ICU as a Hospice: Challenges and contradictions

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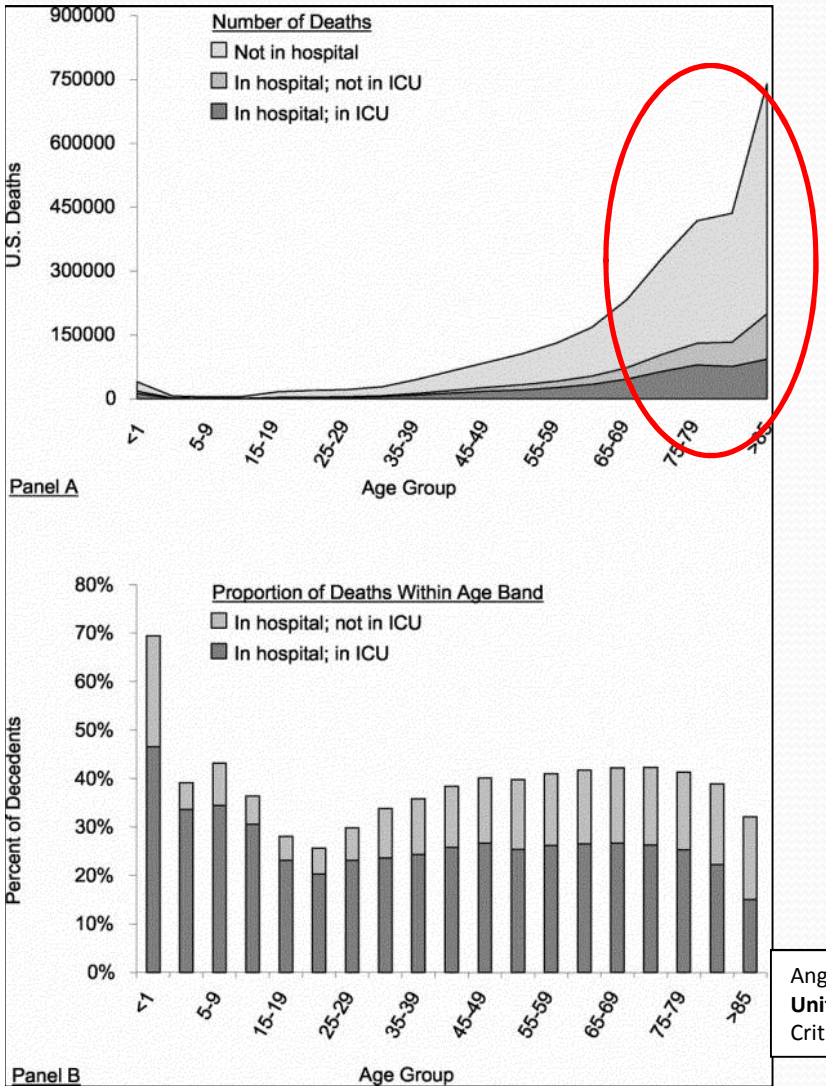
Most hosp deaths occur in ICU



ANZICS CORE APD

Review of data for 120,123 adult pts admitted for ≥ 24 hours across 57 ICUs from 1 January 2000 to 31 December 2005

Patients ≥80yo

- had more co-morbid illness, less likely to be discharged home, greater mortality than younger patients BUT **approximately 80% survive to hospital discharge**
- admission rates increased by 5.6% per year.
- potentially translates to a 72.4% increase in demand for ICU bed-days by 2015.

Bagshaw et al Critical Care 2009, 13:R45

Angus et al **Use of intensive care at the end of life in the United States: An epidemiologic study.** Critical Care Medicine.2004; 32(3):638-643.

- Not ‘how’ but ‘should we’?
  - Is it affordable?
  - Is it useful to the community?
- Two categories of ICU death:
  - Unexpected – active treatment up to point of death
  - Expected

Purpose of ICU

Recommendations on basic requirements for intensive care units: Structural and organisational aspects

ESICM WG on Quality Improvement (2011)

What defines an ICU?

