Is the way we are working harming our patients?
The effect of nurses extended work shifts on patient safety and outcome.

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Clinical Issue

Studies have shown that the amount of hours a nurse completes within their allocated shift, among other factors within the hospital work environment, can negatively affect patient safety (Wilson, 2002) Studies have shown that increases in fatigue can increase the chances of mistakes and errors occurring (Yuan, et al., 2011). Possible consequences of stress and fatigue felt by nurses completing shift work, is a decreased ability and impaired performance at work which can cause a decline in patient care and safety (McVicar, 2003).

***The objective of this review is to identify and analyse the effect of the shift lengths that nurses are completing, eight hour verses twelve hour shifts, on quality of patient care and safety.**

Key factors that increase the potential of patient errors

- **Overtime (mandatory and voluntary)**
- **Extended work hours (12 hour shifts)**
- **Sleep deprivation**
- **Fatigue**
- **Stress**
- **Irregular/ short work breaks**
- **Shift work**
- **Nurse to patient ratio**

*Research has linked an increase in errors made by nurses with an increase in worked hours. Diminished work performance, fatigue and decreased vigilance has been linked to 12 hour shifts compared to an 8 hour shift (Estabrooks, et al, 2009)

Results

Findings from a literature review of studies conducted in the past 10 years found a direct link

- between nurses stress level and burnout factor with an increase in health care associated infections caught by patients (Cimiotti, Aiken, Sloane, & Wu, 2012).
- Links were also found for nurses covering mandatory overtime causing an increase in fatigue levels and potential to burnout; concluding that this cycle of staffing patterns and overtime is potentially dangerous for error and patient and nurse safety (Garrett, 2009).
- Working shift work, unpredictable overtime hours with minimal regular breaks cause the nurse to experience greater levels of fatigue (Dorian, et al, 2006).
- **"Risks of errors began to increase when the duration of the shift was greater than 8.5 hours, and nursing staff were 3 times more likely to perpetrate an error when they worked more than 12.5 hours"** (Lorenz, 2008, p. 299)
- Stone, et al, (2006) identified higher job satisfaction with nurses working twelve hour shifts in the hospital, without any significant difference in patient quality of care between the twelve and eight hour shift.
- Majority of the studies conducted acknowledged a link between fatigue and an increase in patient errors, most commonly medication errors (Garrett, 2008).

Conclusion and Recommendations

Is eight hour shifts or twelve hour shifts safer for the nurse and patient within hospital?

Hospital nurses working extended shifts, compared to the average eight hour, have been found to have an increase in errors, fatigue and burnout, reducing the nurses' ability to competently look after their patient (Rogers, et al, 2004). But until further evidence clearly establishes a fatal link between twelve hour shifts and patient safety within the hospital environment, this extended shift will continue to be worked by nurses (Lorenz, 2008). It is therefore up to management to monitor and educate their staff. Additionally it is also the responsibility of the individual nurse to be aware of the negative effects and counter measures required when working twelve hour shifts in order to maintain individual and patient safety.

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