SUCCESSFUL TRANSITION TO ANESTHESIA RESIDENCY TRAINING: A MULTICENTER STUDY OF AN ONLINE DISTANCE-LEARNING PROGRAM DESIGNED TO PREPARE INTERNS FOR ANESTHESIA RESIDENCY TRAINING

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Background/Introduction: START is an innovative, distance-learning online educational program taught during the PGY-1 internship year. It has been shown in a previous single institution study to ease the transition from internship to residency (JGME, in press March 2013). The purpose of this multicenter observational study is to test whether this 10-month program increases anesthesia knowledge, increases interns’ self-assessed preparedness to begin anesthesia training, and to determine if these results are generalizable across 4 anesthesia training programs in the United States: Stanford, Yale, Mount Sinai, and UC Davis. Recently, the START program has been incorporated into the 2012-2013 curricula at Harvard, UMass, Jefferson, and Baylor. Recent additions for the START 2013-2014 program include University of Alabama, University of Calgary, University of Saskatchewan, UC San Diego, and Tulane.

Methods: START is an online distance-learning program administered to interns once per month using the Moodle learning management system (Moodle, Perth, Australia). Each monthly online learning module is comprised of five components: short video podcasts, longer coursecast video lectures, interactive/collaborative activities, pre- and post-quizzes, and an evaluation/feedback component. 75 interns participated in the 2011-2012 START program. 75 interns from the previous year who did not go through the START program were used as historical controls and did not participate. Assessment in changes in anesthesia-related knowledge are measured with pre- and post- quizzes for each module. A survey assessing preparedness to perform 14 basic anesthesia skills was administered before and after START, utilizing a five-level Likert scale. Survey data on subjective feelings of preparedness for residency, stress levels, and connectedness to faculty and institution were further assessed via a five-level Likert scale five months following the completion of the 2011-2012 START program. Qualitative analysis was performed using QSR International’s NVivo 10 software (NVivo qualitative data analysis software; QSR International Pty Ltd. Version 10, 2012) on open ended questions. 37 prior START participants completed the follow up survey.

Results: Our results show that the START program improves anesthesia knowledge. Quiz scores on anesthesia knowledge improved significantly when pre-curriculum knowledge assessments were compared with with post-curriculum tests. The average learning improvement across all four sites was 34.5% (p<0.0001) and was not significantly different between sites (p-value of interaction=0.235). Intern’s self-assessed feelings of
preparedness to begin residency increased on average by 48% after completing the START program (p<0.0001). In addition there was a significant difference in the self assessed-preparedness scores compared to controls who did not take the course (20.8 vs. 14.1, <.0001). In quantitative data analysis 94.6% of interns answered, “agree” or “strongly agree” when asked if they felt more prepared to begin their anesthesia residency after completing the START program. Student comments have been for the majority positive, expressing appreciation for having START during their internship year (Table 2). Between the four institutions, 81% of interns who completed the follow up assessment survey reported that START helped them to feel less stressed about the beginning of their residency. Qualitative data analysis show that 36 of 37 interns felt more prepared for residency after completion of the START program. When asked if they felt the schools cared more about their education, 91.9% of the residents say “yes”.

**Conclusions:** START is a distance learning online educational program that results in improvement in anesthesia knowledge, feeling more prepared to begin anesthesia residency, and ultimately resulted in interns feeling cared about by their home institution and less stressed about beginning their first year residency.