Who to admit to intensive care?

NEICS

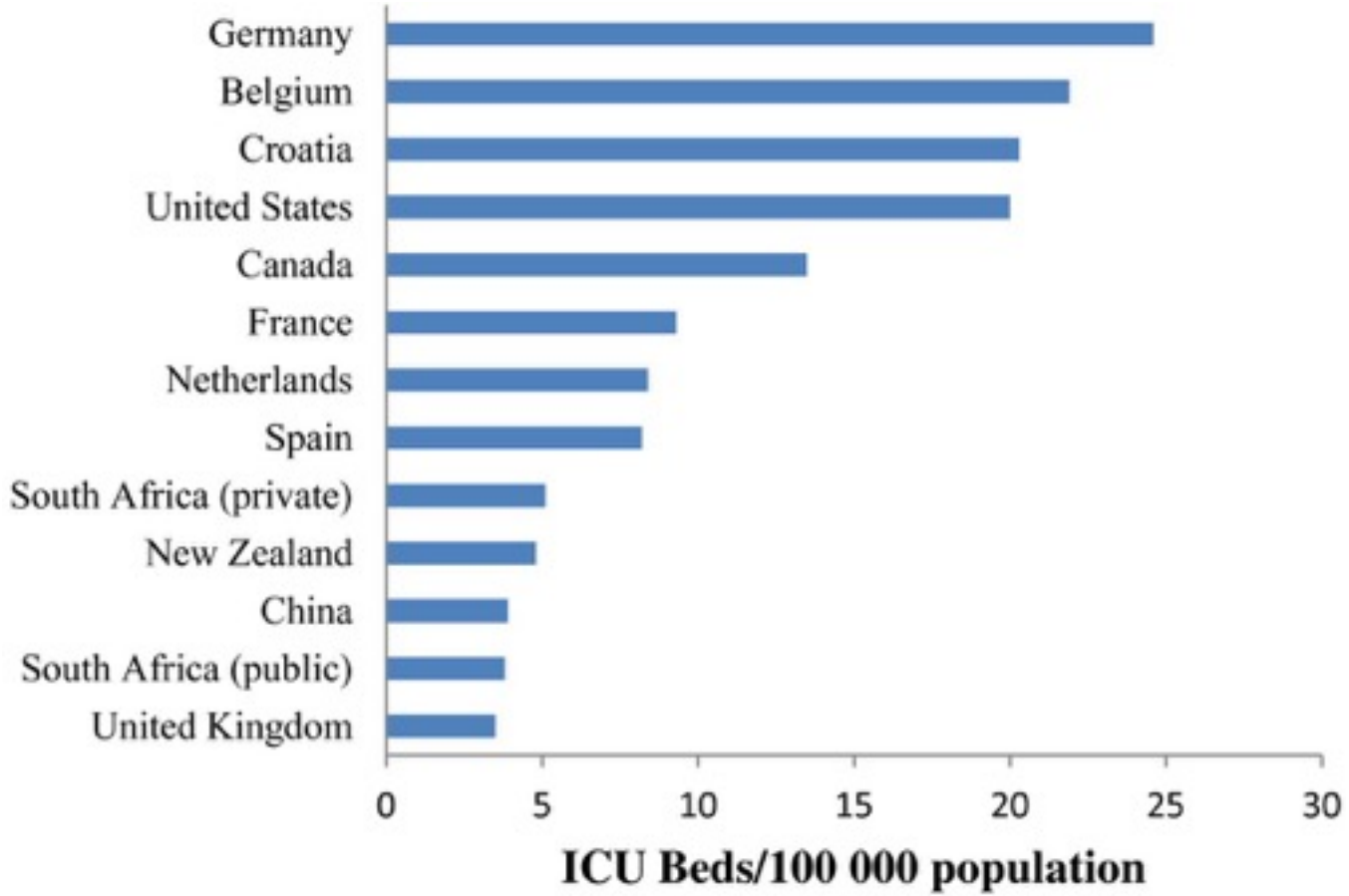
28th March 2017

Christopher Bassford

Intensive Care

- Potentially life-saving
- Harms
    - Procedures
    - therapies
    - Critical illness
- Measure of success
    - Survival
    - Functional survival
    - Quality survival

International comparisons in critical care - lessons learned



Srinivas Murthy and Hannah Wunsch
Critical Care 2012

Evidence

- **Referrals made to critical care; a prospective service evaluation**
    - *Astles, Cope, Nagaraja; ESICM Congress, Paris 2013*
- *"To quantify the number of patients that would be appropriate for admission to ITU but can't be admitted due to lack of capacity."*
- All non-elective referrals: July 2012 to February 2013 (Liverpool, UK)
- 1105 total number referrals
    - 419 patients appropriate and admitted
    - 69 patients appropriate for ICU, but not admitted due to bed availability. (14.1% of appropriate referrals)
    - varied between months (0-29.7%)

Resource allocation/ bed availability

Year	Country	First Author	ICU bed availability	Design
2010	USA	Kelly	no influence on admission process	Survey of residents and attending
2001	France	Azoulay	less beds =more chance refusal	Cohort study
2013	Canada	Cooper, 2013	less beds =more chance refusal	Interview study
2003	Canada	Mielke	less beds =more chance refusal	Qualitative observational and interview study
2003	France	Garrouste-Orgeas	less beds =more chance refusal	Cohort study
2012	USA	Chen	less beds =more chance refusal	Cohort study
2013	South Africa	Naidoo	less beds =more chance refusal	Questionairre survey of intensivists
2014	UK	Tridente	no influence on admission process	Cohort study
2014	UK	Berry	less beds =more chance refusal	Web-based survey of physicians and intensivists (ALD)
2012	UK	Beavan	less beds =more chance refusal	Web-based survey (CVA)
2012	France	Robert	less beds =more chance refusal	Cohort study
2013	Spain	Pintado	less beds =more chance refusal	Cohort study (elderly)
1999	Israel	Sprung	less beds =more chance refusal	Cohort study
1999	Europe	Vincent	less beds =more chance refusal	Questionairre survey of intensivists
			less beds =more chance	

Who is likely to be affected?

