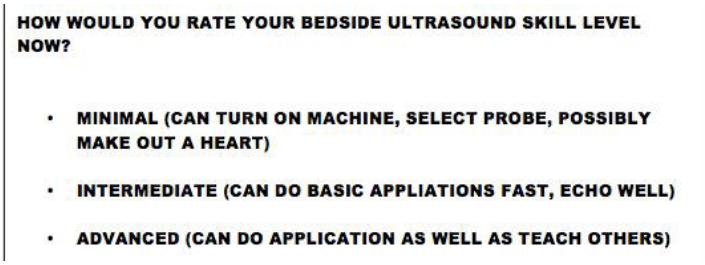


**Figure 1.**

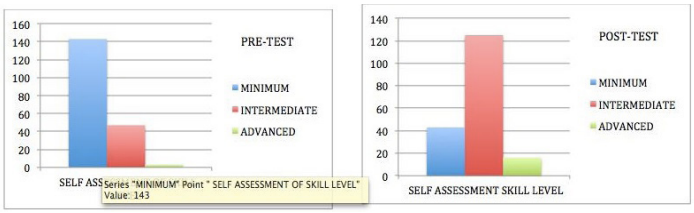


**Figure 2a.**

Pre-Test

| 0% | 25% | 50% | 75% | 100% |
|---|---|---|---|---|
| 0 | 0 | 1 | 1 | 3 |

Post-Test

| 0% | 25% | 50% | 75% | 100% |
|---|---|---|---|---|
| 1 | 2 | 2 | 2 | 3 |

**Figure 2b.**
0=no knowledge, 1=minimal knowledge, 2=intermediate, 3=advanced.
50% is median. median is 1=minimal in the pre test and 2=intermediate in the post-test.

## 72 The Influence of Emergency Medicine Residents on Emergency Medicine Attending Productivity

*Alkhalifah M*, Deibel M, Lowry J / Central Michigan University, Saginaw, MI; Covenant Healthcare, Chicago, IL; Saginaw Valley State University, University Center, MI

**Background:** Minimal data exist regarding the influence of residents on emergency medicine (EM) physician productivity and flow of patients in the emergency department. A literature review revealed one study that provided the impact of residents on the number of patients seen per hour[1]. Several studies provided assessment of resident performance with focus on the educational aspects[2-4]. We evaluated whether emergency residents have any influence on EM attending productivity.

**Objectives:** To evaluate the influence of EM residents on EM attending productivity.

**Methods:** A retrospective observational study was completed utilizing electronic chart review of EM attending 8-hour shifts in a level 2-trauma center with 85,000 visits per year. This emergency department (ED) is affiliated with a 3 year, 30 resident program. We included all ED attending shifts from January 2012 to April 2013. The total number of shifts was 4683, which included 2084 with attending alone and 2599 with a resident. Resident shifts include 1-2 residents paired with 1 attending. This study compares ED attending alone to ED attending with a resident. We looked at several productivity measures, such as patients/hour, patients/shift, admitted patient/shift, relative value units/hour (RVUs), ambulance count/shift, RVU/patient and length of stay.

**Results:** A one-way ANOVA was used to measure the difference between the groups (Table 1). The mean number of patients seen/shift (18.8 vs. 15) and patients seen/hour (2.24 vs. 1.9) in the resident group was significantly more than attending alone (Figure 1). Resident shifts also had higher relative value unit/hour, ambulance count and total number of admitted patients

**Table 1.** A graphical comparison of mean number of patients.

| | | | | 95% Confidence interval for mean | |
|---|---|---|---|---|---|
| | | N | Mean | Lower bound | Upper bound |
| Number of patients seen per hour | (attending alone) | 2084 | 1.9020 | 1.8815 | 1.9225 |
| | (with resident) | 2599 | 2.2400 | 2.2217 | 2.2583 |
| Number of patient seen per shift | (attending alone) | 2084 | 15.19 | 15.02 | 15.37 |
| | (with resident) | 2599 | 18.83 | 18.68 | 18.99 |
| Number of RVUs per hour | (attending alone) | 2084 | 5.9508 | 5.8884 | 6.0133 |
| | (with resident) | 2599 | 7.4081 | 7.3334 | 7.4828 |
| Ambulance count per shift | (attending alone) | 2084 | 3.03 | 2.94 | 3.12 |
| | (with resident) | 2599 | 4.41 | 4.31 | 4.52 |
| Admitted pt. count per shift | (attending alone) | 2084 | 3.62 | 3.52 | 3.72 |
| | (with resident) | 2599 | 5.12 | 5.00 | 5.24 |
| LOS-Minutes between patient arrival and depart ED | (attending alone) | 2084 | 3127.0674 | 3081.1815 | 3172.9532 |
| | (with resident) | 2599 | 4052.0583 | 4004.0733 | 4100.0432 |

*RVU*, Relative Value Units; *ED*, Emergency Department; *LOS*, Length of Stay

per shift, but the differences were not statistically significant.