Clear objectives:

- Monitoring or support of threatened or failing vital organ functions in critically ill pts
- Care for pts with the potential reversibility of one or more threatened organ functions
- Support services for acute care facilities (critically ill patients outside of ICU)

Admission decisions ESICM WG 2011

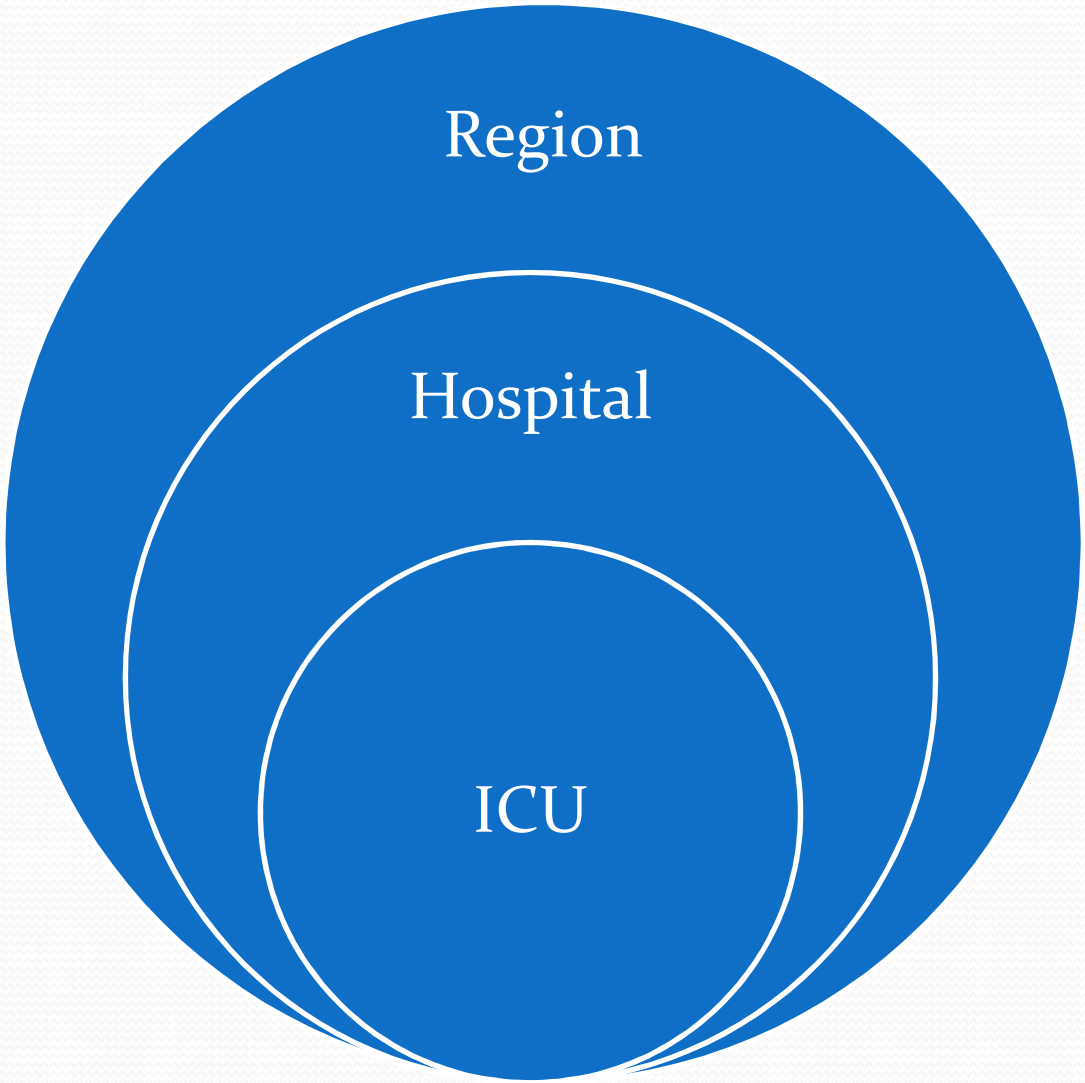
Pts requiring monitoring or treatment because one or more vital functions are threatened by

