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Team and Leadership Performance: An Exploratory Mixed-Methods Analysis Using Interprofessional In Situ Simulation

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the post-COVID setting). Historically, VS was used to assess emergency responders' preparedness to major casualty events due to its ability to generate fictitious environments. In 2021, VS was deemed a feasible assessment tool of healthcare students' clinical competency. More specifically, VS has been shown to be a feasible alternative to traditional oral examination for assessing both EM residents and pediatric EM resuscitation respectively.

**Conclusion:** VS has been shown to be as effective as traditional simulation methods in assessing EM learners. As the COVID pandemic continues, VS has and will continue to serve as an educational substitute to in-person simulation. We believe the use of VS will continue to grow as viable, standardized, and cost-effective means of assessing EM students' knowledge and clinical competency.

### 38 Just In Time Learning: EM Resident Search Strategies in Preparation for Performing a Simulated Dental Block

*Yuliya Pecheny, Amy Skeel, Linda Spillane, Julie Kittel-Mosley, Ryan Bodkin, Courtney Marie Cora Jones*

**Learning Objective:** To describe on-line resources and strategy used by EM residents prior to performing a simulated dental nerve block including search terms, sources, and time.

**Background:** EM physicians are called to perform infrequently done procedures, often using on-line resources to prepare.

**Objectives:** To describe on-line resources used by EM residents prior to performing a simulated nerve block.

**Methods:** Prospective, observational study of EM residents during a simulation workshop. Subjects were provided a visual prompt of an abscess and given 15 minutes to use on-line resources, then demonstrated the dental nerve block on a skull model. Video screen shots were recorded and data collected including search time, strategy, type and number of resources used. Subjects were observed performing the block and given credit if performed correctly. Residents answered a survey about previous experience, preferred resources and confidence in performing the procedure.

**Results:** 26 residents participated. The median search time was 4 minutes, 5 seconds. 57.7 % of subjects used a general search term as opposed to a specific procedure. Sites included You-Tube 69%, Google Images 53.8%, WikiEM 42%, EMRA 15%, and UpToDate 11.5%. 61.5% used 2 links. 50% used a combination of written and video material whereas 23% used video material alone. 81.8% performed the block correctly. Survey results: 42% of residents reported having done a dental block on a patient with 3.8% reporting previous training. 50% reviewed both written and video sources with 76% of respondents finding video sources more

helpful. 96.2% residents felt they had adequate time to review the procedure. Confidence in ability to perform the procedure after review varied: 3.8% very confident; 46% confident; 23% neutral and 27% somewhat confident.

**Conclusions:** YouTube was the most frequently used resource in researching how to perform a dental nerve block. The majority of residents applied previous experience and just in time learning to correctly identify injection landmarks on a simulated model. Having a centralized video bank may decrease prep time for infrequently performed procedure.

### 39 Team and Leadership Performance: An Exploratory Mixed-Methods Analysis Using Interprofessional In Situ Simulation

*Ashley Rider, Sarah Williams, Vivien Jones, Daniel Rebagliati, Kimberly Schertzer, Mike Gisondi, Stefanie Sebok-Syer*

**Learning Objective:** To assess leader and team performance during interprofessional in situ simulation and identify characteristics of effective teams.

**Background:** Patient care in the emergency department (ED) is dependent on highly effective interprofessional teams.

**Objectives:** To assess leader and team performance during interprofessional in situ simulation and identify characteristics of effective teams.

**Methods:** This mixed-methods study employed case study methodology. Eligible nurses, technicians, pharmacists, and PGY 2-4 emergency medicine residents at a tertiary academic ED participated in a 10-minute in situ simulation of a critically ill patient. Participants self-rated team performance using the Team Performance Observation Tool (TPOT) 2.0. Two raters independently reviewed simulation videos and rated performance using the TPOT 2.0, Team Emergency Assessment Measure (TEAM), and Ottawa Crisis Resource Management Global Rating Scale (Ottawa GRS). Following the simulations we conducted semi-structured interviews. Transcripts were coded by two coders and underwent thematic analysis.

**Results:** 23 simulations took place between January-April 2021. Two raters' scores were on the high end of the scales for the TPOT 2.0 (R1 4.90,SD=0.17;R2 4.53,SD=0.27), TEAM (R1 3.89,SD=0.19;R2 3.58,SD=0.39), and Ottawa GRS (R1 6.6,SD=.56;R2 6.2,SD=.54). Team leader attributes including year in residency, age, and gender did not correlate with performance scores. We identified 6 themes: leadership tone, interdependent energy, strategic staffing, optimal communication, simulation empowering team performance, and team entrustment. Participants acknowledged the effectiveness of in situ simulation in promoting entrustment in the clinical setting.

