113年重症醫學(加護病房) 03月
Grand round

急診加護病房中
安寧緩和醫療的推廣與實踐

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BACKGROUND

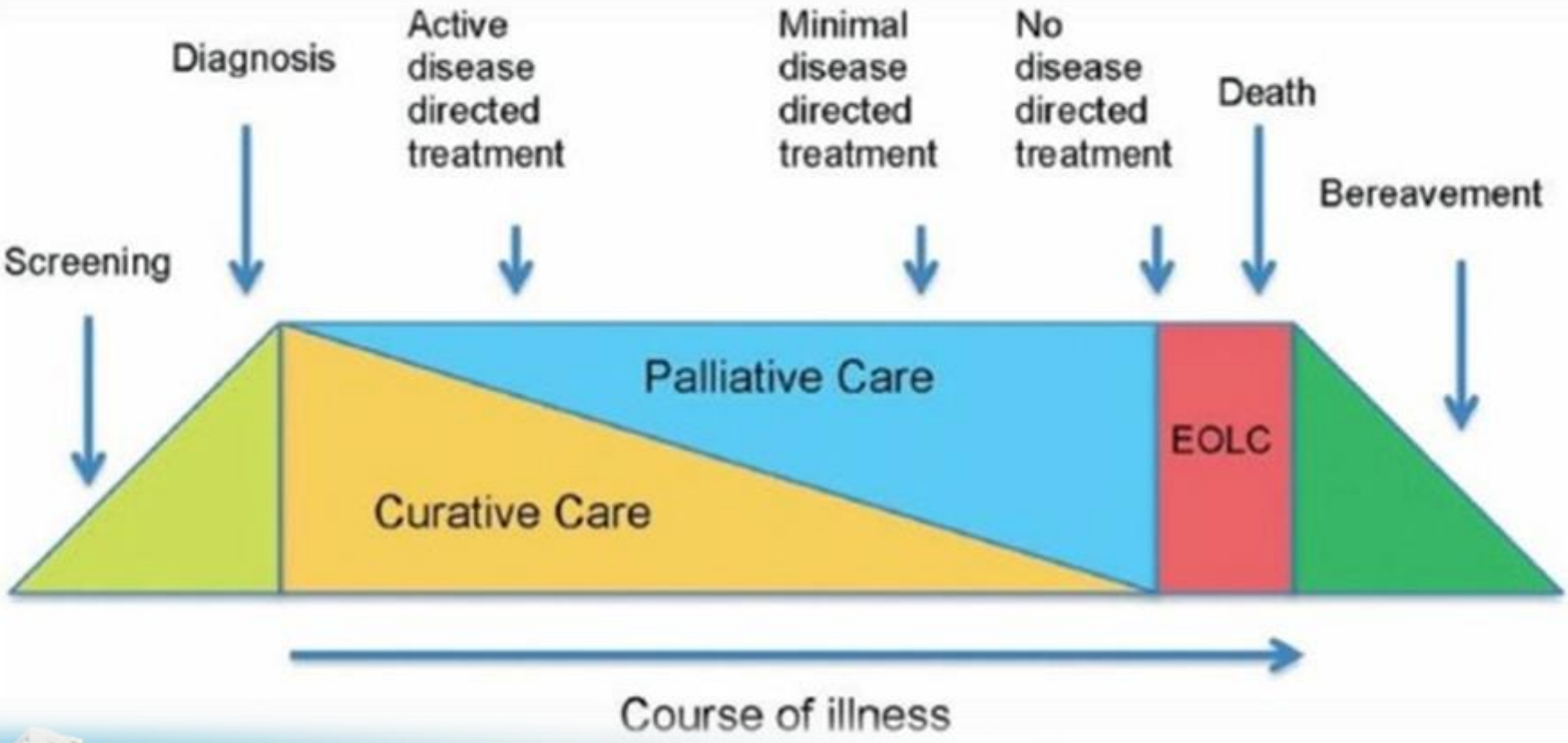
Palliative Care (PC) and Emergency Medicine

- Patients with serious illnesses are treated in the ED in the last month of life
- Approximately 1% of persons attending the ED, died

- Discussing palliative/EoL care in the chaotic, fast-paced ED environment appear as an oxymoron…

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

Incorporating PC in Disease Care



1. Myatra SN, Salins N, Iyer S, Macaden SC, Divatia JV, Muckaden M, Kulkarni P, Simha S, Mani RK. End-of-life care policy: An integrated care plan for the dying: A Joint Position Statement of the Indian Society of Critical Care Medicine (ISCCM) and the Indian Association of Palliative Care (IAPC). *Indian J Crit Care Med.* Sep 2014;18(9):615-35. doi:10.4103/0972-5229.140155

Strength of PC in Emergency Medicine

- Symptoms are attended quickly and effectively
- Patient and family maintain control of treatment plan
- Any team member can assess goal of care

- Avoid:
  - Unwanted treatments
  - Inappropriate use of resources
  - Undue suffering
  - Miscommunication

Challenges of Incorporating PC Principles in the ED

- The busy nature of the ED,
- Lack of guidelines,
- Lack of PC training.
- Has not been the focus of PC research
  - Initiation ☑
  - EoL care in the ED ☑
  - Interventions ☐
  - Delivery models ☐
  - Outcomes ☐

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

Components of PC in the ED

1. Screening
2. Goals of care (GoC) discussion and communication
3. Managing distressing symptoms
4. ED–PC intervention delivery/Transitions across care settings
5. End-of-life care
6. Family/caregiver support
7. ED staff education

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

Components of PC in the ED (1): Screening

- Triggers to initiate PC or EoL in the ED
- No standard tools/protocols
- Usually includes
  - The presence of advanced illness
  - Unmet PC needs

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

Components of PC in the ED (1): Screening (a)– [AEM ED-PC screening tool]

1. Does the Patient Have A Life-Limiting Illness? (Check All Items that Apply)	
☐ **Advanced Dementia or CNS Disease** (e.g. history of Stroke, ALS, Parkinson's): Assistance needed for most self-care (e.g. ambulation, toileting) and/or Minimally verbal.	
☐ **Advanced Cancer**: Metastatic or locally aggressive disease.	
☐ **End Stage Renal Disease**: On dialysis or Creatinine > 6.	
☐ **Advanced COPD:** Continuous home O2 or chronic dyspnea at rest.	
☐ **Advanced Heart Failure:** Chronic dyspnea, chest pain or fatigue with minimal activity or rest.	
☐ **End Stage Liver Disease**: History of recurrent ascites, GI bleeding, or hepatic encephalopathy.	
☐ **Septic Shock (i.e. signs of organ failure due to infection):** Requires ICU admission and has significant pre-existing comorbid illness.	
☐ **Provider Discretion - High chance of Accelerated Death:** *Examples:* Hip fracture > age 80; Major trauma in the elderly (multiple rib fractures, intracranial bleed), Advanced AIDS, etc	
No Checked Items? STOP! Screening is Complete	**ONE** or More Checked Items? CONTINUE screening!

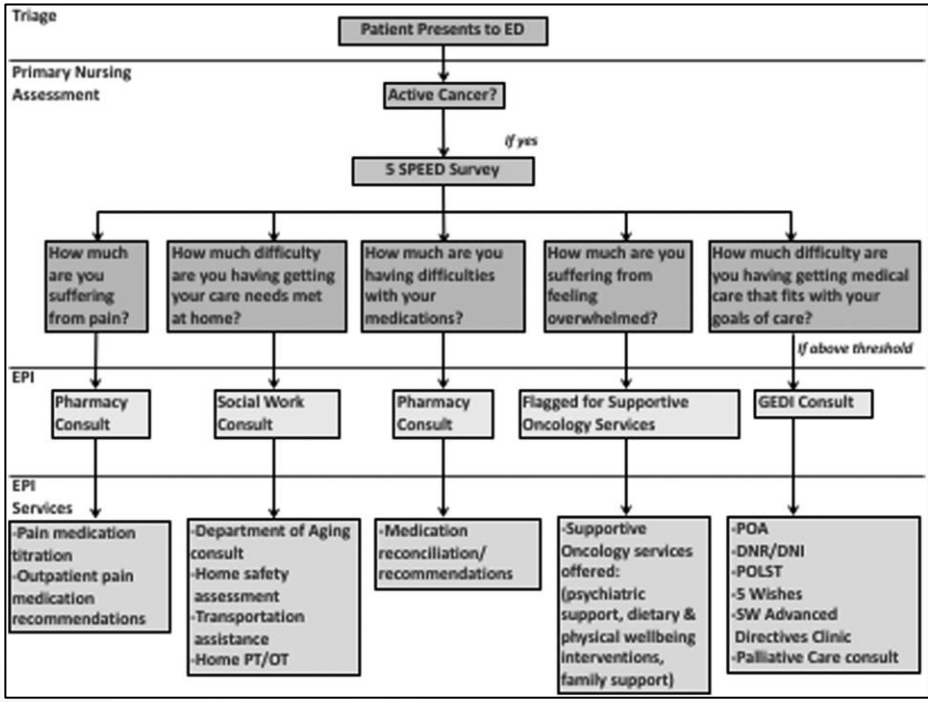
2. Does the Patient Have TWO or More Unmet Palliative Care Needs? (Check All the Apply)	
☐ **Frequent Visits:** 2 or more ED visits or hospital admissions in the past 6 months.	
☐ **Uncontrolled Symptoms:** Visit prompted by uncontrol symptom: e.g. pain, dyspnea, depression, fatigue, etc.	
☐ **Functional Decline:** e.g. loss of mobility, frequent falls, decrease PO, skin breakdown, etc.	
☐ **Uncertainty about Goals-of-Care and/or Caregiver Distress** Caregiver cannot meet long-term needs; Uncertainty/distress about goals-of-care.	
☐ **Surprise Question:** You would not be surprised if this patient died within 12 months.	
Less than TWO checked Items? STOP! Screening is Negative	**TWO or more checked Items?** PC Referral Recommended!

George N, Barrett N, McPeake L, Goett R, Anderson K, Baird J. Content Validation of a Novel Screening Tool to Identify Emergency Department Patients With Significant Palliative Care Needs. Acad Emerg Med. 2015;22(7):823-837.

Kruhlak M, Kirkland SW, Clua MG, et al. An Assessment of the Management of Patients with Advanced End-Stage Illness in the Emergency Department: An Observational Cohort Study. J Palliat Med. 2021;24(12):1840-1848.

Components of PC in the ED (1): Screening (b)- the Screen for Palliative and End-of-life care needs in the Emergency Department [5 SPEED]

5-SPEED question	*Threshold (0–10 Likert scale)*
How much are you suffering from pain?	≥4
How much difficulty are you having getting your care needs met at home?	≥3
How much difficulty are you having with your medications?	≥3
How much are you suffering from feeling overwhelmed?	≥5
How much difficulty are you having getting medical care that fits with your goals?	≥3
Unique patients	



Reuter O, Marshall A, Zaidi H, et al. Emergency Department-Based Palliative Interventions: A Novel Approach to Palliative Care in the Emergency Department. J Palliat Med. 2019;22(6):649-655.

Components of PC in the ED (1): Screening (c)- the Screen for End-of-life care needs in the Emergency Department

Criteria for initiating the ED EoL pathway:
1. Actively dying patient/high likelihood of mortality within hours to a few days.
2. Family accepts that the GoC are provision of comfort, symptom relief, and dignity.
3. Limitations on extent of care established and patient is not for CPR/intubation/ICU transfer.
4. Family members want to stay by patient's bedside.
5. Serious life-limiting illness with poor prognosis

EoL protocol:
1. Minimal monitoring
2. Maximize comfort care
3. Facilitate family visitation
4. Review checklist for communication
5. Review medications for symptoms
6. Referral to palliative care services
7. Use dedicated nursing chart

Chor WP, Wong SY, Ikbal MF, Kuan WS, Chua MT, Pal RY. Initiating end-of-life care at the emergency department: an observational study. Am J Hosp Palliat Med. 2019; 36(11): 941-946.

Components of PC in the ED (2) : GoC discussion

- Goals of care
  - Are personal
  - Drive intervention choices
  - May change over time

- GoC discussion include
  - Identify the patient's prognosis
  - Decision-making capacity
  - Elicit the patient's and family's goals of care

Components of PC in the ED (2) : GoC discussion

1. Identify the patient's prognosis
   - Palliative Performance Scale

PALLIATIVE PERFORMANCE SCALE (PPS)

%	Ambulation	Activity Level Evidence of Disease	Self-Care	Intake	Level of Consciousness	Estimated Median Survival in Days (a)	(b)	(c)
100	Full	Normal *No Disease*	Full	Normal	Full			
90	Full	Normal *Some Disease*	Full	Normal	Full	N/A		
80	Full	Normal with Effort *Some Disease*	Full	Normal or Reduced	Full		N/A	
70	Reduced	Can't do normal job or work *Some Disease*	Full	As above	Full	145		108
60	Reduced	Can't do hobbies or housework *Significant Disease*	Occasional Assistance Needed	As above	Full or Confusion	29	4	
50	Mainly sit/lie	Can't do any work *Extensive Disease*	Considerable Assistance Needed	As above	Full or Confusion	30	11	
40	Mainly in Bed	As above	Mainly Assistance	As above	Full or Drowsy or Confusion	18	8	41
30	Bed Bound	As above	Total Care	Reduced	As above	8	5	
20	Bed Bound	As above	As above	Minimal	As above	4	2	
10	Bed Bound	As above	As above	Mouth Care Only	Drowsy or Coma	1	1	6
0	Death	-	-	-	--			

(a) Survival post-admission to an inpatient palliative unit, all diagnoses (Virik 2002).
(b) Days until inpatient death following admission to an acute hospice unit, diagnoses not specified (Anderson 1996).
(c) Survival post admission to an inpatient palliative unit, cancer patients only (Morita 1999).

Components of PC in the ED (2) : GoC discussion

2. Decision-making capacity (Or MMSE)
   - "understand relevant information" and "appreciate reasonably foreseeable consequences"

Aid to Capacity Evaluation

Table 1. Areas and Suggested Questions for Specific Capacity Assessments Using the Aid to Capacity Evaluation

Ability to understand the medical problem
- What problem are you having right now?
- Why are you in the hospital?

Ability to understand the proposed treatment
- What is the treatment for [*your problem*]?
- What can we do to help you?

Ability to understand the alternatives to proposed treatment (if any)
- Are there any other treatments?
- What other options do you have?

Ability to understand the option of refusing treatment (including withdrawing treatment)
- Can you refuse [*the treatment*]?
- Could we stop [*the treatment*]?

Ability to appreciate the reasonably foreseeable consequences of accepting treatment
- What could happen to you if you have [*the treatment*]?
- How could [*the treatment*] help you?
- Could [*the treatment*] cause problems or side effects?

