Risk Prediction and Mitigation Across Veterans Health Administration's Sterile Processing Services

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Background: Sterile Processing Services (SPS) are a bedrock foundation for delivering safe and reliable care in any healthcare organization. Clinicians and patients depend on having the right sterilized instruments available at the right time and with zero defects or non-conformities. To achieve levels of consistency and predictability approaching zero defects across the Veterans Health Administration (VHA), the VHA National Program Office for Sterile Processing (NPOSP) developed and implemented an enterprise-wide risk management approach to safeguard patient care delivery related to SPS operations.

Objective: Development and implementation of a tool to assess and mitigate risk and improve operations of SPS programs across the VHA enterprise.

Planning: To create the risk assessment model, the NPOSP needed to identify the elements of SPS operations that posed the highest risk and those that were critical to success. To do this, they conducted an environmental scan of SPS best-practices; interviewed VHA leaders and key stakeholders; facilitated panel discussions with industry subject-matter experts (SMEs), and thoroughly reviewed relevant standards, directives (e.g., VHA SPS Directive 1116(2)) and policies (e.g., the 2015 Design Guide). The SPS elements identified through this process were organized into six functional areas: organization; leadership, governance, and support; infrastructure; operations; program evaluation; and continuous quality improvement. From this analysis, 22 Key Performance Indicators (KPIs) were identified as the foundation and most critical for the Sterile Processing Service Risk Identification, Triage, Mitigation, and Sustainment (RiTMS) model.

Implementation: A self-reporting survey tool was deployed to each VA Medical Center (VAMC) requesting information about each program in accordance with the 22 KPIs and other critical program areas. All VAMCs responded to the survey. Survey responses were analyzed and used to construct a risk score for each VAMC from 0 to 100, with higher sores indicating lower risk. To validate accuracy of the RiTMS survey results, focused site assessments were subsequently conducted at 24 individual VAMCs. These assessments were designed to comprehensively assess strengths and risks related to sterile processing using a standardized set of tools. These tools included a 148-page protocol that defined 54 capabilities across the same six functional areas identified in the RiTMS framework, interview guides, data collection tools, and report templates. To understand the current status of each the 54 capabilities, the assessment teams collected approximately 350 data points from each VAMC. All assessment team members attended a 2½ day training session before conducting any site visits to help promote inter-rater reliability. At the end of each site visit, the teams independently assigned a risk score and compared the detailed onsite assessments to the RiTMS scores. Assessment teams validated that the RiTMS model accurately assigned risk levels to 21 of the 24 VAMCs reviewed.

Results: The RiTMS tool worked as intended by initially identifying facilities at potential high risk of an untoward event. The teams subsequently validated those concerns through a site visit and were able to help the facilities develop strategies for mitigation and sustainment. When combining RiTMS with comprehensive assessment, the NPOSP was able to identify facilities at high risk; take actions to strengthen local operations; implemented mitigation strategies where risk was identified; and sustained improvement through continuous evaluation. The tool continues to be further refined and validated and is now a part of the overall comprehensive risk assessment package utilized by NPOSP.

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