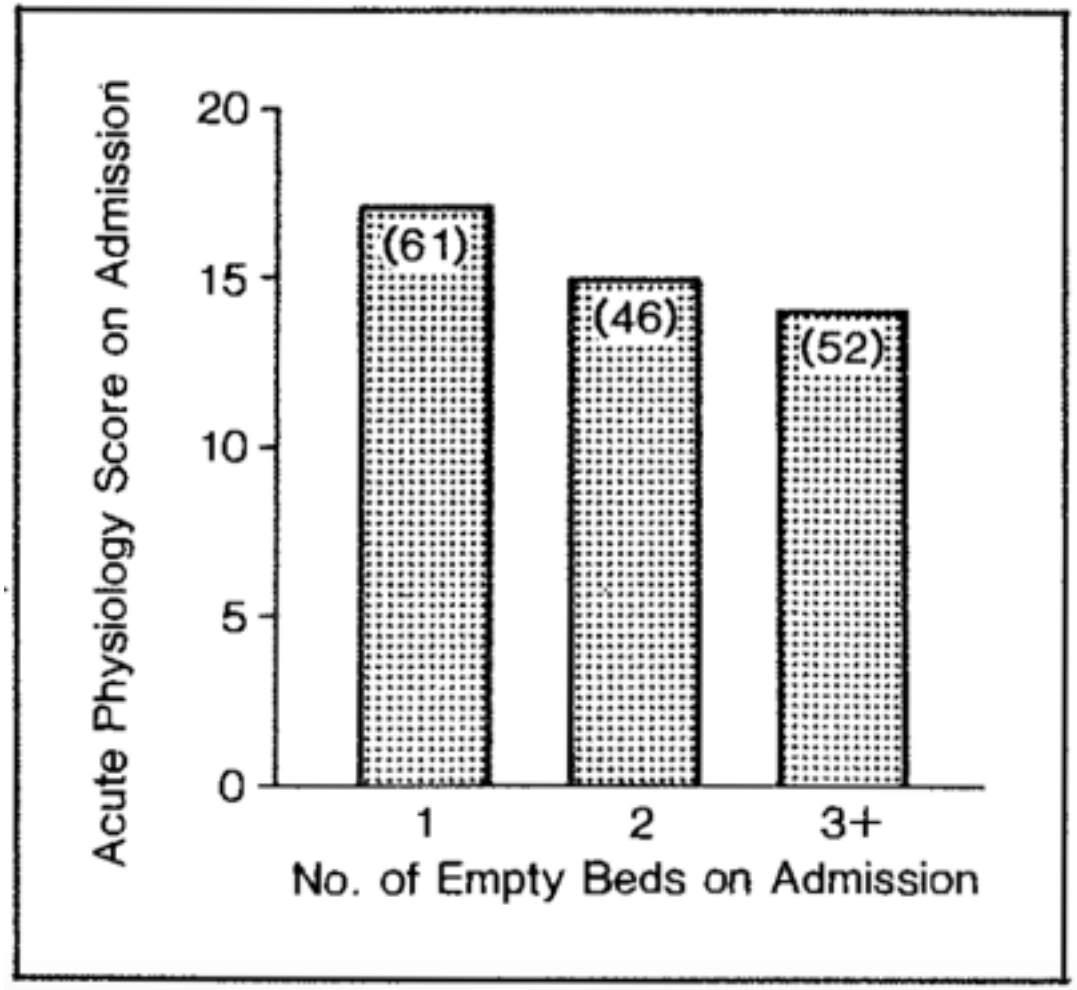
- *"If a patient needs an intensive care bed – they will get one"*
- Patients with borderline need for intensive care
- Patients with borderline benefit from intensive care
    - Elderly
    - people with co-existing conditions

How are they likely to be affected?