Ability to appreciate the reasonably foreseeable consequences of refusing proposed treatment
- What could happen to you if you don't have [*the treatment*]?
- Could you get sicker/die without [*the treatment*]?

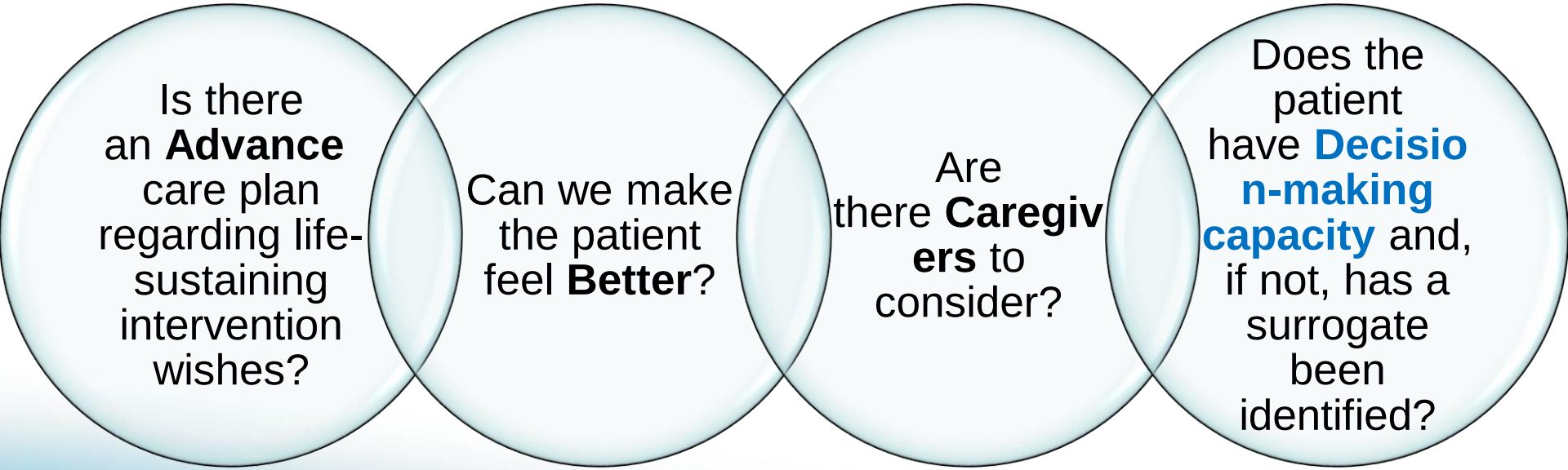
Ability to make a decision that is not substantially based on hallucinations, delusions, or cognitive signs of depression
- Why have you decided to [accept/refuse] [*the treatment*]?
- Do you think we are trying to hurt/harm you?
- Do you deserve to be treated?
- Do you feel that you are being punished?
- Do you feel that you are a bad person?

DW, Strang D. Assessment of patient capacity to consent to treatment. *J Gen Intern Med*. Jan 1999;14(1):27-34. Etchells E, Darzins P, Silberfeld M, Singer PA, McKenny J, Naglie G, Katz M, Guyatt GH, Molloy doi:10.1046/j.1525-1497.1999.00277.x
Sessums LL, Zembrzuska H, Jackson JL. Does This Patient Have Medical Decision-Making Capacity? *JAMA*. 2011;306(4):420-427. doi:10.1001/jama.2011.1023

Components of PC in the ED (2) : GoC discussion

3-1. Elicit the patient's and family's goals of care

-Acute: ABCD assessment



Education in Palliative and End of Life Care (EPEC) (2010)

Components of PC in the ED (2) : GoC discussion

3-2. Elicit the patient's and family's goals of care -Subacute: NEST assessment

N	E	S	T
• Are there social **Needs** that can guide post-ED disposition and prevent repeat visits?	• Dose the patient have **Existential** needs that mandate attention from ED providers?	• Which **Symptoms**, physical or psychological, require treatment during this visit?	• What should the **Therapeutic** goals be for this hospitalization?

Emanuel LL, Alpert HR, Emanuel EE. Concise screening questions for clinical assessments of terminal care: the needs near the end-of-life care screening tool. *J Palliat Med*. 2001;4(4):465-474.

Components of PC in the ED (2) : GoC discussion

- Existential needs
  - Extreme anxiety
  - Did not meet criteria for a Major Depressive Disorder or Anxiety Disorder and was not in significant pain
  - “How long will it take?
  - Am I doing the right thing?
  - Am I committing suicide?
  - What will death be like? I have no clue.
  - What comes after death?”

Amonoo HL, Harris JH, Murphy WS, Abrahm JL, Peteet JR. The Physician’s Role in Responding to Existential Suffering: What Does It Mean to Comfort Always? *Journal of Palliative Care*. 2020;35(1):8-12. doi:10.1177/0825859719839332

Components of PC in the ED (2) : GoC discussion

Connect with the patient as a human being

- Validating patients' responses to their situation and normalizing their distress

Analyze with patients why the stressors are so threatening; reveal what the patients' suffering means to them

- Helping patients express their emotions: confusing or frightening, being punished

Help the patient actively enlist sources of resilience to reshape the approach to suffering

- Problem solving abilities, emotional regulation techniques, drawing on a core identity, and relational coping by mobilizing social networks

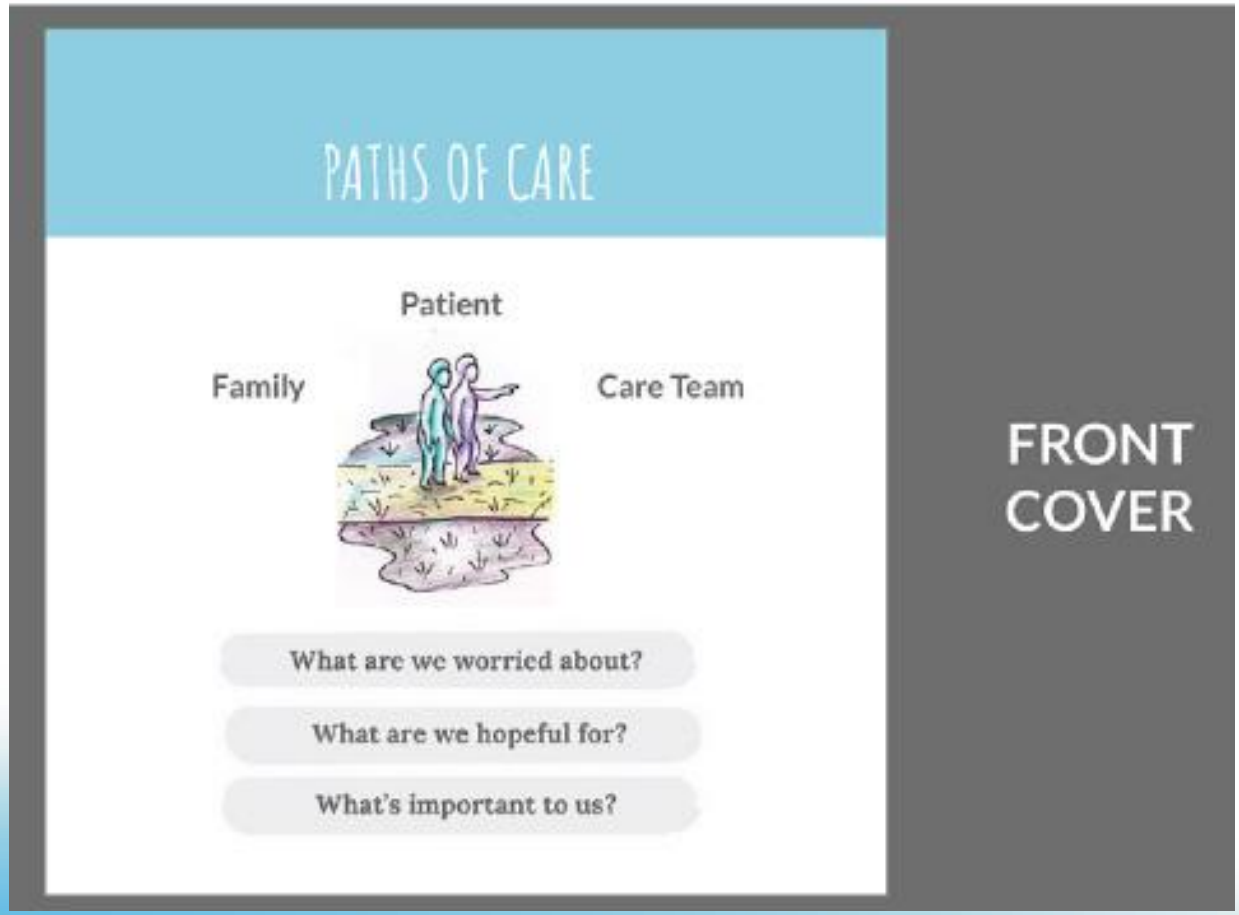
Decide on a course of action moving forward once the sufferer is no longer acutely demoralized

- What are their priorities, and how do they want to redirect their efforts, given any new limitations? What is most important for them to preserve—perhaps a key relationship, a role, a valued ideal, or an aspect of their identity?

Amonoo HL, Harris JH, Murphy WS, Abrahm JL, Peteet JR. The Physician's Role in Responding to Existential Suffering: What Does It Mean to Comfort Always? *Journal of Palliative Care*. 2020;35(1):8-12. doi:10.1177/0825859719839332

Components of PC in the ED (2) : Communication

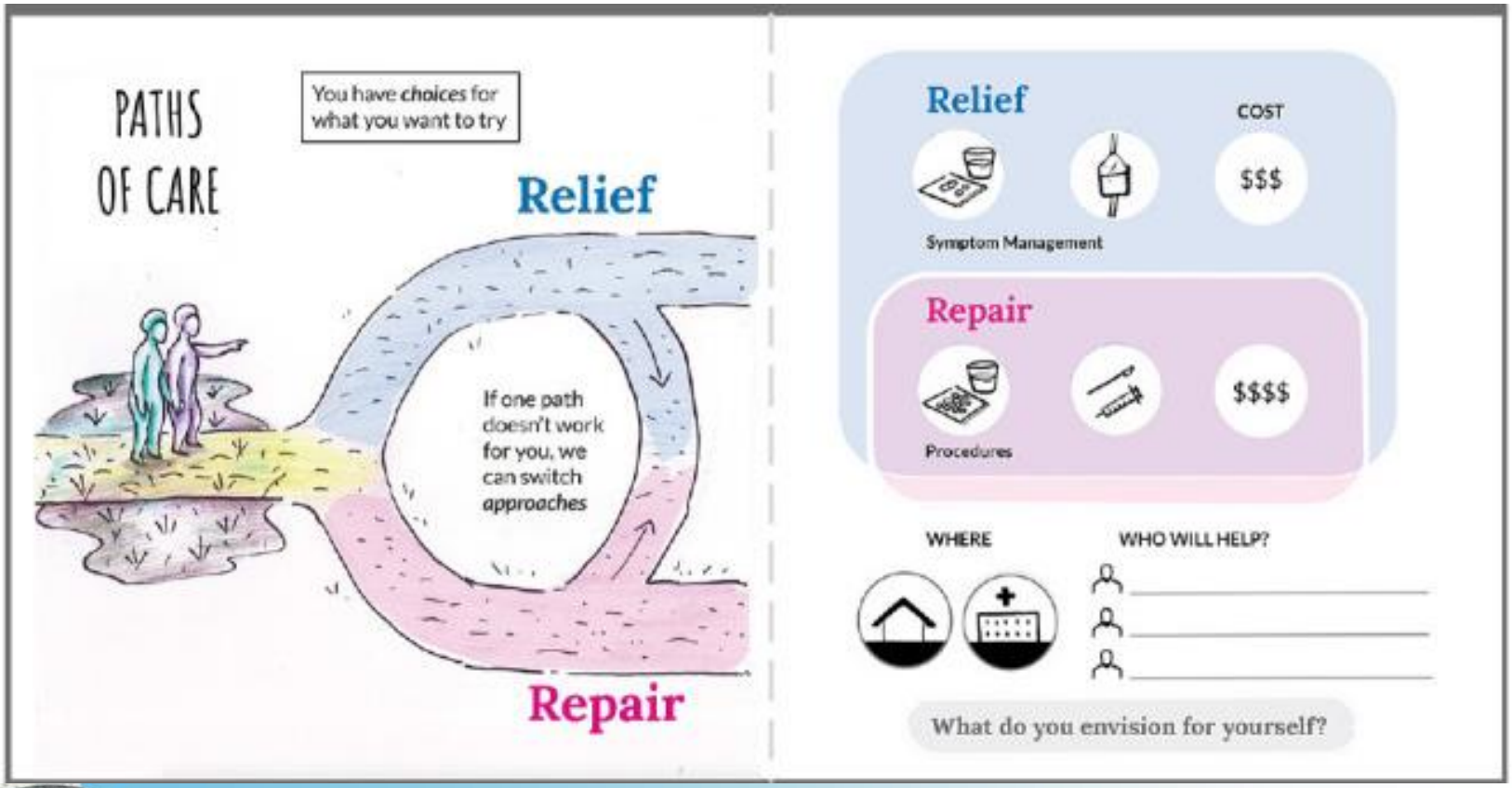
- 5-minute GOC conversation in the ED (Mayo Clinic)



Walker LE, Bellolio MF, Dobler CC, et al. Paths of Emergency Department Care: Development of a Decision Aid to Facilitate Shared Decision Making in Goals of Care Discussions in the Acute Setting. MDM Policy Pract. 2021;6(2):23814683211058082

