
POSTER ABSTRACT

Multimorbidity and Acute Potentially Preventable Diagnoses in HealthLinks Chronic Care (HLCC) Dandenong Cohort. A work in evolution

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Context: Potentially Preventable Hospitalisation (PPH) is an admission for a condition where hospitalisation might have been prevented through provision of appropriate and timely community support and/or medical intervention. PPH have been historically categorised as vaccine-preventable infections, chronic diseases and acute conditions.

The Victorian Department of Health and Human Services (DHHS) state-based public hospitals database HealthLinks Chronic Care (HLCC) uses a scoring algorithm to identify the adult cohort at heightened risk of ≥ 3 emergency hospitalizations in the subsequent 12 months. A funding model intended to incentivise Health Services to develop community care models, is applied to these patients. HLCC enrolled patient profiles included: prior unplanned admissions and ED visits; smoking; select conditions including digestive disorders, kidney disease, asthma, COPD, diabetes, pancreatic conditions, cirrhosis/alcoholic hepatitis; excluding cancer, dementia and serious mental illness. MonashWatch (MW) commenced an HLCC enrolled service trial in Dandenong Hospital catchment, a low socio-economic, ethnically diverse area of Melbourne from December 2016.

Objective: 1) To describe hospital admissions via an Emergency Department into Monash Health hospitals by patients in the Dandenong HLCC cohort, in the 5 years, July 2015 – July 2019. 2) Describe chronic disease and acute and vaccine preventable conditions PPH based upon AIHW categories. 3) Explore the relationship between acute and chronic diagnoses in HLCC cohort.

Design: Descriptive statistics in the HLCC data base.

Measures: Victorian Admitted Episode database codes.

Results: 2500 persons Dandenong HLCC cohort were profiled. Based upon AIHW categories, there were 3262 emergency PPH admissions, 87 (2.5%) were for vaccine preventable conditions; 2115 (65%) were for chronic conditions and 1060 were for acute conditions (32.5%).

All emergency admissions care totalled 17,178. These admissions spread across 20+ units – General Medicine, Emergency, and Cardiology being the top three units.

In 2500 person sample, AIHW PPH chronic admissions included: Angina 306; Asthma 235; Bronchiectasis 81; Chronic Heart Failure 616; COPD 699. Average age was 71 and 50.6% were female. Average LOS 4.0 days. Acute conditions included Cellulitis 322 and Urinary Tract Infections 398. Using AIHW classification pneumonia only identified 5 admissions. Pneumonia unspecified and viral pneumonia, the vast majority, were not included. Acute mean admission age for acute was 67, and average LOS 3.7 days.

26% persons of 2500 had 1 or more PPH emergency chronic disease admissions, 25% had 1 or more acute admissions. 7% of persons had one or more of both chronic and acute PPH emergency admissions. 49% had 1 or more admissions that was neither PPH acute nor chronic conditions.

Conclusion: Categories of acute and chronic PPH based on AIHW categories do not explain 50% of emergency admissions in this cohort. In addition, infection/sepsis may be significantly under-represented in the chronic cohort, because for example, COPD and heart failure are often triggered by acute infections. Acute infections on chronic conditions may underpin many admissions and will be further discussed. We are currently undertaking research into pre-hospital health journeys for sub-set of this cohort.