Title

Value Transformation through Process Mapping- An Idea Generator for Resident led QI Projects

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Strengths: This module overcomes resource limitations of live and VR simulation, and can be completed asynchronously anywhere.

Limitations: Participants need internet access. The debrief requires a facilitator skilled in disaster triage and debriefing. Assessment of effectiveness included neither triage accuracy/speed, nor comparability to live simulation/VR.

Feasibility and transferability: This innovation is freely accessible online. Future development will allow learners to select their experience level, for simplified or complex cases. Open source code allows anyone to develop their own adaptation.

46 Use of Virtual Reality for Teaching Procedures

Phillip McCoy, Stephen Miller

Learning Objectives: The objective of this innovation is to provide virtual reality as an alternative method for learners in emergency medicine to build procedural competence. We will also be looking at feasibility of VR for education and participant satisfaction.

As part of a wider virtual reality curriculum, we are developing and assessing the feasibility of using virtual reality as an alternative method for learners to build competence in procedural skills. This innovation is being tested and implemented with medical students rotating through on their 4th year emergency medicine elective. The study's plan is to look at how practicing procedures with virtual reality compares to more traditional hands-on simulation techniques. Medical students were given a lecture on how to do a surgical chest tube. Then, depending on the month, students were either assigned to practice with virtual reality programs or with simulation task trainers. The following week students were assessed on their ability to walk through and perform a surgical chest tube based on clinical skills evaluation that is already used for emergency medicine residents at VCUhealth. The goal of this innovation is to allow for more easily accessible ways to practice procedures through deliberate practice and allow residents to build experience and competence in procedures in emergency medicine. This has the potential to be especially beneficial in high acuity, low frequency procedures.

47 Reducing Electronic Health Record (EHR) Click Fatigue: An Innovative Approach to Common Order Sets

Eric Medrano, Mohamad Ali Cheaito, Mohamad Moussa

Learning Objectives: Our initiative aims to develop an education innovation that contributes to: • Enhancing EHR usability through facilitating the process of placing medical orders. • Decreasing click fatigue while increasing professional satisfaction among emergency medicine residents.

Introduction/Background: Bureaucratic tasks are the leading cause of burnout among emergency medicine physicians. Among those tasks is placing medical orders in the Electronic Health Record (EHR), which is a time-consuming and rigorous process that can lead to click fatigue and increase physician burnout. Therefore, we believe that optimizing the EHR experience for order placement will not only decrease the amount of time spent using the EHR but will also decrease click fatigue and improve overall satisfaction of emergency medicine physicians.

Curricular Design: We designed a PowerPoint educational module for the emergency medicine residents that guides them through the process of creating their own personalized order sets. In this module, we demonstrated the step-by-step process of developing order sets for three of the more common presentations to the ED: chest pain, abdominal pain, and headache. This is a significant, minimal cost method that can be used to facilitate many patient encounters through expediting the placement of workup and management orders. After partaking in the educational module, residents were able to develop their own personalized order sets, which will inevitably reduce the number of clicks.

Impact/Effectiveness: Integration of this module has been successful among the emergency medicine residents and was very well received. The number of clicks saved using the order sets presented in the PowerPoint educational module was eight, six, and fifteen clicks for the chest pain, abdominal pain, and headache order sets, respectively. This educational innovation has high transferability to other institutions that use EHRs. We expect that employing this strategy will decrease the amount of time spent on bureaucratic tasks, decrease click fatigue, and improve the overall wellness of the ED physician. Our long-term plan includes expanding our educational curriculum and utilizing qualitative assessment tools to examine its effectiveness.

48 Value Transformation through Process Mapping- An Idea Generator for Resident led QI Projects

Joel Atwood, Amber Billet

Learning Objectives: Review fundamental principles in high-value care Develop a list of opportunities to optimize value based care in the ED Introduce Value Process Mapping to explore barriers to high value care.

