

BACKGROUND

Boston Medical Center (BMC) is a 514-bed safety net academic medical center with 12% of beds dedicated to adult intensive care (ICU). The impacts of palliative care on reducing costs and non-beneficial ICU treatments are well documented; however, barriers remain in palliative care delivery in ICUs. Prognostic uncertainty in the ICU and “siloe” care contribute to fragmented communication regarding goals of care (Le & Watt, 2010; Nelson, 2006). Objective assessment of patients’ risk factors, including risk of mortality, can enhance clinical decision-making and communication (Bjurling-Sjöberg, Wadensten, Pöder, Jansson, Nordgren, 2018; Nelson, Curtis, Mulkerin, Campbell, *et. al*, 2013).

AIM

To standardize a process for: 1) consulting palliative care for patients who are at risk of mortality within 6 months; and 2) increasing frequency of advance care planning (ACP) in the ICU. Secondary objectives include evaluating the impact of palliative care involvement in the ICU on key quality measures, such as 30-day readmissions.

METHODS

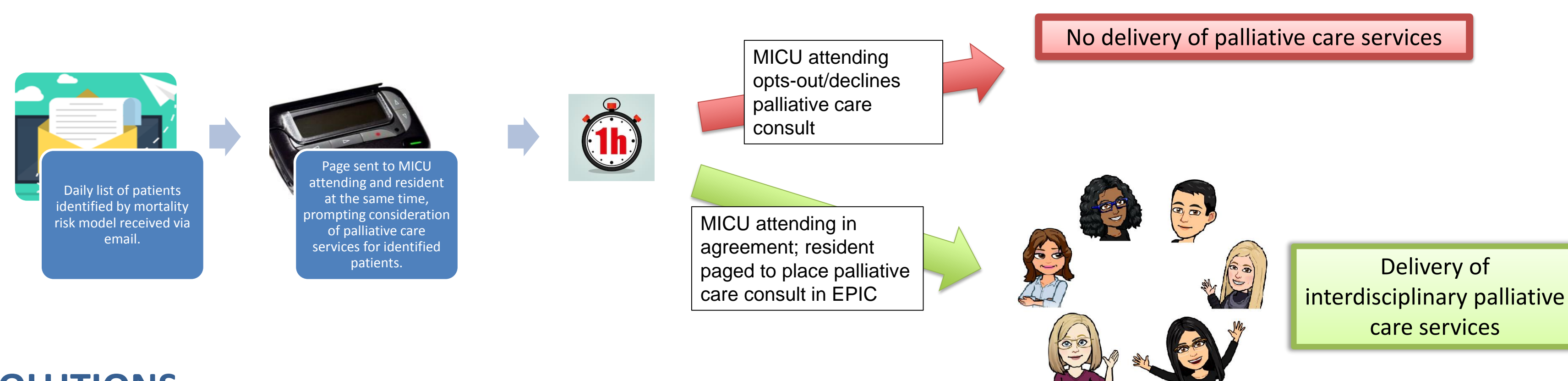
From retrospective chart reviews, BMC’s Quality Improvement (QI) team developed an algorithm to identify patients at highest risk of mortality within 6 months (QIA patients). A PDSA approach was used to develop a standardized process for notifying providers of identified patients and delivering palliative care over a period of several months.

Mortality Risk Model

Risk Variable	Relative Weight	Definition
Admissions	5	Positive if > 3 admissions in last 12 months
Steroid Use	4	Positive if steroid administration within 24 hours of admission
Braden Score (Pressure ulcer risk)	4	Positive if score \leq 18
Nutritional Risk	3	Positive if nutrition score > 1 OR weight loss documented OR tube feeds/TPN documented
SOFA Score (Sepsis risk)	1	Calculated at 24 hours after admission
Falls	1	Positive if falls assessment score \geq 9

Figure 1: Risk factors used to identify admitted patients who are at risk of readmission and/or dying within 6 months and who may benefit from palliative care services.

