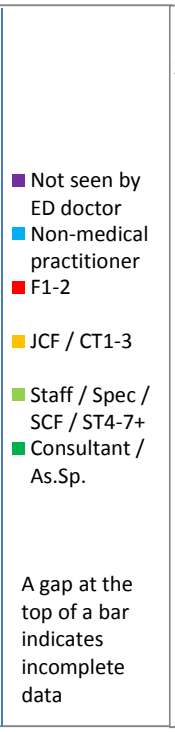


Seniority of doctors seeing audited patients (continued)

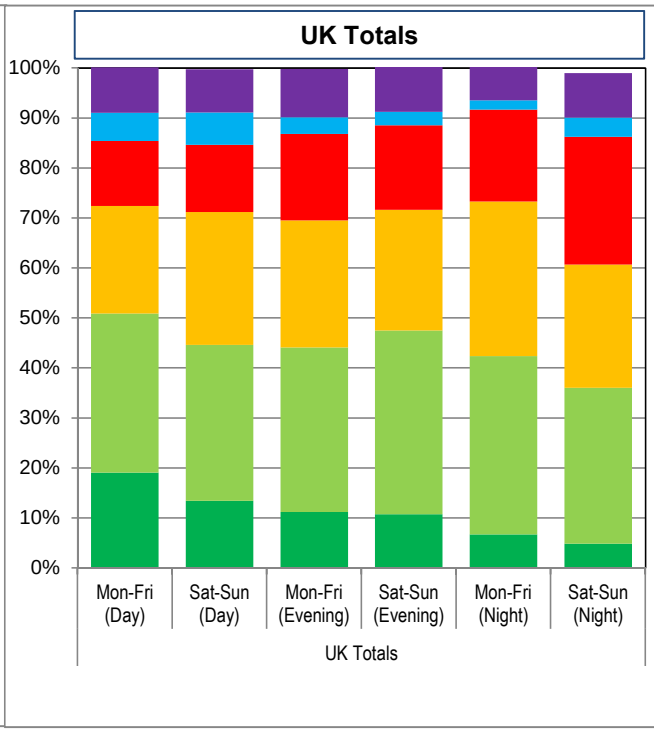
Chart 3: Percentages of all audited patients seen by each grade of doctor

a) First doctor





b) Most senior doctor to assess patient in person



The CEM standard is that the patients included in this audit should been seen by, or discussed with, an ED consultant (or failing that a senior ED doctor) before discharge.

Overall in the UK 14% of discharged patients (Table 1) and 13% of all admitted and discharged patients (Table 2) were seen and assessed by a consultant/associate specialist. 48% of discharged patients and 46% of all audited patients were seen by an ED doctor of at least ST4 seniority. In total, 26% were seen by or discussed with a consultant/associate specialist. Each of these figures represents a marginal improvement on 2011.

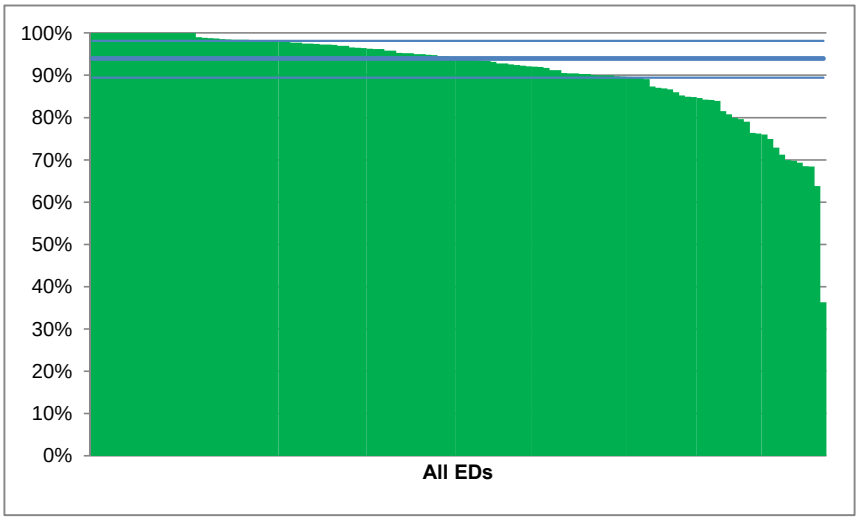
The percentages of audited patients seen by a consultant/associate specialist or senior doctor varied markedly between participating EDs. For consultants the range was 0% to 51% of discharged patients and 0% to 44% of all audited patients. For doctors of seniority ST4 or above, the ranges were 18% to 100% of discharged patients and up to 90% of all audited patients. Although patients were slightly more likely to be seen by a senior doctor at larger EDs than at smaller ones, the correlation was not statistically significant.