- *Denied admission*
- *Delayed admission*

Rationing of Intensive Care Unit Services
An Everyday Occurrence

Strauss MJ, JAMA 1996



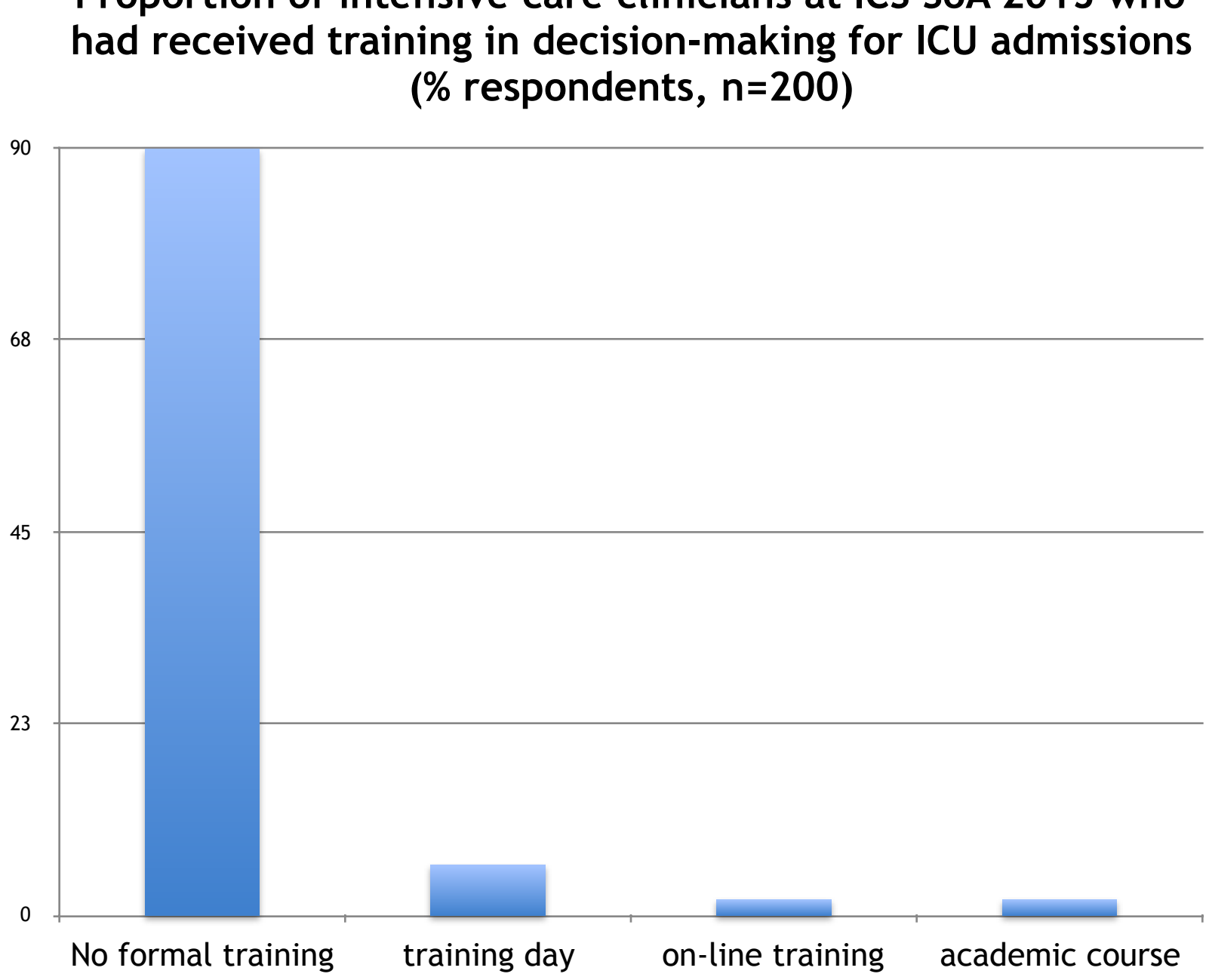
What happens with more beds?

- **Influence of ICU-bed availability on ICU admission decisions**
  - *Robert, Coudroy, Ragot, Lesieur: Ann Intensive Care. 2015; 5: 55.*
- High bed availability units vs. Low bed availability units. 90 days
- "*too sick to benefit*" higher in HBA (9.0 %; $n = 70$) than LBA (6.3 %; $n = 52$) units ($p < 0.05$).
- HBA: higher proportions of patients with either high or low simplified acute physiologic score II values.

"Bed availability affected triage decisions. Units with HBA trend to admit patients too sick or too well to benefit."

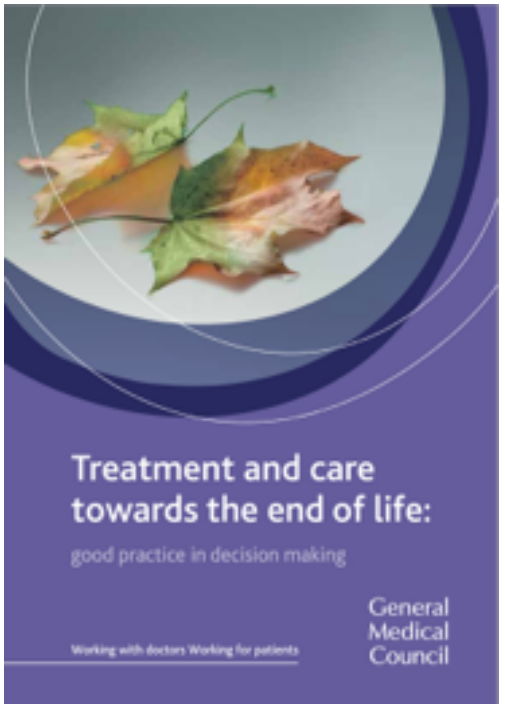
Choices must be made….

….are we prepared?


Proportion of intensive care clinicians at ICS SoA 2015 who had received training in decision-making for ICU admissions (% respondents, n=200)
90
68
45
23
0
No formal training
training day
on-line training
academic course

Complex and uncertain

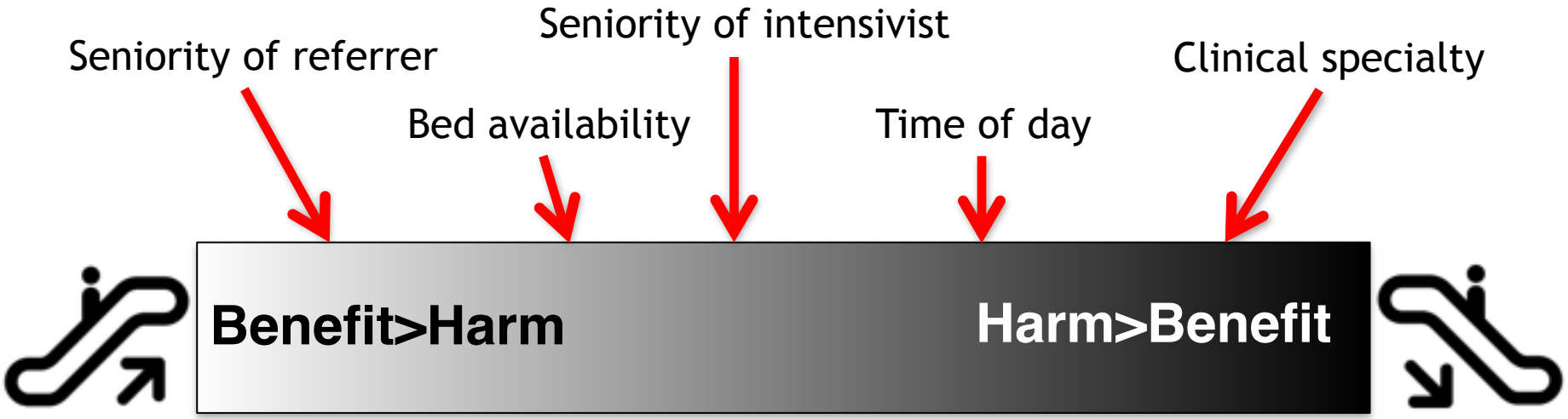
- No accepted method for determining who should be admitted to ICU
    - *What treatments to give on ICU?*
- No training in how to make this decision
- No effective prognostic tool
- Patient views (ReSPECT/MCA)
- Clinician views
- Family views



Decision-making for intensive care: What do we want to achieve?

