INTRODUCTION

Poor communication among health-care providers is cited as the most common cause of sentinel events involving patients [1]. Patient care in the critical care medicine (CCM) setting is incredibly complex and is improved by a multidisciplinary group of Intensive Care Unit (ICU) providers. Teaching hospitals, and specifically in the ICU, are handling more admissions, treating older patients with higher acuity, and have a greater pressure to move patients through the in-patient hospital system; all factors that have intensified the house staff workload, even with limitations in duty hours [2]. Physician house staff need to convey a similar daily plan between day and night teams in regards to patient care and direction. With the evolution of Accreditation for Graduate Medical Education (ACGME) work-hour limitations, the number of daily “patient handoffs” has steadily increased. At most training institutions, twice daily shift hand-offs occur between house staff physicians in the ICU setting. Surgical services and consults are also often involved in the care of a CCM patient. Communication amongst these team members regarding the daily plan can be difficult at large academic centers. One large academic center in San Francisco reported that the changes in duty hours lead to an average of 15 handoffs per patient during a five-day hospitalization. More strikingly, they report that each intern is involved in more than 300 handoffs during an average month-long rotation [3].
The ACGME is keenly aware of the necessity of the patient-centered handoff as well as the importance of resident education of a concise yet thorough and adequate handover. This was reflected in the recent ACGME decision to stress education on “improved transfers of care” and require supervised handovers for trainees. This discussion continues to evolve as training programs attempt to find appropriate tools such as computer-based programs or teaching mnemonics to help guide a patient centered transfers of care. Previously published in the Journal of Graduate Medical Education was an editorial that stressed the need to change the culture of “handoffs” to a culture of “handovers” so as to promote a mindset of team-oriented continuity of care.

MATERIALS AND METHODS

This pilot intervention to improve best practice patterns was conducted at a tertiary academic medical center with over 150 critical care beds. At Washington University in Saint Louis, our multidisciplinary CCM fellowship program trains approximately 17 critical care fellows annually with diverse backgrounds in residency training from Anesthesiology, Surgery, Emergency Medicine, and Internal Medicine. Our fellows rotate through various critical care units that all operate under a “shift work” model with 24-hours a day, 7-days a week in-house Attending, Fellow, and Resident level patient coverage. We also agree with the adoption of a culture of team-oriented continuity of care through daily handovers. Twice-a-day patient handovers occur in each of the ICUs. Through didactics and modeling of daily practice, we encourage our fellows to employ an organ-system based handover strategy. Our goal was to create an easily accessible tool to help track handovers and allow us to provide this data as part of the trainee file.

As we designed our tracking tool, we wanted to meet three main goals: 1) facility of completion in our current clinical environment, 2) involvement of Faculty for supervision and directed real-time feedback, 3) responsibility of completion on the fellow trainee for a vested interest. We designed our “Transitions in Care Handover Cards” (TCH Cards) with these goals in mind.

Our fellows currently perform patient handovers at the bedside walking through their assigned patient service in the ICU. A brief organ-system handover is completed as well as a summary statement of current active goals. The TCH Card is a simple tracking tool that can easily be kept in a white coat pocket and pulled out at the appropriate time during sign-out. The TCH Card requires both fellows involved in the sign-out process to verify participation. It also requires the supervising Attending to verify observation through signature. Verbal as well as written feedback from the supervising Faculty is encouraged as the fellows are observed during their handover process. The fellow receiving sign-out is also encouraged to provide feedback and include comments on the card when appropriate. Expectations are that each fellow has one observed sign-out per week of clinical service in the ICU. With our Faculty coverage model, this ensures that each fellow will be observed and instructed in the handover process by a different Attending Intensivist each week. Each card contains four signature lines for an expected submission of one card per ICU rotation.

These TCH cards are then kept in the fellows’ training file as a permanent record of satisfaction of the ACGME training requirement for observed transfers of care. The Fellowship Program Directors review these cards with the fellows on a tri annual basis during fellowship file review sessions. At this time, self-evaluation and introspection is also asked of the trainee to verify that they are advancing with this important ACGME goal.

RESULTS

The strengths of our TCH Cards lie in the simplicity of their design and easy integration into a typical academic clinical practice model. There is minimal to no impact on daily clinical ICU workflow. The cards are portable and available real-time for completion/signatures of all pertinent participants. On initial survey, a majority of our fellows and Faculty report “high satisfaction” with this new method. The fellows appreciate the feedback from the Attending Faculty. The Faculty report satisfaction with the ease of this method and appreciate that it is dependent on the fellows to ensure completion. Our initial compliance with this model of tracking has been high with the majority of our fellows maintaining the current goal of one card submitted per clinical ICU month. This method of tracking patient handovers was presented and recognized by the ACGME site visitor for the focus area of “care transitions” during our recent institutional Clinical Learning Environment Review (CLER) site visit.

DISCUSSION

Our TCH Cards have been well received by our fellowship trainees and CCM faculty group. Initial implementation goals of adaptability in our academic clinical environment, involvement of Faculty with directed feedback, and trainee responsibility of completion have been realized.

As recently as the prior academic cycle, we had required our ICU Faculty to mandate once weekly group sign-out sessions involving the fellow and house staff. Historically, these sessions had poor compliance and satisfaction with no formal ability to track achievement. A reported challenge of this previous system included that it differed from the “usual daily workflow” of the ICU. This new TCH Card system empowers the trainee to take ownership of this part of their education and dictate completion within the normal ICU day.

Our Faculty has also provided potential future directions of the TCH Card. One suggestion is to include a targeted procedure log on the back of the card to keep a record of specific CCM procedures completed that month. There has also been discussion...
to expand our TCH Cards to the rotating residency-level house staff, which come from a diverse background of specialties.

We are still early in this current academic cycle and a key component will be longevity of compliance throughout the year. Future iterations of this tool may look at creating an electronic tablet version that could automatically be transferred to the trainee’s academic file.

**CONCLUSIONS**

In conclusion, we submit our TCH Card as a simple tool to help comply with new ACGME recommendations for supervised transitions of care. With more than 6 million patients receiving care in U.S. teaching hospital annually and the previously reported growth in numbers of daily handoffs⁵, simple tools such as our TCH Card can have a powerful impact on the daily improvement of medical care offered to patients.

**REFERENCES**