A standardized clinical pathway for palliative care delivery was piloted in the ICUs where many QIA patients were admitted. Palliative care consults were triggered for QIA patients, unless the ICU attending provider explicitly opted out. Residents and attending physicians received education regarding the current iteration of the process which was implemented in August 2018. Education was provided by both the QI team and the Palliative Care team on both a monthly and ad hoc basis.



SOLUTIONS

- All admitted adult patients are given a relative score based on the Mortality Risk Model (Figure 1).
- To encourage consideration of palliative care involvement earlier in a patient’s illness trajectory, the palliative care service reaches out to ICU teams regarding patients identified by the objective Mortality Risk Model.
- Several rounds of PDSA cycles were completed to test improving iterations of the process and also included feedback sessions from the ICU directors, palliative care service and QI team.
- Earlier iterations of this process included paging the attending physician only about their patients. An opt-in process was also trialed.
- Ad-hoc education on the units to attendings and housestaff was then incorporated to enhance response rates to address the situations where consults were not placed and/or no response was received from teams. Attendings and teams are encouraged to have a discussion with the palliative care team regarding appropriateness of involvement.
- The current process now requires attendings to explicitly decline a palliative care consult if this is their determination after the palliative care team has notified them (opt-out process). It has been agreed that no response is a tacit agreement for palliative care to become involved and the resident is then paged after a period of 1 hour to place the consult in EPIC.
- Formal education about this process has been incorporated into the onboarding orientation of residents by the ICU directors.

RESULTS

A standardized opt-out clinical pathway for palliative care delivery was implemented in the ICUs in August 2018. Attending physicians were notified of patients identified by the objective algorithm as benefitting from palliative care services. No response is considered a tacit agreement and the inpatient palliative care team then becomes involved in a patient’s care. Baseline data regarding frequency of palliative care consults in the ICUs was collected from February 2018 – July 2018.

From August 2018 to January 2019, with the implementation of the opt-out process, palliative care involvement in the ICU has increased (Figure 2). The overall frequency of advance care planning (ACP) discussions when palliative care was involved increased from 57.98% to 79.37%. Code status changes and discharges with hospice services also increased. Most notably, **patients who had ACP on index admission appear to have lower rates of 30-day readmissions (7.14% readmitted) than those who did not have ACP (19.05% readmitted).**