Components of PC in the ED (2) : Communication

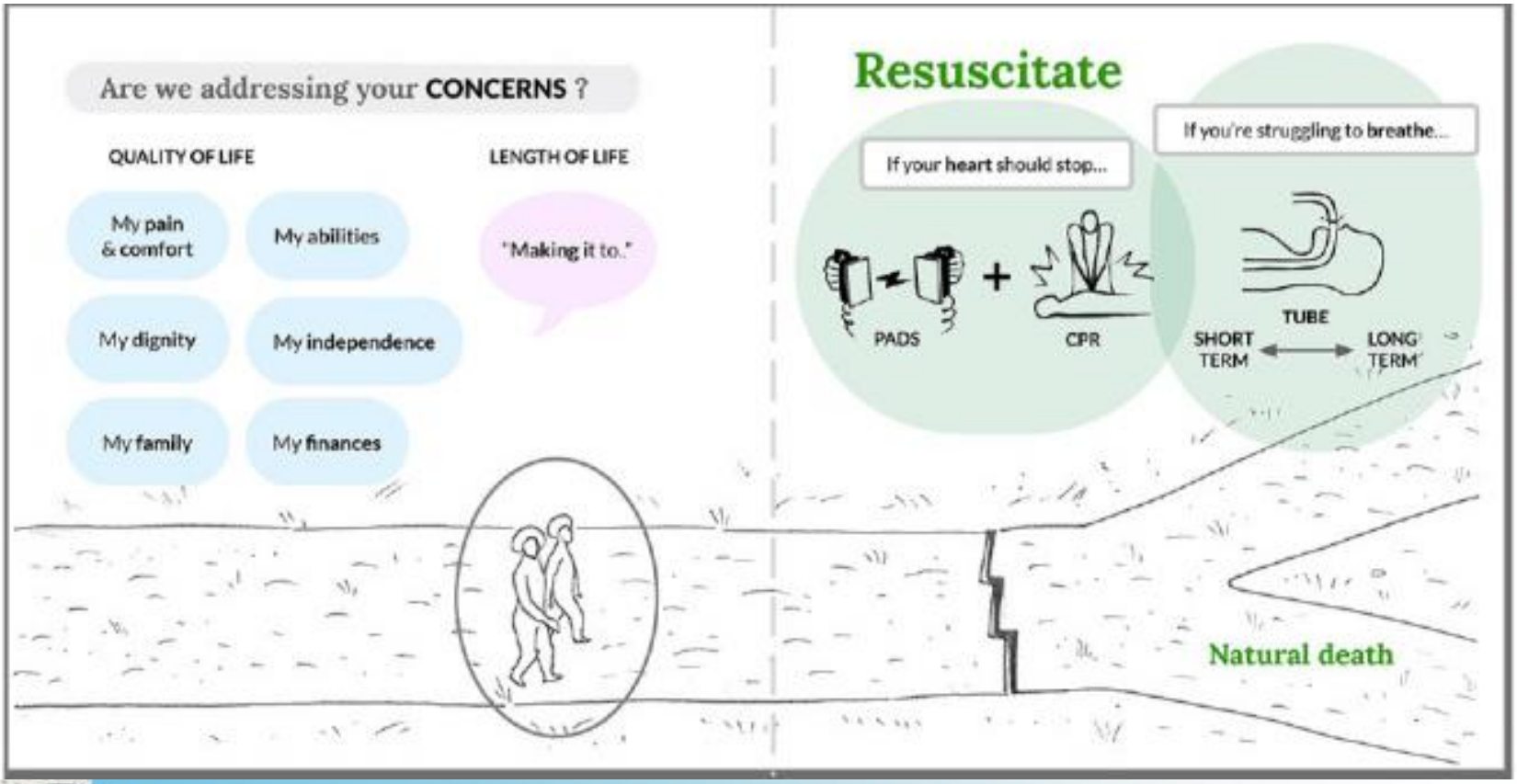
- 5-minute GOC conversation in the ED [1]



Walker LE, Bellolio MF, Dobler CC, et al. Paths of Emergency Department Care: Development of a Decision Aid to Facilitate Shared Decision Making in Goals of Care Discussions in the Acute Setting. Med Decis Making Policy Pract. 2021;6(2):23814683211058082

Components of PC in the ED (2) : Communication

- 5-minute GOC conversation in the ED [2]



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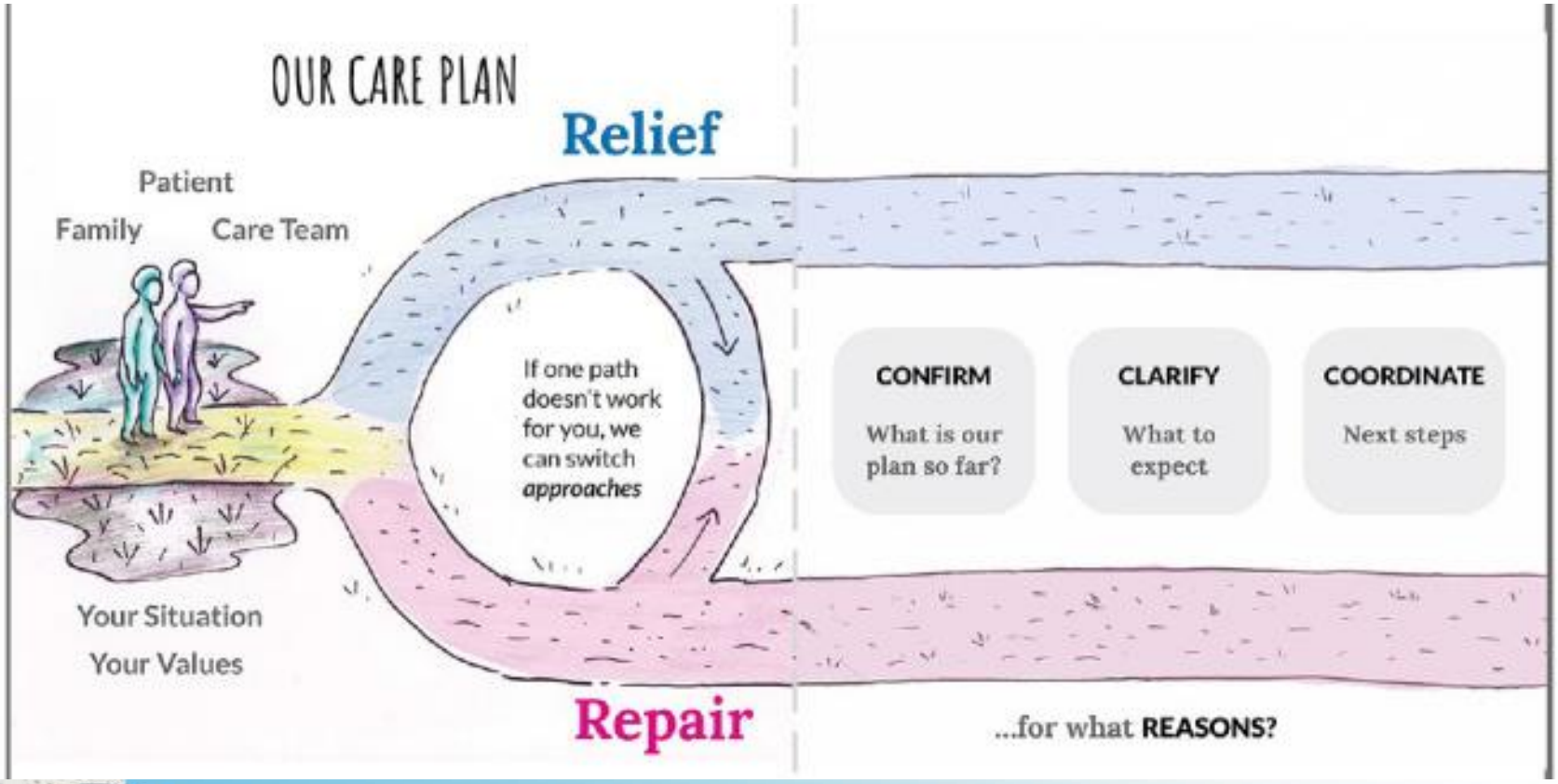
Components of PC in the ED (2) : Communication

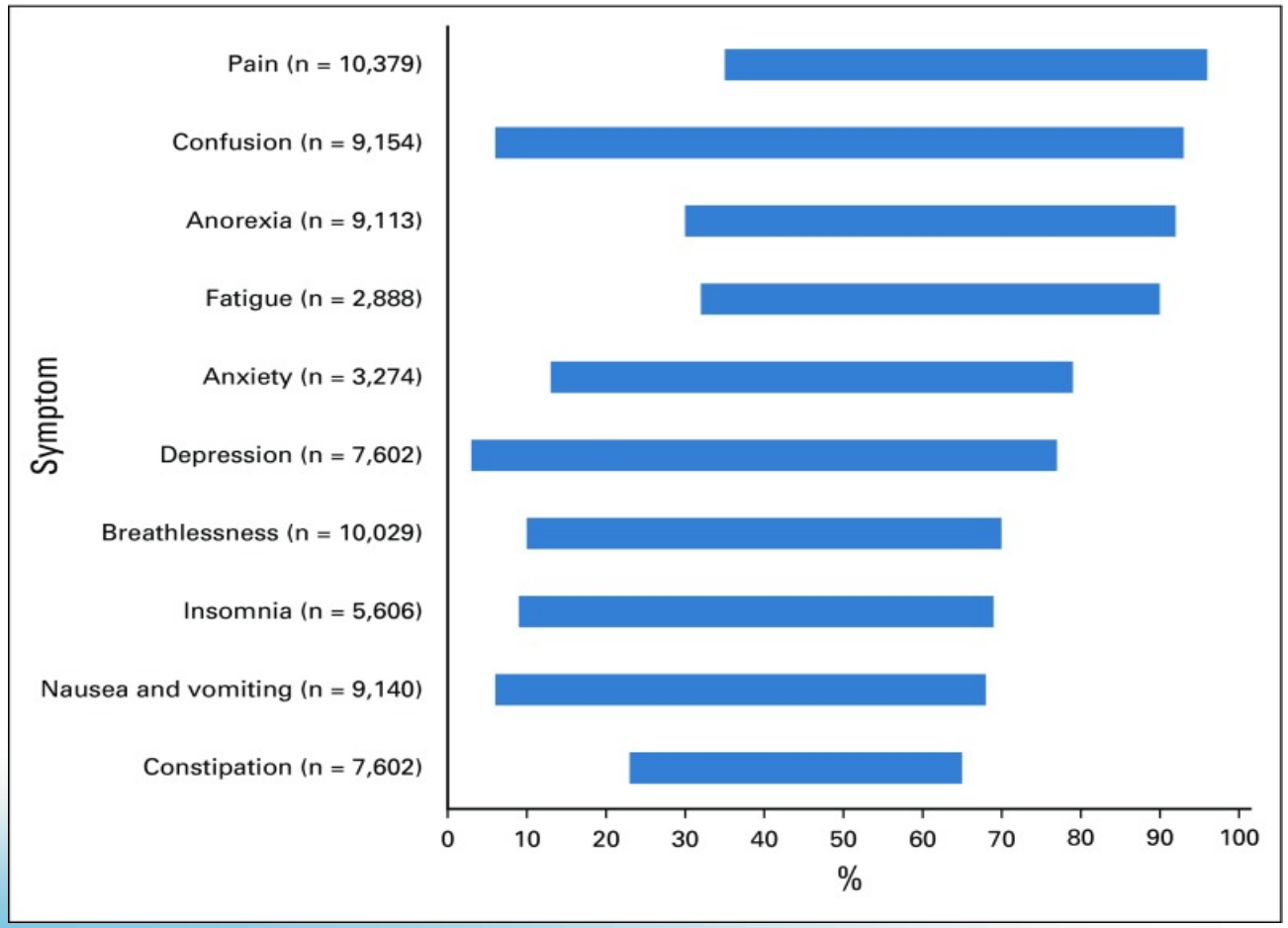
- 5-minute GOC conversation in the ED [3]



Walker LE, Bellolio MF, Dobler CC, et al. Paths of Emergency Department Care: Development of a Decision Aid to Facilitate Shared Decision Making in Goals of Care Discussions in the Acute Setting. Med Decis Making Policy Pract. 2021;6(2):23814683211058082

Components of PC in the ED (3) : Managing distressing symptoms- Prevalence

Pain, Dyspnea, Nausea, Constipation, Delirium



Chang A, Espinosa J, Lucerna A. Emergency Department Management of Common End-of-Life and Palliative Care Symptoms: Three Cases. Cureus. 2024;16(2):e53538.

Henson LA, Maddocks M, Evans C, Davidson M, Hicks S, Higginson IJ. Palliative Care and the Management of Common Distress Symptoms in Advanced Cancer: Pain, Breathlessness, Nausea and Vomiting, and Fatigue. *Journal of Clinical Oncology*. 2020;38(9):905-914. doi:10.1200/jco.19.00470

Components of PC in the ED (3) : Managing distressing symptoms – General Assessment

Appendix F: Edmonton Symptom Assessment System (revised version)

Please circle the number that best describes how you feel NOW:

No pain	1	2	3	4	5	6	7	8	9	10	Worst possible pain
No tiredness *Tiredness = lack of energy*	1	2	3	4	5	6	7	8	9	10	Worst possible tiredness
No drowsiness *Drowsiness = feeling sleepy*	1	2	3	4	5	6	7	8	9	10	Worst possible drowsiness
No nausea	1	2	3	4	5	6	7	8	9	10	Worst possible nausea
No lack of appetite	1	2	3	4	5	6	7	8	9	10	Worst possible lack of appetite
No shortness of breath	1	2	3	4	5	6	7	8	9	10	Worst possible shortness of breath
No depression *Depression = feeling sad*	1	2	3	4	5	6	7	8	9	10	Worst possible depression
No anxiety *Anxiety = feeling nervous*	1	2	3	4	5	6	7	8	9	10	Worst possible anxiety
Best wellbeing *Wellbeing = how you feel overall*	1	2	3	4	5	6	7	8	9	10	Worst possible wellbeing
No _____ Other problem (e.g. constipation)	1	2	3	4	5	6	7	8	9	10	Worst possible _____

Hui D, Bruera E. The Edmonton Symptom Assessment System 25 Years Later: Past, Present, and Future Developments. *J Pain Symptom Manage*. Mar 2017;53(3):630-643. doi:10.1016/j.jpainsymman.2016.10.370

Components of PC in the ED (3) : Managing distressing symptoms – Assessment for pain

- Behavioral Pain Scale (BPS), Checklist of Non-verbal Pain Indicators (CNPI), Critical Care Pain Observation Tool (CPOT), Multidimensional Observational Pain Assessment Tool (MOPAT), Nociceptive Coma Scale, Non-Verbal Pain Scale……

- Face, Legs, Activity, Cry, and Consolability (FLACC) Pain Tool

Categories	scoring		
	0	1	2
Face	No distinct facial expression or smile.	Intermittently showing grimaces or frowns or showing withdrawal or indifference.	Frequently or constantly quivering their chin or clenching their jaws.
Legs	Normal or relaxed state.	Showing signs of agitation, restlessness or tension.	Kicking or drawing their legs up.
Activity	Quietly lying in a normal position and moves effortlessly.	Fidgeting, moving back and forth and showing tension.	Arched or stiff posture or jerking movements.
Cry	Not crying.	Moaning, whimpering or complaining from time to time.	Contantly crying, screaming, sobbing or complaining.
Consolability	Relaxed and at ease.	Can be distracted or reassured by physical comfort (e.g. touching and hugging) or with conversation.	Hard to consol or comfort.

McGuire DB, Kaiser KS, Haisfield-Wolfe ME, Iyamu F. Pain Assessment in Noncommunicative Adult Palliative Care Patients. Nurs Clin North Am. 2016 Sep;51(3):397-431.

