Clinician attitudes and beliefs about ICU-based palliative care

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Disclosures

No commercial interests; NIH, PCORI, DIHI, DTRI
Advice to Canada: build a wall to keep U.S. out, ASAP!
Palliative care: patient- & family-centered care that aims to optimize QOL by addressing physical, emotional, intellectual, and spiritual needs.


Not addressing needs consistently given the high variability in ICU-based palliative care quality.

What we need: ‘Interventions and care models that match existing availability of personnel and are broadly scalable,’

But to broadly scalable, you have to understand the users.

Block S. Lancet 2014

Primary palliative care by ICU team

Outcome assessment

Patients

Families

Complex needs ICU care model

Simpler needs ICU able to meet

Needs assessment

Priority by need burden

Low

High

Priority by need burden

Low

High

Specialist palliative care consult

in Managing the Care of Patients Admitted With Preexisting Limits on Life-Sustaining Therapies

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Methods: aims & goals

Aim
Explore attitudes, beliefs, and preferences about integration of palliative care specialists into ICU care

Goal
Inform development of a sensible collaborative care delivery model (i.e., ICU team + pall care team)
Methods: design, measures, analyses

Design
• Cross-sectional study

Measures
• Survey of our own design
• Responses were multiple-selection and 5-item Likert scales
• 23 potential trigger criteria in published literature
• Open-ended items

Analyses
– Descriptive, comparative, exploratory
– Thematic content analysis
Results: 4 sites & 303 participants

Sites: 3 academic & 1 community
- Private, urban, NE
- Public, urban, NW
- Private non-profit, midsize SE
- Community, urban, SE
- None with trigger systems for pall care
- ICUs: medical, surgical, cardiac, trauma, neuro

Participants: diverse clinical roles
- Nurses (49%)
- Attendings, fellows (37%)
- APPs (13%)
- 88% response rate
Do you think palliative care specialist consultation is appropriately utilized in the ICU...or effective?

75% - palliative care consultation is underutilized*

63% - palliative care consultation is effective.

73% - ‘highly interested’ in developing new models.

*Nurses slightly more likely to agree than physicians (p=0.001) and medical more likely to agree than surgical (p=0.008).
By what process would you prefer to **integrate** palliative care specialists into the ICU setting?

- **EHR-based triggers**: n = 123 (40%)
- **Formal palliative care - ICU team interaction**: n = 71 (24%)
- **Informal palliative care - ICU team interaction**: n = 66 (22%)
- **Multiple acceptable types**: n = 24 (8%)
- **No change needed**: n = 17 (6%)
By what process would you prefer to integrate palliative care specialists into the ICU setting?

- **n = 123 (40%)**
  - EHR-based triggers
  - Formal palliative care - ICU team interaction
  - Informal palliative care - ICU team interaction

- **n = 71 (24%)**
  - Palliative care ineffective
  - Palliative care effective
  - Palliative care overused
  - Palliative care underused

- **n = 66 (22%)**
  - More autonomy
  - Less autonomy

- **n = 24 (8%)**
  - No change needed

- **n = 17 (6%)**
  - Physician
  - Nurse
  - EHR-based triggers
  - Multiple acceptable types
By what process would you prefer to integrate palliative care specialists into the ICU setting?

EHR-based triggers
- n = 123 (40%)
- Multiple acceptable types

Formal palliative care - ICU team interaction
- n = 71 (24%)
- More autonomy

Informal palliative care - ICU team interaction
- n = 66 (22%)
- Less autonomy

Multiple acceptable types
- n = 24 (8%)

No change needed
- n = 17 (6%)

No differences were seen by ICU, site, job type, or seniority.
How would you prefer to operationalize specialist palliative care integration?
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- Palliative care team screens
  - n=92 (31%)

- ICU nurse screens*
  - n=76 (25%)

- ICU physician and nurse screen
  - n=73 (24%)

- Multiple strategies
  - n=45 (15%)

- ICU MD orders
  - n=16 (5%)
How would you prefer to operationalize specialist palliative care integration?
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- ICU nurse screens*: n=76 (25%)
- ICU physician and nurse screen: n=73 (24%)
- Multiple strategies: n=45 (15%)
- ICU MD orders: n=16 (5%)

- Physicians: n=114 (37%)
How would you prefer to operationalize specialist palliative care integration?
What factors would **enhance** your interest in developing new palliative care systems?

| ICU teams would approve triggers before use | Both nurses and doctors can initiate* | System includes information for families* | System is voluntary* |
What factors would enhance your interest in developing new palliative care systems?