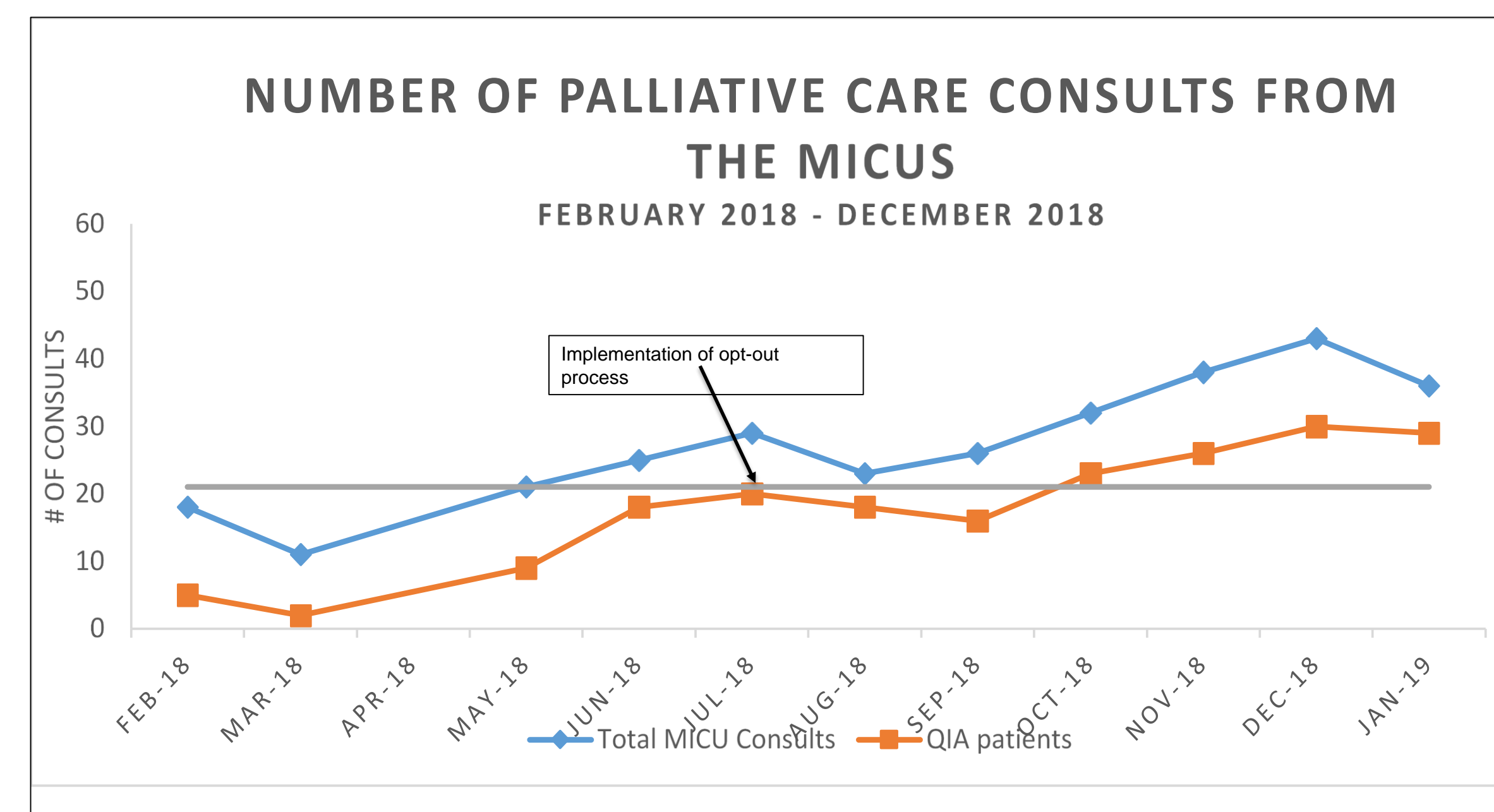


Figure 2: Increase of palliative care consults from the MICUs over time, particularly after implementation of opt-out clinical pathway.

CONCLUSIONS

Implementing a standardized clinical pathway, in partnership with the QI team, has increased access to palliative care in the ICUs. The application of an objective algorithm to identify patients appropriate for palliative care appears to facilitate consideration of these services. This serves to enhance patient care as well as impact key quality measures, including reducing 30-day readmissions.

Implications: The data highlights the need for broader education about ACP. Implementing a standardized clinical pathway for palliative care delivery has the potential to improve the quality of care of seriously ill patients through earlier identification of patients that would benefit from ACP and palliative care involvement. This approach has the potential to be broadened to other units beyond the ICU, such as inpatient hospitalist services, to impact the care of a larger number of patients admitted to the hospital.

NEXT STEPS

- Expand process beyond the ICUs to the 6 GIM teams, Renal, Hospitalist, and Geriatrics services.
- Re-branding of previously referred to “pilot” program to the Serious Illness Support program to better describe goal of this program
- Adjustment to process by paging both the attending and resident on the team at the same time to promote discussion during rounds.
- Finalizing an email regarding the Serious Illness Support program that is sent to incoming attendings each month to serve as additional education and an ongoing reminder of the process and goal of this program.
- Continuation of regular feedback meetings with relevant stakeholders.
- Consideration of implementing a direct and regular feedback system to teams (ie. residents and attending physicians on service) who are participating in this program.

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