- Treat who will benefit
- Not cause harm
- Fair access to intensive care
- Limit unnecessary use of resources

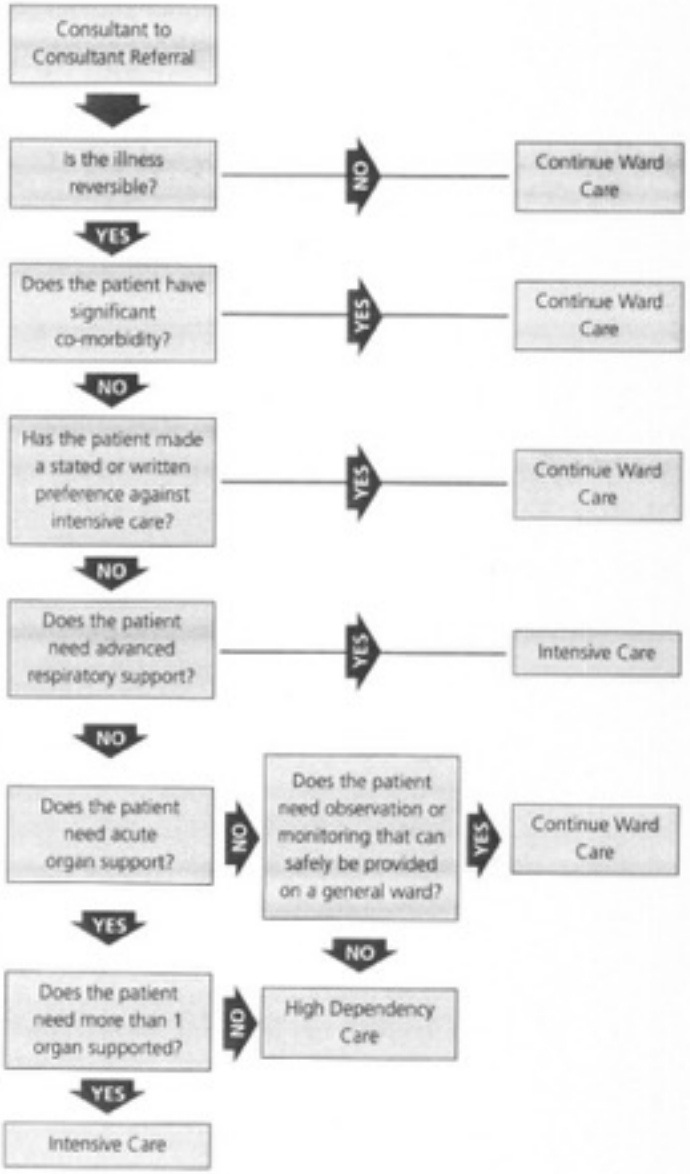
Decision-making: escalation of LST



Young,
Good functional status,
No-comorbidities,
Uncertain diagnosis,
Reversible condition,
Clear preference for LST

Elderly,
Poor functional status,
Multiple, severe comorbidities,
Certain diagnosis,
Irreversible condition,
Does not want intervention,

Figure 1 (see text for explanation)
at all stages appropriate discussion with the patient and/or the patient's relatives should take place



DoH 1996

ICU Admission, Discharge, and Triage Guidelines: A Framework to Enhance Clinical Operations, Development of Institutional Policies, and Further Research

Joseph L. Nates, MD, MBA, FCCM (Chair)[1]; Mark Nunnally, MD, FCCM[2]; Ruth Kleinpell, PhD, RN, FAAN, FCCM[3]; Sandralee Blosser, MD, FCCP, FCCM[4]; Jonathan Goldner, DO, FCCP, FCCM[5]; Barbara Birriel, MSN, CRNP, ACNP-BC, FCCM[6]; Clara S. Fowler, MS[7]; Diane Byrum, RN, MSN, CCRN, CCNS, FCCM[8]; William Scherer Miles, MD, FACS, FCCM[9]; Heatherlee Bailey, MD, FAAEM, FCCM[10]; Charles L. Sprung, MD, JD, MCCM[11]

Special Article

Defining Futile and Potentially Inappropriate Interventions: A Policy Statement From the Society of Critical Care Medicine Ethics Committee

Alexander A. Kon, MD, FCCM[1]; Eric K. Shepard, MD, FCCM[2]; Nneka O. Sederstrom, PhD, MPH, FCCM[3]; Sandra M. Swoboda, RN, MS, FCCM[4]; Mary Faith Marshall, PhD, FCCM[5]; Barbara Birriel, MSN, ACNP-BC, FCCM[6]; Fred Rincon, MD, MSc, MBE, FCCM[7]

ICU interventions should generally be considered inappropriate when there is no reasonable expectation that the patient will improve sufficiently to survive outside the acute care setting,
or
when there is no reasonable expectation that the patient's neurologic function will improve sufficiently to allow the patient to perceive the benefits of treatment.

