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# Referrals to A&E

## Changes over 5 years

### Keywords

referral and consultation; emergency service, hospital; research; general practice



In July 2008, using 2003 to 2007 data from BEACH (Bettering the Evaluation and Care of Health), we published an article in this journal about patients attending general practice who were referred to hospital accident and emergency departments (A&E).<sup>1</sup> The precise referral rate at that time was 1.85 per 1000 encounters (95% CI: 1.70–1.99). A new analysis using recent data shows that in 2008 to 2011 the general practice referral rate to A&E was significantly higher: 2.70 per 1000 encounters (95% CI: 2.48–2.92).

In both time periods, male and female patients were referred at similar rates. In 2008–11, adult patients were significantly more likely to be referred to A&E than in 2003–07. While A&E referral rates did increase for children, the small numbers involved meant the change was not statistically significant (*Figure 1*). At A&E encounters in both study periods, the proportion of patients who were new to the practice was much greater than the average for BEACH encounters. In both periods there were also high rates of new problems managed (and low rates of chronic problems), low medication and pathology ordering rates and high rates of procedures. Over 30% of the procedures performed were electrical tracings and another 20% were injections.

Digestive, circulatory and respiratory problems together accounted for 43% of all A&E referrals in 2008–11 and 50% in 2003–07. Digestive problems made up a significantly smaller proportion of referred problems in 2008–11 (16.1%) than in 2003–07 (22.8%). The most common individual problems managed with a referral to A&E are shown in *Table 1*. Fractures were the most commonly referred problem in both studies. No statistically significant differences over time were found, as confidence intervals were wide at this level of analysis. However, one can see trends between the study periods, in particular the extent to which digestive problems, pneumonia, urinary tract infection and acute myocardial infarction contributed to total referrals to A&E in each of the study periods.

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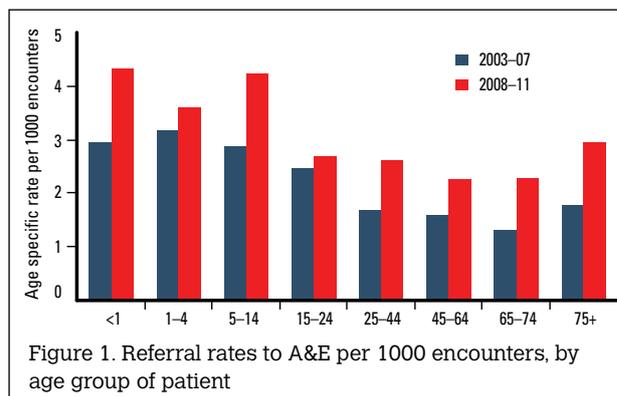


Figure 1. Referral rates to A&E per 1000 encounters, by age group of patient

Table 1. Problems managed with an A&E referral

Problem referred to A&E	2003-07 % of problems referred (n=933)	2008-11 % of problems referred (n=1117)
Fracture	5.8	5.7
Pneumonia	3.1	4.7
Appendicitis	5.6	3.9
Chest pain	3.2	3.7
Ischaemic heart disease	3.6	3.4
Abdominal pain	5.3	3.1
Boil/carbuncle/cellulitis leg	1.2	2.1
Urinary tract infection	0.8	2.0
Gastroenteritis	2.5	1.7
Asthma	1.9	1.7
Other digestive disease	2.7	1.4
Acute myocardial infarction	2.4	1.2
Subtotal	38.1	34.6

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### Reference

1. Charles J, Fahridin S, Britt H. Referrals to A&E. *Aust Fam Physician* 2008;37:505.

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