

## Abstract

**Background:** Sepsis disproportionately affects skilled nursing facility (SNF) residents. This QI project evaluated the impact of a modified sepsis pathway and sepsis bundle on SNF residents. The purpose of this project was to decrease rate of transfers to the hospital for residents diagnosed with sepsis through the implementation of a modified sepsis pathway and bundle.

**Methods:** This quality improvement project utilized a pre/post design in a SNF setting. Inclusion criteria included both long term and short-term rehab residents. Exclusion criteria included residents admitted to the SNF from non-acute settings. The intervention consisted of a modified sepsis pathway and sepsis bundle. Both parametric and nonparametric tests were used to compare the pre and post groups. Outcome measures included documentation of SIRS criteria, number of times sepsis bundle was initiated, and rate of transfers to the hospital for residents diagnosed with sepsis.

**Results:** Average age of residents was 76 years, mostly female, average Charlson score of greater than 6. The post intervention phase had an increased recognition of sepsis (56%, 86.1%). No residents that received the sepsis bundle transferred to the hospital, as they were successfully treated for sepsis at the SNF. The intervention decreased over-all mortality with statistical significance ( $p < 0.05$ ).

**Conclusion:** Findings demonstrated how a modified sepsis pathway combined with a sepsis bundle could reduce the transfer back rate of septic residents to hospitals and decrease mortality. This simple, cost-effective tool shows how early detection combined with proactive treatment can improve patient outcomes and decrease mortality.

**Implications:** Implementation of a modified sepsis pathway and sepsis bundle has the potential to increase the rate of detection for sepsis and decrease mortality in the SNF settings. With these results, Medicare has the potential of highlighting this intervention as a standard of practice.

*Key Words:* Sepsis, SNF, Bundle, Pathway, Nurses