Objective determination

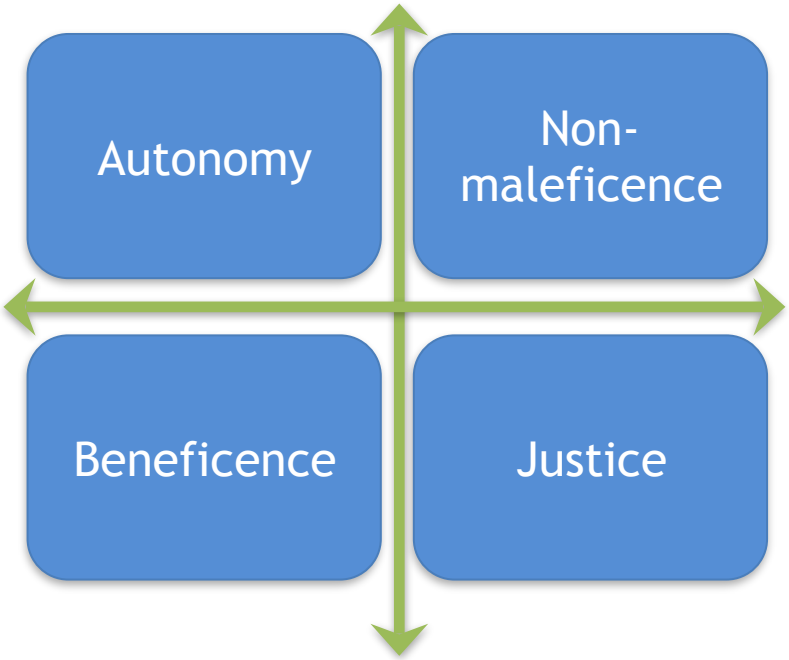
- Prognostic scores
- Quality Adjusted Life Years (QALYs)
    - NICE
- **The Eldicus prospective, observational study of triage decision making in European intensive care units. Part II: intensive care benefit for the elderly.**
    - Objective evidence for prediction of survival/death

NICE

- "It is not a question of moving towards a system of admission criteria for intensive care, for any patient proposed, but to make sure that if there is a refusal it is carried out according to an ethically acceptable system."
  - Non-admission en reanimation: comment decider?
  - Borel, Annales Françaises d'Aneathesie et de Reanimation 28 (2009) 954-961

Frameworks for ethical decision-making

Principlism



Beauchamp and Childress

Accountability for reasonableness

- Transparent
- Relevant
- Review/Appeals

Norman Daniels

Accountability for reasonableness
(adapted from)

Condition	Description
Relevance	Decision must be based on factors generally accepted to be relevant in decision making process
Transparency	Should be transparent to all stakeholders
Review	Opportunity for review of decision should be available
Governance	There should be governance and regulation of the decision-making process

Norman Daniels and James Sabin 2000

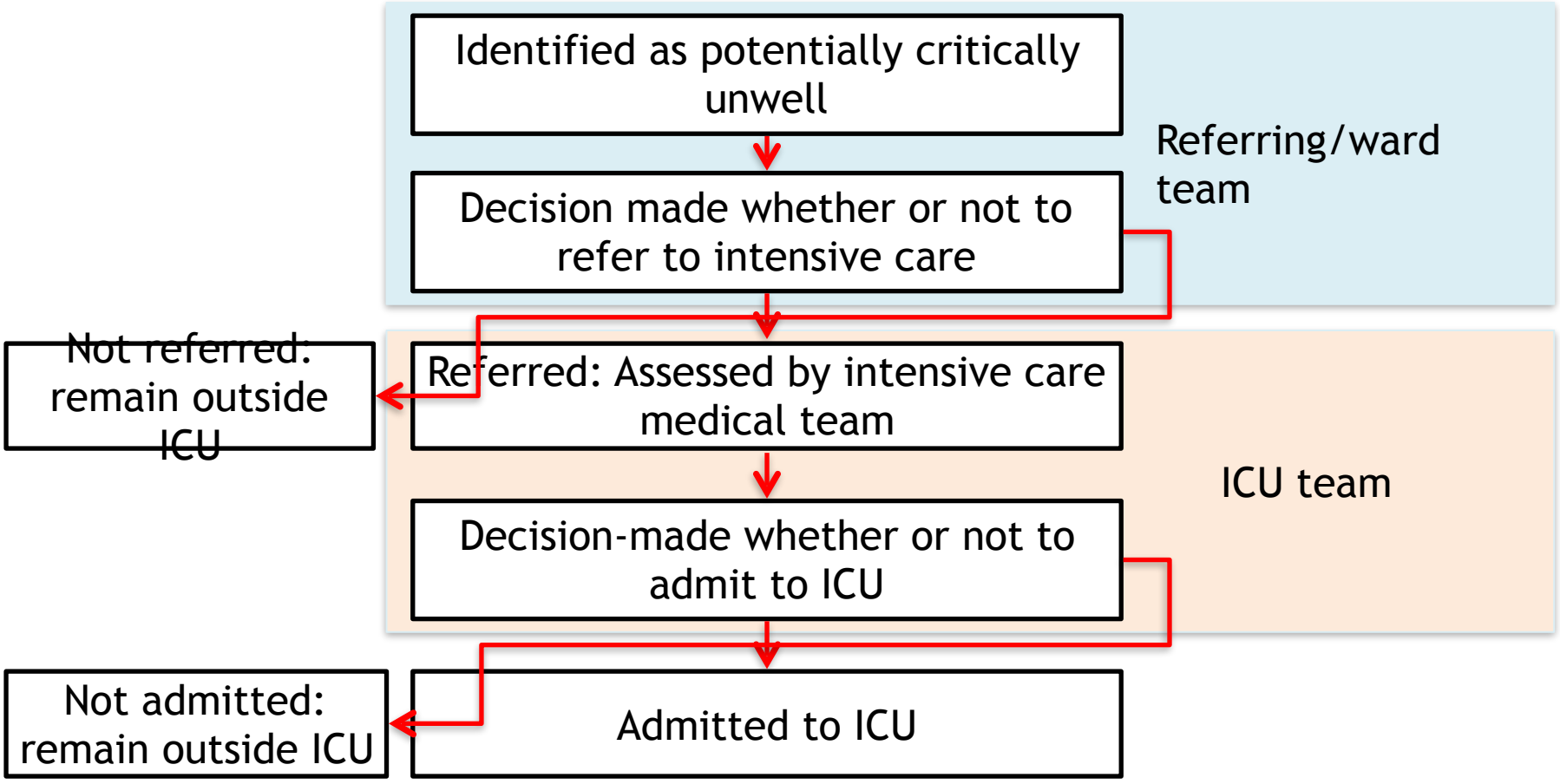
Decision-making for ICU admissions

"What is required for an ethically justifiable, patient-centred decision-making process for unplanned and emergency admissions to adult intensive care?"

