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Beating the bugs: the role of microbiology tests in antimicrobial stewardship in spinal cord injury units

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Background: Antimicrobial Stewardship Programs (ASPs) aim to optimize the prescription of antibiotics to combat antimicrobial resistance (AMR), reduce *Clostridioides difficile* infections, and lower antibiotic expenditures. Although ASPs are implemented in Veterans Health Administrations (VHAs) in the US, they are not targeted at the Spinal Cord Injury (SCI) population, which, relative to other patient populations, is more vulnerable to AMR. The goals of the study were to (1) assess the effectiveness of microbiology testing as a strategy to combat AMR and (2) assess the potential for collaboration among ASP leaders and SCI prescribers for implementation of ASPs in SCI units in VHAs.

Methods: We surveyed ASP leaders and SCI prescribers across 23 VHAs. We captured their perceptions regarding level of impact (“high,” “mild,” “low”) and level of implementation (“not,” “partially,” “fully”) of microbiology tests in SCI units.

Results: Of 26 participants, 54% rated “high,” 19% rated “mild,” 8% rated “low,” and 19% rated “don’t know” for the perceived level of impact for microbiology tests. There was a positive correlation between ASP leaders’ ratings of level of impact and level of implementation of microbiology tests, $r_s = 0.826$ ($p < 0.05$). There was no significant correlation between the SCI prescribers’ ratings of level of impact and level of implementation of microbiology tests, $r_s = -0.048$ ($p = 0.903$).

Conclusion: Microbiology tests are perceived to be of high value by the majority of ASP and SCI prescribers for preventing AMR. ASP leaders influence the decision-making process for ASP implementation more than SCI prescribers do. VHAs should strive to create a “deep democracy” in SCI units, where voices of ASP leaders and SCI prescribers are equally valued for ASP implementation.

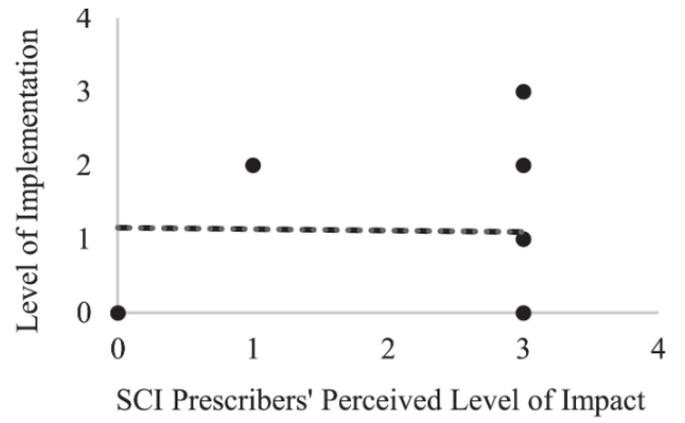
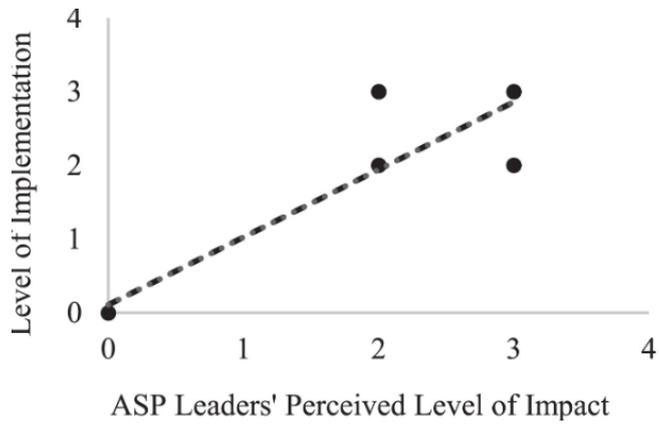


Figure 1: (abstract PHI-010): Trendline for degree of correlation between perceived level of implementation and level of impact of (1) ASP leaders ($r_s = 0.826, p < 0.05$) and (2) SCI prescribers ($r_s = -0.048, p < 0.05$).