# Effects of a Palliative Care Trigger Assessment on Patient Outcomes for Patients Admitted in the Medical Intensive Care Unit

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## Introduction

Palliative Care (PC) and the Intensive Care Unit (ICU) had its beginnings in the 1960's and has been synonymous with end-of-life care (Seaman et al., 2016). However, PC has evolved into a field of medicine that not only addresses end-of-life matters, but also focuses on the quality of life (QOL) of patients throughout their illness**.**

**PC addresses care for the patient through:**

- Symptom management
- Clear and sensitive communication
- Alignment of care with patient preferences
- Family support
- Continuity of care throughout all levels of care (Nelson et al., 2013).

In New Jersey, an advisory council was created in 2019 to increase PC assess and use. The advisory council found:

1. ***62% of deaths occurred in a facility even though the preference is to die at home***
2. ***New Jersey patients are treated more aggressively at the end of life than in any other state*** *(New Jersey Governor's Advisory Council on End-of-life Care, n.d.).*

ICU care is an aggressive use of invasive treatment to prevent death in critically ill patients. **The goals of ICU and palliative care are similar in saving a life or prolonging life, achieved through the alleviation of suffering, improving quality of life, and providing a "good death"** (Mercadante et al., 2018; Truog et al., 2008).

## Primary Research Question

In patients admitted to the Medical ICU, what are the effects of a PC trigger assessment on patient outcomes such as length of stay, time to PC intervention, and conversion of full code to do not resuscitate status, compared to those who receive palliative care interventions later in their stay?

## Secondary Research Question

Does the use of a PC trigger assessment increase comfort levels of nurses with PC matters?

## Methodology

Project Design
- Retrospective and prospective chart review
- Pre and post-intervention surveys
- 6-week intervention period
- Post intervention evaluation survey

Setting
- 12-bed medical ICU that cares for patients with complex medical conditions
- Large academic urban facility

Sample
- Total of 28 bedside nurses
- Total of 100 charts pre intervention
- Total of 73 charts post intervention
- Recruitment through flyers and staff meetings

Intervention
- PC trigger assessment

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Name:
Date:
Time:

Patient Label

**Medical ICU Palliative Care Trigger Assessment**

Instructions: Complete the trigger assessment for every admission to the Medical ICU. Complete each section and then total the points. A score of 5 or greater, consider a palliative care specialist consultation or referral. A score of 8 or greater, consider family meeting within 48 hours. A score of 10 or greater, consider immediate goals of care discussion with family. Discuss with the medical team your findings.

| Section 1: Diagnosis (2 points for each) | |
|---|---|
| Diagnosis | Points |
| ESRD / Dialysis dependent renal disease / Need for acute dialysis | |
| COPD dependent on oxygen / COPD exacerbation requiring intubation | |
| Progressive or metastatic cancer | |
| Severe neurological injury from consideration of brain death testing, CVA, trauma, or hypoxic-ischemic brain injury (from status epilepticus or cardiac arrest) | |
| CHF / CHF exacerbation requiring intubated / CAD / Cardiomyopathy | |
| ESLD with encephalopathy or major bleeding episode | |
| Other life-limiting or serious progressive illness (ALS, Myasthenia gravis, uncontrolled DM, uncontrolled HTN, etc.) | |
| Readmission to ICU for the same diagnosis within 60 days | |
| **Section 2: Modifiers/Situation (1 point for each)** | |
| Modifiers and Situations | Points |
| Transplant or organ donation being considered | |
| Long term care device in place or placement being discussed (PEG tube, tracheostomy, AICD, or other devices) | |
| No advance directives | |
| Patient is already DNR, AND or DNI / patient or family rescinded previous goals of care decisions (DNR, DNI, DNH) | |
| Unrealistic or divergent family opinions about care and prognosis of patient | |
| Readmission or transfer to ICU within the same hospitalization | |
| Admission or transfer from a long-term care or sub-acute care facility | |
| Medical team and family unable to resolve conflicts regarding goals of care, prognosis, or any other issues | |
| **Section 3: Surprise Question (Yes = 0 points; No = 2 points)** | |
| Surprise Question | Points |
| Considering the previous sections and the patient, would you be surprised if the patient died in the next 12 months? Circle one: Yes or No | |
| **Total Score** | |
| Score ≥ 5 consider palliative care consultation or referral; Score ≥ 8 consider family meeting within 48 hours; Score ≥ 10 consider immediate goals of care discussion | |