Aims

A. Explore how decisions on whether to admit a patient to adult intensive care are made in the acute and emergency situation.
B. Identify and critically analyse the factors that inform ICU admission decisions from the perspective of patients and their families, and the clinical decision-makers.
C. Facilitate ethically justifiable, patient and family centred decision-making in these situations.

Should this patient be admitted to ICU?



Decision-support intervention

1. Referral guidelines
2. Decision-support framework
3. Patient and family support
4. Governance structures

Decision support intervention implementation study
REC: 15/WM/0025

Referring to ICU

- Patient is more likely to be admitted if a senior clinician makes the referral

VOLUME 14 SUPPLEMENT 1

30th International Symposium on Intensive Care and Emergency Medicine

POSTER PRESENTATION | OPEN ACCESS

Referral to intensive care: who and when?

A Mackay ✉, J Erskine, P Doherty and E McMillan

Critical Care 2010 14(Suppl 1):P417 | DOI: 10.1186/cc8649

Published: 1 March 2010

Comment

Letters to the editor

Correspondence regarding: Futile treatment in intensive care

The editorial by Danbury and Newdick[1] elegantly describes the ethical and legal minefield traversed by intensive care specialists on a daily basis, whereby avoiding criminal prosecution appears to be as much due to luck as diligent (or defensive) clinical practice. This was hotly debated at the ICS

consultant will waive this requirement and takes over care directly from the junior team.

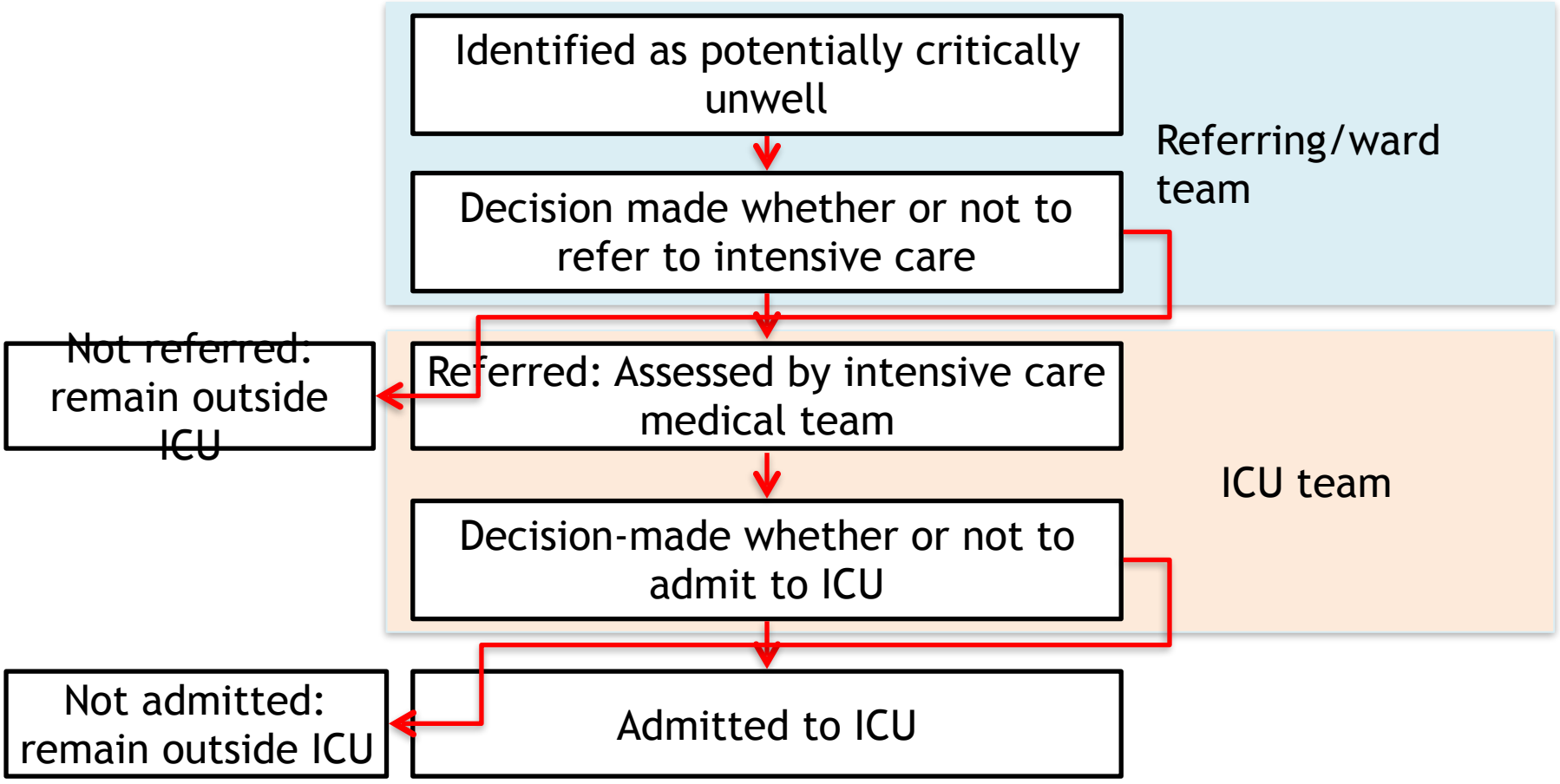
2. If there is disagreement between the referring specialty doctor and the intensive care consultant regarding appropriateness for intensive care admission, they both must meet at the

1. A referral is not a referral unless there is a consultant-to-consultant conversation.
2. If there is disagreement between the referring specialty doctor and the intensive care consultant regarding appropriateness for intensive care admission, they both must meet at the bedside for a direct review of the patient.
3. If there is still disagreement it becomes the referring doctor's responsibility to find another ICU in a neighbouring hospital who believes that they have the skills to offer sustained benefit to the patient. If such an ICU is identified then the local ICU team will facilitate the transfer.