As might be expected, audited patients were more likely to be seen by a senior doctor a) during the day, rather than in the evening or at night, and b) on Mondays to Fridays rather than at weekends. For example, 19% were seen by a consultant/associate specialist during the daytime on Mondays to Fridays, compared to 7% on a Monday to Friday night and 5% on a Saturday/Sunday night; similarly, 51% were seen by an ED doctor of at least ST4 seniority during the daytime on a Monday to Friday, compared to 42% at night. Detailed results are shown in the appendix to this report (table 3).

The percentages of patients seen by locum doctors ranged between EDs from zero to 78%, with an average of 19%; these figures are higher than in 2011 when the average was 14%.

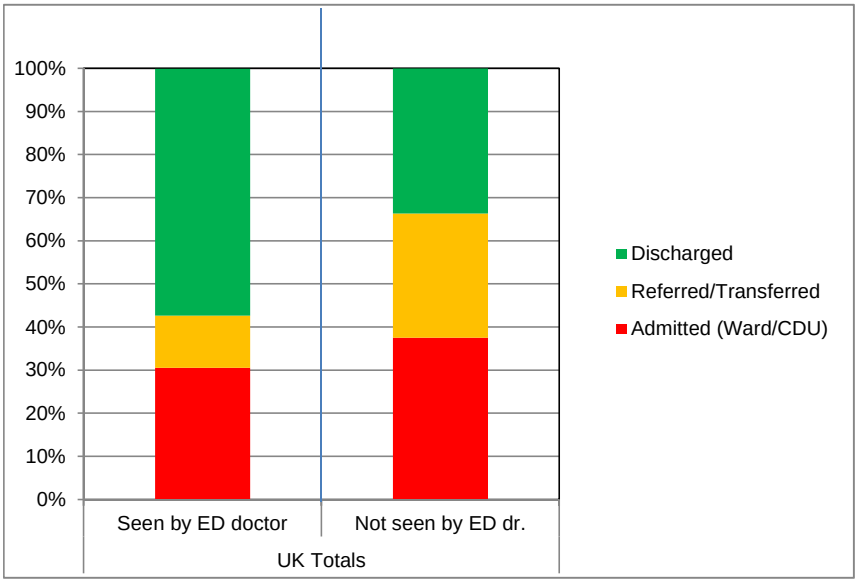
Were audited patients seen by an ED doctor?

Chart 4: Percentage of all audited patients seen by an ED doctor



Nationally, 91% of all patients included in this audit were seen by an ED doctor, but there was considerable variation across departments (from 36% to 100%)

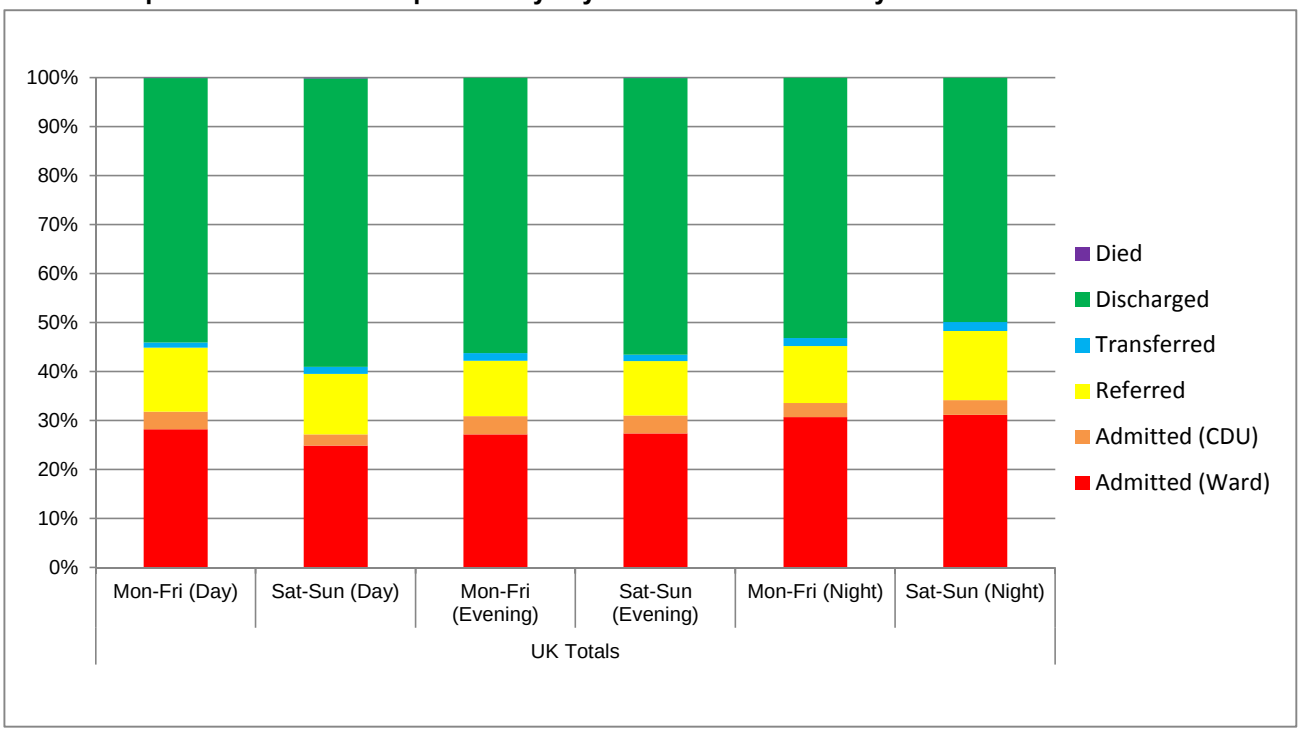
Chart 5: Admissions, referrals and discharges by whether or not patients were seen by an ED doctor



