G102: Does Public Reporting of Surgical Site Infection (SSI) Rates for Institutions Contribute Towards Prevention of SSI?

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<u>Response/Recommendation:</u> Public reporting of institutional surgical site infection (SSI) rates can be a strategy to improve transparency, foster accountability, and drive adherence to infection prevention measures.

Strength of recommendation: Moderate

Delegate Vote:

Rationale:

Surgical site infections (SSIs) are among the most common healthcare-associated infections, contributing to significant patient morbidity, mortality, and increased healthcare costs [1]. Preventing SSIs is a critical goal for healthcare systems worldwide. Public reporting of institutional SSI rates has been proposed as a strategy to improve transparency, foster accountability, and drive adherence to evidence-based infection prevention measures [2]. Despite its theoretical benefits, the effectiveness of public reporting remains controversial due to challenges such as variability in surveillance methodologies, disparities in resources, and inadequate risk adjustment [3-9]. This systematic review synthesizes evidence from 25 studies to evaluate whether public reporting contributes meaningfully to SSI prevention.

Public reporting improved institutional compliance with evidence-based practices such as timely antibiotic prophylaxis and adherence to Surgical Care Improvement Project (SCIP) measures [10-13]. These measures were associated with reductions in SSI rates, driven by heightened accountability among healthcare providers [14]. Despite these improvements, differences in surveillance methodologies led to inconsistent SSI rates, complicating inter-institutional comparisons. Facilities with more rigorous surveillance methods reported higher rates, likely due to improved detection rather than poorer quality of care. These variations highlight the need for standardized surveillance practices to ensure accurate and fair comparisons across institutions [15,16].

Social and institutional disparities further complicated the impact of public reporting. Hospitals serving disadvantaged populations often reported higher SSI rates, partly due to limited resources and the influence of social determinants [17]. These disparities underscored the inadequacy of existing risk adjustment models, which failed to account for institutional challenges, potentially penalizing safety-net hospitals. Public reporting also incentivized systemic improvements in infection control and heightened awareness among healthcare professionals. However, the benefits were more pronounced in resource-rich settings, where facilities could invest in infrastructure and staff training to meet reporting benchmarks [18-20].

This review demonstrates that public reporting contributes to SSI prevention by promoting transparency and fostering institutional accountability [21,22]. However, several challenges limit its broader impact. Methodological variability in surveillance and reporting practices undermines the comparability of SSI rates between institutions [23]. Without standardized methods, the reliability of reported data is compromised. Risk adjustment models are often insufficient, failing to adequately account for social and institutional disparities [24]. These shortcomings disproportionately affect safety-net hospitals, potentially exacerbating healthcare inequities [25]. Additionally, resource limitations in underfunded facilities hinder their ability to achieve benchmarks set by public reporting systems, further limiting its effectiveness [3,6]. To maximize the impact of public reporting, several policy changes are necessary. Standardized surveillance methods must be implemented to ensure the reliability and comparability of SSI rates [8,14]. Risk adjustment models should incorporate social determinants and institutional factors to create a more equitable evaluation framework [13]. Additionally, resourcelimited facilities require targeted support to meet infection prevention standards, ensuring that public reporting drives improvement across all healthcare settings [15,19].

Conclusions

Public reporting of SSI rates enhances institutional transparency and promotes adherence to preventive measures, contributing to SSI prevention. Addressing methodological limitations and ensuring equitable resource distribution are critical to maximizing its impact.

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