Referring for critical care support: Best practice

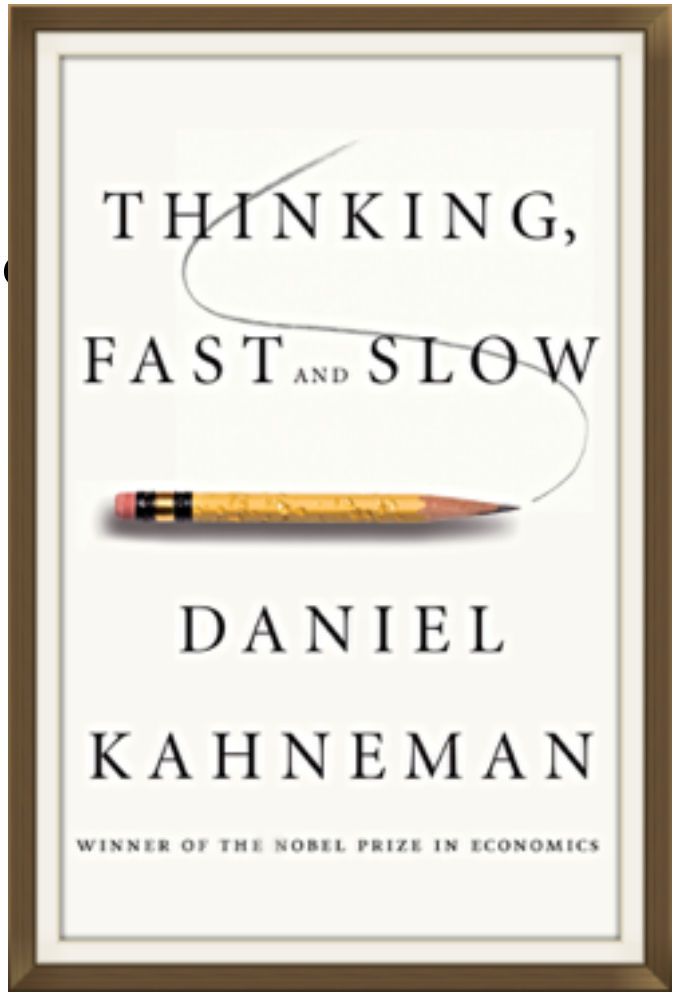
- Don’t delegate to junior staff: consultant to consultant referrals are best.
- Be clear what you are asking for, even if it is just another opinion.
- Consider the benefits and burdens of ICU for **this** person.
- Be honest: what is life likely to be like for **this** patient after ICU?
- What does the patient want: speak to the patient or someone close to them.
- Use SBAR (or a referral form)

Should this patient be admitted to ICU?



Decision-making: Behavioural science

- System 1: automatic
  - Reactive
  - Low-effort
  - Relies on assumptions, experience an short-cuts
  - Programmed by system 2
- System 2: effortful
  - Calculating
  - Hard work: lazy
  - Cannot multi-task
  - Endorses system 1



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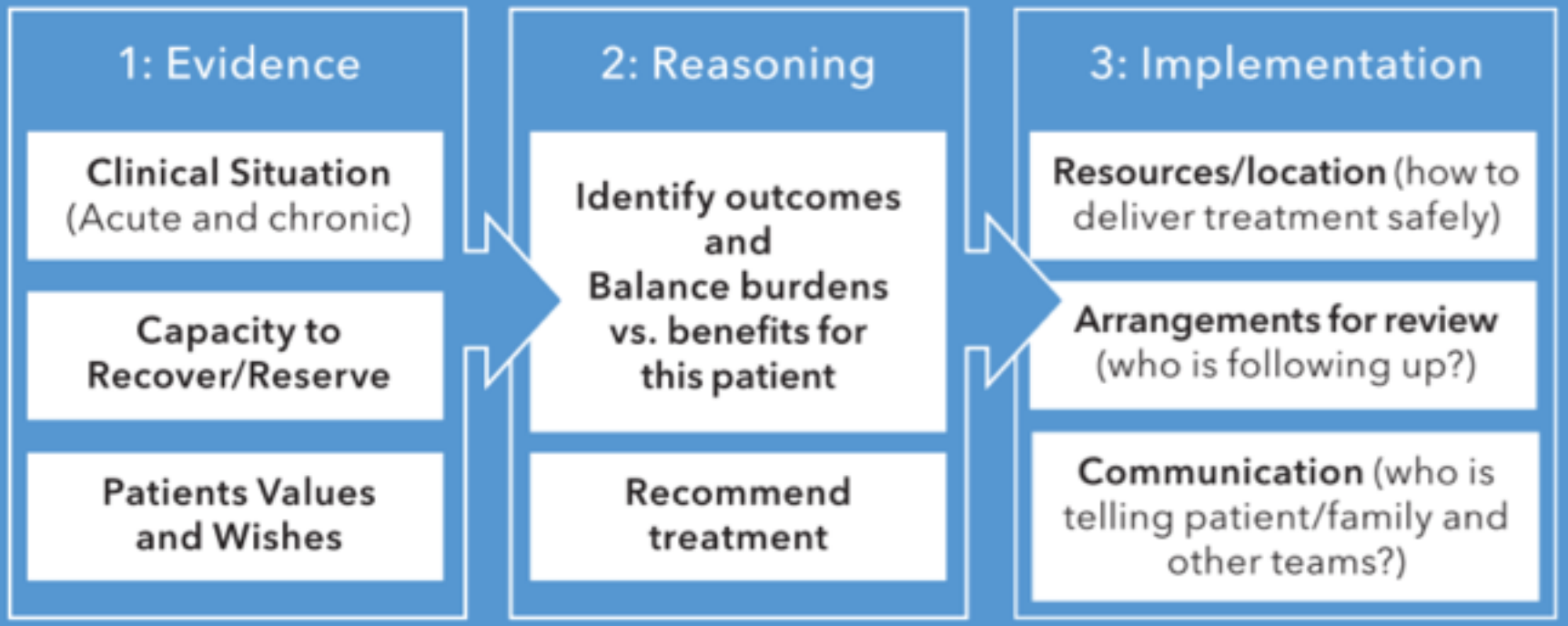
Decision-making for escalation of treatment