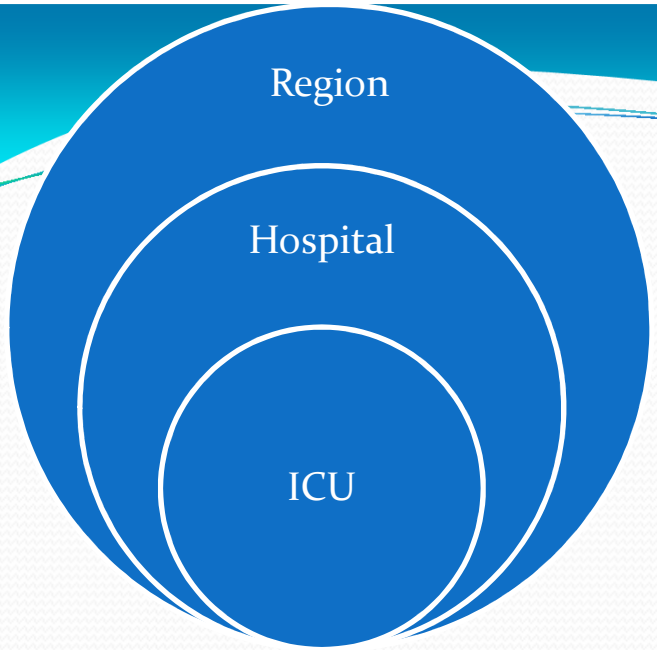
- Acute disease
- The sequelae of surgical or other intensive treatment

Patients already having failure of one of the vital functions but with a reasonable chance of a meaningful functional recovery

Discharge decisions...SCCM 1999

- A discharge decision should be taken when: "*a patient's physiological status has stabilised and the need for ICU monitoring and care is no longer necessary*" SCCM Taskforce on Guidelines 1999


Region
Hospital
ICU



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Recommendations on basic requirements for intensive care units

Structural and organisational aspects

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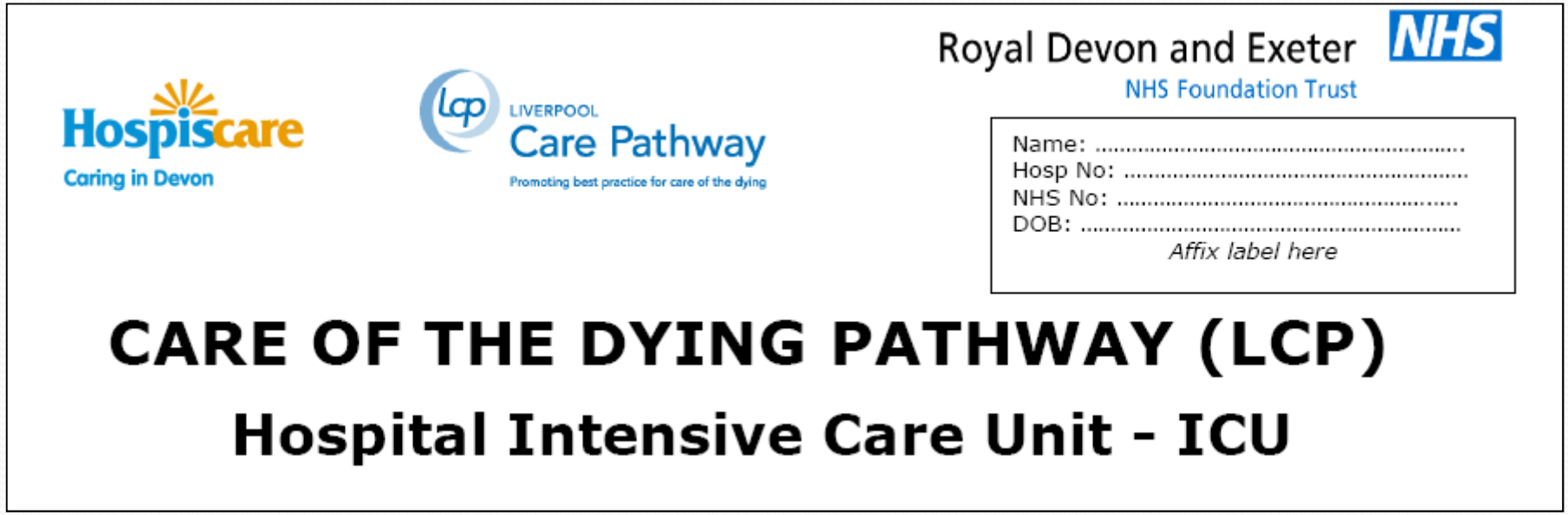
Palliative Care Pathways for ICU



Hospiscare
Caring in Devon

LIVERPOOL Care Pathway
Promoting best practice for care of the dying

Royal Devon and Exeter NHS
NHS Foundation Trust

Name: .....
Hosp No: .....
NHS No: .....
DOB: .....
Affix label here

CARE OF THE DYING PATHWAY (LCP)

Hospital Intensive Care Unit - ICU

Clear **intent** to provide EOLC in ICU

Is it affordable?

