

The provision of High Quality supervision is associated with improved Quality of patient care

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Aside from issues of patient safety e.g. waiting time, mortality and morbidity data, measures of quality include patient satisfaction and degree of adherence to best practice. The effect of supervision on these outcomes is difficult to demonstrate given the complex nature of the doctor-patient interaction; however, there is some evidence to suggest that supervision, particularly clinical supervision, has a beneficial effect on quality outcomes. It is known that in the NHS the practice of supervision is highly variable e.g. in relation to inguinal hernia repair and surgical trainees (Davies & Campbell 1995), and in general and geriatric medicine (Panayiotou & Fotherby 1996).

In the inpatient population, a large US multicentre study (Sox et al. 1998) addressed trainee's compliance with guidelines and also patient satisfaction in more than 3500 Emergency department patient encounters. They found that regardless of the trainee's level of experience or urgency of the case, care adhered better to published standards in those cases where supervision was direct with a mean percentage compliance of 64% in those trainees who were supervised versus 55% in those who were not ($p < 0.0001$). They could not demonstrate a difference in patient satisfaction between groups with differing levels of supervision, assessed using follow up survey and interview (OR 1.0 95% CI 0.7-1.5).

A second US emergency department study in a large tertiary care facility (Sacchetti, Carraccio, & Harris 1992) prospectively studied changes to care made by attendings in relation to patients seen initially by 2nd year emergency residents. Having heard the case presented by the residents, the attendings then assessed the patients themselves. They found that of 408 cases in the study, supervision resulted in a major change in care in 4% of patients. A minor change was made in 33% of cases, suggesting modifications perhaps in the quality rather than the safety of patient care. The study recommended supervision of 2nd year emergency residents should include full assessment of the patient, rather than a case discussion and sign-off.

In a similar study within the outpatient setting, the performance of a group of trainee physicians was assessed by senior clinicians. When patients were directly reviewed by them, as opposed to review by discussion, their assessment of the condition and its management differed in a significant number of cases, suggesting that more direct supervision led to changes in patient management. However, the changes were often minor and the study was non-randomised (Gennis & Gennis 1993).

A further US paper (Fallon, Wears, & Tepas III 1993) suggested that there was a particular benefit in supervision for more junior trainees in the management of trauma patients, and those undergoing surgical procedures, with a significant reduction in both complication and mortality rates for both elective and non-elective operating ($p < 0.0005$). This paper is discussed in the section on supervision and patient safety, where the point has been made that the group with the lowest rate of supervision and the highest complication rate were trauma patients, and no adjustment was made to control for the initial probability of survival in these patients, a potentially important confounding factor.

A US prospective cohort study (Griffith et al. 1996) of interns and residents in neonatal intensive care unit found that the ordering of x rays, blood gases and electrolytes increased significantly more for interns, who are less experienced, during periods when

workload was high, and especially during periods when they were less supervised, resulting in increased costs per infant. It was not clear whether patient outcomes were influenced as a result of the increased testing by less supervised interns.

The effectiveness of supervision on patient outcomes has been assessed within the context of mental health nursing (Bradshaw, Butterworth, & Mairs 2007). In a psychosocial intervention education programme, a quasi experimental design compared outcomes for the intervention group, experiencing workplace based clinical supervision, with the previous cohort, who had similar baseline characteristics but only experienced standard group supervision within the teaching programme. The patients managed by the intervention group had a significantly greater reduction in psychotic symptoms and total symptoms than those treated by the control group. Limitations were small size (n = 23) and study design, the retrospective comparison meaning that other factors related to delivering the education may have been involved. Further, the study groups were non-equivalent, with those in the intervention group older and more experienced.

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