Nationally, patients were more likely to be discharged if they were seen by an ED doctor. This is likely to reflect the case-mix of patients seen by ED and other doctors as well as their respective propensities to admit, refer or discharge.

Disposition

Chart 6: Disposition of all audited patients by day of week and time of day

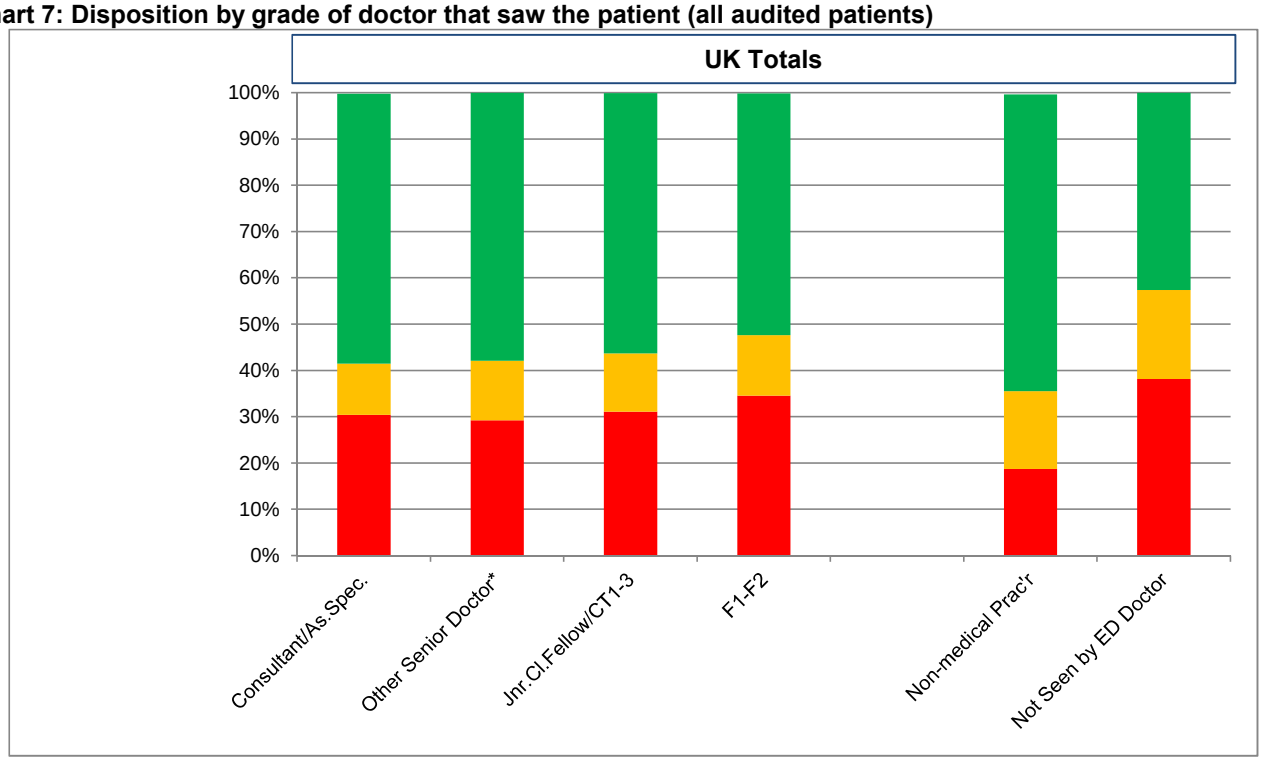


Overall, 28% of audited patients were admitted to a ward and 3% to a CDU; (these percentage admissions are lower than those found in the previous audit in 2011: 31% & 4%).
With only one exception, EDs where very low percentages of patients were admitted had comparatively high rates of referral or transfer. Admission rates for patients included in the audit varied from 0% to 70%; referral/transfer rates from 0% to 61%; discharges from 15% to 88%.