Components of PC in the ED (3) : Managing distressing symptoms – Assessment for dyspnea

Respiratory Distress Observation Scale© (Margaret L. Campbell, PhD, RN 2/19/09)

Variable	0 points	1 point	2 points
Heart rate per minute	<90 beats	90-109 beats	≥110 beats
Respiratory rate per minute	≤18 breaths	19-30 breaths	>30 breaths
Restlessness: non-purposeful movements	None	Occasional, slight movements	Frequent movements
Paradoxical breathing pattern: abdomen moves in on inspiration	None		Present
Accessory muscle use: rise in clavicle during inspiration	None	Slight rise	Pronounced rise
Grunting at end-expiration: guttural sound	None		Present
Nasal flaring: involuntary movement of nares	None		Present
Look of fear	None		Eyes wide open, facial muscles tense, brow furrowed, mouth open, teeth together

Zhuang Q, Yang GM, Neo SH, Cheung YB. Validity, Reliability, and Diagnostic Accuracy of the Respiratory Distress Observation Scale for Assessment of Dyspnea in Adult Palliative Care Patients. *J Pain Symptom Manage*. 2019;57(2):304-310.

Components of PC in the ED (4) : ED–PC intervention delivery "Consultation mode"

- PC on-call provider can assist with telephone support and coaching.
- PC interventions in the ED:
  - Consists of three components:
    (1) symptom assessment and treatment,
    (2) GoC and advance care plans
    (3) transition planning.
  - Patients admitted to the hospital followed daily through check-in with primary team.
  - Support for implementing DNAR orders using informed assent or based on medical futility when appropriate.
  - Chart review results and brief or full consults documented.

Fausto J, Hirano L, Lam D, et al. Creating a palliative care inpatient response plan for COVID-19—the UW medicine experience. *J Pain Symptom Manag*. 2020; **60**(1): e21-e26.

Components of PC in the ED (4) : ED–PC intervention delivery "Integrated mode"

- Elderly patients with specific life-limiting conditions were identified by the project social worker, who was stationed full time in the ED (BriefPal Project).

- Embed a PC specialist in ED, screen patients based on following criteria (University of Washington)
  - COVID-19 +/– patient under investigation with respiratory distress.
  - Multimorbidity, severity of illness, and high oxygen requirement.
  - Clinical status: symptom burden, frailty (using Clinical Frailty Scale), and baseline functional status.
  - Code status: DNAR/DNI, DNAR intubation okay, and full code with high intubation risk.

- Based on screening, the following will happen:
  - 1. Meet or call with family/legal surrogate to address GoC and code status.
  - 2. Coach ED team on GoC and code status discussion.
  - 3. Assist with documentation of discussions and transitions of care.

Glajchen M, Lawson R, Homel P, DeSandre P, Todd KH. A rapid two-stage screening protocol for palliative care in the emergency department: a quality improvement initiative. J Pain Symptom Manag. 2011; 42(5): 657-662.
Fausto J, Hirano L, Lam D, et al. Creating a palliative care inpatient response plan for COVID-19—the UW medicine experience. *J Pain Symptom Manag*. 2020; **60**(1): e21-e26.

Components of PC in the ED (4) : ED–PC intervention delivery "ED–ICU approach" "is particularly noteworthy"

A Hospice and Palliative Care Bed Dedicated to Patients Admitted to the Emergency Department for End-of-Life Care

(Universitaire de Saint-Etienne)

American Journal of Hospice & Palliative Medicine®
2016, Vol. 33(4) 403-406

DOI: 10.1177/1049909114562947
ajhpm.sagepub.com
SAGE

- 2006, the EICU obtained the agreement for 365 annual days of PC…who could not be sent to the PC unit or ICU…
- No additional physical bed was created in the EICU, and PC was given without additional staff.
- Located in a comfortable room, at a quiet end of the department. In 2009, a private room—including a bedroom and a bathroom—was created…
- Result: reduction in the rate of terminally ill patients dying on stretchers in the ED (28.9%)
  - 64.8% to the ICU for PC died, 14.2% to the PCU, 11.4% to the medical departments. 9.6% discharged. the family room was occupied with a rate of 50%.

Lafond P, Chalayer E, Roussier M, Weber E, Lacoin-Reynaud Q, Tardy B. A Hospice and Palliative Care Bed Dedicated to Patients Admitted to the Emergency Department for End-of-Life Care. *Am J Hosp Palliat Care*. May 2016;33(4):403-6. doi:10.1177/1049909114562947

Components of PC in the ED (4) : ED–PC intervention delivery "ED–ICU approach"

Delivery of end-of-life care in an emergency department–based intensive care unit

(University of Michigan)

Thomas B. Leith AB[1] | Nathan L. Haas MD[2,3,4] | Carrie E. Harvey MD[2,3] | Cynthia Chen MD[2] | Crystal Ives Tallman MD[2,3] | Benjamin S. Bassin MD[2,3,4]

- ED-based ICU offer an opportunity to delivering high-quality critical care in the ED, reduce ICU admissions or for whom ICU admission is not in alignment with goals of care.
  - "End of Life" order set was created in the electronic health record in 2015

General

Limits to Medical Interventions

☐ Limits to Medical Intervention	{UM Medical Therapy Limits:22570} No pulse oximetry measurements.

Vitals PRN

☑ Vital Signs - Temperature, Pulse, Respirations, Blood Pressure	PRN

Code Status

☑ DNAR (Do Not Attempt Resuscitation)	Attending Consulted:

Notify End of Life

☑ Notify Clinician for - Uncontrolled or increasing pain	Details
☑ Notify Clinician for - Uncontrolled or increasing Anxiety/Agitation	Details
☑ Notify Clinician for - Uncontrolled or increasing Respiratory Distress or Congestion	Details
☑ Notify Clinician for - Escalating family distress	Details

Activity End of Life

☐ Activity - Bed rest	UNTIL DISCONTINUED, Starting S
☐ Activity - Bed rest Position patient for comfort and discontinue routine turning	UNTIL DISCONTINUED, Starting S Position patient for comfort and discontinue routine turning

Leith TB, Haas NL, Harvey CE, Chen C, Ives Tallman C, Bassin BS. Delivery of end-of-life care in an emergency department–based intensive care unit. J Am Coll Emerg Physicians Open. 2020; 1(6): 1500-1504.

Components of PC in the ED (4) : ED–PC intervention delivery “ED–ICU approach”

- “End of Life” order set (cont.)

Dyspnea/Pain - Opioid Naive

☐ morphine injection	1 mg, Intravenous, EVERY HOUR PRN, severe pain, dyspnea May give every 20 minutes up to 3 doses, then every hour PRN
☐ HYDROmorphone injection	0.2 mg, Intravenous, EVERY HOUR PRN, severe pain, dyspnea May give every 30 minutes up to 2 doses, then every 1hour PRN

Dyspnea/Pain - Opioid Tolerant

☐ morphine injection	Intravenous, EVERY HOUR PRN, severe pain, dyspnea May give every 20 minutes up to 3 doses and then every 1 hour PRN. Starting dose should be approximately 10% of the patient's total daily opioid requirement at home. Use the link to the conversion table to convert from oral to IV dosing.
☐ HYDROmorphone injection	Intravenous, EVERY HOUR PRN, severe pain, dyspnea Starting dose should be approximately 10% of the patient's total daily opioid requirement at home. Use the link to the conversion table to convert from oral to IV dosing. https://palliative.stanford.edu/opioid-conversion/equivalency-table/

Dyspnea/Pain - Infusions

☐ morphine bolus + infusion panel	
☐ morphine bolus from bag	2-10 mg, Intravenous, EVERY 15 MIN PRN, Signs of discomfort/dyspnea
☐ morphine in 0.9 % NaCl 150 mg/30 mL (5 mg/mL) infusion	2-20 mg/hr, Intravenous, CONTINUOUS
☐ fentanyl bolus and infusion	**"And" Linked Panel**
☐ fentanyl bolus from bag	Intravenous, EVERY 10 MIN PRN Maximum 100 mcg for initial control
☐ fentaNYL 1,500 mcg/30 mL (50 mcg/mL) infusion	Intravenous, CONTINUOUS
☐ hydromorphone bolus and infusion	**"And" Linked Panel**
☐ hydromorphone (DILAUDID) bolus from bag	0.1-0.5 mg, Intravenous, EVERY 15 MIN PRN, for signs of discomfort/dyspnea
☐ HYDROmorphone (DILAUDID) 75 mg in dextrose 5% 30 mL infusion	Intravenous, CONTINUOUS
☐ Albuterol SVN (NMT) - 2.5 mg/3 mL (0.083%) inhalation solution	**"And" Linked Panel**
☐ albuterol 2.5 mg/3 mL (0.083 %) inhalation solution	2.5 mg, Nebulization, EVERY 4 HOURS PRN, for dyspnea

Anxiety/Agitation

☐ LORazepam (ATIVAN) tablet	0.5 mg, Oral, ONCE PRN, anxiety

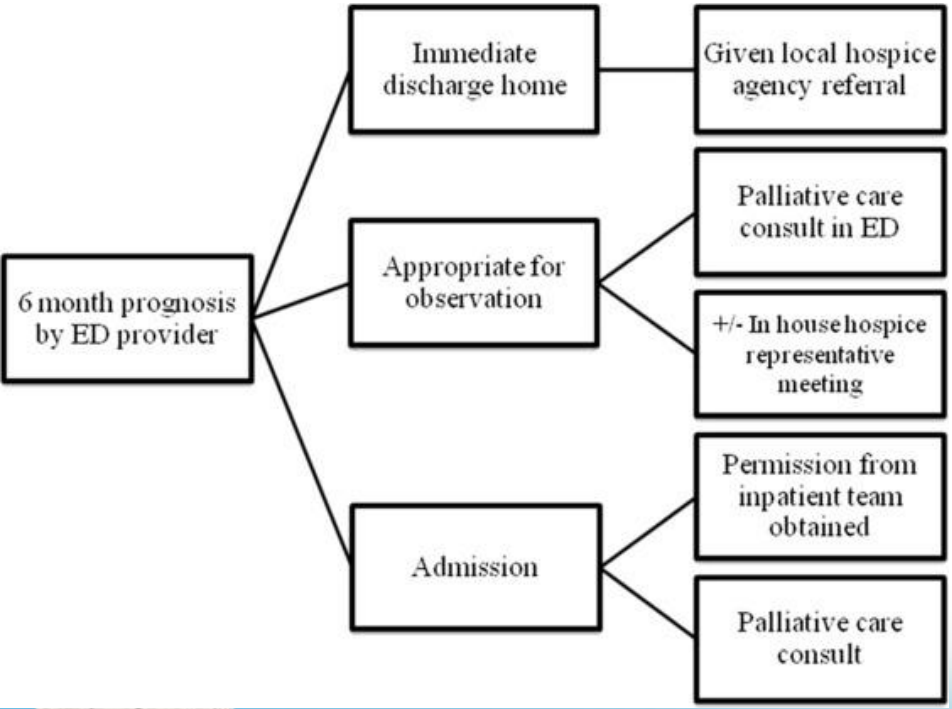
- 0.9% were admitted to ICU. death 53.7%, admission 35.3% and discharge directly 10.1%.
- 33.3% were extubated compassionately (vs 11.9%).

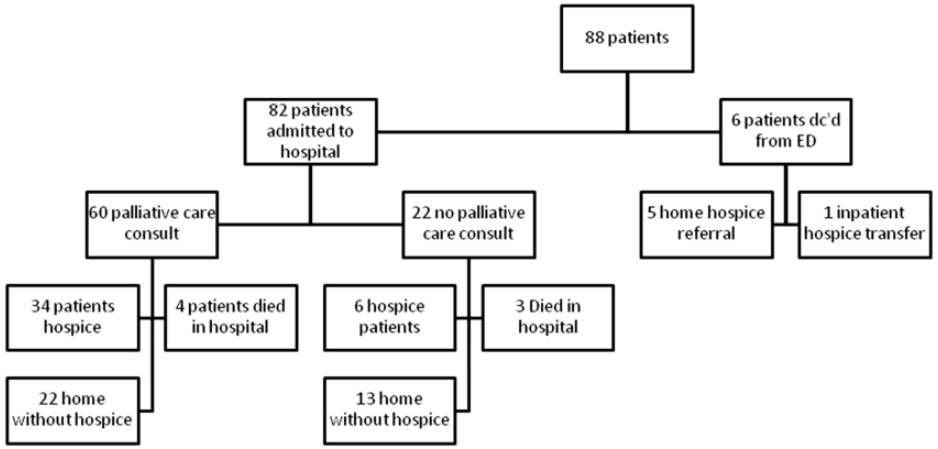
Leith TB, Haas NL, Harvey CE, Chen C, Ives Tallman C, Bassin BS. Delivery of end-of-life care in an emergency department–based intensive care unit. J Am Coll Emerg Physicians Open. 2020; 1(6): 1500-1504.

Components of PC in the ED (4) : Transitions across care settings- Increase hospice enrollment

A PILOT TRIAL TO INCREASE HOSPICE ENROLLMENT IN AN INNER CITY, ACADEMIC EMERGENCY DEPARTMENT (Johns Hopkins)

1. ED staff education
2. Set a direct line of communication between the ED and PC





Patients with PC consultation were more likely to be have a disposition with hospice resources, 57% vs. 30%, (p = 0.038).

Highet BH, Hsieh YH, Smith TJ. A pilot trial to increase hospice enrollment in an inner city, academic emergency department. *J Emerg Med*. 2016; **51**(2): 106-113.

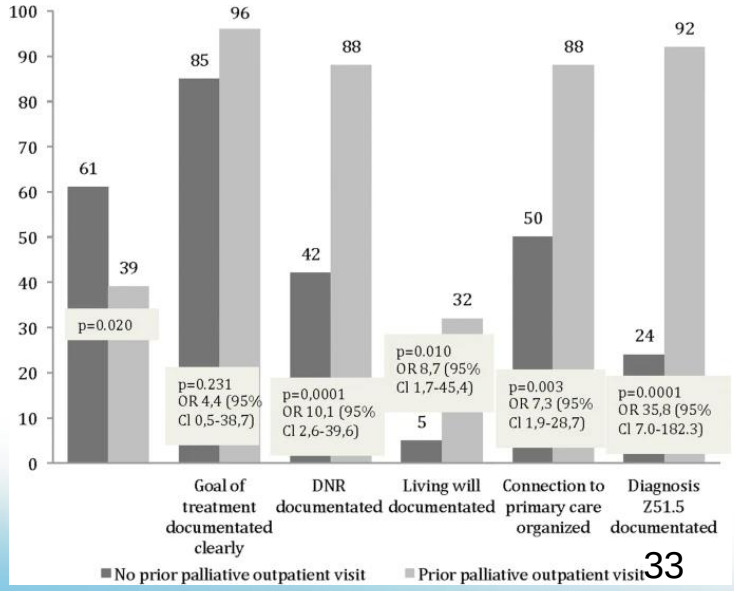
Components of PC in the ED (4) : Transitions across care settings- Connections to primary care provider

End-of-life decisions guiding the palliative care of cancer patients visiting emergency department in South Western Finland: a retrospective cohort study

- The development of EOL care was started in the hospital region in 2012
  - An EOL network for both hospital and community based primary care physicians and nurses
  - Regular regional education/ meeting
  - Offered proactive ACP to every patient
  - Established a palliative outpatient clinic (a full-time doctor sub-specializing in PC, and a further full-time nurse)
  - New palliative ward services for EOL patients

Result:

- Admission and discharge from University hospital 46% -> 37%
  Regional communities ward 12% -> 25%.
- Patients who died during admission 39 -> 29%



台北榮民總醫院

Hirvonen, O.M., Alalahti, J.E., Syrjänen, K.J. et al. End-of-life decisions guiding the palliative care of cancer patients visiting emergency department in South Western Finland: a retrospective cohort study. BMC Palliat Care 17, 128 (2018).

