

## Scribes improve emergency physicians' productivity



A multicentre randomised trial in Australia demonstrated that the use of scribes improved emergency physicians' productivity, particularly during primary consultations, and decreased patients' emergency department length of stay. In addition, financial analysis based on gains in productivity and throughput supports implementation of scribes.

A medical scribe helps the physician by doing clerical tasks such as documenting consultations, arranging tests and appointments, booking beds, and completing electronic medical record tasks. The aim of the role is for scribes to do clerical tasks otherwise done by the physician, enabling the physician to manage more patients in the same amount of time.

Scribes in emergency medicine have been reported to increase productivity in some studies and provide no gains in others. Data also show that scribes are well tolerated by patients, and most physicians find working with scribes beneficial. However, no multicentre randomised studies have been done, and patient safety incidents (adverse events or near misses) associated with scribes have not been evaluated. Greater understanding of the effect of scribes on physicians' productivity will help to inform decisions about whether to start scribe programmes.

For this randomised clinical trial, five emergency departments (EDs) in Victoria used Australian trained scribes during their respective trial periods. Sites were broadly representative of Australian EDs: public (urban, tertiary, regional referral, paediatric) and private, not for profit. Study participants included 88 physicians who were permanent, salaried employees working more than one shift a week and were either emergency consultants or senior registrars in their final year of training; 12 scribes trained at one site and rotated to each study site.

Physicians worked their routine shifts and were randomly allocated a scribe for the duration of their shift. Each site required a minimum of 100 scribed and non-scribed shifts, from November 2015 to January 2018. Main outcome measures were physicians' productivity (total patients, primary patients); patient throughput (door-to-doctor time, length of stay); and physicians' productivity in emergency department regions. Self-reported harms of scribes were analysed, and a cost-benefit analysis was done.

Data were collected from 589 scribed shifts (5,098 patients) and 3,296 non-scribed shifts (23,838 patients). Scribes increased physicians' productivity from 1.13 (95% confidence interval 1.11 to 1.17) to 1.31 (1.25 to 1.38) patients per hour per doctor, representing a 15.9% gain. Primary consultations increased from 0.83 (0.81 to 0.85) to 1.04 (0.98 to 1.11) patients per hour per doctor, representing a 25.6% gain.

Meanwhile, no change was seen in door-to-doctor time. Median length of stay reduced from 192 (interquartile range 108-311) minutes to 173 (96-208) minutes, representing a 19 minute reduction ( $P < 0.001$ ). The greatest gains were achieved by placing scribes with senior doctors at triage, the least by using them in sub-acute/fast track regions. No significant harm involving scribes was reported. The cost-benefit analysis based on productivity and throughput gains showed a favourable financial position with use of scribes.

This study is also the first to document patient safety incidents associated with scribes, but self-reporting probably led to underestimation of the likely harms, according to investigators, who added that there was no reporting from the control shifts. Furthermore, participants in the study may have been more likely to report incidents in which they prevented a medical error.

For clinicians and policy makers, this study shows that scribes can increase productivity in Australian emergency departments. The sample cost-benefit analysis shows a cost saving to the hospital per scribed hour of US\$26.15 when the hospital absorbs the cost of training. This analysis will vary from site to site, depending on the hourly costs of physicians and scribes (including training) and cubicle minute costs. Other factors to consider will be revenue change per patient and changes in productivity and throughput.

The investigators went on to say that future work should include testing scribes in other settings and countries and involve patients in the research team.

Source: [BMJ](#)  
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