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POSTER ABSTRACT

Identifying communities at high risk of re-admission in Singapore and understanding their needs during transition of care from hospital to home

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Introduction: Frequent admitters account for a disproportionate amount of healthcare utilization. Poor social support and unaddressed care needs are known contributing factors. This study aims to identify high risk communities with frequent hospital admissions in Singapore and understand their care needs during transition from hospital to home.

Methods: Using electronic health records (EHR), geospatial mapping of patients with frequent hospital admission rates (2 or more in one year) identified high risk communities in our regional health system. Two investigators then interviewed hospitalized patients from these high risk communities using in-depth semi-structured interviews. The interview guide included close ended questions on health literacy, health-seeking behaviour and open-ended questions on perceived community services required after hospital discharge. Qualitative data from the interviews were analyzed iteratively using the grounded theory. Emergent themes were first externally validated, and then finalized after rounds of deliberations amongst the investigators.

Results: From geospatial mapping, we identified high risk communities and they coincide with areas where there are concentrations of low cost rental housing. 27 hospitalized patients who live in such a community were invited to participate in the in-depth interview. 22 patients agreed for interview (response rate 81.5%). The mean patient age was 76 years and the mean Charlson comorbidity score was 2. The mean length of hospital stay was 5 days. 26% had non-adherence issues contributing to hospital admissions and almost half the patients did not understand their medical conditions. The majority self-reported to have regular primary care follow up (77%). Majority had caregiver or social services (64%) in place and most (86%) rejected further services. Major themes that emerged from the interviews include concerns about cost of care, the need for more financial support and more accessible social services.

Discussions: In Singapore, residence in public rental housing is a strong social determinant of health. Eligibility for public rental housing is means tested and based on gross total household income which is set very low. Surprisingly, the majority of patients who were assessed to need support from social services rejected the offer of help. The reason for this may be due to lack

of understanding of the benefits that such services bring and the perception that this diminishes their self-efficacy.

Conclusions: Patients living in communities with a preponderance of public rental housing in Singapore are at high risk of re-admission. Non-adherence and poor health literacy were identified as major contributors to readmission. Efforts should be made to communicate the benefits of essential community services to the patients and address cost concerns.

Lessons learned: Non-adherence and poor health literacy are major contributors to hospital admissions and important factors to address in high risk patients. Cost concerns and inadequate understanding of community services may lead to rejection of beneficial services.

Limitations: Small study sample size.

Suggestions for future research: Further mixed-method studies including questionnaire survey on a larger population will validate these findings and improve generalizability of results. This will inform interventions to deliver medical and social care to high risk communities.

Keywords: transitional care; home health care; frail elderly; risk; social work