

## **UC Irvine**

### **Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health**

#### **Title**

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

#### **Permalink**

<https://escholarship.org/uc/item/6nz71402>

#### **Journal**

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 23(4.1)

#### **ISSN**

1936-900X

#### **Authors**

Pecheny, Yuliya  
Skeel, Amy  
Spillane, Linda  
[et al.](#)

#### **Publication Date**

2022

#### **Copyright Information**

Copyright 2022 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

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