**Conclusions:** The TPOT and TEAM were not

discriminatory for high-performing ED teams. Our qualitative analysis revealed features such as entrustability, energy, and team size are important for effective team dynamics but are not completely captured on current tools. ED-specific assessments of interprofessional entrustment may be useful in optimizing readiness for the clinical setting.

**Table 1.** Mean score per subcategory of each performance tool.

|                           | N  | Minimum | Maximum | Mean   | Std. Deviation |
|---------------------------|----|---------|---------|--------|----------------|
| R1_TPOT_overall_meanscore | 18 | 4.30    | 5.00    | 4.9028 | .16669         |
| R2_TPOT_overall_meanscore | 18 | 4.10    | 5.00    | 4.5392 | .26823         |
| R1_OTTAWA_meanscore       | 18 | 4.83    | 7.00    | 6.6387 | .56077         |
| R2_OTTAWA_meanscore       | 18 | 5.00    | 7.00    | 6.1389 | .54608         |
| R1_TEAM_overall_meanscore | 18 | 3.36    | 4.00    | 3.8939 | .19285         |
| R2_TEAM_overall_meanscore | 18 | 2.82    | 4.00    | 3.5808 | .39088         |

**Table 2.** Correlations across overall scores by rater for the TPOT 2.0, TEAM, and Ottawa GRS.

|                           | R1_TPOT | R2_TPOT | R1_OTTAWA | R2_OTTAWA | R1_TEAM | R2_TEAM |
|---------------------------|---------|---------|-----------|-----------|---------|---------|
| R1_TPOT_overall_meanscore | 1.00    |         |           |           |         |         |
| R2_TPOT_overall_meanscore | 0.465   | 1.00    |           |           |         |         |
| R1_OTTAWA_meanscore       | 0.892   | 0.35    | 1.00      |           |         |         |
| R2_OTTAWA_meanscore       | 0.437   | 0.519   | 0.680     | 1.00      |         |         |
| R1_TEAM_overall_meanscore | 0.717   | 0.297   | 0.919     | 0.698     | 1.00    |         |
| R2_TEAM_overall_meanscore | 0.446   | 0.543   | 0.659     | 0.936     | 0.730   | 1.00    |

## 40 Emergency Medicine provider comfort with Physician Orders for Life Sustaining Treatment (POLST) Advanced Directive

Kaitlin Sweeney, Katherine Briggie, Juan Pagan-Ferrer, Sangil Lee, Mark Graber, Daniel Miller, Hao Wang

**Learning Objective:** Our study aimed to determine the level of awareness and understanding of the POLST form amongst Emergency Department (ED) providers in the US

and find the specific knowledge gaps so that we can create an educational intervention tailored to those deficiencies and increase use of the form in the ED.

**Background:** EDs across the US see many patients with advanced disease and in the end of life. The POLST form is becoming a widely used Advanced Directive as it provides detailed instructions regarding end-of-life interventions compared to the vague “Do Not Resuscitate”. Our study aimed to determine the level of awareness and understanding of the POLST form among ED providers and find specific knowledge gaps in order to create an educational intervention tailored to those deficiencies and increase use of the form, thus patient care in the ED.

**Methods:** Our observational cross-sectional study consisted of sending an anonymous 17-question poll to all residents, attendings, and Advanced Practice Providers (APPs) at two ACGME accredited Emergency Medicine residency programs, The University of Iowa and John Peter Smith Hospital. Four questions were to obtain demographic data and the rest to gauge comfort levels and test the responder’s knowledge of the POLST and related regulations. The poll was created and sent using the online software, Qualtrics, with Likert scale style questions in November 2021 to nearly 150 providers. We are still undergoing further analysis of the data using Statistical Analysis Software (SAS).

**Results:** Of the 58 respondents, 45% were attendings, 47% residents, and the rest APPs. 53% practiced in Texas, the rest in Iowa. 19% of respondents believe that they have not received any palliative care training to date. 78% were not confident applying the POLST and 72% of respondents did not know where to look in their workplace for it. 91% were not confident applying the form without the family present. 37% of respondents agreed that the POLST supersedes a durable power of attorney.

**Conclusion:** Our data shows us that there are many ED providers that are unaware of the POLST and do not know how to find, interpret, and apply the form correctly. Next steps are to create an effective educational intervention and resurvey participants to determine our success.

## 41 “Everybody in this room can understand”: A Qualitative Exploration of Peer Support during Residency Training

Aarti Jain, Ramin Tabatabai, Jacob Schreiber, Anne Vo, Jeff Riddell

**Learning Objective:** To better understand the nature of support offered through residency peer support programs and to explore trainee perceptions of the benefits, potential harms, and optimal characteristics of peer support.

**Background:** Though peer support groups are often