

AUTHORS' REPLY

Dear Sir,

The writers have claimed that results obtained could have been biased by the severe acute respiratory syndrome (SARS) outbreak of 2003.

In the short time that we were given to reply, we have not been able to obtain nationwide statistics. However, we do have data from Changi General Hospital and for the sake of discussion, we have classified the following diagnostic related groups (DRGs) as SARS-related:

Respiratory infections/inflamations (Age > 54 years with complications)
Respiratory infections/inflamations (Age > 54 years without complications) or (Age < 55 with complications)
Respiratory infections/inflamations (Age < 55 years without complications)
Chronic obstructive airways disease
Bronchitis & asthma (Age < 50 years with complications) or (Age > 49 years without complications)
Bronchitis & asthma (Age < 50 years without complications)
Viral illness (Age < 60 years)

Dengue is classified under "Viral illness (Age < 60 years)"

We obtained four data points:

- a) January 2003 to represent the "Pre-SARS" situation ("200301")
- b) April 2003 to represent 2003 SARS outbreak at its height ("200304")
- c) December 2003 to represent post-SARS recovery when most things have returned to normal ("200312")
- d) February 2005 to represent the situation at the end of our study period ("200502")

Figs. 1–4 clearly show that lengths of stay have not increased significantly for SARS-related conditions from January 2003 to February 2005. In addition, the bill size drops were significant and consistent throughout the study period for these SARS-related conditions.

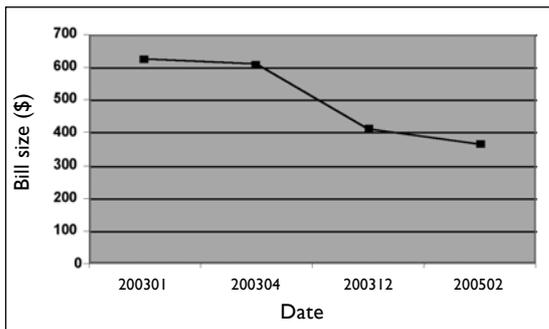


Fig. 1 C class bill sizes for SARS-related conditions.

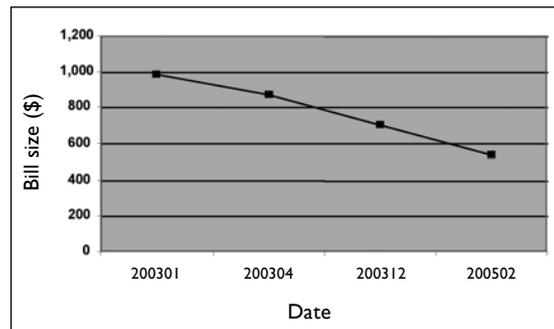


Fig. 2 B2 class bill sizes for SARS-related conditions.

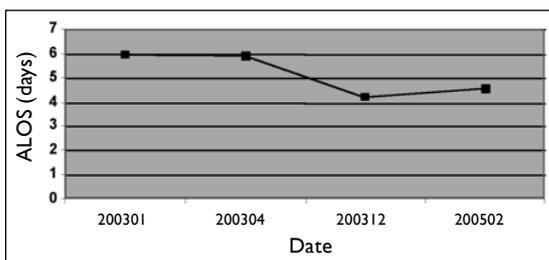


Fig. 3 C class average length of stay (ALOS) for SARS-related conditions.

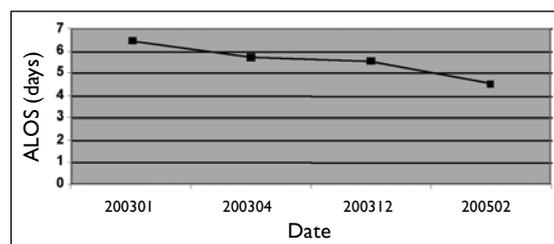


Fig. 4 B2 class average length of stay (ALOS) for SARS-related conditions.

The issue of reclassification (“upcoding”) bias in DRG is well-known. Institutions may “upcode” or “maximise coding” upon publishing of bill sizes. But this reclassification bias (if it exists) is self-limiting as after perhaps three to six months, everyone will adopt similar coding standards. Our study period is sufficiently long to accommodate possible initial upcoding practices. In any case, upcoding was probably minimal going by the sustained decreases in bill sizes over the long study period.

The reference to the Consumer Price Index for medical treatment of +0.5% by the writers actually strengthens the case for the impact of the publishing of bill sizes in controlling healthcare costs.

Yours sincerely,

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