- ICU teams would approve triggers before use
  - Nurses: No 35%, Yes 65%
  - Physicians: No 31%

- Both nurses and doctors can initiate*
  - Nurses: No 27%, Yes 73%
  - Physicians: No 52%

- System includes information for families*
  - Nurses: No 44%, Yes 57%
  - Physicians: No 63%

- System is voluntary*
  - Nurses: No 77%, Yes 23%
  - Physicians: No 53%

* p < 0.05.
Clinician attitudes about 23 published triggers (agree : disagree ratios)

PRE-EXISTING CHARACTERISTICS
Active Stage 4 or metastatic malignancy 28.8
Dementia or chronic neuromuscular disease 8
Age >___ with ≥___ major comorbidities 7
Baseline O2-dependent and now on ventilator 5.2
Functional dependence at baseline 4.9
Admitted from nursing home or long-term care 4.4
Advanced age (>___ years old) 2.6
Clinician attitudes about 23 published triggers (agree : disagree ratios)

PRE-EXISTING CHARACTERISTICS
- Active Stage 4 or metastatic malignancy: 5.7 : 28.8
- Dementia or chronic neuromuscular disease: 8 : 5.2
- Age >___ with ≥___ major comorbidities: 7 : 4.9
- Baseline O2-dependent and now on ventilator: 5.2 : 4.4
- Functional dependence at baseline: 4.9 : 2.6
- Admitted from nursing home or long-term care: 4.4 : 2.6
- Advanced age (>___ years old): 2.6 : 2

FAMILY NEEDS AND CONFLICT
- Unrealistic goals of care or expectations for recovery: 5 : 16.5
- Need help with goals of care decision making: 9.8 : 8.3
- Conflict within family or between patient/family and staff: 4.3 : 2.8
- Non-physician staff believe patient/family could benefit: 2.6 : 2.6
- Decision making for acute dialysis with mortality >___%: 2.8 : 2
- Refractory physical symptoms: 2 : 1.8
- Decision making for tracheostomy or surgically-placed feeding tube: 1.8 : 1.8
- Refractory psychological symptoms: 1.8 : 1.8

CURRENT CRITICAL ILLNESS/ ICU COURSE
- Multiple organ system failure for ___ days: 3.6 : 22
- Cerebral ischemia ___ days after arrest or stroke: 7.8 : 7.8
- Intracerebral hemorrhage + ≥___ days ventilation: 7.4 : 7.4
- Predicted mortality ≥___% by SOFA or APACHE: 4.9 : 4.9
- ≥___ ICU admissions in past ___ months: 4.2 : 4.2
- Mechanical ventilation ≥___days: 2.8 : 2.8
- ICU length of stay ≥___ days: 2.7 : 2.7
- ICU admission after ≥___ hospital days: 1.8 : 1.8
What is the ideal concept for a trigger?

- **Patient phenotype**
  - examples: chronic critical illness, elderly and frail (n=66)

- **Diagnosis**
  - examples: advanced cancer, cardiac arrest (n=66)

- **Needs of patient / family**
  - examples: distress, conflict, decision making (n=65)

- **Prognosis**
  - example: from APACHE or SOFA (n=50)

- **Multiple factors preferred**
  - example: phenotype plus time (n=45)

- **Time / duration**
  - n=9
  - examples: in ICU > _ d, on ventilator > _ d (n=9)
Nurses

Patient phenotype
examples: chronic critical illness, elderly and frail
n=66

Diagnosis
examples: advanced cancer, cardiac arrest
n=66

Needs of patient / family
examples: distress, conflict, decision making
n=65

Prognosis
example: from APACHE or SOFA
n=50

Multiple factors preferred*
example: phenotype plus time
n=45

Time / duration n=9
examples: in ICU>_ d, on ventilator>_ d
n=9

Nurses

24%

19%

14%

19%

21%

3%
Patient phenotype examples: chronic critical illness, elderly and frail
- Nurses: 24%
- Physicians: 18%

Diagnosis examples: advanced cancer, cardiac arrest
- Nurses: 19%
- Physicians: 26%

Needs of patient / family examples: distress, conflict, decision making
- Nurses: 14%
- Physicians: 33%

Prognosis example: from APACHE or SOFA
- Nurses: 19%
- Physicians: 11%

Multiple factors preferred* example: phenotype plus time
- Nurses: 21%
- Physicians: 8%

Time / duration n=9 examples: in ICU>_ d, on ventilator>_ d
- Nurses: 3%
- Physicians: 4%
Themes from open-ended questions

• Conflict about provider roles
  ‘…bedside RNs would provide a "constant" with the trigger system. Our residents cannot…add this to their load. Realistically, the residents, might not be as quick to assess for triggers as bedside RNs who have more face time with families’

• Implementation concerns
  ‘Any trigger system which is implemented needs to be simple to follow. Anything which is too busy will not be received in a positive manner.’

