

## High quality supervision is associated with improved patient safety

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Demonstrating that high quality supervision is associated with improved patient safety requires showing that lack of supervision adversely affects patient safety, supervision improves patient safety, the supervision was 'high quality' and that this finding applies to both clinical and educational supervision.

Is there evidence that lack of supervision can affect patient safety? The report of the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) 2005, a retrospective cohort study of the management of UK acute adult medical admissions to ICU during June 2003 (Adam & Odell 2005), found that in the group of patients who died 28% of the cases were rated "very poorly" supervised, suggesting that this might be a factor adversely affecting patient safety and outcome. However, as no comparison was made with 'optimally managed' cases, it is unclear to what extent supervision differed between the two groups.

McKee and Black (1992) questioned whether the then current use of junior doctors in the United Kingdom affected the quality of medical care by means of a literature review and interviews with junior doctors. The authors quote papers showing increased mortality in paediatrics and obstetrics out-of-hours and increased deaths associated with lack of supervision in surgery, anaesthesia, trauma and emergencies, paediatrics and obstetrics/gynaecology and argue that lack of supervision leads to the acceptance of lower standards. These studies date back to the 1970s and 1980s and may reflect low staffing levels out-of-hours or mistakes made due to fatigue, preceding reforms to junior doctors' working practices such as European working time directives. It is unclear how relevant they are to today's trainees.

Is there evidence that supervision improves patient safety? Sox et al's (1998) US study showed that supervision of residents by attending physicians led to closer adherence to guidelines, but this did not lead to greater patient satisfaction or a reduction in reported problems with care. The research took place in urban teaching hospital emergency rooms, with residents unaware of the study, and the outcomes were assessed by medical records review. "direct" supervision, where the supervisor ("attending" physician, equivalent to a UK consultant) actually saw the patient, was compared with "traditional" supervision, where the case was presented without patient contact. Limitations to the study included lack of emergency training programmes within the hospitals studied and the research design, which was non-randomised. Furthermore, compliance may have been influenced by patients' conditions and the speciality of the resident and attending physician, neither of which were controlled for, and the findings may have been an artefact of the sampling period. Whilst this study suggested that attending supervision improved residents' compliance with process of care guidelines, the study did

not demonstrate adverse outcomes in the unsupervised group, and it cannot necessarily be assumed that poor compliance with guidelines compromised patient safety.

Fallon et al's (1993) US study recorded faculty involvement on an ordinal scale over a 12 month period, in respect of all operations and resuscitations, and matched the data to the outcome variables of death or complications. The study demonstrated a decreased rate of complications and death when there was an attending present. The presence of attending varied according to service, and when stratification into elective and non-elective events was applied, the association between attending presence and reduced complication and mortality rate was significant. However, 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 further US study (Gennis & Gennis 1993) compared two levels of faculty supervision of residents seeing outpatients – case discussion and personal evaluation of the patient. When patients were personally evaluated, the resident's performance was rated lower, more patients were thought to be seriously ill, and diagnosis and management plans were frequently changed. Faculty seeing patients in person made a significant difference to patient management, but this was a non-randomised trial and the changes were often minor.

Kennedy et al. (2007: 1080) attempted to conceptualize the relationship between supervision and safety, starting with the recognition that “the effects of increased supervision on patient care and trainee education are not known, primarily because the current multifaceted and poorly operationalized concept of clinical supervision limits the potential for evaluation” Their observational study suggests a typology of clinical oversight (routine, responsive and backstage) which might provide a framework for both policy and research.

The question whether the supervision is “high quality” poses particular difficulties, as none of the empirical evidence cited above looks at the quality of supervision and this, in itself, is hard to assess and define. Similarly, the final question, whether the evidence applies to “educational” and “clinical” supervision is especially problematic as the available studies focus on clinical supervision exclusively; and their conclusions cannot necessarily be extrapolated to educational supervision.

## References

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