REGISTERED NURSE STAFFING LEVELS AND PATIENT OUTCOMES

Overview of research evidence

- **Registered nurse staffing levels vary considerably in English hospitals**. In some National Health Service (NHS) hospitals registered nurses will provide care to an average of five named patients during a shift, whilst in other hospitals nurses have up to 11 patients to care for[1]. Whilst a degree of variation in staffing between units is expected and necessary because of differences in patient needs and the type of care provided[2, 3], research has found considerable variation between and within hospitals even when speciality and patient dependency are controlled for.

- **Some wards can be well-staffed while other wards are dangerously understaffed.** When the numbers are added up across a hospital the overall staffing levels can appear to be adequate[4]. Planning safe nurse staffing levels is a recognised problem in many countries, including the US[5,6] , Belgium[7,8], China [9,10], Korea[11] and the UK[12, 13] Care Quality Commission reports consistently warn that quality and staffing vary considerably within NHS hospitals.

- **Neglected care (or care not done because of time pressures) is correlated to low registered nurse staffing levels on a ward.** There are more errors in care[14, 15] failure to rescue increases[16], and care is more likely to be 'left undone' when there are fewer registered nurses on a ward[17, 18].

- **Understaffing has cost implications for hospitals.** Emergency admissions are higher where there are fewer registered nurses[19, 21] and nurses are likely to suffer more injuries and stress, exacerbating staffing problems and costs.[22, 23]

- **Some specialties – such as older people's care – typically suffer lower staffing levels and more dilute skill-mix**. 50% of the nursing workforce caring for older people is made up of care assistants who are not trained nurses. [24]

- **Internationally the research evidence to show that nurse staffing levels have an impact on patient outcomes is substantial.** Staffing levels are associated with differences in patient length of stay, complication rates, failure to rescue and mortality rates[25-28]. A meta-analysis of 96 studies - each involving many hospitals and data from hundreds of thousands of patients - found consistent evidence of an association between the numbers of registered nurses in hospitals and patient outcomes[29]. *Each additional Registered Nurse per patient per day was associated with a 4% decrease in the odds of death*. The authors estimated that an increase by 1 registered nurse full time equivalent per patient day could save 5 lives per 1000 hospitalised intensive care patients, 5 lives per 1000 medical patients, and 6 per 1000 surgical patients.

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