

Negative patient outcomes after rehabilitation in skilled nursing facilities

August 2023

We examined the experiences of patients who were discharged from a hospital and who went directly into a skilled nursing facility (SNF) between 2015 and 2018. Of this group, we identified patients who experienced preventable negative (adverse) outcomes during their SNF stay.

These outcomes include pressure sores, falls, injury, medical mistakes or poisoning from an incorrect prescription. We also identified SNF patients who contracted infectious diseases such as influenza, *Clostridium difficile* (C. diff), tuberculosis, or hepatitis A. We then examined whether preventable or infectious events in SNF were associated with selected adverse outcomes (readmission to hospital, new onset of pneumonia, and first-time diagnosis of depression, dementia, or reaction to severe stress (a broad category including post-traumatic stress disorder, PTSD) – in the year after discharge from a SNF. We used data from the Washington All-Payer Claims Database (WA-APCD) to determine these findings.

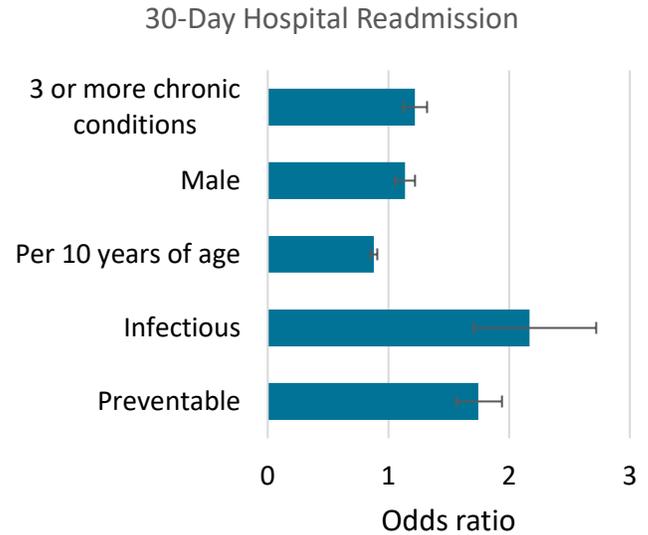
Key Findings

- SNF patients who had pre-existing conditions and patients with longer length of stay were more likely to experience negative (adverse) outcomes in SNF.
- Patients who experienced adverse conditions in SNF were more likely to be readmitted to the hospital, more likely to develop pneumonia, and more likely to experience a first-time diagnosis of depression, dementia, or severe reactions to stress (including PTSD) in the year after they were discharged from SNF.
- Post-acute SNF care was associated with an average of \$23,500 in excess medical cost, paid by insurance and out of pocket, compared with similar hospital patients who did not require SNF rehabilitation.

For additional results and technical details, see the full report: OFM research brief 111.

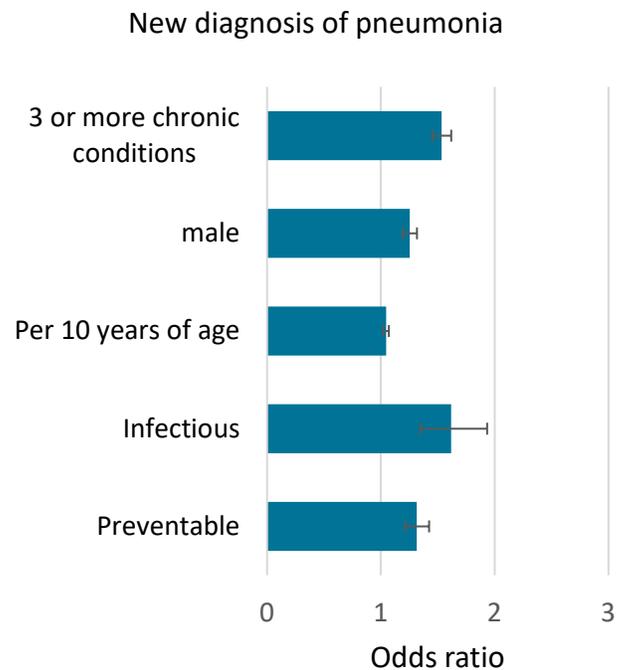
Hospital readmission increased

Patients who experienced a preventable adverse outcome while rehabilitating in a SNF had 75% higher odds of being readmitted to hospital within 30 days after they left a SNF. Patients who contracted an infectious disease while in a SNF had over twice the odds of being readmitted to the hospital within 30 days.



