

## **This study investigates the relationship occurring between consecutive workdays, night-shifts, cumulative hours, forward-rotating shift schedules (morning-afternoon-night), and occupational NSSIs frequency” d’Ettorre (2017).**

Abstract:

**OBJECTIVES:** The prevention of needlestick and sharp injuries (NSSIs) among registered nurses (RNs) employed in hospital wards represents an important issue. Accidental contact with blood, consequent to NSSIs, is the most frequent form of exposure to blood-borne pathogens that can be transmitted by accidental exposure.

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**AIMS:** This study investigates the relationship occurring between consecutive workdays, night-shifts, cumulative hours, forward-rotating shift schedules (morning-afternoon-night), and occupational NSSIs frequency.

**METHODS:** The author conducted a cross-sectional nested case-control analysis from staffing data concerning 765 RNs and NSSIs occurred during a period of 48 months.

**RESULTS:** NSSIs were more frequent among RNs working 3 or more night-shifts compared to RNs working less than 3 night-shift in the 7 days prior occurrence of NSSI; moreover, NSSIs were more frequent among RNs working 9 or more night-shifts compared to RNs working less than 4 night-shifts in the 28 days prior to NSSIs occurrence. Constant forward-rotating shift schedules showed a protective effect in preventing NSSIs compared to irregular forward-rotating shift schedules in the last 28 days (odds ratio = 0.45; 95% confidence interval = 0.22-0.91;  $P < 0.05$ ).

**CONCLUSIONS:** In this study, the author observed an association between NSSIs and shift-work schedules, including night-shifts. These findings support the need for organizational interventions targeted on implementing forward-rotating shift-work schedules and

minimizing night-shifts as part of the overall NSSIs prevention efforts in healthcare facilities.

Reference:

d’Ettorre, G. (2017) Needlestick and Sharp Injuries Among Registered Nurses: A Case-Control Study. *Annals of Work Exposures and Health*. 61(5), p.596-599.

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