Overall, audited patients seen at night (or during the evening) were somewhat more likely to be admitted than those arriving during the daytime (between 8 a.m. and 6 p.m.). However, lower percentages of daytime patients arriving at weekends were admitted than on weekdays (and conversely higher percentages of patients were discharged): this may reflect differences in casemix and access to primary care.

Relationship between seniority of doctors and disposition

Chart 7: Disposition by grade of doctor that saw the patient (all audited patients)



* those included as "other senior doctors" are staff grades, specialty doctors, senior clinical fellows, and ST4-7+ doctors

The above chart shows the proportions of all audited patients admitted, referred or discharged according to the seniority of doctor that saw them. Published research suggests that consultant-delivered care ensures that patients are only admitted to hospital if there is no reasonable alternative.

At first sight, the UK totals chart appears to bear this out to some extent: 58% of those patients seen by a consultant/associate specialist were discharged compared to 52% of those seen by a F1/F2 doctor. However, there is little consistency between EDs. Indeed, a statistical regression between the percentages of patients seen by a senior doctor and the percentage discharged suggests that fewer patients were discharged by EDs where patients were seen by more senior doctors; (the sample size is too small to produce a statistically significant correlation). This could reflect differences in case-mix, with senior doctors seeing more serious cases. Similarly, the higher percentages of discharges among patients seen by non-medical practitioners is probably due to the lower acuity of their patients.

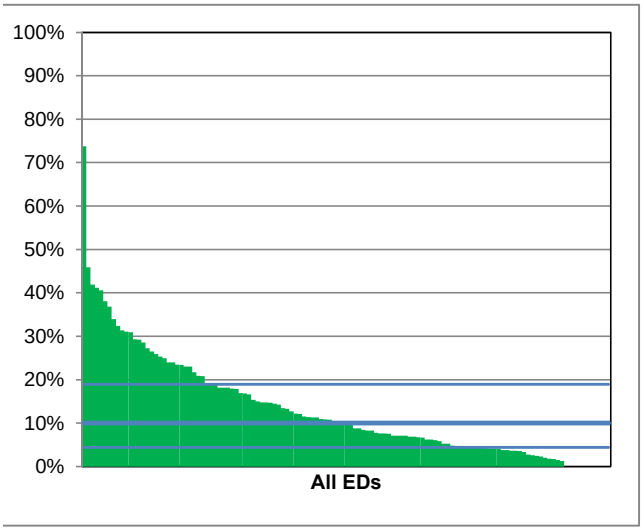
45% of those consultants surveyed who expressed a view thought that the sign-off standard definitely led to improved decisions on whether or not patients should be admitted, a further 21% that it might improve such decisions when it was possible to implement it. 25% said that it would not lead to improvement (9% did not know or did not comment). However, there were mixed views as to whether there would be a consequential reduction or increase in the numbers of admissions. 38% of those who expressed an opinion thought that the net effect would be fewer inappropriate admissions, 7% that there would be more admissions; however the majority view was that the impact, if any, would be on the quality of decision making and that there would be no net impact on percentages of admissions and discharges.

Similar proportions of respondents thought that the standard improved clinical management: 46% yes (slightly more pessimistic than in the previous audit), 32% that it might, and 21% that it would have little or no effect. Some were concerned that implementing the standard would be at the expense of other more valuable calls on consultant time. Others said that it was difficult to implement without improved record keeping. The overwhelming concern was that it could not be implemented without increased staffing and other resources. It must also be born in mind that EDs that opted to participate in the audit were self-selecting, and may be biased in favour of the standard.