Context:

- ICU is the most expensive place to die and non-survivors are the most expensive (Angus et al 2004)

  Average length of stay and costs:

  - 12.9 days/ $24,541 for ICU terminal hospitalizations
  - 8.9 days /$8,548 for ICU non-terminal hospitalizations.

  But … negative correlation between cost and quality of dying (assessed by family after death) in the final week of life (Zhang et al 2009).

Angus et al *Critical Care Medicine* 2004; 32(3):638-643.
Zhang et al. *Arch Intern Med 2009; 169: 480*

Is it affordable?

Separate ‘expected’ from ‘unexpected’ dying .....

What does it mean to be ‘expensive’?

- Unit: bed days (impact on LoS)
- Hospital: resource use
- Society: appropriateness of the environment; cost to patient waiting for a bed

Impact on LoS

- Reduction in ICU LoS when EOLC bundle introduced in a single institution (Curtis et al 2008)
- Later study across 12 hospitals equivocal (Curtis et al 2010)

?Greater institutional commitment required

Curtis JR, Treece PD, Neilsen EL et al *Am J Resp Crit Care Med* 2008; 178:269

Impact of ICU pall care service for elderly pts

Single centre pre/post study - 25 bedded med/surg ICU (Ravakhah et al 2010)

After intro of elderly (>65 yrs) palliative care service:

- Cost savings (total expenditure per pt $42,932 v $36, 853, $p<0.001$)
- Increase in hospice referrals (6.7% vs 12.1% p= 0.002)

Is it useful to the community?

- Patients
- Relatives
- Clinicians
- Managers
- Hospital Board
- Public
- Policy makers

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Patient and family choice

QODD – reflecting patient preferences

- "*Degree to which a person's preference for dying and the moment of death agree with how the person actually died*" (Patrick et al 2001)

Two formal mechanisms:

Advanced Directive – legally enforceable

Advanced Planning – discussion to ascertain preferences

Patrick DL, Engelberg RA, Curtis JR. J Pain Symptom Manage 2001; 22:717

High quality ICU palliative care (Nelson et al 2010)

- communication by clinicians
  - timely, ongoing, clear, complete, sensitive,
  - addressing condition, prognosis, treatment
- patient-focused decision-making,
  - aligned with values, goals, preferences
- clinical care of the patient,
  - comfort, dignity, personhood, privacy, continuity
- care of the family
  - proximity/access, support including bereavement care

Nelson et al. "In their own words": recovered patients and families of survivors and non-survivors define high-quality ICU palliative care *Crit Care Med* 2010; 38: 808

Relationship between aggressive interventions and quality of life

- As number of interventions increases, the quality of life decreases.
- impact on bereavement adjustment: caregivers of patients receiving aggressive care also at higher risk for:
  - major depressive disorder,
  - experiencing regret
  - feeling unprepared for pts death,

  also had worse QoL and worse self-reported health

Wright AA et al JAMA 2008; 300: 1665

ICU as a place to die

- In adjusted analyses, patients with cancer who died in an intensive care unit (ICU) or hospital experienced more physical and emotional distress and worse QoL at the EOL (all $P \leq .03$), compared with patients who died at home with hospice.

Wright et al J Clin Onc 2010; 28 (29): 4457

Carer burden

- ICU deaths associated with a heightened risk for posttraumatic stress disorder, compared with home hospice deaths (21.1% [four of 19] *v* 4.4% [six of 137]; adjusted odds ratio [AOR], 5.00; 95% CI, 1.26 to 19.91; *P* = .02), after adjustment for caregivers' preexisting psychiatric illnesses.

Wright et al J Clin Onc 2010; 28 (29): 4457

- So if we're going to do it, we must do it well – hence emphasis on palliative quality measures for ICU ..

ORIGINAL ARTICLE

Improving comfort and communication in the ICU: a practical new tool for palliative care performance measurement and feedback

J E Nelson, C M Mulkerin, L L Adams, P J Pronovost

Qual Saf Health Care 2006;**15**:264–271. doi: 10.1136/qshc.2005.017707

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Is it useful for clinicians?