Pneumonia risk increased

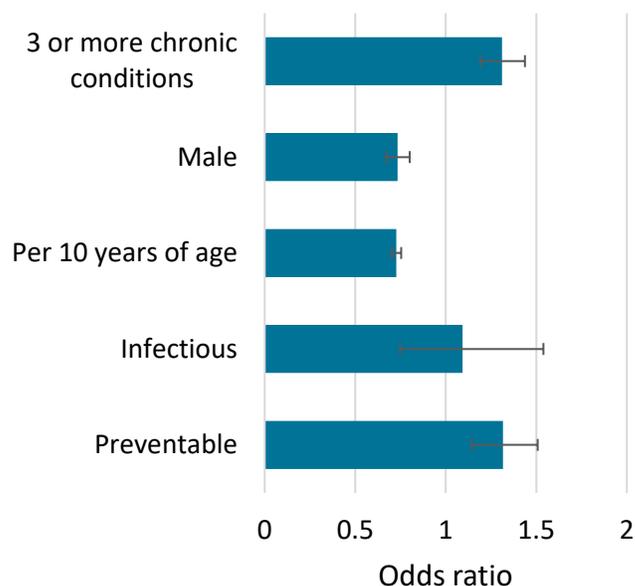
Patients who contracted an infectious disease in SNF had 62% higher odds of developing pneumonia the following year. Patients who experienced a preventable adverse event in SNF had 32% higher odds of developing pneumonia. Males and patients with pre-existing chronic conditions also had a higher risk of pneumonia.



Reaction to severe stress (including PTSD) risk increased

Patients who experienced a preventable adverse event in SNF had 32% higher odds of having a new diagnosis of reaction to severe stress (a broad diagnosis category that includes PTSD) in the following year. There was no significant association between infectious diseases during SNF and post-SNF reactions to stress. Patients with pre-existing chronic conditions were also more likely to be diagnosed with reaction to stress after a SNF stay. Males and older patients were less likely to have a first-time diagnosis of reaction to stress in the year after their SNF stay, probably because these patients were more likely to have had this diagnosis earlier in life less likely to have a *first-time* diagnosis later.

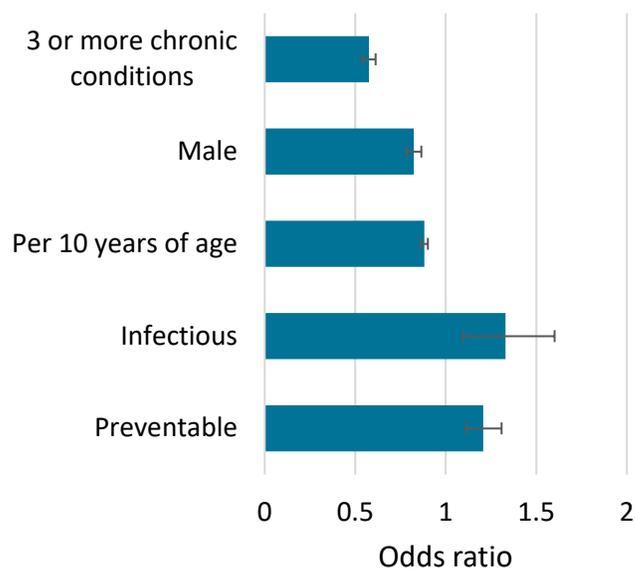
New Diagnosis of Reaction to Severe Stress



Depression risk increased

Patients who experienced a preventable adverse event in SNF had 21% higher odds of having a new diagnosis of depression in the following year. Patients who contracted an infectious disease while in SNF had 33% higher odds of getting a first-time depression diagnosis. Patients with pre-existing chronic conditions, males and older patients were less likely to have a first-time depression diagnosis the year after their SNF stay, probably because these patients were more likely to have had this diagnosis earlier in life, and so less likely to have a *first-time* diagnosis later.

New Diagnosis of Depression



Dementia risk increased

Patients who experienced a preventable adverse event in SNF had 64% higher odds of having a new dementia diagnosis in the following year. Patients who contracted an infectious disease while in a SNF had 65% higher odds for a first-time dementia diagnosis. As one would expect, older patients were much more likely to experience dementia onset. Patients with pre-existing chronic conditions had lower odds of dementia onset probably because these patients were more likely to have had this diagnosis earlier in life, and so less likely to have a *first-time* diagnosis later.