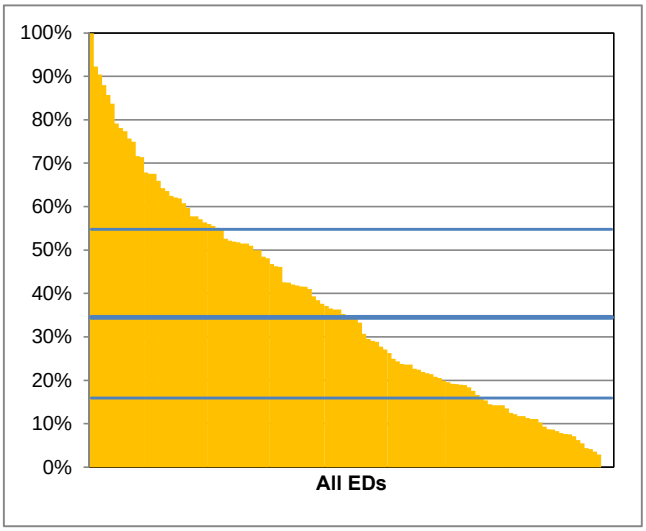
Consultation with a more senior doctor

Chart 8: Percentages of discharged patients (only) discussed ...

a) … with a consultant or associate specialist



b) … with a doctor of seniority ST4 or above*



* consultant, associate specialist, staff grade, specialty doctor, senior clinical fellow, or ST4-7+

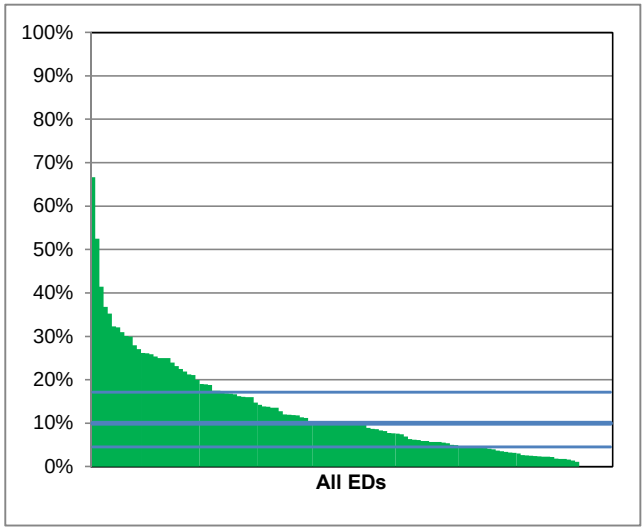
The CEM standard is that the patients included in this audit should been seen by an ED consultant (or failing that a senior ED doctor) before discharge.

Charts 8a & 8b (above) show the percentages of discharged patients who, according to the notes, were discussed with a consultant or senior doctor. Recorded percentages vary markedly between EDs. Nationally 13% were discussed with a consultant/associate specialist; 36% with a doctor of grade ST4 grade or more senior*.

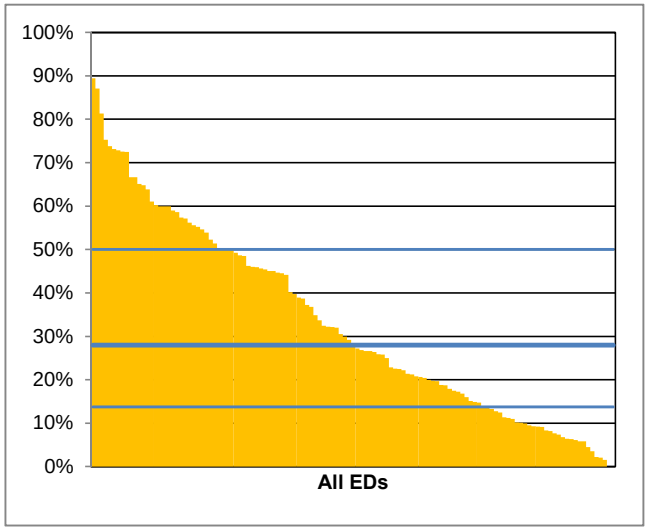
Charts 9a & 9b (below) show the percentage ranges for all audited patients, of whom 12% were discussed with a consultant/associate specialist and 33% with a doctor of ST4 grade or more senior*.

Chart 9: Percentages of <u>all</u> audited cases discussed ...

a) … with a consultant or associate specialist



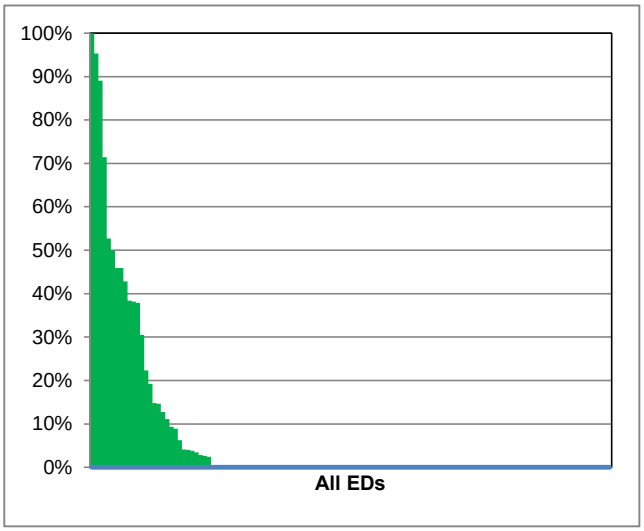
b) … with a doctor of seniority ST4 or above*