CONFLICUS study - prevalence, characteristics, and risk factors for conflicts in ICUs

Staff conflict

- more conflicts when nurses/physicians had been caring for dying pts or providing pre/post mortem care within the last week OR 1.53 (1.33–1.76) $p < 10^{-4}$

(Azoulay et al 2009)

Intensive Care Med (2007) 33:104–110
DOI 10.1007/s00134-006-0405-1

ORIGINAL

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Beverly Henderson
ETHICATT Study Group

Attitudes of European physicians, nurses, patients, and families regarding end-of-life decisions: the ETHICATT study

Table 4 If respondent diagnosed as having a terminal illness, would want (*CPR* cardiopulmonary resuscitation, *active euthanasia* for pain)

	Physicians		Nurses		Patients		Family		Total		*p*
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	
ICU Admission	98	19	130	22	198	62	219	55	645	36	< 0.0001
CPR	30	6	61	10	173	54	181	45	445	25	< 0.0001
Put on ventilator	37	7	70	12	156	49	155	39	418	23	< 0.0001
Active euthanasia	171	34	244	41	142	44	218	54	775	43	< 0.0001

Table 5 If respondent were permanently unconscious would want (*CPR* cardiopulmonary resuscitation, *active euthanasia* for pain)

	Physicians		Nurses		Patients		Family		Total		*p*
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	
ICU Admission	36	7	75	13	147	47	159	40	417	23	< 0.0001
CPR	14	3	42	7	126	40	127	32	309	17	< 0.0001
Put on ventilator	21	4	51	9	122	38	131	33	325	18	< 0.0001
Active euthanasia	200	40	293	50	144	46	206	51	843	47	= 0.002

Is it useful to the community?

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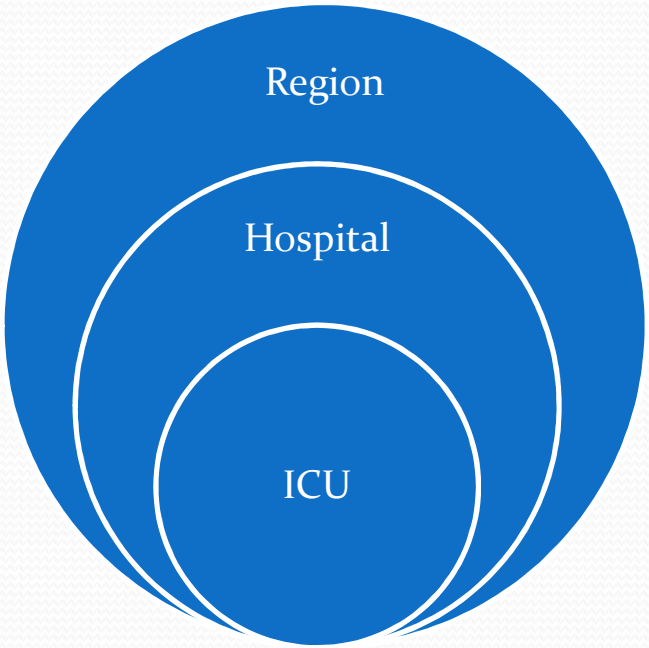
Impact on ICU LoS
? Quality Indicator
- National
- Local

The bioethics lens …

- Beneficence
- Non-maleficence
- Autonomy
- Distributive justice



Idealised view of palliative care in ICU?

Reality **can be** different

The QODD five domains: is ICU an ideal place to die?

- symptoms and personal care;
- preparation for death and dying;
- family;
- treatment preferences;
- whole person concerns.

If we can't achieve quality, is it appropriate to keep the patient in ICU?

What makes a 'good death' in ICU?

Israel and UK study across 6 hospitals

RN interviews [n= 56]

Anecdotes = Bad death

- Processes – doing the right things
- Managing individual response to death
- Nature of the death
- Met/unmet needs: PAIN control
- Context of the dying
- Individual attributes
- Communication

Themes

A good resuscitation…

- The **process of the resuscitation**, in particular, respecting the patient's wishes; providing support for the family and ensuring that everything is done, **may be as important as survival**.

  Timmermans *Sudden death and the myth of CPR*; 1999

In conclusion ……

Is it affordable?

- Probably

Is it useful?

- Only if part of a planned policy
- Depends on external constraints
- Consider distributive justice …

Future

- We don't really know if ICU is a 'good' place to die – what evidence we have is conflicting…
- Need to capture all perspectives not fall into the trap of focusing on what can be easily measured.

Future ..

- So if it is appropriate for your ICU to provide hospice-type care, how do we make it:
  - More affordable?
  - Of greater benefit to the community?
- Some approaches to consider:
  - Re-conceptualising ICU LoS as an KP[Q]I
  - Clear policy: principles agreed; not 'age-related'
  - Acknowledge/remedy skills and resource gaps
  - Provide staff support
  - Reduce un-necessary interventions; acknowledge when death is inevitable

Thank you!