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Complex trends in admissions per death

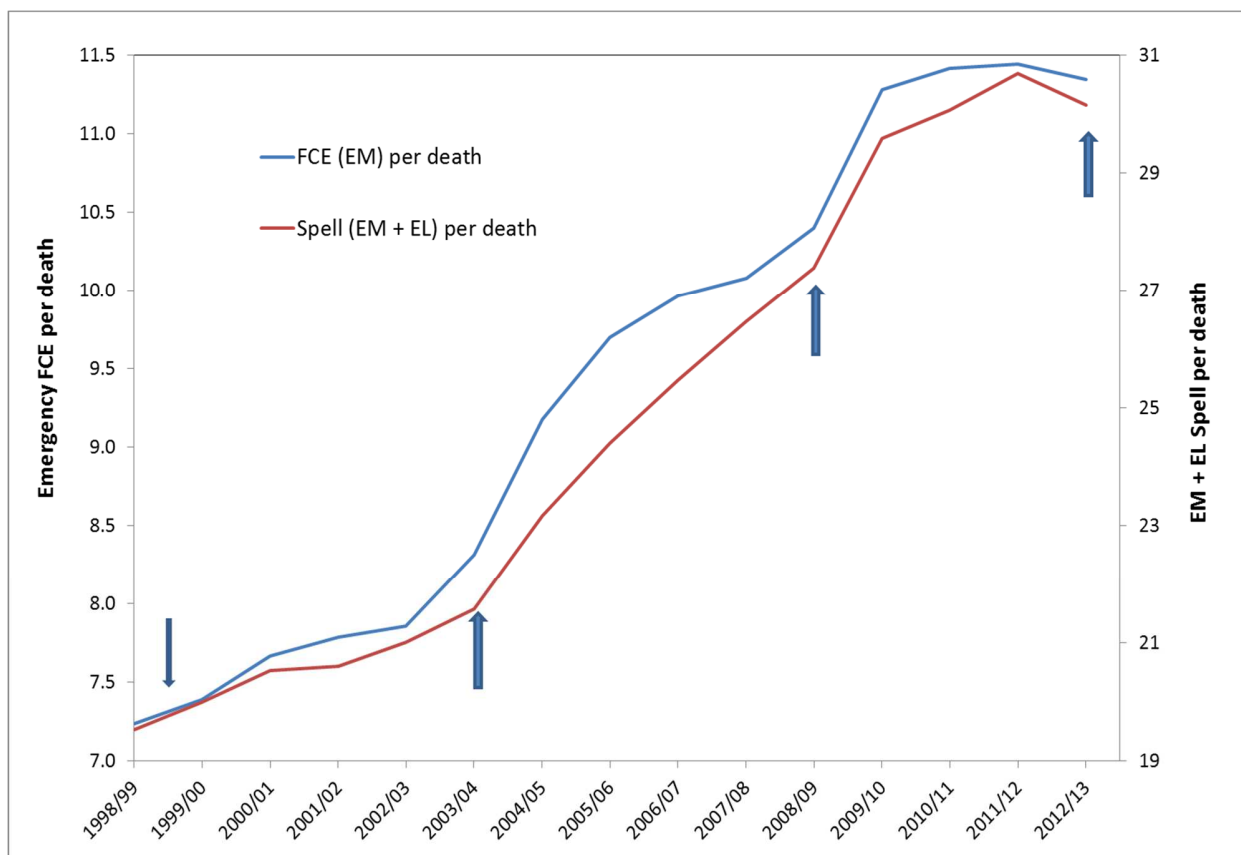
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The September Money Matters article looked at the ratio of emergency (EM) admissions per death as a point estimate of the lifetime number of admissions per person and attempted to investigate why this ratio was so high. Fig. 1 investigates the trend in this ratio over a 15 year time period and highlights two issues.

Firstly, why the rapid growth between 2003 and 2008, and secondly, why the cyclic behavior?

