# Jones

#### A cycle of surplus & deficit, or a new immune disease?

You will all be aware of the continued (and unexplained) increase in emergency admissions which has been ongoing for at least 30 years. You may not be aware that this increase is largely confined to the medical specialties. Two hypotheses have been proposed to account for the unexplained (i.e. that which cannot be explained by demography) element of the increase.

- The increase is due to the acute threshold for admission being reduced as
  efficiency creates room to accommodate more admissions. Recently proposed
  by the Nuffield Trust
  (http://www.nuffieldtrust.org.uk/search/index.aspx?keywords=emergency+ad
  missions)
- 2. The unexplained part of the increase is wider than just acute costs, is international and re-occurs at an interval of 3 to 8 years. This increase is specific to a set of medical and mental health diagnoses (especially in women) all of which have immune function as their underlying aetiology (i.e. expressed as either infection or inflammation).

http://www.hcaf.biz/emergencyadmissions.html

In case you are wondering why I should ever be tempted to propose what is a clearly 'crazy' hypothesis, it may be useful to tell the story of how I came to this conclusion.

In the middle of March in 1993 (I was Assistant Director of Information at the time) and unknown to all concerned, emergency medical admissions at the Royal Berkshire & Battle Hospitals NHS Trust showed a 10% increase which never abated. Nobody had changed anything nor indeed were they thinking of changing anything! Some months later the Trust was accused by the, then, West Berkshire Health Authority of admitting more patients to increase income.

At this time the Trust was starting the process of a new build and I was asked to develop some robust methods for forecasting future bed requirements. By

this time it was now common knowledge that this mysterious increase in emergency admissions had occurred across the UK. Investigation found that the increase was age, gender and diagnosis specific and I drafted a preliminary paper proposing that this was the work of some form of infectious outbreak. On reflection I decided that no one would ever publish such a crazy proposal so kept a copy of the draft just in case (http://www.hcaf.biz/Recent/Trend%20or%20step.pdf).

In late 2003 I was asked by the former Thames Valley SHA to investigate an unexplained increase in emergency admissions (the situation was confused by the surge in 'admissions' arising from the A&E 4 hour target) - which had also occurred across the whole of the UK. Again in late 2008 I was contacted by two acute Trusts and an SHA to help them understand why medical beds had suddenly filled up (and stayed full) and why PCT finances had gone pear shaped – you guessed, seen across the whole of the UK.

## On this occasion, I think the personal history gives you a context and a bigger picture.

Hence, what has my research uncovered thus far:

- Roughly synchronous outbreaks in Australia, Austria, Canada, England, Estonia, New Zealand, Northern Ireland, Republic of Ireland, Scotland, Switzerland, Wales and the USA.
- 2. The outbreaks occur at an interval of 3 to 8 years
- Step-like changes in emergency medical admissions (and bed occupancy) in a sub-set of diagnoses
- 4. Age and gender specificity (especially against women)
- 5. Evidence for 'outbreaks' at slightly different times in the catchment population of a single hospital
- 6. Health care costs rise and fall in synchrony with the outbreaks (see Fig. 1)
- 7. Leading to a cycle of surplus and deficit across the NHS

#### This is where the rubber hits the road.

Up to the present, it is 'failure' in the health services which have largely been blamed for these changes. Hence, 'failures' in acute care are causing a reduction in admission thresholds, 'failures' in primary care are leading to increased GP referral and admission, etc. In other words, it is you who are to blame! Hence the perceived need for yet another NHS reorganisation and the involvement of more 'successful' private companies in sorting out your mess.

## If my theory is correct then the reverse is true and we actually have an unrecognised infectious immune disease problem.

Worse still, the white paper, health care funding, the capitation formula and the HRG tariff are all affected.

It is for these reasons that I am asking that you read my research (<a href="http://www.hcaf.biz/emergencyadmissions.html">http://www.hcaf.biz/emergencyadmissions.html</a>), put my hypothesis to the test and then urgently publish your findings.

Either we are about to undergo a revolution in our understanding of the role of immune function in health care or we are about to undergo a revolution due to a better understanding of whatever it is that seems to be at work around the world. Either way, no one can implement lasting solutions to a problem that has not been defined.

Dr Rod Jones (ACMA) provides actuarial and forecasting services to health care organisations. He can be contacted at: hcaf\_rod@yahoo.co.uk

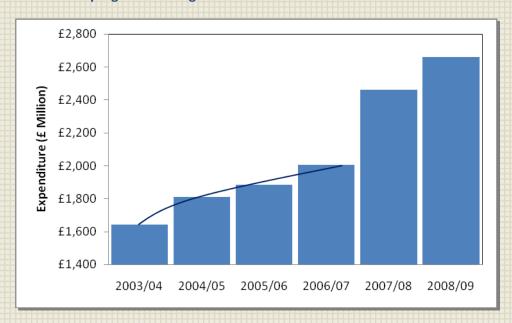


Figure 1: Trend in PCT programme budget costs

Footnote: Expenditure relates to a group of programme budget categories (see BJHCM 16(11): 518-526) for 15 PCT's showing high growth between 2005/06 and 2007/08. Proposed outbreaks of the new disease occur around the middle of 2002/03 and 2007/08. Programme budget data has only been collected since 2003/04 (see

http://www.dh.gov.uk/en/Managingyourorganisation/Financeandplanning/Programmebudgeting/D H 075743# 1).

The above is not growth adjusted and adjusting for inflation creates a cycle in expenditure with a real terms dip in expenditure in 2006/07. The tail end of the 2002/03 'outbreak' can be seen in the residual gap between 2004/05 and 2003/04 (as between 2008/09 and 2007/08).

Next week's briefing looks at the HRG tariff. Almost 20 years of development, probably over £50million of public money spent, is it actually fit for purpose?