Components of PC in the ED (5) : End-of-life care

- Treat the primary etiology
- Start at lower dosages and short-acting agents
- Proactive regimens that prevent symptoms should be used
- Sublingual medications, dissolvable tablets, transdermal patches, creams or gels, and rectal suppositories

SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	*Evidence rating*	*References*
Opiates should be used to treat dyspnea in end-of-life care.	B	3-5
Haloperidol and risperidone (Risperdal) are effective in treating delirium in end-of-life care.	C	17
Corticosteroids should be used in the management of bowel obstruction caused by malignancy. Octreotide (Sandostatin) has been shown to have limited benefit.	B	28, 29
Hyoscyamine (Levsin) or atropine ophthalmic drops can be used to treat excessive oropharyngeal secretions, although evidence supporting their use is limited.	C	33, 34

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to http://www.aafp.org/afpsort.

Hui D, Nooruddin Z, Didwaniya N, et al. Concepts and definitions for "actively dying," "end of life," "terminally ill," "terminal care," and "transition of care": a systematic review. *J Pain Symptom Manage*. 2014;47(1):77-89.
Albert RH. End-of-Life Care: Managing Common Symptoms. *Am Fam Physician*. Mar 15 2017;95(6):356-361.

Components of PC in the ED (5) : End-of-life care

Table 1. Initial Opiate Dosages for Moderate to Severe Dyspnea or Pain in Opioid-Naive Patients During End-of-Life Care

Medication	*Oral dose*	*Intravenous or subcutaneous dose*	*Initial dosing frequency*
Fentanyl	NA	25 to 100 mcg	Every 2 to 3 hours
Hydromorphone (Dilaudid)	2 to 4 mg	0.5 to 2 mg	Every 3 to 4 hours
Morphine	2.5 to 10 mg	2 to 10 mg	Every 3 to 4 hours
Oxycodone	2.5 to 10 mg	NA	Every 3 to 4 hours

NOTE: *Long-acting opiates, such as transdermal fentanyl, oxycodone extended release, and morphine extended release, are not recommended for the initial titration of opiates for pain or dyspnea.*

NA = not available.

Information from references 3 through 6.

Albert RH. End-of-Life Care: Managing Common Symptoms. *Am Fam Physician*. Mar 15 2017;95(6):356-361.

Components of PC in the ED (5) : End-of-life care

- Delirium and Agitation
  - Benzodiazepines should be used with caution (provoke increased symptoms)
  - Haloperidol and risperidone (Risperdal) are effective

- Severe, refractory agitation, *palliative sedation* may be considered
  - "to relieve intolerable suffering from refractory symptoms by reducing a patient's consciousness."

	Dosage			Observations
Drug	Induction	Rescue	Maintenance	
②Levomepromazine	12.5–25 mg	12.5–25 mg	5 mg/h SCCI-IV	>300 mg*/ day + MDZL
①Midazolam	5–10 mg	5–7.5 mg	1.5–2 mg/h SCCI-IV	>200 mg*/ day + LMPZ
③Propofol	1–1.5 mg/kg	50% induction dose	2–3 mg/kg/h IVCI	No mix with other drugs
③Phenobarbital	200 mg IM	100 mg	60–100 mg/h SCCI	No mix with other drugs

Porta-Sales J. Palliative sedation:: Clinical, pharmacological and practical aspects. In: Sterckx S, Raus K, Mortier F, eds. Continuous Sedation at the End of Life: Ethical, Clinical and Legal Perspectives. Cambridge Bioethics and Law. Cambridge University Press; 2013:65-85.

Components of PC in the ED (5) : End-of-life care

Table 2. Antiemetic Medications Used in End-of-Life Care

	Medication class	*Medication (common as-needed dosage)*	*Comments*
②	Anticholinergics	Scopolamine (1 or 2 1.5-mg patches applied topically and changed every 72 hours)	May also help to decrease oral secretions
	Benzodiazepines	Lorazepam (Ativan; 0.5 to 2 mg orally or IV every 6 hours)	Consider in anticipatory nausea
②	Cannabinoids	Dronabinol (Marinol; 5 to 10 mg orally, rectally, or sublingually every 6 to 8 hours) Marijuana (recommended only in states where legal for medical use)	Consider in anticipatory nausea
②	Corticosteroids	Dexamethasone (2 to 8 mg orally or IV every 4 to 8 hours)	Consider in suspected malignant bowel obstruction or with increased intracranial pressure
①	Dopamine receptor antagonists	Haloperidol (0.5 to 2 mg orally or IV every 4 to 8 hours)	Off-label use for nausea
		Prochlorperazine (5 to 10 mg orally or IV every 6 to 8 hours)	—
		Chlorpromazine (12.5 to 25 mg IV or 25 to 50 mg orally every 6 to 8 hours)	—
		Metoclopramide (Reglan; 5 to 20 mg orally or IV every 6 hours)	Consider in gastroparesis; avoid in suspected malignant bowel obstruction
①	Serotonin 5-HT_3 receptor antagonists	Ondansetron (Zofran; 4 to 8 mg orally or IV every 4 to 8 hours)	Available as oral disintegrating tablets

IV = intravenously.

Information from references 23 through 28.

Albert RH. End-of-Life Care: Managing Common Symptoms. Am Fam Physician. Mar 15 2017;95(6):356-361.

Components of PC in the ED (5) : End-of-life care

Table 3. Medications for the Prevention and Treatment of Constipation in End-of-Life Care

Medication	*Dosage*
Docusate (Colace)	1 or 2 tablets orally 2 times per day
Lactulose	15 to 30 mL orally 2 or 3 times per day
Magnesium hydroxide	30 to 60 mL orally at bedtime
Polyethylene glycol (Miralax)	1 tablespoon (17 g) dissolved in 4 to 8 oz of fluid orally per day
Senna with docusate	1 or 2 tablets orally 2 to 4 times per day

Adapted with permission from Clary PL, Lawson P. Pharmacologic pearls for end-of-life care. Am Fam Physician. *2009;79(12):1062.*

Albert RH. End-of-Life Care: Managing Common Symptoms. Am Fam Physician. Mar 15 2017;95(6):356-361.

Components of PC in the ED (5) : End-of-life care

Table 4. Medications for the Treatment of Excessive Oropharyngeal Secretions in End-of-Life Care

Medication	*Dosage (as needed)*
Atropine ophthalmic 1% drops	1 or 2 drops sublingually every 6 hours
Glycopyrrolate (Robinul)	1 mg orally or 0.2 to 0.4 mg subcutaneously or intravenously every 4 hours
Hyoscyamine (Levsin)	0.125 to 0.5 mg sublingually or subcutaneously every 4 hours
Scopolamine transdermal patch	1 or 2 1.5-mg patches applied every 72 hours

Information from references 33 and 34.

Components of PC in the ED (5) : End-of-life care

Table 5. Common End-of-Life Medications: the Hospice Comfort Kit

Medication class	*Medication*	*Initial suggested dosage*
Antipsychotics	Haloperidol or risperidone (Risperdal; both 2 mg per mL)	0.5 to 1 mg sublingually or rectally every 4 hours as needed for agitation or nausea
Antipyretics	Acetaminophen suppository (650 mg)	650 mg orally or rectally every 4 hours as needed for fever
Benzodiazepines	Lorazepam (Ativan; 2 mg per mL)	0.5 to 1 mg sublingually or rectally every 4 hours as needed for anxiety
Opiates	Morphine or oxycodone (both 20 mg per mL)	5 to 10 mg sublingually every 3 hours as needed for pain or shortness of breath
Secretion medications	Hyoscyamine (Levsin; 0.125-mg sublingual tablet/liquid) or atropine ophthalmic 1% drops	0.125 mg of hyoscyamine or 2 or 3 drops of atropine sublingually every 6 hours as needed for oropharyngeal secretions

Withholding, discontinuing and withdrawing interventions deemed to be unconducive to the patient's comfort

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

Albert RH. End-of-Life Care: Managing Common Symptoms. Am Fam Physician. Mar 15 2017;95(6):356-361.

Components of PC in the ED (6): Family/caregiver support

- Emotional, psychosocial, and caregiver support
- Meeting information needs
- Evaluated the existence of distress among family caregivers

  - "patients who were actively dying (last 48 h of life) were *moved to a special comfort care room* in the hospital where families could have the privacy to spend their final moments and prepare for the potential demise of the patient."

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

Components of PC in the ED (7): ED staff education

- Indications for PC referral
- Hospice eligibility guidelines
- Patient symptom screening
- Caregiver needs identification
- GoC discussions
- Disease trajectory
- Hospice care

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

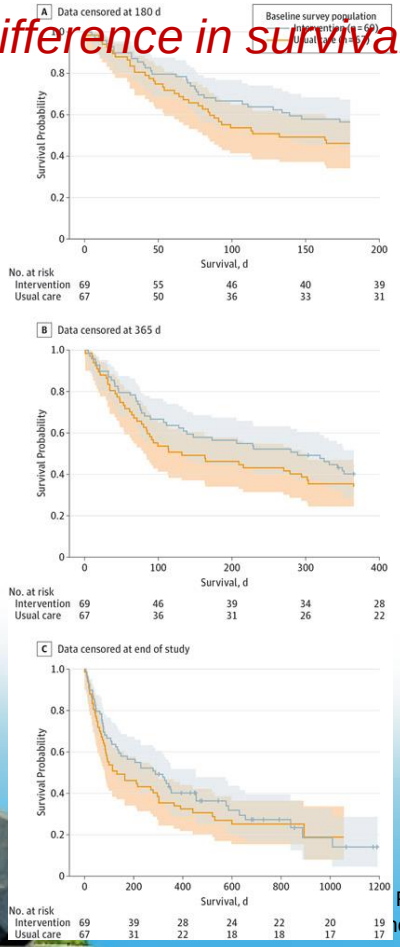
Outcomes

Emergency Department–Initiated Palliative Care in Advanced Cancer

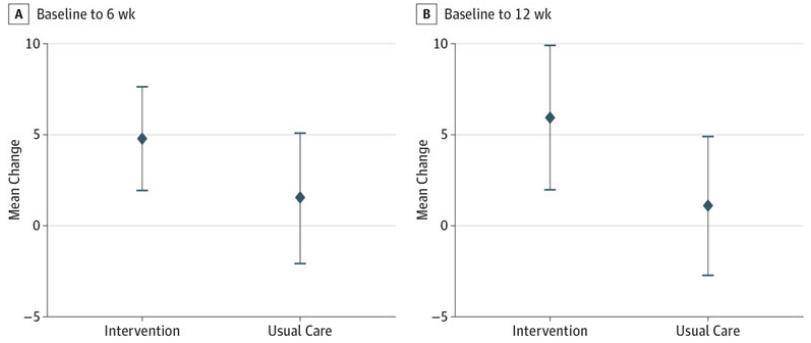
A Randomized Clinical Trial

New York, medical center, 2011/6-2014/4. “Consultation mode” within hours. 136 participants, 69(I) vs 67(C). f/u at 6wk, 12wk, one year

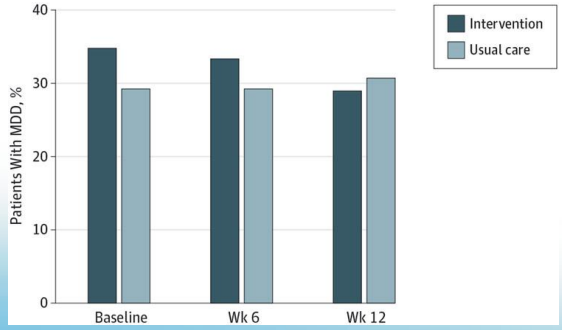
No difference in survival



Higher QOL outcome (FACT-G)



No difference in depression (PHQ-9)



Richardson LD, Johnson PN, Hu M, Wang B, Ortiz JM, Kistler EA, Chen A, Morrison RS. Emergency Department-Initiated Palliative ced Cancer: A Randomized Clinical Trial. JAMA Oncol. 2016 May 1;2(5):591-598. doi: 10.1001/jamaoncol.2015.5252.

Outcomes: Symptom relief and patient satisfaction

- Screening in the ED help identify patients with unmet PC needs.
- Reduction and satisfaction with symptom control including pain, shortness of breath, secretions, nausea, and anxiety.
- Improvement in sleep, well-being, appetite, and drowsiness.

1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

Outcomes:
GoC discussion, LOS,
Health care service utilization

- Communication
  - More likely to have ED-led GoC conversations.
- Hospital length of stay
  - No differences or a marginal reduction in the length of hospital stay.
  - Facilitated direct admissions to the PC unit and comfort care rooms.
  - Reduced overall costs.
- Health care service utilization
  - Did not impact on rates of subsequent use of the ED.
  - Associated with fewer CT scans and hematological, biochemical, and microbiological investigations.

