

POSTER ABSTRACT**Impact of Unscheduled Home Visits on Emergency Department and
Hospital Admission Avoidance in Chronic Home Ventilator Users**

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Background: Chronic home ventilator users are medically complex patients at high risk of acute respiratory and infection-related complications, often resulting in frequent Emergency Department (ED) attendances and hospital admissions. Proactive, community-based interventions—such as timely home visits by healthcare professionals—are vital to prevent avoidable hospital utilization and maintain patient stability in the home environment.

Objective: To evaluate the effectiveness of unscheduled home visits conducted by doctors and nurses in managing acute health concerns among chronic home ventilator users, with the aim of preventing ED attendances and hospital admissions, and to quantify the associated reduction in potential hospital length of stay (LOS).

Methods: A retrospective analysis was conducted on 269 unscheduled home visits between 2023 and 2025 for chronic home ventilator users presenting with acute medical issues. Each episode involved assessment and intervention by a doctor, nurse, or combined clinical team. The most frequent presenting problems were respiratory distress (58 cases), urinary tract infection (19 cases), chest infection (20 cases), and viral fever (12 cases). Data were analyzed to determine ED attendance avoidance, hospital admission avoidance, and estimated hospital bed-days saved.

Results: Unscheduled home visits were highly effective in managing acute issues in the home setting. A total of 259 ED attendances were prevented (ED avoidance rate: 96.3%) and 246 hospital admissions were avoided (admission avoidance rate: 91.4%). These avoided admissions corresponded to an estimated 517 hospital bed-days saved. The mean LOS avoided per case declined from 2.37 days in 2023 to 2.05 days in 2025, reflecting improved early intervention and community management.

...r-nurse teams provide an
...users. This model of care
...sary ED attendances and
hospital admissions, and delivers substantial system-wide benefits through significant bed-day savings while enhancing safety and quality of life for ventilator-dependent patients.