

Are your Standard Operating Procedures really 'standard'? Using simulation in Laboratory Medicine.

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Abstract

Topic: Safety/Quality

Background:

The clinical laboratory employs Standard Operating Procedures (SOPs) extensively to describe work activities and to provide consistency in performing the steps or actions required within and between laboratories. The goal of a successful SOP is to ensure precise and accurate results through consistent performance of critical tasks. The SOP manual is regarded as the gold standard resource where all workers should be performing tasks according to these instructions. However, this does not always occur, leading to questions about the extent that current SOPs reflect local environments.

Objectives:

Firstly, to see if simulation can be used to discover barriers that prevent workers from following SOPs. Secondly, to determine if the use of simulation in conjunction with creating or editing SOPs could increase adherence levels.

Description of the innovation:

We have used simulation in several different areas to evaluate adherence to SOPs and observe process and human factors issues. We will describe four case studies, primarily in laboratory medicine, but each involving an interprofessional component, where we developed and ran simulation scenarios that gave us clear insight into areas where the SOP was not followed, was incomplete, contained irrelevant or impractical information, or was incorrect.

Impact:

We were able to make very specific recommendations for changes to the SOPs. Because these suggested changes reflect real-world operations, they may result in higher levels of adherence,

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and may also be easier for the worker to use. In areas that had not yet developed SOPs, we were able to provide information about how workers completed a process that was specific to their site, the equipment they had access to, and physical aspects of their environment. By using this information, sites can increase the relevancy of their SOP and can ensure that critical steps are included and are followed by all workers.