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Letter to the Editor

Not all consequences should be accepted: Letter to the Editor Reply to "Reportable infections following colon surgery in a large public healthcare system in New York City: the consequences of being a level 1 trauma center"

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To the Editor,

We were pleased to see the publication by Fornek et al,[1] "Reportable infections following colon surgery in a large public healthcare system in New York City: The consequences of being a level 1 trauma center." The authors describe the colorectal surgery surgical site infection (SSI) surveillance experience of the New York City Health and Hospital system. In their detailed descriptive analysis, the authors note that patients at level 1 trauma centers had significantly increased American Society of Anesthesiology (ASA) scores, durations of surgery, rates of delayed wound closure, and rates of class 4 (dirty) wounds, resulting in higher standardized infection ratios (SIRs) when compared to the other hospitals.[1] The authors go on to discuss the lack of appropriate risk adjustment for traumatic versus non-traumatic colorectal surgeries in current models used by the National Healthcare Safety Network (NHSN) and conclude that the associated financial and reputational penalties exacerbate inequities and create perverse incentive structure in health care.

We applaud and echo the authors' sentiments. As a trauma center, our institution frequently conducts complex non-elective colorectal surgery, and we believe the current NHSN risk adjustment for colorectal surgery SSI surveillance inadequately accounts for the breadth of this complexity. Some experts may rebut that trauma and wound class are variables considered in SSI risk adjustment. However, these variables are not considered within the logistic regression model for SIR calculation for the complex 30-day model which is utilized by the Centers for Medicare and Medicaid Services (CMS) for public reporting and payment.[2] Still others may rebut that the infection "present at the time of surgery" ("PATOS") status, which are now ultimately excluded as of the 2017 SSI CMS colorectal surgery SIR adjustment, could help to overcome these barriers.[3,4] However, NHSN criteria are quite clear that trauma resulting in contaminated cases do not automatically meet the PATOS requirement.[3] Furthermore, meeting "PATOS" status remains difficult—oddly requiring two very specific descriptors to be in the narrative/description of the procedure or clear documentation of purulence or abscess.[3] We believe these nuances within the NHSN definitions are inadequate for total risk adjustment and that this persistent deficiency detracts from the true spirit of colorectal SSI surveillance. At our own institution, we found that over a 4-year period between 2018 and 2023, just over 50% of our colorectal surgery SSI cases had dirty or contaminated wound classes from non-elective cases.

Surveillance programming should instead aid in identifying opportunities to tackle preventable harm and guide quality improvement activities. As the authors point out, patients undergoing non-elective and/or traumatic colorectal surgery are not the targets of the SSI prevention bundle programming due to the urgent timing and nature of surgery. Rather, bundle efforts appropriately focus on targeted, elective, and preplanned surgeries and additionally include individual patient risk stratification.

NHSN and CMS have paradoxically created a national surveillance program with an unintended consequence—one where hospitals that care for complex non-elective colorectal surgery patients perversely bear the brunt of financial and public reporting implications. Like Fornek et al, we add our voice to the chorus of colorectal surgeons and infection prevention experts that call for critical re-examination of our colorectal surgery SSI national surveillance program.[1,5] An already existing solution might be to consider using the NSHN Complex Admission/Readmission SIR Model for Colon Surgeries, which already includes trauma and wound class as variables in SIR calculation.[6,7] Reconsidering our approach to our risk stratification, especially when it comes to non-elective and trauma cases, will allow institutions to redirect time and energy back to patient safety and infection prevention efforts—work that may actually prevent harm.

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