

Indicators as a strategic tool in Central Sterile Supply Department: gaps between recommendation and management practice

Indicadores como ferramenta estratégica no Centro de Material e Esterilização: lacunas entre a recomendação e a prática gerencial

Indicadores como herramienta estratégica en el Centro de Materiales y Esterilización: brechas entre la recomendación y la práctica de gestión

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Quality in health services has established itself as a strategic priority in hospital institutions, especially given the growing complexity of care processes and the need to reduce risks related to patient care¹.

Healthcare quality goes beyond technical compliance with processes, involving the institutional capacity to ensure safe, effective, and patient-centered care. In this context, patient safety constitutes an essential dimension of care quality, requiring systematic mechanisms for monitoring and evaluating critical processes².

Current guidelines indicate that quality of care is directly related to institutions' ability to structure, monitor, and improve their processes through systematized management tools. In this scenario, quality indicators stand out as essential tools for measuring performance, analyzing results, and supporting decision-making, allowing for the evaluation of fundamental dimensions such as structure, process, and outcome³.

CSSD plays a strategic role in preventing healthcare risks, being responsible for the safe processing of healthcare products used directly in patient care. Failures related to the cleaning, preparation, disinfection, or sterilization stages can compromise patient safety and contribute to adverse events and Healthcare-Associated Infections (HAIs)⁴.

Despite the strategic importance of the CSSD within hospital institutions, it is observed that many departments still focus their management on predominantly operational and production-related aspects, with limited use of management tools aimed at performance analysis and continuous improvement of work processes. In this context, quality indicators play a fundamental role, as they enable systematic monitoring of processes, identification of non-conformities, traceability across all processing stages, and support for data-driven decision-making³.

In practice, there is a significant gap between the recommendation and the effective incorporation of indicators as management tools in the CSSD. In many departments, indicators are defined but are not systematically monitored, nor are they used to inform critical analyses and decision-making. This disconnect weakens process governance and compromises the institutional capacity to identify opportunities for improvement, implement corrective actions, and sustain quality over time.

A recent study analyzing quality indicators in the processing of healthcare products revealed unsatisfactory levels of compliance at different stages of processing, including cleaning, preparation, and sterilization, reinforcing that the existence of indicators does not guarantee their effectiveness in

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practice⁵. These findings align with other studies highlighting the need to develop indicators sensitive to healthcare practice, capable of reliably reflecting the quality of activities carried out in the CSSD⁶.

Among the main challenges related to the use of indicators in the CSSD are the absence of an organizational culture focused on quality management, limited technical knowledge regarding data analysis, and the prioritization of strictly operational demands over strategic actions for continuous improvement. In many services, indicators are still perceived as administrative requirements rather than as tools for improving processes and strengthening the culture of safety³.

Additionally, weaknesses in traceability systems, insufficient technological resources, a shortage of trained professionals, and poor integration between the CSSD and institutional quality centers compromise the effective use of indicators. This reality limits process evaluation and hinders the implementation of preventive and corrective actions based on reliable data².

The evidence reinforces that the systematic implementation of quality indicators is associated with significant improvements in operational outcomes, including increased compliance rates, reduced process failures, and greater workflow efficiency⁷. However, these benefits depend on the institutional capacity to incorporate the indicators into routine management and use them as a basis for strategic interventions.

Another relevant aspect concerns the persistence of management models that prioritize *ad hoc* and retrospective evaluations, focused on final results, to the detriment

of continuous process monitoring. This model limits the capacity for early identification of deviations and reduces the effectiveness of corrective actions. The literature shows that approaches based on controlling the entire process are more effective in promoting quality and preventing risks⁸. In this context, quality indicators must go beyond a merely descriptive function and assume a strategic role in CSSD management. Their effectiveness depends on the definition of clear objectives, the systematic analysis of data, and the institutional capacity to transform information into concrete actions aimed at improving processes.

Therefore, indicator-based management in the CSSD transcends the operational dimension and assumes a strategic role in the quality of care and patient safety. Although there are established regulatory guidelines and technical-scientific recommendations, gaps still persist between what is recommended and its incorporation into institutional routine. This disconnect reinforces the need to recognize the CSSD as a strategic sector directly related to care outcomes.

Finally, the implementation of indicators should not be understood merely as a control tool, but as an instrument of organizational intelligence capable of anticipating risks, identifying weaknesses in work processes, promoting traceability, and supporting evidence-based decisions. The absence of this perspective contributes to the perpetuation of reactive management models, focused on correcting already established failures, rather than adopting preventive practices supported by continuous improvement.

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