of evidence about the nurse leader decision-making involved in the matching and allocation of nurse skills.

This national study aimed to identify tools, systems and processes that inform nurse skill-assessment and nurse-to-patient allocation decisions in Adult Level III Australian ICUs; to identify problems and solutions; and to inform a potential Nurse Skill Matching Decision-Support Framework.

Data method triangulation via web-enabled and hard copy survey was used. Nursing Unit Managers (NUMs) and Shift Leader Nurses (SLNs) responsible for key staffing decisions were recruited from all 58 Adult Level III (per JFICM) Australian ICUs with a response rate of 86.20%. Ethical approval was obtained.

Staffing problems included nurse supply, unpredictability of admissions; lack of nurse skill assessment/inadequate skill mix; budget constraints; student/junior staff; supervision and support, and staff conflict. Suggested solutions included skill database/list creation; control of patient admissions; skill mix formulae; autonomy, trust and support for staffing decisions; adequate clinical resources; and improved communication.

Staffing systems were diverse and associated decisions multi-factorial. Single-facet staffing models were considered inherently limited. Potential clinical compromise and risk exposure resulting from poor skill matching to patient acuity was compounded by a skill shortage, lack of skill assessment, budget constraints and a lack of trust of shift leader decisions by managers.

The data informed development of a Staffing Decision Support Framework which will require formal evaluation for its potential application in intensive care and possibly more broadly to other specialties.

doi:10.1016/j.aucc.2008.12.060

Pneumonia Severity Index: A validation and triage tool study to help confirm clinical triage decisions in the Emergency Department to transfer patients with community acquired pneumonia for appropriate care

Sydney Jacobs MB ChB, FRCA, FANZCA[a,*], Rajendra S. Goud MB BS, MD Internal Medicine[b], Arif Shaikh MB BS, MD Internal Medicine[c]

[a] *ICU, Alice Springs Hospital, NT, Australia*
[b] *ICU, Queen Elizabeth Hospital, Adelaide, South Australia*
[c] *ICU, Royal Prince Alfred Hospital, Sydney, New South Wales, Australia*

Introduction: High incidences of infections affecting various organ systems occur in the Indigenous population of Central Australia and focus was on the high incidence of community-acquired pneumonias (CAP) presenting to Emergency Department (ED) during 2006.

Methods: Demographic details and parameters were recorded to calculate Pneumonia Severity Index (PSI). ED doctors performed triage and patients referred to medical teams or ICU. The following complications were noted: requirement for artificial ventilation, septic shock, acute renal failure, requirement for percutaneous tracheotomy, mortality and patients transferred to tertiary centres. Microbiological data was collected on ICU patients and most ward patients.

Results: 476 CAP patients presented to ED, 91% were indigenous. CAP rate among the indigenous patients was 17 times that expected whereas non indigenous was only 0.7 times. 12% of patients required ICU management and revealed high incidences of alcoholism (76%) and chronic ill health (70%). Requirement for artificial ventilation of 57 ICU patients was defined according to PSI severity banding: no patient with a score <91 required artificial ventilation whereas 64% of patients with a score 91-130 and 75% of patients with a score >130 required artificial ventilation.

Conclusions: CAP rate in central Australian indigenous population is unacceptably high and associated with poor social conditions, alcoholism and chronic ill health. The PSI has been validated in the study, accurately predicting mortality and a need for artificial ventilation. The PSI is shown to be useful to support a clinical decision to transfer patients to a general medical ward (PSI < 91) or to ICU (PSI $\geq$ 91).

doi:10.1016/j.aucc.2008.12.062

The future of families in ICU—The positive effects of partnering with families

Marion L. Mitchell[1,*], Wendy Chaboyer[1], Liz Burmeister[2], Michelle Foster[3]

[1] *School of Nursing and Midwifery, Research Centre for Clinical and Community Practice Innovation, Griffith University, Brisbane, Australia*
[2] *ICU, Princess Alexandra Hospital, Brisbane, Australia*
[3] *ICU, Gold Coast Hospital, Southport, Australia*

Generally, families are not actively involved in ICU patients' care in meaningful ways. A Family-