Introduction/Background: Quality Improvement (QI) is a key component of resident education and an ACGME requirement. Despite being on the front lines and witnessing low value care on a regular basis, many residents struggle to complete robust QI projects throughout residency. A key barrier to resident participation in QI projects is inexperience

and poor understanding of the key components of QI. We developed a two-hour course that stresses individual thought and hands-on expert guided experience to empower residents to start their own meaningful QI projects.

Curricular Design: An expert in value based care led two 1-hour sessions to teach our residents components of QI and review key principles of our institutions transition to value based care: Care Variation, Waste in Care, Appropriate Setting of Care, Quality, Access and Advanced Analytics. For the first 1 hour session, key institution wide examples of each focus area were introduced to residents in chart form for 15 minutes. For 30 minutes residents were then separated into groups of 3 and they compiled their own ED specific examples for each focus area. For the final 15 minutes each small group shared their examples with the entire group. Several weeks later a second 1 hour session reviewed key principles in value process mapping. In preparation for the activity, residents were asked to process map some of their original ideas from the first session and send them to the instructor (senior VP and chief quality officer). Our expert reviewed each process map with the group and made suggestions for improvement. Results of both sessions were documented and reviewed with residents during PD led individual meetings regarding QI projects.

Impact/ Effectiveness: These two introductory activities have resulted in increased resident engagement in QI activities with a specific improvement in confidence to develop and implement meaningful QI projects in our department.

Figure.

49 Implementation of a Dedicated Social Worker/Coach for Emergency Medicine (EM) Residents

Jennie Buchanan, Sarah Meadows, Jason Whitehead, Gannon Sungar, Todd Guth, Barbara Blok, Katie Bakes, Christy Angerhofer, Malorie Millner, Megan Stephens, LaVonne Salazar, Abraham Nussbaum, Bonnie Kaplan

Learning Objectives: The pandemic exposed the mismatch between trainee mental health needs and their access to support services; therefore, the objective of our innovation was to support an opportunity for residents to work with a social worker/coach who could provide coaching on an emergent, urgent, or regular basis.

Introduction/Background: EM training requires sleep-wake disruptions, includes potentially traumatizing encounters, all during the COVID-19 pandemic while many residents relocate away from their customary psychosocial supports for training. The shift-based training model limits access to psychosocial care and services, so trainees need just-in-time resources which can support them before mental health concerns develop.

Educational Objectives: The objective of our innovation was to support an opportunity for our residents to work with a professional social worker who could provide coaching on an emergent, urgent, or regular basis.

Curricular Design: The leadership team identified a clinical social worker and trained coach to provide small group and individual coaching sessions to residents (4-year urban safety-net program with 68 residents) budgeted at an initial cost of $15,000. It was agreed that what was shared in the discussion would not be shared without consent and legal limits to confidentiality were followed.

Impact: From October 1, 2020 when implemented to October 1, 2021 there were 49 group and 73 individual sessions. After implementation in 2021, we compared this rotational mean score as ranked by all residents to all other wellness initiatives. Overall response rate was 80.88%. The overall mean score of the initiative was 2.25 (1-lowest and 4-highest) versus 3.73, the mean of all other wellness initiatives. Summary comments from the residents revealed the innovation was useful but shared concern regarding ability to attend sessions and capacity of social worker to relate with them. If other programs are considering implementation of a similar program recruiting someone with ED/graduate medical education experience or making sure they are oriented is key. Application of a social worker coaching program in an EM residency appears to be a feasible novel wellness intervention with potential to improve well-being, but needs framing to benefit trainees.

50 Improving Physician Well-Being and Reducing Burnout Using a Peer-to-Peer Recognition Program

Jenny Chang, Alexis Cortijo-Brown, Vinay Saggar, Simiao Li-Sauerwine, Katie Rebillot, Michael Jones, Jill Corbo

Learning Objectives: The objective of our study is to utilize a peer-to-peer recognition program to reduce burnout and improve well-being in our residency program by demonstrating a 10% increase in the Stanford