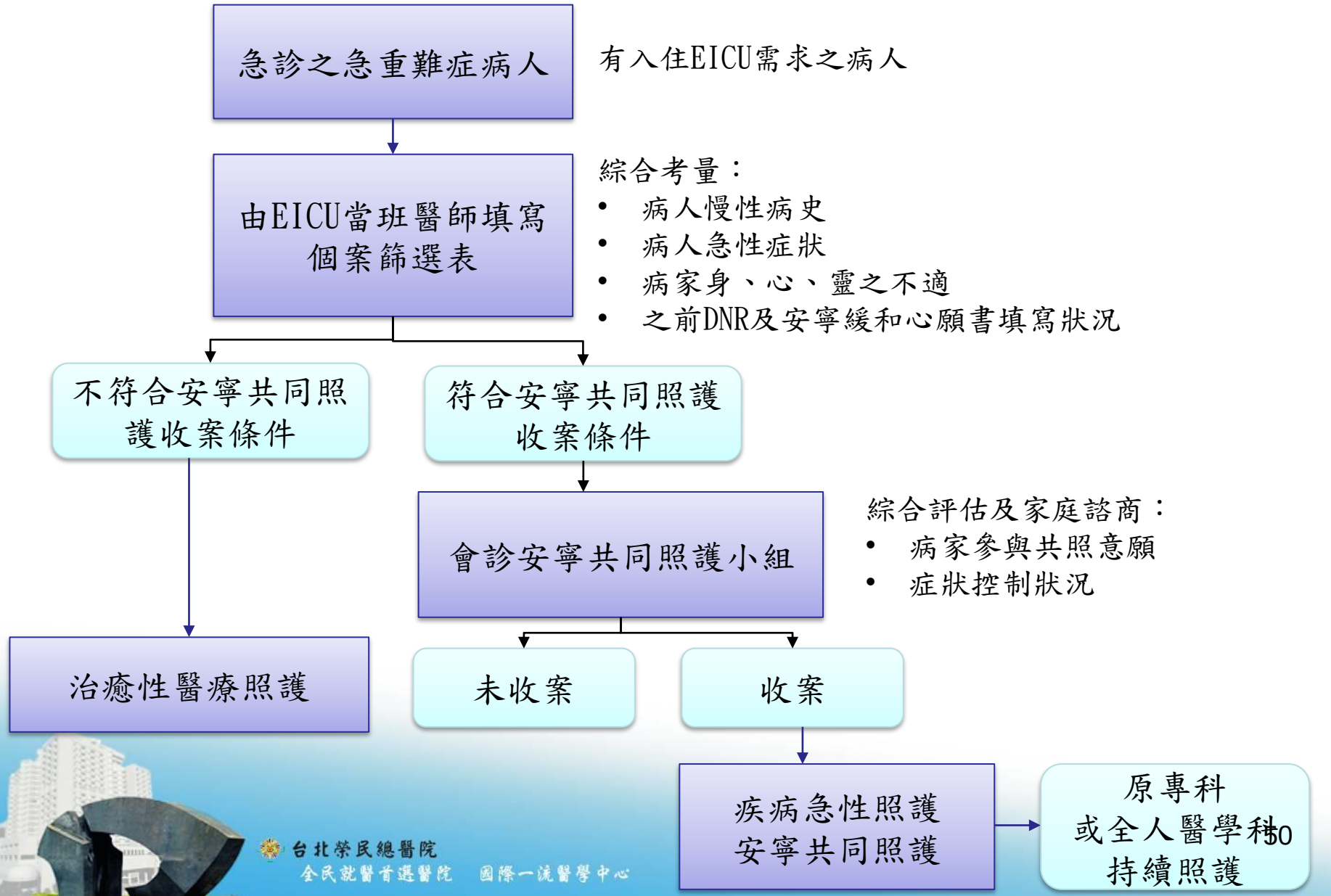
1. Bayuo J, Agbeko AE, Acheampong EK, Abu-Odah H, Davids J. Palliative care interventions for adults in the emergency department: A review of components, delivery models, and outcomes. *Acad Emerg Med*. Nov 2022;29(11):1357-1378. doi:10.1111/acem.14508

急診加護病房安寧緩和醫療推展現況分享

目標與定位

- 識別可能需要安寧照護的病人，討論預後，為後續照護制定計劃。
- 緩解病人症狀和病人家屬的照護困擾，尊重病人和家屬的照護目標。
- 協助病人過渡到非治愈性治療和後續動向(disposition)。
- 改善病人和家屬的整體安適和福祉(well being)，並減少住院時間和成本。
- 促進急診醫護安寧緩和醫療照護相關知識與技能

服務流程


急診之急重難症病人
有入住EICU需求之病人
由EICU當班醫師填寫個案篩選表
綜合考量：
• 病人慢性病史
• 病人急性症狀
• 病家身、心、靈之不適
• 之前DNR及安寧緩和心願書填寫狀況
不符合安寧共同照護收案條件
符合安寧共同照護收案條件
會診安寧共同照護小組
綜合評估及家庭諮商：
• 病家參與共照意願
• 症狀控制狀況
治癒性醫療照護
未收案
收案
疾病急性照護
安寧共同照護
原專科
或全人醫學科
持續照護

個案篩選表

若A均不符合
→B項免填
☑不符合收案條件

A大項：
“是否符合末期定義”
評估
可複選

臺北榮民總醫院急診部安寧緩和醫療需求篩選表

可貼 STICK
名、病歷號、出生日期

107.04 制定
112.11 修訂

A. 嚴重危及生命的疾病型態（以下若勾選 1 項以上，繼續勾選 B 欄） ☐無以下狀況

☐1. 癌症末期。
☐2. 重度慢性肺部疾病(如 COPD、ILD)（需要長時間的氧氣治療或因呼吸衰竭需要呼吸治療）。
☐3. 重度肝硬化（反覆出現黃疸、腹水、腹膜炎、肝昏迷、食道靜脈出血等併發症）。
☐4. 急慢性腎衰竭，決定不啟動或停止透析治療。
☐5. 末期心臟血管疾病（心衰竭 NYHA Ⅲ, Ⅳ，少量活動就喘或胸痛；或罹患嚴重無法手術的週邊血管疾病）。
☐6. 罹患嚴重神經性疾病(如中風、失智)，已長期臥床無法表達意識，出現愈來愈嚴重的進行性退化或反覆因吸入性肺炎，呼吸困難或呼吸衰竭而住院治療。
☐7. 罹患成人呼吸窘迫症（ARDS）、敗血症、多重器官衰竭或瀕死狀態（或罹患其他可能致死之急性疾病）。
☐8. 極嚴重衰弱病人(完全依賴，逐漸接近生命終點，即使輕微疾病，也可能造成無法回復的衰退，如臨床衰弱量表(CSHA-CFS)第八級以上老人)。
☐9. 末期骨髓增生不良症候群（MDS）
☐10. 其他（如嚴重外傷或毒物或藥物中毒，可能在數日內死亡）：

Spontaneous ICH

DKA

OHCA

Traumatic ICH

Paraquat Poisoning

一、失智症

失智症末期須符合下列三項條件：
1.確診失智症(ICD-10-CM 代碼：F01-F03、F1027、F1097、F1327、F1397、F1827、F1897、F1927、F1997、G30、G31)。
2.臨床失智評估量表 Clinical Dementia Rating (CDR) 3 分且日常體能狀況已超過半數時間臥床或依賴輪椅(如 ECOG 3 分以上)，或失智症功能評估分級量表 Functional assessment staging (FAST)等級 7C 以上。
3.一年內，合併發生以下任一種臨床狀況：
(1)居家照護或一般支持性醫療照護無法提供進一步之症狀改善而轉介時。
(2)營養不良（下列任一情境）
-吞嚥困難，進食喝水減少，但選擇不接受管灌餵食。
-明顯的體重減輕:過去三個月下降 5%或六個月內下降 10%。
-身體質量指數(BMI)小於 16，或白蛋白小於 2.5g/dL。
(3)兩次以上跌倒，或者大腿骨骨折。
(4)吸入性肺炎。
(5)腎盂腎炎或其他上泌尿道感染。
(6)多處皮膚壓力性損傷(第 3、4 期) 。
(7)敗血症。
(8)反覆發燒，既使已使用抗生素。
(9)過去六個月中，出現兩次以上非計畫性的住院，或有一次加護病房的住院。

二、其他腦變質

嚴重神經疾病如： 嚴重中風, 嚴重腦傷, Multiple sclerosis, Parkinson's disease, Huntington's disease 等退化性疾病末期，合併以下狀況：
1. 末期腦變質病人，不需使用呼吸器維生者，病情急劇轉變造成病人極大不適時，如：
(1) 電解值不平衡(Electrolyte imbalance)
(2) 急性疼痛(Acute pain)
(3) 嚴重呼吸困難(Severe dyspnea)
(4) 惡性腸阻塞(Malignant bowel obstruction)
(5) 嚴重嘔吐(Severe vomiting)
(6) 發燒，疑似感染(Fever, suspect infection)
(7) 癲癇發作(Seizure)
(8) 急性譫妄(Acute delirium)
(9) 瀕死狀態(Predying state)
2. 末期腦變質病人，雖使用呼吸器，但已呈現瀕臨死亡徵象者。

三、心臟衰竭

心衰竭末期應最少符合下列二個指標：
1. CHF NYHA stage III 或 IV－ 休息或輕度活動時會喘。
2. 原心臟照顧團隊認為病人很可能在近期內死亡。
3. 經常因嚴重心臟衰竭症狀住院。
4. 雖經最大的醫療處置但仍有極不容易控制的生理或心理症狀如下：
(1) 因心律不整而造成的昏厥等嚴重症狀者
(2) 曾有心臟停止或心肺復甦術病史
(3) 常有不明原因的昏厥
(4) 心因性腦栓塞
(5) 左心室射出分率(LV ejection fraction)≦20%

四、慢性氣道阻塞疾病，他處未歸類者

慢性阻塞性肺病 Chronic Obstructive Pulmonary Disease – COPD
休息時就會喘，且病況持續惡化 (如： 反覆因肺炎或呼吸衰竭需送至醫院急診或住院)，合併以下任一狀況：
1. 即使使用氧氣，然而 PaO2≦55mmHg、PaCO2≧50mmHg 或 O2 saturation≦88%。
2. FEV1≦30% of predicted。
3. FEV1 持續下降且速度每年大於 40 mL。
4. 六個月內體重減少 10%以上。
5. 休息時心跳超過 100/min。
6. 肺心症或肺病造成之右心衰竭。
7. 合併有其他症狀 (如：惡質病、反覆感染、重度憂鬱)或多重合併症。

五、肺部其他疾病

Cystic fibrosis, severe fibrotic lung disease 等末期肺病，休息時就會喘，且病況持續惡化(如： 反覆因肺炎或呼吸衰竭需送至醫院急診或住院)，合併以下任一狀況：

1. 即使使用氧氣，然而 PaO2≦55mmHg、PaCO2≧50mmHg 或 O2 saturation≦88%。
2. FEV1≦30% of predicted。
3. FEV1 持續下降且速度每年大於 40 mL。
4. 六個月內體重減少 10%以上。
5. 休息時心跳超過 100/min。
6. 肺心症或肺病造成之右心衰竭。
7. 合併有其他症狀 (如：惡質病、反覆感染、重度憂鬱)或多重合併症。

六、慢性肝病及肝硬化

必要條件：肝病或肝硬化末期，不適合肝臟移植，且

(1) PT > 5 sec above control 或 INR > 1.5

(2) Serum albumin < 2.5 g/dl

合併下列任一項症狀

1. 困難處理之腹水 (Refractory ascites)。
2. 自發性細菌性腹膜炎 (Spontaneous bacterial peritonitis)。
3. 肝腎症候群 (Hepatorenal syndrome)。
4. 肝腦病變合併坐立不安、昏睡和昏迷 (Encephalopathy with asterixis, somnolence, coma)。
5. 復發性食道靜脈瘤出血 (Recurrent variceal bleeding)。
6. 多重器官衰竭 (Multiple organ failure)。
7. 惡病質與消瘦 (Cachexia and asthenia)。

七、急性腎衰竭，未明示者

acute renal failure, unspecified

1. 已接受腎臟替代療法(血液透析、腹膜透析、腎臟移植)病人。
2. 病人因嚴重之尿毒症狀，經原腎臟照護團隊評估病人可能在近期內死亡。
3. 病人在自由意識的選擇與自主的決定下不願意，或因合併下列疾病狀況之一，不適合繼續接受長期透析治療或接受腎臟移植者：
   (1) 其他重要器官衰竭及危及生命之合併症
   (2) 長期使用呼吸器
   (3) 嚴重感染性疾病合併各項危及生命之合併症
   (4) 惡病質、或嚴重之營養不良危及生命者
   (5) 惡性腫瘤末期病人
   (6) 因老衰、其他系統性疾病，生活極度仰賴他人全時照顧，並危及生命者

八、慢性腎衰竭及腎衰竭，未明示者

本項適用主診斷 N18.4、N18.5、N18.6、N18.9 (慢性腎衰竭; chronic renal failure)及 N19 (腎衰竭，未明示者; renal failure, unspecified)兩項疾病末期定義

1. 慢性腎臟病至末期腎臟病階段，尚未接受腎臟替代療法病人，屬慢性腎臟病(CKD)第 4 期、第 5 期病人(GFR < 30 ml/min/1.73m2)，或已接受腎臟替代療法(血液透析、腹膜透析、腎臟移植)病人。
2. 病人因嚴重之尿毒症狀，經原腎臟照護團隊評估病患可能在近期內死亡。
3. 病人在自由意識的選擇與自主的決定下不願意，或因合併下列疾病狀況之一，不適合新接受或繼續接受長期透析治療或腎臟移植者：
   (1) 其他重要器官衰竭及危及生命之合併症
   (2) 長期使用呼吸器
   (3) 嚴重感染性疾病合併各項危及生命之合併症
   (4) 惡病質、或嚴重之營養不良危及生命者
   (5) 惡性腫瘤末期病人
   (6) 因老衰、其他系統性疾病，生活極度仰賴他人全時照顧，並危及生命者

九、末期骨髓增生不良症候群（Myelodysplastic Syndromes，MDS）

Myelodysplastic syndromes 骨髓分化不良症候群，若治療後血球持續長期低下，應長期輸血且合併臨床之不適症狀，經原團隊診治後評估為末期病人。
ICD-10-CM 代碼：D46(D46.0~D46.Z)

十、末期衰弱老人

1.參考Supportive & Palliative Care Indicators Tool（SPICT）評估符合收案條件者。
2.不願意使用呼吸器維生者，病情急劇轉變造成病人極大不適時，如：
(1)電解質不平衡(Electrolyte imbalance)
(2)急性疼痛(Acute pain)
(3)嚴重呼吸困難(Severe dyspnea)
(4)惡性腸阻塞(Malignant bowel obstruction)
(5)嚴重嘔吐(Severe vomiting)
(6)發燒，疑似感染(Fever, suspect infection)
(7)癲癇發作(Seizure)
(8)急性譫妄(Acute delirium)
(9)瀕死狀態(Predying state)
3. ICD-10-CM 代碼：R54

十二、罕見疾病或其他預估生命受限者

1.罕見疾病（依據衛生福利部國民健康署公告罕見疾病名單暨 ICD-10-CM 編碼一覽表），預估生命受限者。
2.先天染色體異常疾病、先天畸形(屬全民健康保險保險對象免自行負擔費用辦法第二條附表一之重大傷病項目第八類染色體異常、先天性畸形者)，預估生命受限者。
3.源於周產期的病況（P00-P96），預估生命受限者。
4.染色體異常（如 Trisomy13、Trisomy18、或其他染色體異常合併多重器官先天異常：Q91.0~Q91.7、Q97.0~Q97.9），預估無法活至成年者。
5.嚴重之先天腦部異常（如無腦症：Q00.0、神經系統先天性畸形：Q07.9），預估無法活至成年者。

