

A UNIVERSAL GLOBAL RATING SCALE FOR THE EVALUATION OF TECHNICAL SKILLS IN THE OPERATING ROOM

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Background/Purpose: The acquisition of technical skills is one of the fundamental goals of surgical training. An objective instrument to assess the technical skills of trainees is still lacking. The ideal assessment would not only be a reflection of true ability but also practical. The purpose of this study was to evaluate the reliability, validity and feasibility of a Global Rating Scale (GRS) Assessment tool of resident performance in the operating room.

Methods: A GRS for technical skills was constructed based on scales previously validated in skills lab settings. Faculty and residents in the general surgery program at UBC underwent an orientation session. Residents were encouraged to have the GRS filled out by faculty during operative procedures over a six-month study period.

Data Analysis: Reliability was evaluated by Cronbach's alpha. Validity was primarily evaluated by one-way ANOVA comparison of means between resident levels of training. Feasibility was evaluated by a post-study questionnaire.

Results: Seven residents had a total of 32 procedures assessed. The mean scores (maximum /5) for each year of training were: PGY2 – 3.22; PGY3 - 4.03, PGY5 - 4.35, and PGY6 - 4.9. One-way ANOVA showed these differences to be significant ($p=0.009$), demonstrating validity for the GRS form. Cronbach's alpha for residents with 3 or more cases was excellent at 0.91. In the post-study survey, barriers to use of this tool included time constraints and faculty willingness to participate. Residents who participated all felt that the use of the GRS was an excellent method of obtaining feedback and, consequently, learning.

Conclusions: The GRS assessment of performance is a valid and reliable method of assessing skills during day-to-day resident activities. It has significant advantages over traditional in-training evaluation reports and offers a more realistic evaluation of performance than skills lab assessments. However, barriers to its implementation must be addressed.