

PUBLISHED HOSPITAL BILL SIZES AND HEALTHCARE COSTS: WHAT WAS THE EFFECT OF SARS?

Dear Sir,

We read with great interest Wong et al's article on the impact of the publishing of bill sizes by the Singapore Ministry of Health (MOH) in September 2003 on subsequent patient bill sizes at local restructured hospitals.⁽¹⁾ Their conclusion that this action by MOH had resulted in subsequent overall decreased patient bill sizes had been drawn by comparing the B2 and C class bill sizes for 29 diagnosis-related groups (DRGs) between two time periods that fell approximately before and after the MOH action respectively: December 2002–November 2003, and March 2004–February 2005.⁽¹⁾ In particular, various infectious diseases DRGs such as pneumonia, dengue, and urinary tract infections were highlighted by the authors as showing the largest overall decrease.⁽¹⁾

Given that the severe acute respiratory syndrome (SARS) outbreak occupied such a substantial proportion of the first time period (March–September 2003, with prevention and surveillance policies in place until November 2003), we wonder if the authors had considered the possibility of this first time period constituting a biased sample, thus invalidating some of their results.

Although the costs of all SARS screening tests were absorbed by MOH, our anecdotal experience was that patients with fever and/or respiratory symptoms were hospitalised for far longer and subject to more investigations than usual. The fear of being at risk for SARS might also have kept individuals with less serious medical conditions away who would in normal circumstances have sought hospitalisation. Thus, it is quite probable that there was a substantial anomalous increase in hospitalisation bill prices during this period, especially for those diseases that were difficult to differentiate from SARS.

On another note, as pointed out by the authors, competition between the different hospitals should lead to a smaller coefficient of variance for bill sizes. That this occurred for procedure-related DRGs is unsurprising – the prices for procedures are easily controlled in the public sector and these prices were indeed amended by various hospitals soon after the MOH press release in September 2003. If our postulate that only patients with more serious medical conditions sought hospitalisation during the first time period is true, then this would partially account for the larger coefficient of variance for bill sizes for medical DRGs during the second period. This can only be confirmed by a re-analysis of the raw data. Similarly, the medical inflation noted by the authors where the rise in the Consumer Price Index for medical treatment by 0.5% stands in contrast to their report of the drop in bill sizes suggesting a reclassification bias; in other settings, this has been reported as a major confounder in economic analyses using DRG data.⁽²⁾

In conclusion, this study fails to convince us that the publishing of bill sizes by MOH led directly to a significant reduction of patient hospitalisation bill sizes. In general, we are in favour of and support the elimination of information asymmetry in healthcare between providers and patients, but in Singapore – as with the rest of the world – the gap is still too wide.

Yours sincerely,

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REFERENCES

1. Wong CY, Wu E, Wong TY. Examining the effect of publishing of bill sizes to reduce information asymmetry on healthcare costs. *Singapore Med J* 2007; 48:16-24.
2. Sutherland JM, Botz CK. The effect of misclassification errors on case mix measurement. *Health Policy* 2006;79:195-202.