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**Team Members:** Colleen McCormick, Dr. Wang, Dr. Patel, Dr. Snider, Kevan Quinlen, Jackie Matthews, Wilma Heflin, Mary Ann Gregor, Amy Ross  

**Project Title:** Palliative Care Utilization in the ICU Setting  

**University/Organization Name:** Wright State University Boonshoft School of Medicine  

**Health System Sponsor Name:** Kettering Health Network (Mentor: Dr. Rebekah Wang-Cheng)

**Aim of project** (1-2 sentences)  
Our aim is to increase utilization of the palliative care team for patients in the medical ICU from 3% to 9% by April 2013.

**Planned changes tested** (2-3 sentences)  
The first planned change was to educate the medical ICU nurses on palliative care and introduce them to our screening tool. We tested these changes by monitoring staff satisfaction with frequent conversations, and monitored correct use of the screening tool. We needed to re-educate the nurses following introduction of the tool, which led to improved use of the tool.

Next, we educated the physicians, in person and in a board meeting, and encouraged the nurses to communicate the screening tools to the physicians. We continued to monitor use of the screening tool, and the ability of the screening tool to identify patients who could benefit from palliative care. We also monitored consult rates, and continued to monitor nurse and physician satisfaction with the initiative.

**Predictions** (2-3 sentences)  
With the initial interventions on the nursing side, we did not expect much improvement towards our aim. We did hope to make the tool a part of the workflow without being a burden on the nurses, and we found that the nurses remained satisfied with the intervention weeks into the project.

We did predict that the screening tool would identify patients who could benefit from a consult, and it continued to do that consistently each week.

Finally, we predicted that the consult rate would start to increase as we began encouraging better communication between the nurses and physicians, and as we educated the physicians. We did see an increase in the consult rate with these changes.

**Results**  
Present your results with a graph(s).
Summary of results (3-4 sentences):

As shown in the first figure, the number of consults rate increased above the median two times during the study period, once we started to target communication between the nurses/physicians and began educating physicians. We did reach our aim of 9% average consults during the week of 4/15. However, our trends started to decrease after this week, likely due to factors affecting the intensive care unit (busier nurses, new nurses, and physician champion not being as active). As illustrated in the second figure, many patients who could benefit from palliative care are not receiving consults. The tool is identifying these patients, but less than 25% of them receive consults.

Learning (4-5 sentences)

Comparison of questions, predictions, and analysis of data:
We learned many lessons during this project. First, the project was successful because we began with an interprofessional team, communicated frequently, and recruited physician and nurse champions to lead the intervention. These actions were crucial in getting the project running.

One of the barriers we faced (and continue to face) is encouraging physicians to change their consulting habits. Many physicians we encountered felt that they could provide palliative care just as well as a palliative care team, and were resistant to consulting this team to assist with patient and family care. The physicians who did utilize palliative care were pleased with the results; we hope that as those physicians continue to consult palliative care, the culture in the ICU will shift towards a greater acceptance of palliative care. As shown in the second figure, consulting rates increased every other week. We found that physician teams rotate every other week, and we had one team willing to consult and one team unwilling to consult. We plan to scale up the project to other units (in early June), which could support hospital-wide culture change as well as encourage healthy competition among units, maybe supporting the lower-consulting team to jump on board.

In the third figure, the dispositions of the patients who screened positive are shown. Twenty-three patients who screened positive for palliative care expired. It is likely that many of those patients could have benefitted from palliative care weeks or months prior to their ICU admission; if palliative care is consulted late, they cannot assist the patient and family as much. Interestingly, 44% of the patients who screened positive were transferred to the floor. This is a problem for the palliative care initiative, as the tools we developed are on paper charts and do not follow the patient to the floor. In the future, we are working to have the tool incorporated into the official medical record and made a part of the EMR so that the tool can follow the patients wherever they go. We believe this will lead to increased consult rates.
Impact on systems (3-4 sentences)
Discuss the project’s significance on the local system and any findings that may be generalizable to other systems:

Patients and families are likely to benefit from the increased utilization of palliative care, as studies show improved satisfaction and improved end-of-life care. While we did not directly assess patient/family satisfaction in this project, we will consider the assessment in the future to ensure that patients and families are helped, not harmed, from the expansion of the medical team.

We did monitor nurse and physician satisfaction with the initiative through frequent conversations, as we did not want to create an extra burden in their workflow. We estimated that the completion of the tool on any patient should take less than five minutes, and discussing the tool with the attending physician should also take minutes. Ordering a consult takes little time. While the palliative care screen does add some work for the nurses and physicians, the overall burden is low and the benefits are significant. The ICU nurses were overwhelmingly satisfied with the initiative, as they could advocate better care for their patients. Many physicians were satisfied with the initiative and began consulting palliative care more often. However, other physicians were not willing to change their consulting habits at this time. We hope that as the project scales up to other units and becomes more of a hospital-wide initiative, the hospital system will support more physician consults to palliative care.

Conclusions (3-5 sentences)
Summarize the outcome of the project. Is this project sustainable? What are the requirements for sustainability?

Overall, we reached our aim of an average consult rate of 9% by week 6 of the project. This was very exciting! However, we are still missing many patients who could benefit from consults; less than 20% of the patients who screened positive actually received a palliative care consult. While physician behavior is a cause of the low consult rate, we also found system problems to explain the low rate (patients receiving consults too close to the time of death, and screening tools not following patients to the floors). Also, the consult rates (and percentage of patients screening positive) dropped after week 6 of the study, likely due to changes in workforce and increased patient census in the unit.

We think the project is very sustainable, and will be generalizable to the rest of the units. In order to be sustainable, the benefits must outweigh the costs. The costs to the nurses and physicians are time (which is low, an estimated 5-10 minutes per patient) and changing culture. The benefits are improved patient and family satisfaction, improved provider satisfaction, possible decreased length of stay, and possible decreased hospital costs. Recently, we found that pain scores of our patients who receive palliative care consults decrease significantly following the consult. The palliative care team, ICU nurses, some ICU physicians, and hospital administrators are in agreement that the benefits outweigh the costs. With continued support from the unit and the hospital, the project will continue to be sustainable.

Reflections/Discussions (5-7 sentences)
Discuss the factors that promoted the success of the project and that were barriers to success. What did you learn from doing this project? What are your reflections on the role of the team?

As previously described, starting the project with a interprofessional team and nurse/physician champions allowed us to get the project off to a great start. The interprofessional team was crucial to make sure we considered the impact of the initiative across many employees and systems. Our champions were crucial to ensuring uptake of the project and starting a culture change.

For us, the aim of a 9% average consult rate was an achievable goal for starting the project. However, what we really hope to accomplish is that all patients who screen positive for a palliative care consult actually receive that consult. We are far from reaching this patient-centered goal (currently only 17% of patients who screen positive receive a consult). As we continue our PDSA cycles (scaling up to other units, making the tool a part of the patient record and eventually a part of the EMR so that it can follow patients, continued education of physicians and nurses, and more), we believe that we can reach a new aim: to provide palliative care services to all patients and families who could benefit.