ESRD = End-stage renal disease; COPD = Chronic obstructive pulmonary disease;
CVA = Cerebrovascular accident; CHF = Congestive heart failure; CAD = Coronary artery disease;
ESLD = End-stage liver disease; ALS = Amyotrophic lateral sclerosis; DM = Diabetes mellitus;
HTN = hypertension; ICU = Intensive care unit; PEG = percutaneous endoscopic gastrostomy;
AICD = Automatic implantable cardioverter defibrillator; DNR = Do not resuscitate;
AND = Allow natural death; DNI = Do not intubate; DNH = Do not hospitalize

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Measures
- Time to PC intervention
- ICU Length of stay (LOS)
- Conversion of code status
- Nurses comfort level

Data Collection
- Participant demographics: nursing experience, ICU experience, age, education level, and gender
- Participant comfort levels pre and post intervention through 5-point Likert scale
- Chart reviews for APACHE II scores, LOS, code status on admission, and changes to code status, PC intervention
- Microsoft Excel with data extraction tools

Analysis
- Microsoft Excel
- Descriptive and inferential statistics

## Results

| | Baseline | Intervention |
|---|---|---|
| **Age** | 58 years | 59 years |
| **APAHCE II** | 18 | 20 |
| **ICU LOS** | 5.2 days | 5.7 days |
| **Conversion** | 18 days | 15 days |
| **Time to PC** | 6.5 days | 5 days |
| **ICU Mortality** | 11% | 20% |
| **RN Comfort** | Moderately Comfortable | Comfortable |

- LOS increased by 0.5 days on average.
- The trigger assessment triggered 67% of all admissions for a PC intervention.
- The average score was a 6, which triggered a PC specialist consultation.
- **PC consultation occurred at 47% pre-intervention and during intervention phase occurred at 54%.**
- Code status conversion occurred from 29% to 42% and occurred on average 3.3 days sooner.
- PC intervention occurred 1.6 days sooner.
- 17% of admissions required immediate goals of care (GOC) discussions. Overall GOC discussions constituted 16% of PC interventions.
- **The average comfort score post intervention increased by 2.37.**

## Discussion

- **The project suggests an increase in PC intervention overall.**
- When the trigger assessment, deemed a PC intervention as inappropriate, it was appropriately followed; suggesting accurate designation of resources
- Increased LOS may be attributed to the increased acuity of patients and COVID patients during the intervention phase, this is evidenced by higher APAHCHE II score, mortality, and use of progressive care at discharge from ICU.
- PC intervention occurred sooner in the intervention group.
- Code status conversion occurred more often and much quicker in the intervention group.
- **Trigger assessment increased comfort of the nurses regarding palliative care matters**

## Implications

- The project has potential and can positively impact patient outcomes and moral distress of nurses.
- By involving PC sooner, there can potentially be less aggressive measures when patients are at the end of life.
- If adopted as usual practice, the trigger assessment can increase PC services use and appropriately assign intervention
- Appropriately assigned intervention will designate resources appropriately, which in the long term can save money
- PC services have been found to be less costly than usual practice (May et al., 2014).

## Conclusion

Despite the little change in the LOS, the project demonstrates positive use of a trigger assessment in the ICU. Furthermore, it demonstrated a successful integration of a PC trigger assessment into the ICU. The project met its aims at increasing PC services and increasing comfort levels of nursing regarding PC matters.

## Reference List

Provided on supplemental material.

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