• Impact on ICU clinician - family relationship
  ‘Triggered consults could lead to conflicting information and confusing messages for families.’
Summary / discussion
1. Balancing triggers with actual needs at a time when momentum is building for ‘more triggers’
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5.7 million ICU patients & families

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1.5 million are ‘trigger positive’

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Unmet palliative care needs

- physical symptoms
- cultural / language
- social support
- emotional needs
- communication
- informational
- decision support
- spiritual needs

How to identify actual unmet needs?

1. Balancing triggers with actual needs at a time when momentum is building for ‘more triggers’

- 5.7 million ICU patients & families
- 1.5 million are ‘trigger positive’

Unmet palliative care needs

- Physical symptoms
- Cultural/language
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- Informational
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1. How to identify actual unmet needs?
2. Are needs for trigger positive > trigger negative?

1. Balancing triggers with actual needs at a time when momentum is building for ‘more triggers’

5.7 million ICU patients & families

1.5 million are ‘trigger positive’

Unmet palliative care needs

Clinicians

5,500 pall. care specialists

10,000 intensivists

1. How to identify actual unmet needs?
2. Are needs for trigger positive > trigger negative?
3. How to deliver collaborative care?

1. Balancing triggers with actual needs at a time when momentum is building for ‘more triggers’

5.7 million ICU patients & families

1.5 million are ‘trigger positive’

Unmet palliative care needs
- physical symptoms
- cultural / language
- social support
- emotional needs
- communication
- informational
- decision support
- spiritual needs

Clinicians
- 5,500 pall. care specialists
- 10,000 intensivists

Process Barriers

Structural Barriers

1. Balancing triggers with actual needs at a time when momentum is building for ‘more triggers’

- 5.2 million are ‘trigger negative’
- 5.7 million ICU patients & families

Unmet palliative care needs:
- Physical symptoms
- Cultural / language
- Social support
- Emotional needs
- Communication
- Informational
- Decision support
- Spiritual needs

 Clinicians
- 5,500 palliative care specialists
- 10,000 intensivists

Structural Barriers

2. ICU clinicians value the assistance of palliative care specialists, but disagree about the role of the bedside nurse

- **5,500** pall. care specialists
- **10,000** intensivists
- **nurses, social workers, clergy**
3. Implications for the role of information technology in future care models: the triggers we like the best are the hardest to automate in EHRs.

**PRE-EXISTING CHARACTERISTICS**
- Active Stage 4 or metastatic malignancy: 28.8%
- Dementia or chronic neuromuscular disease: 8%
- Age > ___ with ≥ ___ major comorbidities: 7%
- Baseline O2-dependent and now on ventilator: 5.2%
- Functional dependence at baseline: 4.9%
- Admitted from nursing home or long-term care: 4.4%
- Advanced age (> ___ years old): 2.6%

**FAMILY NEEDS AND CONFLICT**
- Unrealistic goals of care or expectations for recovery: 5%
- Need help with goals of care decision making: 16.5%
- Conflict within family or between patient/family and staff: 9.8%
- Non-physician staff believe patient/family could benefit: 8.3%
- Decision making for acute dialysis with mortality > ___%: 4.3%
- Refractory physical symptoms: 2.8%
- Decision making for tracheostomy or surgically-placed feeding tube: 2.6%
- Refractory psychological symptoms: 2%
3. Implications for the role of information technology in future care models: the triggers we like the best are the hardest to automate in EHRs
Strengths / limitations

• Strengths
  – Multi-center, large sample size, high response rate
  – Mixed methods approach
  – Included multidisciplinary ICU team

• Limitations
  – Exclusively academic
  – Did not include other specialties
    • eg. surgeons, oncologists, cardiologists
  – Did not include palliative care specialists, PCPs, patients, families
Conclusion

• Palliative care specialists are valued by ICU teams

• Yet ICU team dynamics are imperfect & uncertain
  • Missed opportunity: nurses

• Triggers + needs is most sensible, but requires:
  • Metrics & systems
  • ‘Rules’ re: ICU physician – ICU nurse interactions
Thanks so much

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PCplanner
1  app
2  integrates into EHR to identify high risk patients
3  patient reported outcomes (PRO) to identify need
4  ICU team + palliative care interface
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1 app
2 integrates into EHR to identify high risk patients
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Structural barriers ... hard to impact
Strategy 1: current trigger strategy in most hospitals

**Trigger Criteria**
- Ventilator >7 days
- Cardiac arrest
- Age >65
- LOS >2 weeks

**Interventions**
- Palliative care consultants see all trigger patients

**Outcomes**
- Hospital
- LOS