Figure 1: Trends in the ratio of admissions per death

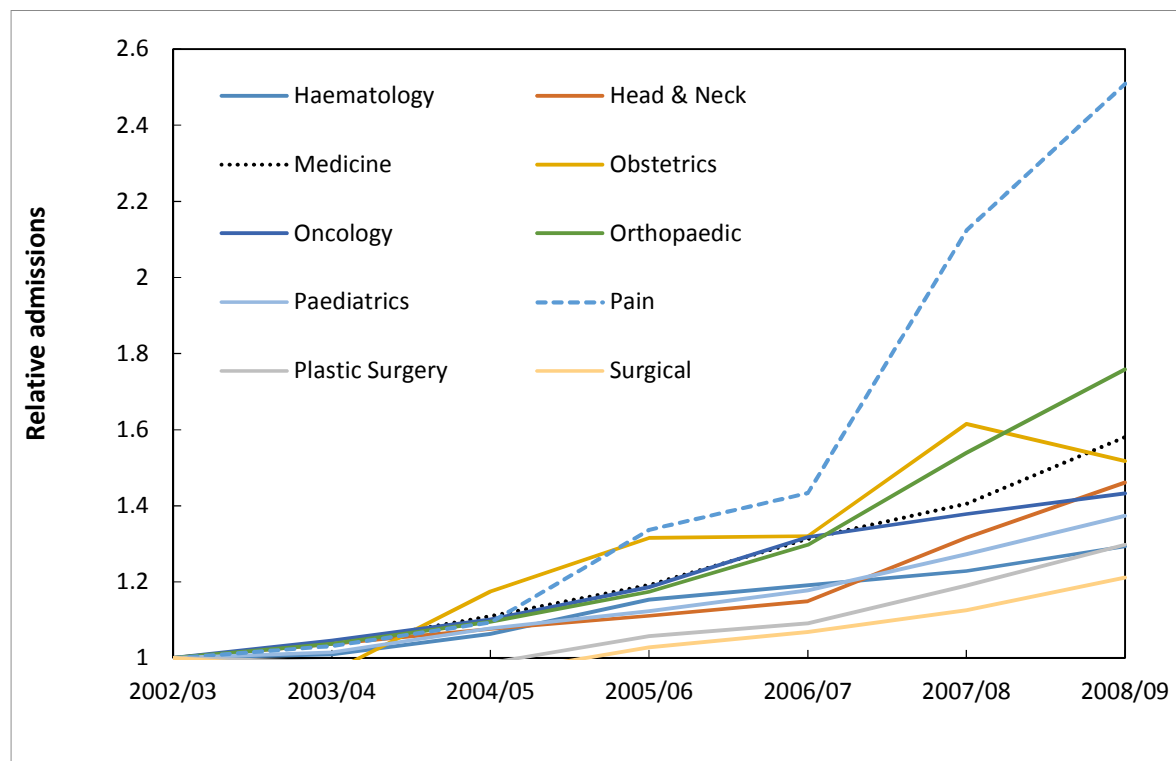


Footnote: Admissions is from Hospital Episode Statistics (HES) available from the Health and Social Care Information Centre website while deaths are from the Office for National Statistics (ONS). Also in Fig. 2.

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The growth between 2002 and 2008 seems to be due to two factors, namely, the expansion in the remit of Payment by Results (PbR) as the currency for financial transactions and the introduction of the four hour target in A&E. As can be seen in Fig. 2 the impact of PbR on elective admissions was mostly felt in the area of 'day case' admissions where otherwise outpatient tests and minor procedures were re-badged as a 'day case'. After adjusting for demographic growth and making allowance for genuine growth in day surgery this trend probably added somewhere around 815,000 spurious 'day case' admissions of which 38% were from the medical specialties (excluding haematology and oncology). There are probably further large numbers of regular day attenders in haematology, oncology and pain management counted as a 'day case' leading to further inflation in the total count.

Figure 2: Growth in 'day case' admissions 2002/03 to 2008/09



In terms of the impact of the A&E four hour target my own research indicates somewhere around 1.5 million spurious emergency 'admissions' were created which in any other country of the world would be called an A&E attendance. However even after making these adjustments the ratio of emergency FCE per death only drops to 8.1 in 2012/13 while that for total spell per death only drops to around 25.2, i.e. the numbers remain stubbornly high.

The remaining issue is the apparent cyclic spurts in growth for the ratio of admissions per death. An extended series of articles in BJHCM have sought to demonstrate that these are due to outbreaks of a new type of infectious immune impairment which lead to dual increases in admissions and death (Jones 2013a-c, 2014a,c,e, 2015c, Jones & Goldeck 2014). Interestingly, each outbreak appears to increase the ratio of FCE per spell due to increased case complexity (Jones 2015c). Spatial spread of this agent has now been confirmed (Jones 2013d, 2014b, 2015b,d,e Jones & Beauchant 2015) and after adjusting for the masking effect of relatively slow spread the 2012 outbreak probably accounting for somewhere

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around 60,000 deaths in the UK (Jones 2015b) – which somewhat puts the ongoing Ebola outbreak in west Africa in stark context, although the method of death is largely hidden in contrast to that of a hemorrhagic fever. There appear to be knock-on effects to other conditions such as appendicitis (Jones 2015a). Somewhat like the early response to Ebola the official response to these outbreaks remains denial of their existence.

It would appear that the high ratio of admissions per death in England may be more complex (and perhaps more intractable) than is realized or acknowledged.

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