

# Implementation of evidence-based practices at the Sterile Processing Department

*Implementação de evidências científicas na prática do enfermeiro de Centro de Material e Esterilização*

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Applying the best current evidence to patient care requires translating scientific knowledge into practice and public policies. Thus, the science of implementing evidence-based practices aims to systematically adopt research results into routine care, impacting the quality and safety of health professionals' actions<sup>1</sup>.

The best available evidence allows researchers, health-care professionals, and policymakers to determine whether a practice, prevention program, or public policy is achieving its intended results in the expected manner. Therefore, the greater the methodological rigor used to answer a study question, the better the evidence produced by it.

Although the Sterile Processing Department (SPD) does not provide direct care to patients, the reprocessing of materials carried out in this sector directly impacts the safety and quality of the provided care. Hence, the production of scientific evidence that is later translated into practice is also recommended in the science of materials reprocessing.

Much has been produced aiming at supporting the quality of materials reprocessing, making the procedures carried out at the SPD based more on well-performed scientific studies than on experts' opinions. Ideally, legislation itself should be influenced by scientific evidence, in order to avoid discrepancies between what the practice aims to achieve and what is required of it.

For instance, a study whose authors showed that humidity and air temperature have little impact on the storage of sterile materials<sup>2</sup> reflected in the non-mandatory control of these variables in the storage area of sterile materials in the current Brazilian legislation for SPD<sup>3</sup>. Thus, effective control

over the handling of packages and packaging gains prominence as a practice to be recommended in this area, as it does present robust evidence of impact on the control of contamination of sterile materials.

Likewise, guidelines on best practices for reprocessing medical devices have been based on scientific evidence, even including categorizing the strength and quality of this evidence. Therefore, SPD managers have an easier understanding of practices that cannot be neglected.

Even the acquisition of equipment, so present and necessary in SPDs, nowadays must be carried out with the judicious use of technology assessment data. Recommending or instituting the purchase of equipment or supplies without considering possible evidence regarding the life cycle assessment and sustainability, as well as effectiveness and efficiency, must be deemed as poor management.

However, the lack of speed in legislative reviews ends up deviating legal requirements from the produced knowledge, making it difficult to translate knowledge into practice. Furthermore, translating guidelines or best evidence into practice requires more than just publishing them.

Years may be necessary before evidence is established in practice<sup>4</sup>. There are several barriers to implementing the best evidence from academia into professional practice, such as issues with the system, human resources, and intervention itself<sup>5</sup>.

In addition to these difficulties, although studies on the implementation of evidence-based practice have been gaining ground, this production is still very incipient for the reprocessing medical devices. The lack of quality evidence for all

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reprocessing stages and the evaluation of products and supplies still leaves SPD managers uncomfortable when making some decisions.

Nonetheless, the dissonance between the application of evidence-based practices cannot be solely justified by the

slowness of updating legislation and difficulties in implementing guidelines. It is up to nurses heading SPD in Brazil to train themselves to know how to consume scientific research, to the point of becoming autonomous to make decisions based on critical thinking, supported by scientific evidence.

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