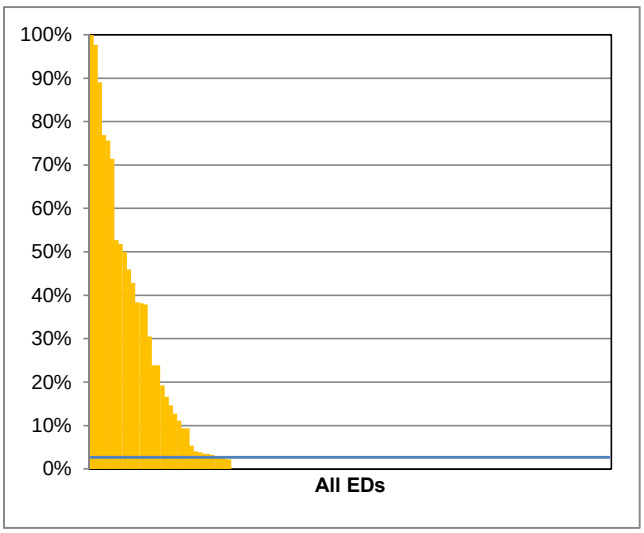
Retrospective review

Chart 10: Percentages of discharged cases (only) where the ED notes were reviewed retrospectively

a) … by a consultant or associate specialist



b) … by a doctor of seniority ST4 or above*



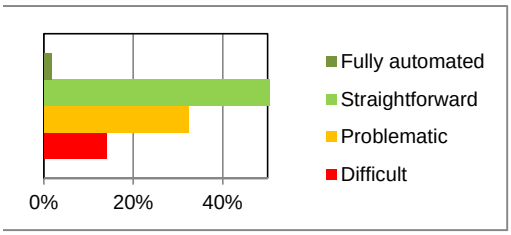
* consultant, associate specialist, staff grade, specialty doctor, senior clinical fellow, or ST4-7+

Charts 10a & 10b relate to retrospective notes review of discharged patients (only) by a consultant/associate specialist or senior doctor* after they have left the ED. Overall, 9% of audited cases where the patient was discharged were reviewed (compared to 12% in the previous audit). One ED reviewed all such cases, but the majority had no record of having conducted these reviews.

The results noted for both consultation and review should be treated with caution and, in some instances, may reflect a weakness of documentation rather than of review.

Data availability

Chart 11: Respondents' comments on data availability for this audit



Two participating departments reported that obtaining the data required for this audit was "fully automated" and 63 (52%) that it was "straightforward"; these figures suggest improvement since the previous audit in 2011. However 39 (32%) found the data collection "problematic" and 17 (14%) "difficult".

In conclusion

The Emergency Department (ED) is the ffront doorò of the acute hospital, responsible for the management of 20 million patients every year in the United Kingdom. Some of the sickest patients in the hospital will be found in the ED, and the level of clinical risk is very high because ED clinicians are required to make critical decisions under conditions of considerable uncertainty with incomplete information, limited resources and substantial time pressures. Published research indicates that consultant-delivered care reduces waiting times and length of stay, improves clinical outcomes and ensures that patients are only admitted to hospital if there is no reasonable alternative.

The College of Emergency Medicine advocates progressive EM consultant expansion in order to improve the quality and timeliness of care, and enhance the support provided to junior doctors and other practitioners working within the ED. In 2010 the College began to identify high-risk patient groups who should be reviewed by a consultant in Emergency Medicine before they are discharged from the Emergency Department.

It has always been accepted that this will be a difficult standard to achieve, and the College is grateful to all those EDs that have participated in this second national audit of consultant sign-off. Overall, data from 125 EDs show that only 14% of patients in the identified high risk groups are seen by a consultant prior to discharge, but nearly half are seen by a ST4 trainee or more senior doctor, with a marginal improvement in these figures since the first audit in 2011, which is encouraging. The current gaps in consultant cover are clearly demonstrated, particularly in the evenings and overnight, and progressive expansion within the consultant tier should work to address this. It is encouraging to note that patients are generally more likely to be discharged if they are seen by an ED doctor, and that senior ED doctors have a lower admission rate than juniors, though these findings are complicated by the effects of casemix: consultant staff would be expected to see the most seriously ill and injured patients, so their rate of hospital admission in unselected cases may be even lower than the overall figure of 31% that we have found in this audit (compared to 34% in the previous audit). The fact that 46% of EDs returning data still found the information problematic or difficult to collect indicates the need to further improve data collection and coding systems within the ED, ideally through an automated process that places minimal demands on the practicing clinician.

