

## **Patients ≥ 80 years of age admitted to Intensive Care and High Dependency Unit at WDHB: A retrospective analysis of outcomes**

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**Background:** The 80-plus year population admission rates to intensive care are increasing annually by 5.6% across Australia-New Zealand. Current epidemiological data is insufficient, with a call for NZ specific studies in this area.

**Aims:** to study ≥80 year olds admitted to intensive care or high dependency unit (ICU/ HDU) in Waitematā District Health Board in terms of admission characteristics, discharge and 6-month post-discharge outcomes including place of residence, community supports, and mortality.

**Methods:** Patient demographics and admission data were sourced from the North Shore Hospital ICU/ HDU database (gender, ethnicity, admission type (elective vs. emergency), length of stay, mortality, and illness severity using the Acute Physiology and Chronic Evaluation (APACHE) system. Electronic hospital records were also reviewed (comorbidities, medications, residence on admission/discharge, mortality, readmissions and community support services prior to admission, upon discharge, and 6 months post-discharge).

**Results:** 117 patients 80 years and over were admitted between August 2015-June 2017, representing 10% of all admissions to ICU/HDU over this period. Age range 80-95 years, 48 (41%) female, 7 (6%) Maori, 92 (79%) were emergency admissions, median APACHE III score 69.0, mean Charlson Comorbidity Score 6.29. Survival to HDU/ICU discharge was 101 (86%), to hospital discharge 92 (79%) and to 6 months was 84 (72%). One hundred and sixteen (99%) were residing at home at index admission, 84 at discharge (91% of survivors), and 79 at 6 months (94% of survivors). Community supports were utilised in 33 (28%) at admission, 36 (39%) at discharge and 34 (40.5%) at 6 months. While overall those requiring community supports increased, in 9 (11%) support needs decreased at 6 months.

**Conclusion:** This single centre study shows those still alive at discharge and 6 months are likely to be living at home independently. Systematic comparisons between different ICUs, and analysis of patient centred long-term outcomes are needed.