Vision Statement	In March 2015, medicine and surgery residents will have standardized handoff tools that are part of the EHR. The expectation will be that these are used exclusively as the written communication tool at handoff and supplemented by a verbal handoff. The faculty and program directors in each program will be aware of the handoff tools, and faculty development will be provided on the subject of high-quality handoffs.
Success Factors	The most successful component of our work was the development and implementation of the tools, although the tools are still somewhat clumsy for technical reasons and without 100% adherence. We were inspired by the hard work of the residents in the development process.
Barriers	The largest barrier we encountered was the inability of Epic to accommodate the needs of the residents in several areas that would have made the tools less clumsy. We will overcome most of these problems with the next iteration of Epic and have provided feedback through our Chief Medical Information Officer who serves on the steering committee.
Lessons Learned What is the single most important piece of advice for another team embarking on a similar initiative?	Spend enough time in at the beginning of the project to understand the needs and requirements of the care teams who will develop the transition tools. We did so, but it was an ongoing process and collided with our information technology tools in several areas.

Baylor University Medical Center, Dallas, TX
Resident Training in Code Blue Execution in a Simulation Lab Improves Immediate Post-Code Survival

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Background: Internal medicine residents at teaching institutions often lead emergency resuscitation attempts without formal instruction in the practical elements of leading and executing a code blue in the hospital setting. Simulation training has been shown to improve resident comfort, but a mortality benefit has been established only in the pediatric population.

Methods: We implemented a simulation-based code blue training program with a 3G SimMan involving 21 internal medicine residents who were given lectures about roles/responsibilities and exposed to progressively more challenging code scenarios in which ACLS was implemented. Faculty provided feedback after each session. An internal review of code blue data was conducted comparing code-related outcomes during the 10-month intervention with a 12-month historical control. Primary outcomes were immediate post-code survival and survival to discharge. Secondary outcomes included post-code change to DNR status and post-code withdrawal of life-sustaining care.

Results: Of 287 emergency resuscitation attempts in the 22-month study period, 107 were control codes (8.9 per month) and 180 were intervention codes (16.4 per month). No statistical significance was noted between the groups with respect to age, gender, race, number of night codes, or number of weekend codes. The hospital census was stable during the study period. The Mortality Probability Model II was calculated for every patient. Mean scores were 0.323 (control) and 0.343 (intervention) ($P=0.460$). Primary analysis showed a trend toward increased immediate post-code survival in the intervention cohort: 72 control (67.3%) vs 128 intervention (71.1%) patients ($P=0.496$). This trend did not translate to increased survival to discharge: 25 control (23.4%) vs 40 intervention (22.2%) patients ($P=0.823$). Secondary analysis revealed a significant increase ($P=0.013$) in the number of patients in whom life-sustaining care was withdrawn after successful resuscitation between the control group (29 patients, 40.3%) and the intervention group (75 patients, 58.6%). No difference was found in the number of patients who changed to DNR code status after successful resuscitation ($P=0.594$).

Conclusions: Formal simulation-based code training of internal medicine residents may increase immediate post-code survival of adult inpatients. The improvement in our study was not statistically significant, possibly due to insufficient

power. No improvement was seen in survival to discharge, although the rates in both groups are in the top decile of national hospitals and may reflect the ceiling for adult resuscitation mortality outcomes. The statistically significant increase in post-code withdrawal of life-sustaining care may reflect increased resident comfort in discussing end-of-life issues with patients' family members. Potential weaknesses of the study include insufficient power, lack of measured resuscitation-centered endpoints, no simulation training of ancillary staff, and observational bias.

FINAL WORK PLAN – Baylor University Medical Center

Team Charter/Objectives	Incorporating simulation training and mechanical and cognitive practices into the code blue educational training of internal medicine residents is essential to ensure ongoing cognitive analysis of resuscitative events and muscle memory of skills required in resuscitation. We hypothesized that these simulation efforts and interactive educational sessions would give trainees the confidence and experience to better analyze and manage resuscitation events and thereby increase the post-code survival-to-discharge metric at Baylor University Medical Center.
Project Description	Monthly simulation and educational sessions were conducted with the internal medicine resident code blue teams using a high-fidelity simulation mannequin. Rapid response team nurses, respiratory therapists, other ancillary staff, and physician faculty participated with the residents by performing ongoing real-time assessments and providing support and education in resuscitative techniques including intubation, rhythm recognition, identification of underlying causes of cardiorespiratory arrest, defibrillation, cardioversion, and pharmaceutical intervention. Trainees were required to obtain and maintain basic and advanced life support certification throughout their training. The objectives of the simulation sessions included timely delegation of roles, effective communication, familiarization with code supplies, recognition of rhythm abnormalities and underlying causes of cardiorespiratory arrest, proper use of equipment, and administration of treatment.
Vision Statement	Simulation training for code situations will (1) enhance patient safety by increasing post-code survival-to-discharge statistics compared with historical and national data, (2) increase resident resuscitation teams' comfort and confidence levels in various scenarios, (3) foster interdisciplinary teamwork and communication, and (4) provide an innovative model for other training programs.
Success Factors	The most successful components of our work were the comfort levels of residents to lead codes and patients' improved post-code survival. We were inspired by the cooperation and participation of multidisciplinary teams.
Barriers	The largest barrier we encountered was scheduling mock codes in the ICU and on floors in a busy hospital. To overcome this problem, we worked with room control to find empty rooms and with clinical managers and nursing leadership to allow the mock codes.
Lessons Learned What is the single most important piece of advice for another team embarking on a similar initiative?	Write the code scenarios before the project begins. Training multidisciplinary teams rather than just the residents is important.

Baystate Medical Center, Springfield, MA
Resident Engagement in Quality Through a Resident Quality Council

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Background: House staff officers play a key role in patient care at academic medical centers and have unique insights into problems within a hospital, especially those that have the biggest impact on their daily work. However, resident input may not always be included in policy changes, and as a result, residents may not be engaged in adopting these