十一、符合病人自主權利法第十四條第一項第二款至第五款所列臨床條件者

1.第十四條第一項第二款至第四款：
(1)處於不可逆轉之昏迷狀況
(2)永久植物人狀態（ICD-10-CM代碼：R40.3）
(3)極重度失智（CDR3分以上或FAST7分以上）
2.第十四條第一項第五款：其他經中央主管機關公告之病人疾病狀況或痛苦難以忍受、疾病無法治癒且依當時醫療水準無其他合適解決方法之情形。(ICD-10-CM代碼參考如下)
(1)囊狀纖維化症：E84.9
(2)亨丁頓氏舞蹈症：G10
(3)脊髓小腦退化性動作協調障礙：G11.0、G11.1、G11.2、G11.3、G11.4、G11.8、G11.9、G31.2、G32.81、G32.89、G60.2、R27.0、R27.8、R27.9、R29.810、R29.818、R29.890、R29.891、R29.898
(4)脊髓性肌肉萎縮症：G12.9
(5)肌萎縮性側索硬化症：G12.21
(6)多發性系統萎縮症：G90.3
(7)裘馨氏肌肉失養症：G71.0
(8)肢帶型肌失養症：G71.0
(9)Nemaline線狀肌肉病變：G71.2
(10)原發性肺動脈高壓：I27.0
(11)遺傳性表皮分解性水泡症：Q81.0、Q81.1、Q81.2、Q81.8、Q81.9
(12)先天性多發性關節攣縮症：Q74.3

個案篩選表-2

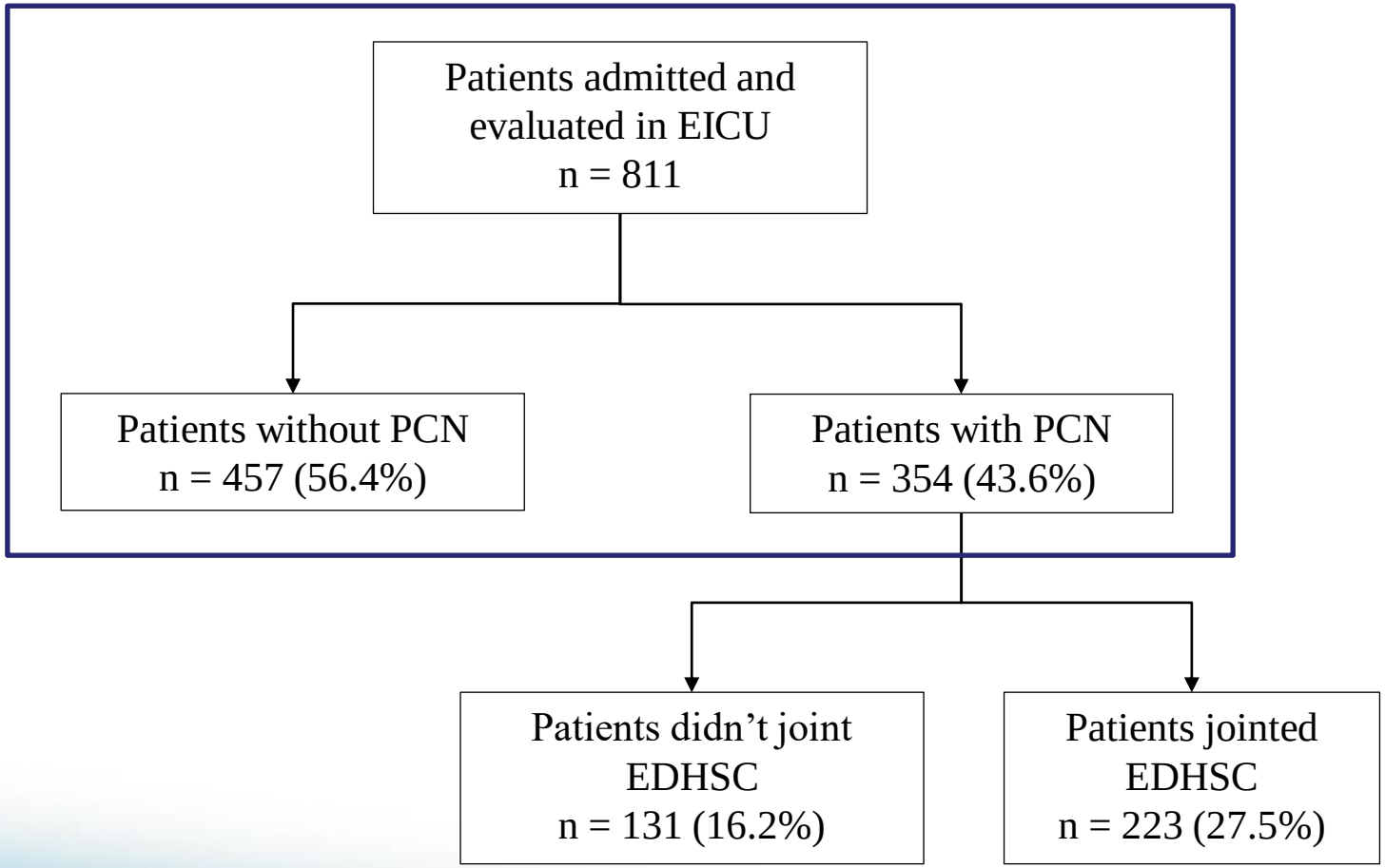
B大項：
“照護困擾”
(psycho-social burden)
評估，可複選

B. 緩和醫療篩選一般標準 （以下若勾選 2 項以上，建議轉介安寧緩和照護團隊）
□1. 如果病人在接下來的 12 個月內死亡，主要的醫療照顧人員並不會感到驚訝。
□2. 出現進展性的功能下降，≧3 項的 ADL 需他人協助。
□3. 有身、心、靈不適症狀需住院處置。
□4. 近半年，因非預期因素至急診求診或住院≧3 次。
□5. 近半年，不明原因體重下降 10%，或 BMI 持續≦18。
□6. 長期無法癒合之褥瘡或潰瘍傷口。
□7. 有複雜的照護需求，需協助醫療決策之討論。如：DNR、呼吸器、營養等討論。
□8. 病人或家屬主動提出安寧緩和照護需求。

若 A 部分勾選 1 項以上；B 部分勾選 2 項以上，建議與家屬討論是否轉介安寧緩和照護團隊。(Lamba S et.al J Emerg Med 2014;(IPAL-EM)collaboration.)

Screening Results of Palliative Care Needs

(January 1, to December 31, 2022)



Abbreviations: EICU, emergency intensive care unit; PCN, palliative care needs; EDHSC, hospice-shared care in emergency department

Characteristics of Patients Identified With Palliative Care Needs

Patient Characteristics

- Over 40% of patients requiring palliative care are over 85 years old (Mean: 78.7).
- More reside in veterans' homes(4.5 vs 2.0%) or nursing centers (9.3 vs. 2.8%), widowed, and have limited education.

Clinical condition

- ARDS, sepsis, multiple organ failure, or near-death conditions: 53.4%
- Terminal cancer: 34.7%
- Extreme frailty patients: 24.9%

- 92.9% conformed to “surprise question”
- 89.5% had complex medical care requirement
- 81.4% needed hospital admission

Characteristics of Patients Identified With Palliative Care Needs

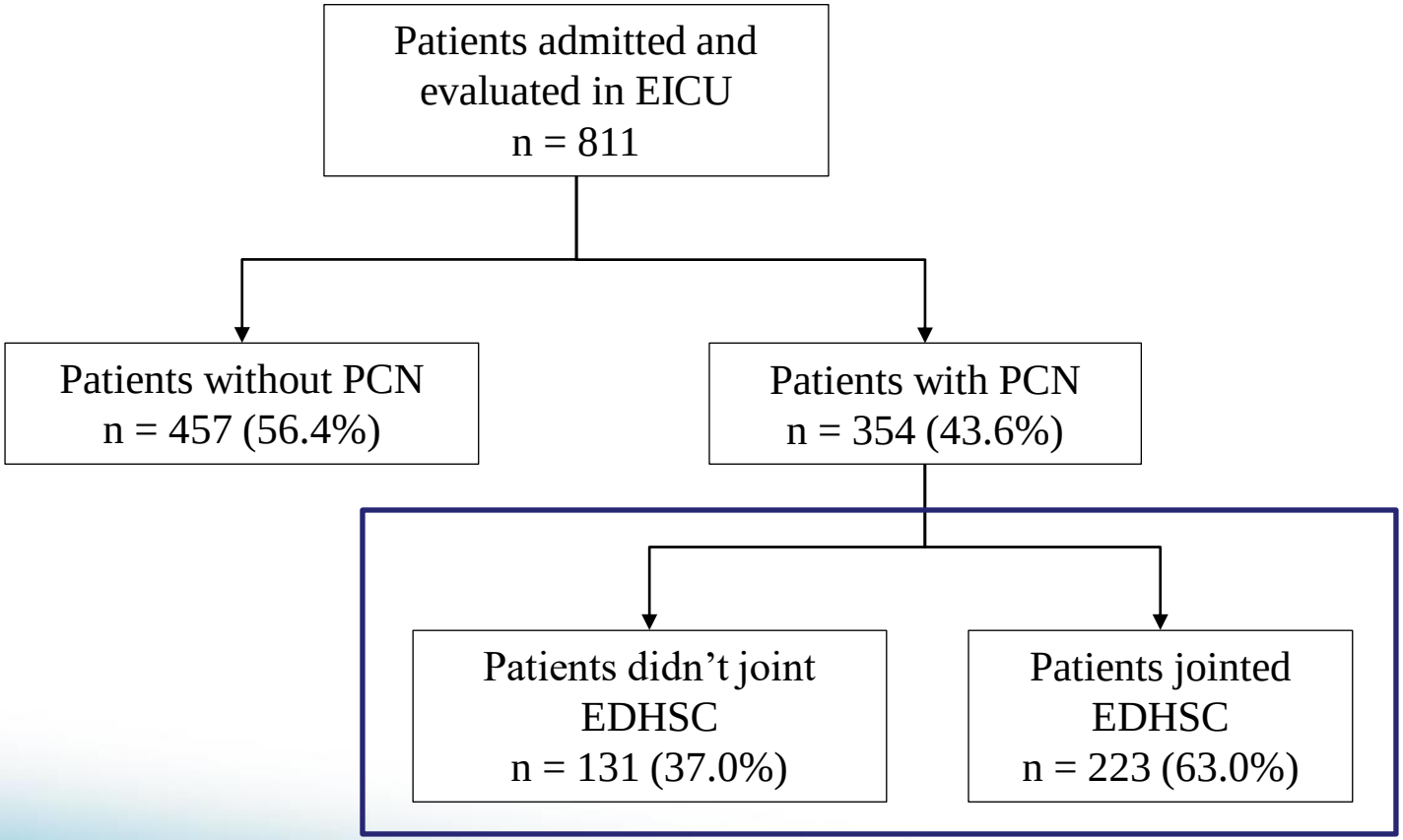
Positively correlated with PCN

- Older age [OR= 1.042, 1.028-1.056]
- Living in veterans' homes [OR= 2.345, 1.101-4.993]
- GCS: 5-12 points and 3-4 points (moderate [OR= 2.743, 1.846-4.075)] and deep coma [OR =3.021, 1.603-5.694])
- Cancer (with [OR=5.877, 3.645-9.475] or without metastasis [OR=2.200, 1.416-3.417])

Negatively correlated with PCN

- TTAS: 2 [OR=0.647, 0.422-0.992]
- Respiratory rate: 12-20/min [OR=0.439, 0.305-0.633]
- DM with complications [OR=0.323, 0.133-0.786]

Status of Participation of Emergency Department Hospice-Shared Care



Abbreviations: EICU, emergency intensive care unit; PCN, palliative care needs; EDHSC, hospice-shared care in emergency department

Mode of PC delivery

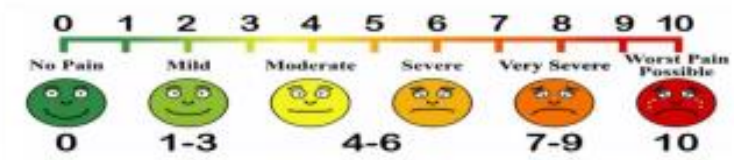
- PC consultations services
  - Patients with PC needs were attended to by the ED team
  - The ICU and ED staff provided PC with ongoing support from the PC team
  - PC teams following PC based on the decision by the primary care team

Managing distressing symptoms

■ 入ＥＩＣＵ時症狀評估：

VAS or FLACC

a. 疼痛狀況（圈選）



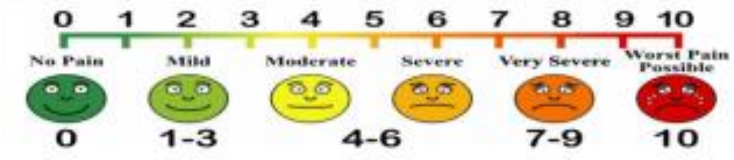
□無法評估

症狀＼程度	0 完全不會 0%	1 輕微程度 25%	2 中等程度 50%	3 嚴重程度 75%	4 無法忍受 100%	999 無法評估 N/A
b. 呼吸困難（覺得喘、氣促、吸不到氣）	□	□	□	□	□	□

■ 出ＥＩＣＵ前症狀評估：

VAS or FLACC

a. 疼痛狀況（圈選）



□無法評估

症狀＼程度	0 完全不會 0%	1 輕微程度 25%	2 中等程度 50%	3 嚴重程度 75%	4 無法忍受 100%	999 無法評估 N/A
b. 呼吸困難（覺得喘、氣促、吸不到氣）	□	□	□	□	□	□

Goals of care (GoC)-
Medical Decisions of Participants of Hospice-shared Care In Emergency Department (Compared With Not Joint EDHSC)

Table 2-3. Comparison of Emergency Care Choices Among Patients With and Without Inclusion in the Palliative share care Program

	Not Participate in the HSC n=131	Participate in the HSC n=223	P value
DNR signed during this hospitalization	51 (39.2)	169 (77.5)	<0.001*
Early DNR during this hospitalization	31 (60.8)	125 (74.0)	0.069
No Intubation	12 (38.7)	61 (74.4)	<0.001*
No Defibrillation	18 (58.1)	75 (91.5)	<0.001*
No Chest Compressions	18 (58.1)	76 (92.7)	<0.001*
No Use of inotropes and vasopressors	2 (6.5)	23 (28.0)	0.014*
Undecided	13 (41.9)	6 (7.3)	<0.001*

* $p<0.05$
† $p<0.05$

- More empowered to make informed decisions
- A higher proportion of patients signing DNR
- More likely choose not to be intubated, have chest compressions, be defibrillated, and use epinephrine.