The College of Emergency Medicine hopes that these local and national comparative data will be useful to all EDs in further developing their service and plans to provide senior presence within the ED. In working towards the consultant sign-off standard the College recommends that EDs have in place a plan to both address the clinical risk and work towards achievement of the standard, through an increase in Emergency Medicine consultant numbers.

Feedback on this standard and its implications is welcomed by the College. It will be reviewed taking into account the findings of this national audit, with further development over time. Please philip.mcmillan@collemergencymed.a with any comments or suggestions.

Thank you

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

Unfortunately the data collection tool attracted a variety of interpretation of some questions: in particular, some EDs appear not to have completed question 7 (grade of most senior ED doctor to actually see and assess the patient in person) if this was the doctor who saw the patient first (question 6); also some EDs answered questions 6 and 7 for patients said to have been referred directly to a specialty team without seeing an ED doctor whereas others have not. It has not been possible to identify and correct all of these individual inconsistencies from the summary data returned to the CEM. The methods used to estimate comparable data are summarised below at the end of the appendix, however the magnitude of these issues is not such as to invalidate the overall national findings of the audit.

Details of CEM national audit programmes can be found at:
http://www.collemergencymed.ac.uk/Shop-Floor/Clinical Audit/Current Audits

Appendix: Results for your ED in 2013 compared with national findings

Table 3	Day & Time of Arrival													
								UK Totals						
								Mon-Fri (Day)	Mon-Fri (Evening)	Mon-Fri (Night)	Sat-Sun (Day)	Sat-Sun (Evening)	Sat-Sun (Night)	TOTALS
% Total								35%	24%	11%	15%	10%	5%	
By Patient Group														
% Adult NTCP								37%	23%	11%	15%	9%	6%	48%
% Febrile child <1								26%	32%	11%	14%	13%	4%	16%
% Unsch return <72 hrs								37%	22%	10%	16%	9%	5%	37%
By Disposition														
% Admitted (ward)								28%	27%	31%	25%	27%	31%	28%
% Admitted (CDU)								4%	4%	3%	2%	4%	3%	3%
% Referred								13%	11%	12%	12%	11%	14%	12%
% Transferred								1%	2%	2%	1%	1%	2%	1%
% Discharged								54%	56%	53%	59%	56%	50%	55%
% Died								0%	0%	0%	0%	0%	0%	0%
By referral to a specialty team														
Patient seen by ED doctor								91%	90%	93%	91%	90%	91%	91%
Patient not seen by ED doctor								9%	10%	7%	9%	10%	9%	9%
Grade of first ED doctor to actually see and assess the patient in person														
Consultant / Associate Specialist								15%	9%	4%	10%	8%	3%	10%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								29%	28%	31%	29%	33%	26%	29%
Junior Clinical Fellow / CT1-3								25%	29%	34%	29%	27%	29%	28%
F1-F2								16%	20%	21%	16%	20%	28%	19%
Non-medical practitioner								6%	4%	2%	7%	3%	4%	5%
Not seen by an ED doctor								9%	10%	7%	9%	10%	9%	9%
% first seen by a locum														19%
Grade of most senior ED doctor to actually see and assess the patient in person *(see notes overleaf)*														
Consultant / Associate Specialist								19%	11%	7%	13%	11%	5%	13%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								32%	33%	36%	31%	37%	31%	33%
Junior Clinical Fellow / CT1-3								22%	25%	31%	27%	24%	25%	25%
F1-F2								13%	17%	18%	13%	17%	26%	16%
Non-medical practitioner								6%	3%	2%	6%	3%	4%	3%
Not seen by an ED doctor								9%	10%	7%	9%	10%	9%	9%
% seen by a locum (excluding														19%
Grade of most senior ED doctor with whom there is evidence that the patient was discussed during their visit to the ED														
Consultant / Associate Specialist								18%	10%	7%	12%	8%	6%	12%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								19%	21%	25%	19%	22%	25%	21%
Junior Clinical Fellow / CT1-3								5%	8%	12%	7%	9%	9%	7%
F1-F2								2%	4%	5%	2%	5%	9%	4%
Non-medical practitioner								2%	1%	1%	3%	1%	1%	1%
Not discussed / Data missing								*54%*	*56%*	*51%*	*58%*	*55%*	*50%*	*55%*
% discussed with a locum														16%
Grade of most senior ED doctor to review the patient's ED case notes retrospectively following their visit to the ED														
Consultant / Associate Specialist								6%	7%	6%	6%	9%	9%	7%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								1%	1%	3%	1%	1%	2%	1%
Junior Clinical Fellow / CT1-3								0%	0%	1%	0%	0%	0%	0%
F1-F2								0%	0%	1%	0%	0%	1%	0%
Non-medical practitioner								0%	0%	0%	0%	0%	0%	0%
Not reviewed / Data missing								*92%*	*91%*	*89%*	*92%*	*90%*	*88%*	*91%*
% reviewed by a locum														4%

* Note: Results are not shown if the denominator of those percentages would be less than 5 patients

The percentages shown may not sum to 100% due to missing/erroneous data and/or rounding

See also notes overleaf on how these results have been calculated

Consultant sign-off ...