**Conclusions:** Working with residents improves ED attending productivity in terms of patients seen per hour and total patients seen per shift. We did not compare the different postgraduate training levels.

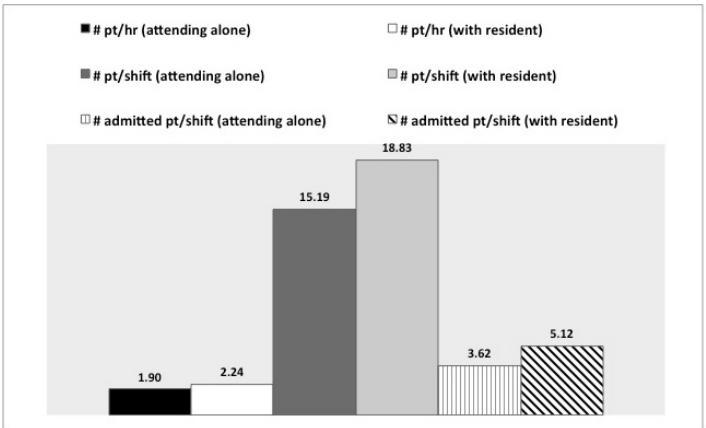


**Figure 1.** A graphical comparison of mean number of patients.

## 73 The I-TRAC Curriculum: Individualized Training of Residents through Assessment and Clinical Competency

*Fredette J*, Bounds R / Christiana Care Health System, Newark, DE

**Background:** Graduate medical education has become more competency-based and emergency medicine (EM) is leading this transition. Milestones, daily feedback, formative evaluations, and Clinical Competency Committees (CCC) have provided educators with more accurate assessments of resident performance, but programs still tend to use a "one size fits all" model. Each resident, regardless of their mastery, or difficulty, in achieving competencies, is provided the same clinical experience.

**Objectives:** With specific and timely performance metrics available to educators, there is a clear benefit of having a flexible clinical curriculum tailored to each resident's competency level in order to maximize the value of their training.

**Design:** Our postgraduate year (PGY) 1-3 block curriculum was evaluated by a group of faculty and resident leaders, with attention to educational value and achievement of goals and objectives, then modified to create flexibility. Interns are given added time in the emergency department (ED) to allow for earlier assessments of competency. Then, based on CCC evaluations, the block curriculum for PGY2 and 3 residents becomes individualized along one of 3 tracks.

Track 1 is the standard curriculum in which the graduation of responsibility is appropriate for the majority of the residents. Track 2 allows a focus on areas where deficiencies are identified and EM time is tailored to address specific needs. Finally, Track 3 is designed for residents who are mastering competencies earlier than expected. Residents in Track 3 will benefit from the acquisition of advanced skills such as ED flow management, bedside teaching, operational leadership, or clinical research.

**Impact:** The I-TRAC curriculum replaces the standardized block curriculum in which all residents graduate with the same skill set. This novel individualized curriculum responds to resident's strengths and weaknesses and allows educators to apply milestone-based assessments in a way that targets specific areas of need and maximizes residents' potential.

## 74 The Patient Care Continuum: Transition of Care to the Discharged Patient

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Discharging patients is not usually recognized as a transition of care, nor is it imbedded in curriculums. Engel et al. found that among patients surveyed about their discharges, top knowledge deficits were home care and when to return to the emergency department (ED). Learning how to discharge patients is vital to education to foster a culture of accountability,and to highlight medical-legal considerations that are inherent in discharging.

**Objectives:** Review common discharge errors/ misconceptions; provide tools to give and write discharge instructions by outlining components of adequate instructions; strengthen current skills by allowing practice and critique of common ED scenarios.

**Design:** Residency leadership identified that residents do not understand the importance of discharging a patient and the legal/patient care ramifications inherent to this process, and implemented this module during Grand Rounds. Using JCAHO/CMS standards for discharging, a self-assessment tool was used to identify weaknesses, followed by a lecture of common errors of physicians and the existing evidence based medicine regarding discharges. Utilizing American College of Emergency Physicians module-Planning Safe and More Effective Aftercare, components of instructions were outlined as they correlate with JCAHO/CMS standards. Residents divided into groups to practice on common ED scenarios, and then presented to the large group for critique. One month following this, a survey showed 100% of respondents felt this session was "Very Important" or "Important" to their education. 75% felt this module changed their practice - 50% of which said it changed both their verbal and written discharges. Discharging patients is a component of every specialty, and without appropriate instructions our patients are not receiving quality aftercare and thus, have a high likelihood for return visits and bad outcomes. This was created using standards all physicians should adhere to, and was focused into ED specific scenarios that easily translates to any emergency medicine residency across the country.