第一層：
紅包袋(手尾錢)；口紅；
綠茶茶包(漱口)；刮鬍刀…

第二層：漱口水；梳子…

第三層：往生被與念佛機

第四層：黃單與毛巾


祈福
感恩
留下您的祝福与感謝
讓希望充滿此地

Goals of care (GoC) discussion and communication-現況調查分析

親愛的急診加護中心同仁，您好：

本團隊想要針對現行對於「有呼吸衰竭風險之病人及家屬」在會談/病情解釋的過程作問卷調查，主要是想要了解目前醫護人員在協助病人及家屬做出重要決策的當下，我們醫療端是否尚有未盡事宜，是否有更好、更方便的方式讓同仁們可以去進行相關的會談。

未來我們將透過這次的調查開發相關決策輔助工具，讓您於未來面對該族群的病人及家屬時可以更加從容、胸有成足。

專案負責人：林孟蓁 護理師
(桌機1253/手機3#0586)

團隊核心成員：陳蘊珩 護理師、楊琪 安寧共照師、江名晴 安寧共照師

12. 請問您過去 **6 個月**在親自執行/主持或參與呼吸衰竭相關之醫療會談/病情解釋時，大約需要花費多少時間可以完成 ？

- ○ 1. 小於10分鐘
- ◉ 2. 10~20分鐘
- ○ 3. 20~30分鐘
- ○ 4. 30~40分鐘
- ○ 5. 40~50分鐘
- ○ 6. 50~60分鐘
- ○ 7. 60分鐘以上

13. 請問您過去 **6 個月**在親自執行/主持或參與呼吸衰竭相關之醫療會談/病情解釋時，有使用過的方式？
(可複選)

- ☐ 1. 口頭解釋
- ☐ 2. 提供網路/網站資料
- ☐ 3. 提供醫院現成的衛教單張/資訊
- ☐ 4. 提供自行準備/整理的相關資料
- ☐ 5. 實物展示（拿氣管內管給家屬看、讓家屬看臨床有插管的病人）
- ☐ 6. 其他 (請於下方填入您使用的方式)

Clinical Care of Participants of Hospice-shared Care In Emergency Department (Compared With Not Joint EDHSC)

Table 2-4.Comparison of Medical Care Received by Patients With and Without Enrollment in the Palliative and Co-Care Program

	Not Participate in the HSC n=131	Participate in the HSC n=223	P value
Emergency endotracheal intubation	37 (28.5)	36 (16.7)	0.010*
Emergency use of epinephrine	7 (5.3)	23 (10.3)	0.105
Use of vasopressors	61 (46.9)	111 (51.6)	0.397
Use of opioids	20 (15.4)	95 (44.2)	<0.001*
Emergency electrical shock (defibrillation)	1 (0.8)	3 (1.4)	1
Emergency use of transcutaneous pacing	2 (1.5)	3 (1.4)	1
Use of a ventilator (excluding BiPAP)	44 (33.8)	44 (20.5)	0.006*
Emergency use of aggressive life-sustaining devices (e.g., ECMO, IABP)	0 (0)	0 (0)	
First time receiving hemodialysis			0.409
Yes†	3 (2.3)	7 (3.3)	
Refused†	5 (3.8)	16 (7.4)	
Surgery was performed during this hospitalization			0.005*
Yes	19 (14.6)	15 (7.0)	
Refused†	2 (1.5)	17 (7.9)	
Tracheostomy during this hospitalization			0.293
Yes†	7 (5.4)	5 (2.3)	
Refused	1 (0.8)	4 (1.9)	
Palliative extubation	0 (0.0)	6 (2.8)	0.087

* p<0.05
† p<0.05

- Less likely to receive invasive life-saving measures such as ventilators, surgery.
- More likely receive comfort care with opioid drugs.
- The use of epinephrine and vasopressors showed no significant difference.

Transitions across care settings

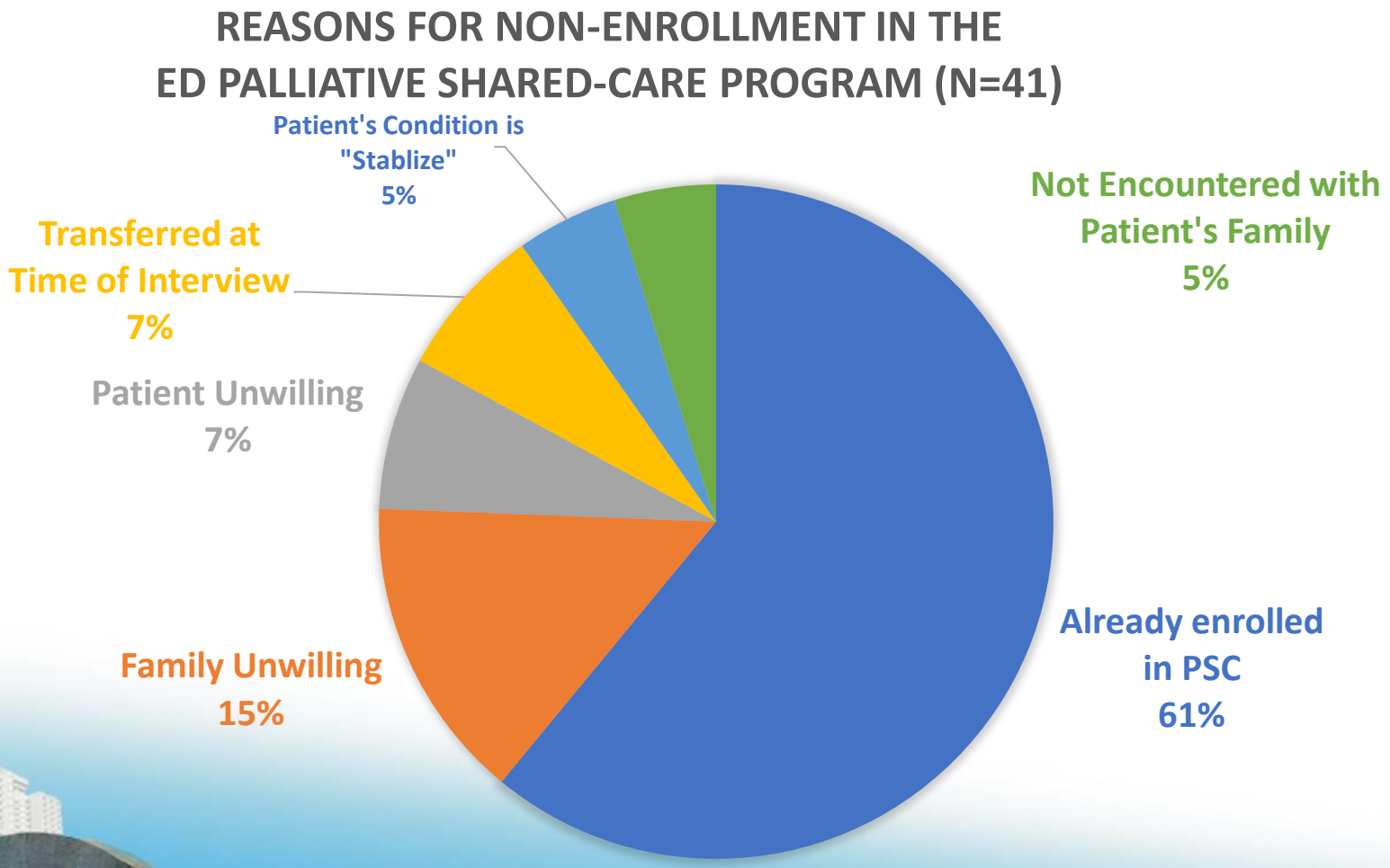
Table 2-5. Comparison of Clinical Outcomes of Patients With and Without Participation in the ED Palliative Shared-Care Program

	Not Participate in the HSC n=131	Participate in the HSC n=223	P value
Duration of Stay in ED			0.065
<=24hr	125 (95.4)	203 (91.0)	
24-48hr	6 (4.6)	11 (4.9)	
>48hr	0 (0.0)	9 (4.0)	
Disposition from ED			
Discharged against medical advise	2 (1.5)	8 (3.7)	
Discharged†	79 (60.8)	51 (23.7)	
Deceased†	29 (22.3)	127 (59.1)	
Transferred to Veterans Hospital†	1 (0.8)	2 (0.9)	
Transferred to another hospital	11 (8.5)	12 (5.6)	
Transferred to another facility	6 (4.6)	5 (2.3)	
Discharged at end-of-life	2 (1.5)	10 (4.7)	
EICU Stay Duration			0.012*
<=24hr	36 (27.5)	37 (16.6)	
24-48hr	45 (34.4)	68 (30.5)	
>48hr†	50 (38.2)	118 (52.9)	
Total Hospital Stay Duration			0.003*
<=7day†	29 (22.1)	78 (35.0)	
8-30day†	82 (62.6)	98 (43.9)	
>30day	20 (15.3)	47 (21.1)	
Mortality			<0.001*
Deceased during this hospitalization†	31 (23.7)	138 (61.9)	
Deceased not during this hospitalization	14 (10.7)	8 (3.6)	
Time to Mortality			0.133
<=7days†	17 (29.8)	52 (41.6)	
8-30days	20 (35.1)	41 (32.8)	
31-90days	13 (22.8)	27 (21.6)	
>90days	7 (12.3)	5 (4.0)	
Place of Death			0.04*
Intensive Care Unit (ICU)	22 (48.9)	41 (28.1)	
Non-ICU Ward	16 (35.6)	71 (48.6)	
Palliative Care Ward (A211)	3 (6.7)	24 (16.4)	
Discharged at end-of-life	4 (8.9)	10 (6.8)	

* $p<0.05$
† $p<0.05$

- Had higher mortality rates.(37.9% within 7 days)
- Had longer stay in the EICU.(47.5% >48 hours)
- Shorter admission. Mostly admitted in the hospital for 8-30 days .
- Place of Death: more outside the ICU.

Challenges for Integrate palliative and hospice shared care in ED patients with critical illness



Challenges for Integrate palliative and hospice shared care in ED patients with critical illness

Physicians' Perspectives on Evaluating and Referring Patients for Palliative or Hospice Shared-Care (September 1 to December 31, 2022, pilot study)

	Without Palliative Care Need	With Palliative Care Need		
		Not joint EDHSC	Joint EDHSC	Total
	N=72	N=29	N=72	N=101
Callenges in the assessment	11 (15.3)	18 (62.1)	45 (62.5)	63 (62.4)*
The chosen care goals				
R1	50 (69.4)	13 (44.8)	10 (13.9)	23 (22.8)*
R2	4 (5.6)	8 (27.6)	18 (25.0)	26 (25.7)*
R3	13 (18.1)	8 (27.6)	42 (58.3)	50 (49.5)*
M1	0 (0)	0 (0)	0 (0)	0 (0)
M2	5 (6.9)	0 (0)	0 (0)	0 (0)*
C1	0 (0)	0 (0)	0 (0)	0 (0)
C2	0 (0)	0 (0)	2 (2.8)	2 (2.0)

*compared to the group without PCN, $p<0.05$

R1: Agrees to ICU admission and emergency medical procedures.

R2: Agrees to ICU admission and intubation but disagree chest compressions.

R2: Agrees to ICU admission but disagree both intubation and chest compressions.

M1: disagree ICU admission but agrees to diagnostic and therapeutic procedures.

M2: disagree ICU admission and surgery but agrees to diagnostic and therapeutic procedures.

C1: disagree ICU admission and curative treatments but agrees to diagnostic and palliative care.

C1: disagree ICU admission and curative treatments but agrees to diagnostic, palliative care, and end-of-life treatments.

Palliative Education Needs for Emergency Healthcare Providers

	Strongly required	Moderately required	A little required	Not at all required	Not required
	Overall n (%)	Overall n (%)	Overall n (%)	Overall n (%)	Overall n (%)
Legal domain					
1. Theory and practical application of palliative care in emergency settings	23 (41.8)	24 (43.6)	7 (12.7)	1 (1.8)	0 (0)
2. Legal and ethical considerations in treating severe and terminal illnesses	27 (49.1)	21 (38.2)	7 (12.7)	0 (0)	0 (0)
Symptom domain					
4. Pain management and pharmacotherapy in terminal patients	30 (54.5)	18 (32.7)	7 (12.7)	0 (0)	0 (0)
5. Respiratory symptom assessment and management in terminal patients	23 (41.8)	22 (40.0)	10 (18.2)	0 (0)	0 (0)
6. Gastrointestinal symptom assessment and management in terminal patients	23 (41.8)	21 (38.2)	10 (18.2)	1 (1.8)	0 (0)
8. Dermatological and limb symptom assessment and management in terminal patients	21 (38.2)	21 (38.2)	12 (21.8)	1 (1.8)	0 (0)
10. End-of-life symptom assessment and management in terminal patients*	29 (52.7)	18 (32.7)	7 (12.7)	1 (1.8)	0 (0)
Psychosocial and spiritual domain					
7. Neuropsychiatric symptom assessment and management in terminal patients	25 (45.5)	20 (36.4)	9 (16.4)	1 (1.8)	0 (0)
9. Socio-psychological care needs assessment and management in terminal patients	22 (40.0)	22 (40.0)	11 (20.0)	0 (0)	0 (0)
Communication domain					
3. Communication skills for disclosing and discussing severe and terminal illnesses	25 (45.5)	20 (36.4)	10 (18.2)	0 (0)	0 (0)
11. Guidelines and key considerations for conducting palliative family meetings	24 (43.6)	23 (41.8)	8 (14.5)	0 (0)	0 (0)
Care transition strategies					
12. Transitional processes in palliative care	24 (43.6)	20 (36.4)	11 (20.0)	0 (0)	0 (0)

*P<0.1

In Summary
Provide Palliative And Hospice Shared Care In ED Patients With Critical Illness

1

Identification

- Should pay more attention to the palliative care needs of patients who are older, live in veterans' homes, are moderately or severely comatose, or have a history of cancer.

2

Care plan

- EDHSC would empower to make informed decisions regarding emergency medical interventions

3

Treatment

- The EDHSC reduces Non-beneficial medical interventions and were more likely to administrate adequate pain control.
- However, the rates of use for inotropes and vasopressors remained comparable to those not enrolled in the program.

Future direction

- Connection with EMR
  (screening, symptoms evaluation and treatment)
- Educational programs
- Advance care planning
- Transition of care

Your Suggestions Are Highly Appreciated!