Table 4	Percentage Disposition (percentages sum across the columns)												
								UK Totals					
								Admitted (ward)	Admitted (CDU)	Referred	Transferred	Discharged	Died
By Patient Group													
% Adult NTCP								34%	4%	10%	1%	50%	0%
% Febrile child <1								22%	2%	12%	1%	62%	0%
% Unsch return <72 hrs								22%	3%	15%	1%	59%	0%
By referral to a specialty team													
Patient seen by ED doctor								27%	4%	11%	1%	57%	0%
Patient not seen by ED doctor								36%	1%	27%	2%	34%	0%
Grade of first ED doctor to actually see and assess the patient in person													
Consultant / Associate Specialist								27%	3%	9%	2%	59%	0%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								27%	3%	11%	1%	57%	0%
Junior Clinical Fellow / CT1-3								29%	3%	11%	1%	56%	0%
F1-F2								29%	5%	11%	1%	54%	0%
Non-medical practitioner								15%	2%	13%	3%	67%	0%
Not seen by an ED doctor								36%	1%	26%	2%	34%	0%
Grade of most senior ED doctor to actually see and assess the patient in person													
Consultant / Associate Specialist								26%	5%	10%	2%	58%	0%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								26%	3%	11%	1%	58%	0%
Junior Clinical Fellow / CT1-3								29%	3%	11%	1%	55%	0%
F1-F2								30%	4%	11%	1%	53%	0%
Non-medical practitioner								15%	1%	12%	3%	66%	0%
Grade of most senior ED doctor with whom there is evidence that the patient was discussed during their visit to the ED													
Consultant / Associate Specialist								23%	8%	11%	1%	57%	0%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								23%	3%	10%	1%	63%	0%
Junior Clinical Fellow / CT1-3								31%	1%	9%	1%	59%	0%
F1-F2								32%	1%	12%	2%	53%	0%
Non-medical practitioner								15%	1%	11%	4%	69%	0%
Not discussed with an ED doctor								67%	0%	19%	11%	4%	0%
Grade of most senior ED doctor to review the patient's ED case notes retrospectively following their visit to the ED													
Consultant / Associate Specialist								30%	2%	8%	1%	58%	0%
Staff Grade / Specialty Doctor / Senior Clinical Fellow/ST4-								20%	5%	8%	0%	66%	0%
Junior Clinical Fellow / CT1-3								10%	0%	28%	0%	62%	0%
F1-F2								0%	0%	14%	7%	79%	0%
Non-medical practitioner								17%	0%	17%	8%	58%	0%
Not reviewed by an ED doctor								*	*	*	*	*	*

* Note: Results are not shown if the denominator of those percentages would be less than 5 patients
The percentages shown may not sum to 100% due to missing/erroneous data and/or rounding

Estimation of comparable data

Inconsistencies in the ways in which audit questions were answered have been addressed as follows:

First ED doctor to actually see and assess the patient in person: Not seen by an ED doctor:

Percentages have been calculated as the maximum of the numbers reported as not seeing an ED doctor in questions 5 and 6.

Grade of most senior ED doctor to actually see and assess the patient in person:

i. Percentages not seen by an ED doctor have been calculated as above.

ii. The most senior ED doctor to see the patient must have been either senior to the first doctor to see the patient or of the same grade. However question 7 (most senior doctor) may have been left blank if it was not present in the notes.

Therefore, for each time slot, disposition and grade of ED doctor, cumulative numbers reported under question 7 as seen by that grade or a more senior doctor were calculated, together with similar cumulative totals for first doctor (question 6); if any of the cumulative totals for question 7 is less than the corresponding total for question 6, the maximum of the two figures has been used.

However on some ED returns, the total number of responses to question 7 (most senior doctor to see the patient) is less than half that to question 6 (first ED doctor). In these cases it has been assumed that question 7 has been answered only for cases where a patient was seen subsequently by a doctor more senior than the first doctor. In this case the answer to question 7 for each grade is added to the corresponding cumulative total of question 6 but then subtracted from the appropriate cumulative totals that include lower grades (i.e. they move up one or more grades).