Assessing the Quality of Resident Verbal Hand-offs – Do You Know What Your Residents Are Communicating?
chief complaint and the wide variety of techniques available, a model for both practice and experimentation is warranted.

**Educational Objectives:** The goal of the model was to increase familiarity with the concept of zipper entrapment, while the objectives were to attempt one or more of the various release techniques and to demonstrate successful release while avoiding excessive hand motions.

**Curricular Design:** As part of a voluntary emergency medicine curriculum, we constructed a model for penile zipper entrapment using the Hasbro game *Operation* and materials easily obtainable and assembled in any ED. Forty-eight learners participated in the exercise. Participation was voluntary, was not graded or shared with the residency director, and all feedback was formative in nature. Prior to the exercise, only 10% had treated the zipper entrapment complaint. After the exercise, almost half of the learners (47%) indicated they felt completely or very comfortable regarding future cases of zipper entrapment.

**Impact/Effectiveness:** Zipper entrapment is a low frequency, high-anxiety chief complaint to which the majority of emergency medicine residents have not been exposed, even by the end of training. Through the use of a well-known board game and supplies commonly found in the ED, we created a model that could be easily replicated to enable practice of the techniques necessary for zipper entrapment release. The resident physicians who had treated an actual zipper entrapment patient prior to participating in the exercise thought the model was somewhat similar. We therefore submit this inexpensive, simple model as a potential method to practice the hand motions and techniques to release a zipper entrapment. Learners in the ED found it enjoyable and felt it increased their confidence for treating this chief complaint.

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**Assessing the Quality of Resident Verbal Hand-offs – Do You Know What Your Residents Are Communicating?**

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**Background:** Accurate patient hand-offs (HO) are an important safety initiative. This is especially true in emergency medicine (EM), where HOs routinely occur between shifts, between services, and even to a degree when talking to a consultant. An institutionwide structured tool was introduced to improve verbal and written communication between services when providing a patient HO. Programs were asked to evaluate resident competence in performing a HO prior to allowing them to do so independently.

**Educational Objectives:** Our goal was to assess resident competence in providing a pertinent and accurate HO.

**Curricular Design:** Residents received information about the new HO tool, elements of a good HO, and the new institutional policy. Several weeks later, EM residents participating in their annual assessment worked in teams to manage a simulated pediatric trauma patient with multiple non-operative injuries. Subsequently, residents individually provided a verbal phone HO to the pediatric intensive care unit. The quality of the HO was evaluated using the framework of the HO tool that includes patient identifiers, active issues, to-dos, potential problems, check-back for understanding, and time for questions. A global evaluation of the resident HO accuracy and efficiency was assessed. Faculty predetermined what information would be critical to share based on the simulated patient encounter.
Email for Staff Education: The Good, the Bad, the Ugly


Background: Mass casualty incidents (MCI) are part of our reality. The response plans that emergency departments (ED) prepare frequently change and are infrequently practiced, yet must be enacted quickly. Education must happen despite heavy cognitive load, limited budget, and even more limited attention span. E-mail is not optimal, but it’s what we have.

Educational Objectives: We developed a discipline-specific, spaced learning, e-mail curriculum to teach staff our department’s MCI plans. As part of a prospective observational crossover trial, each staff member received a weekly short or long e-mail from a dedicated project-specific e-mail account. Each e-mail covered a small portion of the MCI plans. We hypothesized shorter e-mails would be preferred, leading to improved retention.

Curricular Design: Brief overviews of portions of the MCI plan were tailored to various disciplines (physicians, nurses, coordinators and ED technicians). Short (<250 words) and long e-mails (>500 words) covering the same topic were sent using marketing software (MailChimp, Atlanta, GA) to track the rates at which e-mails were opened. Each staff member received one e-mail per week for a total of eight months. Pre-, mid-, and post-implementation quizzes occurred to quantify retention of material. A post-study survey collected impressions from recipients.

Impact/Effectiveness: Weekly e-mails were sent to 442 employees. Open rates were uninterpretable. Overall, scores minimally changed across all groups from pre-test (50.6% correct) to mid-test (53.8% correct) to post-test (52.5% correct). Recipients of short e-mails had greater improvement in scores than recipients of longer e-mails. A survey was sent to all staff. Respondents generally felt more prepared than in the prior year. There was a preference in length of e-mail, with 66% of staff preferring shorter e-mails. Many staff reported even shorter e-mails would be more efficient. While the test scores failed to impress, we learned many lessons about using e-mail to educate: 1) Marketing software is inaccurate and makes useful e-mail look like spam; 2) e-mail not from a known person is less trusted; 3) bullet points are helpful; 4) shorter is better; and 5) conversational style, humor and pictures are very useful. Overall, staff confidence in our ED MCI plans improved through spaced learning via weekly e-mails to staff members, despite relatively similar test scores.