The Public Services Programme
Quality, Performance & Delivery

Insuring Patient Safety


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Background

Death and harm caused to patients by doctors and nurses is something that is always in the news, with some estimates putting deaths caused by doctors in the USA at as many as 250,000 per year. For the UK, the NAO reported in 2005 that more than 2,000 patient deaths and almost a million other patient safety accidents were attributable to negligence. To protect themselves against patient claims for compensation under the law of tort or delict, NHS Trusts have to take out insurance policies, but it has been argued such arrangements can act as a disincentive to take care – 'moral hazard' in economic jargon. Do insurance arrangements lead to a disregard for patient safety and, if so, what type of insurance arrangement should be used to minimise negligent behaviour?

Volume of claims opened against NHS Trusts 2003-2006

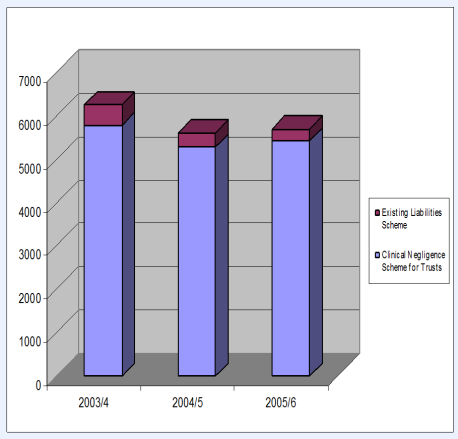

Figure 1

What We Did

- We gathered data from the NHS Litigation Authority on the insurance arrangements used by different trusts, including their risk management scores when assessed against national standards laid down by the NHSLA covering organisational, clinical, and health & safety risks (see Figure 3) and excess levels (Figure 2). We matched that data against hospital performance and activity measures between 1995 and 2005 from the Department of Health and Hospital Episode Statistics.
- We then used regression analysis to explore the relationships between insurance, risk management arrangements and hospital performance on patient safety (Figure 4).

Risk management standards of NHS trust hospitals from 2000 to 2005

Year	Risk management scores				Total
	0	1	2	3	
2000	81	207	33	1	322
2001	44	208	38	1	291
2002	47	159	36	3	245
2003	12	176	46	5	239
2004	0	176	53	10	239
2005	0	90	73	10	173

Figure 3

Aims

We aimed to use a 'natural experiment' to examine the effects of different insurance arrangements on the quality of hospital care in England.

- Before 2002 hospital trusts had a risk-pooling arrangement for insuring against compensation claims and each trust could select its own level of excess payment (that is the amount of each claim the insured agrees to pay, like the excess you may have on your car insurance; Figure 2 shows the situation in 2001).
- After 2002 the insurance arrangements were disaggregated such that each trust was responsible for making its own provision. From that natural experiment we could explore the effects, if any, of different insurance arrangements on the quality of hospital care.

Excess levels selected by NHS trusts in 2001

Excess level in 2001	Frequency	Percent
£10,000	159	44 %
£25,000	125	35 %
£50,000	45	13 %
£100,000	27	8 %
£500,000	1	<1 %

Figure 2

Estimated relationships between hospital performance and risk management standards

	(1)	(2)	(3)	(4)
	Re-admissions	Emergency deaths	Stroke deaths	Hip deaths
RM standard 2+	-.0380 (0.94)	-0.0292 (0.35)	-0.0269 (0.48)	-0.2007 (2.23)
Proportion acute	0.0005 (0.60)	0.0040 (2.43)	-0.0014 (0.48)	-0.0008 (0.42)
Proportion maternity	-0.0146 (2.27)	-0.0860 (6.96)	0.0002 (0.02)	0.0135 (0.92)
Proportion general	0.0007 (0.49)	-0.0005 (0.19)	-0.0005 (0.26)	-0.0042 (1.41)
Admissions	1.0497 (34.66)			
Emergency admissions		0.9206 (17.59)		
Stroke admis-sions			1.0663 (23.71)	
Hip admissions				1.2133 (17.74)
Constant	-3.3362 (10.15)	-2.6790 (5.84)	-1.5810 (5.84)	-3.4606 (8.68)
Observations	131	136	133	130
R-squared	0.91	0.73	0.82	0.73

Figure 4

Findings

- Figure 4 shows that in most cases the direction of effect was indeed negative, suggesting that compliance with standards of risk management leads to better performance and higher levels of patient safety.
- But our analysis suggests the strength of this association is fairly weak, mostly below the level of statistical significance.

That raises intriguing questions for policy and research. Does it mean the effect of risk management policies and insurance arrangements are relatively slight? Or could stronger relationships be discovered with different methodology, particularly in testing the joint impact of different aspects of insurance arrangements?

Find out more...

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