Socially-Distanced Learning: Perspectives on Instructor-Guided Virtual Simulation

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BACKGROUND
• The COVID-19 pandemic resulted in unexpected declines in pediatric patient volumes at CHCO
• Fewer experiential learning opportunities for resident physicians can reduce comfort and competency in managing a deteriorating patient
• Instructor-guided simulation may augment learning while maintaining social distancing

OBJECTIVE
• To assess the feasibility and acceptance of a virtually-conducted, instructor-guided simulation exercise on care escalation for pediatric residents

METHODS
• Piloted a simulation curriculum integrated into a virtual 2-hour educational session dedicated to escalation of care
• Conceptual frameworks included: situated learning, deliberate practice and reflection
• Outcomes included perceptions on virtual format learning tool and value of instructor guidance, measured through electronic survey

RESULTS

Curriculum
• Virtual patient experienced a hyperkalemic arrest using Laerdal software with real-time manipulation (Figure 1)
• Learning objectives focused on:
  • early recognition and management of an unstable patient
  • team communication
  • resource utilization
• Scenario concluded with instructor-led debrief focused on learning objectives
• 4 – 6 residents per breakout group during virtual simulation exercise

Participation and Perceptions
• The same 10-minute scenario was conducted on two separate days with 14 residents on the first day and 16 on the second day
• 30/38 (79%) of second-year pediatric residents participated in the virtual simulation exercise
• 20/30 (67%) of participants completed the post-curriculum survey
• 100% of respondents endorsed interest in future virtual simulation exercises

CONCLUSIONS
• Introduction of a virtual simulation exercise was feasible and allowed for greater learner engagement and interaction
• Survey results suggest a positive educational experience
• Presence of a facilitator for timely and specific feedback was preferable to self-directed reflection

IMPLICATIONS
• Virtual simulation could support learning during the ongoing social distance regulations required by the ongoing pandemic
• Compared to self-directed learning, instructor presence allows for reflective practice
• Virtual simulation could be broadly applied to remote learners in resource-limited settings to provide personalized and cost-effective learning

DISCLOSURES
• All authors have no personal/financial disclosures