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The Effect of QR Code Implementation on Resident Feedback in the Emergency Department

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49 The Carrot and the Stick: Utilizing an Incentive Based Program to Increase Resident Evaluation Completion in an Academic Emergency Department

Thompson M, Walter L, Khoury C, Edwards A / University of Alabama at Birmingham

Background: EM faculty evaluation of resident performance is a key element to track ACGME milestone progression during training. Obtaining a sufficient quantity of resident evaluation data is a challenge shared by many residency programs. Prior quality improvement projects have shown that policies penalizing faculty for failing to participate in resident evaluation (“the stick”) result in increased compliance. To date there is a paucity of EM-specific research on the impact of incentive-based programs (“the carrot”) for faculty with regards to resident evaluation completion.

Objectives: We hypothesize that a departmental policy both financially incentivizing EM faculty to complete resident evaluations as well as penalizing those who do not maintain a minimum number of evaluations per resident shift (EPRS) will lead to an increase in resident evaluation data. **Methods:** This stepwise departmental quality improvement project engaged 44 academic EM physicians who work regularly with 32 EM residents. The initial intervention was a financial incentive for faculty members who completed resident evaluations. This ‘carrot’ process was subsequently amended to include a ‘stick’ component- a minimum EPRS threshold required participate in a preexisting incentive program. Data displaying all EPRS information was provided at monthly meetings. Average EPRS information as well as number of resident evaluations completed per quarter were compared to the previous academic year. The objective of this study is to determine the effects of implementing a departmental policy both incentivizing faculty to complete resident evaluations as well as penalizing those who do not adequately participate in resident evaluation.

Results: During the first academic quarter of 2019, we found that our total number of evaluations increased 70% from 252 to 429 ($p < 0.05$), while EPRS increased from 0.36 to 0.53 during the same time period. **Conclusions:** By utilizing departmental policies that provide a financial incentive as well as a concomitant potential penalty it is possible to drastically improve the number of faculty-completed resident evaluations and thereby, increase the amount of available data to track resident milestone progression.



Figure 1. Evaluations per resident shift by month.

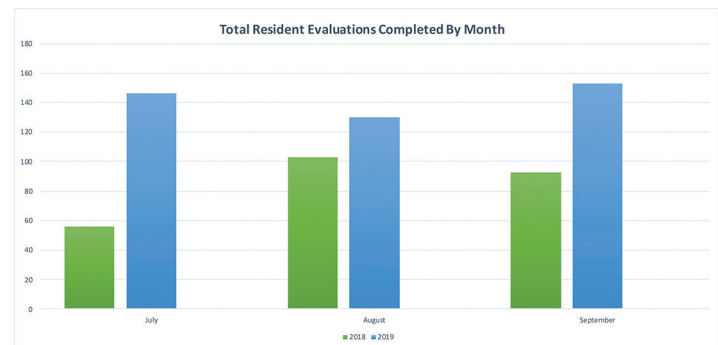


Figure 2. Total resident evaluations completed by month.

50 The Effect of QR Code Implementation on Resident Feedback in the Emergency Department

White J, Stowens J, Caplan R / Christiana Care Health System

Background: Feedback on resident performance is critical to resident graduate education. In the emergency department, many programs use daily paper “shift cards” as a method for feedback, although this has its limitations.

Objective: We hypothesized that creating a Quick Response (QR) electronic shift card system would yield improved feedback in both quality and quantity to paper shift cards. Upon reading this abstract, the reader would gain insight into an easy, innovative way to reduce the burden associated with collecting and documenting feedback while providing meaningful, constructive feedback that learners and educators prefer.

Methods: We compared the academic years before (2017-

2018) and after (2018-2019) introducing QR shift cards. We evaluated the number of shift card submissions and number of words per card. We utilized surveys of both residents and attendings to evaluate preferences and perceived quality.

Results: There was an increase in total shift card submissions with QR codes (2,817) compared to paper cards (2,600). There was no statistically significant difference in words per card ($p=0.40$), although the number of words per card varied more within the QR group ($p<0.001$) and had more cards with zero word count (18% vs 9%, $p=0.01$). 31/60 (52%) of residents and 37/71 (52%) of attendings responded to the survey. The majority of attendings (89%) and residents (65%) preferred QR codes, and a majority reported equal or greater satisfaction with quality and quantity of feedback.

Conclusion: Overall, the data suggests that implementing a new QR based electronic shift card feedback system may increase the number of shift card submitted and may not change the quantity of feedback on each card. The change was widely accepted by both attendings and residents in our emergency department.



51 Too Much on Their Plate? A Survey on Resident Multitasking in the Emergency Department

Abbas D, Turner-Lawrence D, Traylor S, Todd B / Beaumont Health System; Mount Carmel Health System

Background: The emergency department (ED) presents a challenging multitasking environment for emergency medicine (EM) trainees due to a large task load, limited clinical experience, frequent interruptions, and ED overcrowding. Multitasking has been associated with increased resident fatigue, physician burnout, and medical error. However, little is known about EM resident ability to multitask and its progression throughout training.

Objectives: We aimed to determine how EM residents are stressed by multitasking and how this changes throughout training. We hypothesized that early trainees would report greater multitasking difficulty than senior residents. At the conclusion of this activity, participants will be able to describe challenges posed by the ED environment on EM trainees and identify the trend of how ED multitasking progresses over the

course of training.

Methods: We performed an observational, cross-sectional study investigating EM resident self-assessment of multitasking skills, stress associated with multitasking, and task management strategies. We administered a 5-point Likert scale survey anonymously to PGY1-3 residents at our large community teaching hospital.

Results: A 6 question survey completed by 34 residents was analyzed with one-way ANOVA with two-tail t-test (Fig 1). Residents reported improved ability to manage tasks efficiently ($p=0.003$) and decreased difficulty in prioritizing tasks ($p=0.00004$) from the PGY1 to PGY3 year. The feeling of being overwhelmed by tasks decreased as training progressed ($p=0.00002$). There was no significant difference found in the ability to leave shifts on time ($p=0.09$) or utilization of a task prioritization strategy ($p=0.07$), although these items trended towards improvement based on year of training. There was a trend for early learners believing they would benefit from a task management tool ($p=0.1$).

Conclusions: EM residents are stressed by multitasking, however this improves through training. Our study was limited by sample size at a single site. These results indicate that early learners in particular would benefit from education to improve multitasking.

52 Using Interprofessional Education to Improve Patient Safety Education Amongst Preclinical Medical Students

Andrabi S, Gill A, Huynh P, Hatfield C, Scheller S, Lye C / Baylor College of Medicine; University of Houston College of Pharmacy; Texas Woman's University

Background: Interprofessional education (IPE), collaboration, and communication are all important to EM. We created a Patient Safety, IPE activity in based around an EM clinical case. The activity was iteratively scaled-up, comprising of 118 pharmacy, 95 nursing and 180 medical students with 100 facilitators participating. Superlative evaluations revealed statistically significant student learning outcomes that we published in MedEdPORTAL. Successful learning activities are subject to degradation. Maintaining academic integrity and student satisfaction is a continual process that requires continual evaluation and intervention.

Objective: This study's purpose is to determine how medical, nursing and pharmacy students rate their satisfaction and self-efficacy before and after a required, IPE activity. We hypothesize that using multi-modal measures will help assess this. This also helps fulfill LCME accreditation standards.

Methods: Recruitment included experienced facilitators, housestaff, and providers. A facilitator orientation was provided. Students were assigned into proportionate groups of preclinical medical, nursing and pharmacy students and two facilitators consisting of a physician and either pharmacy or