Decision-making for Intensive care unit admissions 2016. REC: 15/WM/0025

Governance: learning from decision-making

- What proportion of the patients referred to ICU, but judged to be “too sick for ICU” leave hospital alive?

- What proportion of patients referred to ICU, but judged to be “too well for ICU” die?

NEICS 2017

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THE UNIVERSITY OF WARWICK

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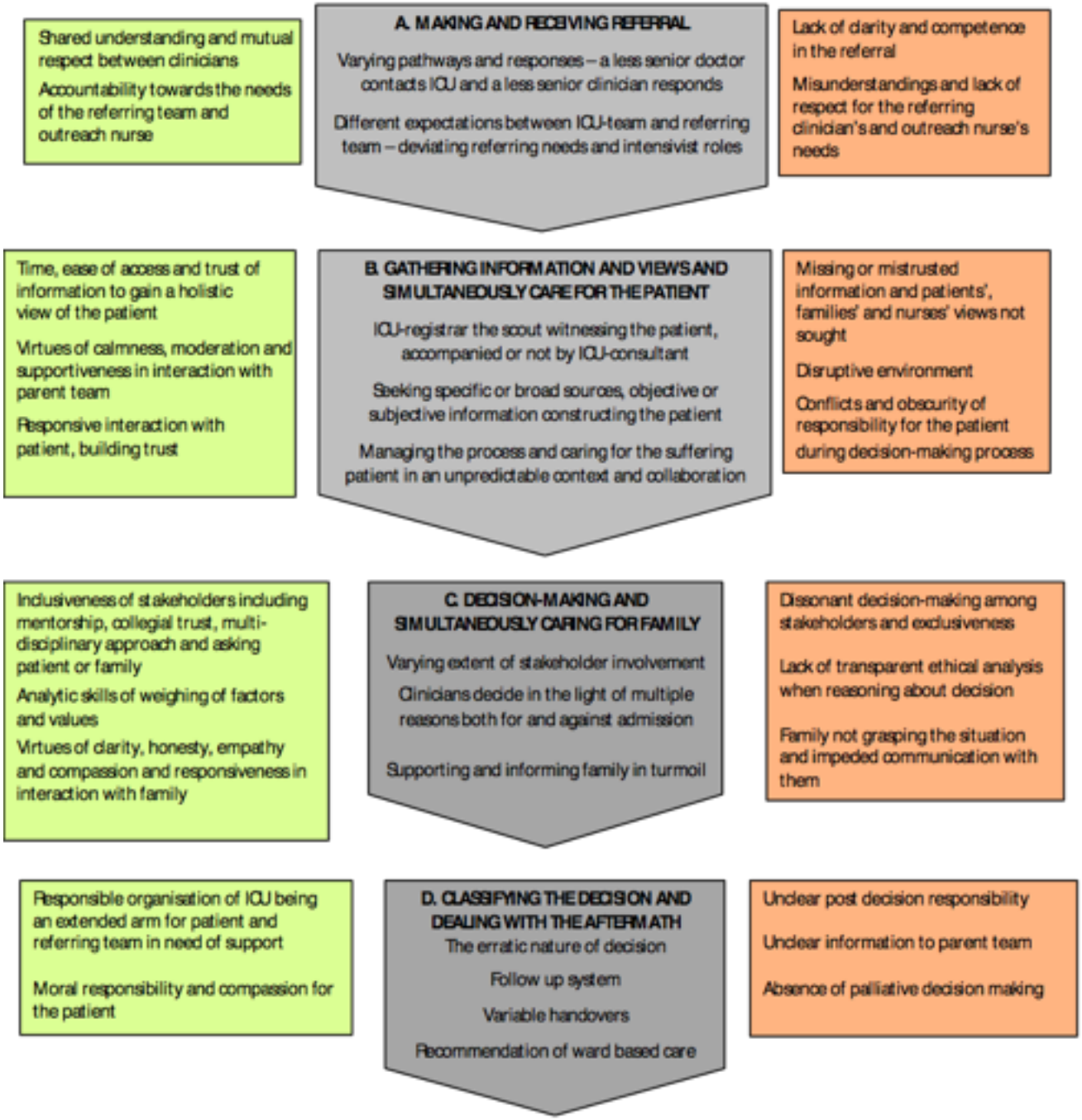
NHS National Institute for Health Research


Shared understanding and mutual respect between clinicians
Accountability towards the needs of the referring team and outreach nurse
A. MAKING AND RECEIVING REFERRAL
Varying pathways and responses – a less senior doctor contacts ICU and a less senior clinician responds
Different expectations between ICU-team and referring team – deviating referring needs and intensivist roles
Lack of clarity and competence in the referral
Misunderstandings and lack of respect for the referring clinician's and outreach nurse's needs
Time, ease of access and trust of information to gain a holistic view of the patient
Virtues of calmness, moderation and supportiveness in interaction with parent team
Responsive interaction with patient, building trust
B. GATHERING INFORMATION AND VIEWS AND SIMULTANEOUSLY CARE FOR THE PATIENT
ICU-registrar the scout witnessing the patient, accompanied or not by ICU-consultant
Seeking specific or broad sources, objective or subjective information constructing the patient
Managing the process and caring for the suffering patient in an unpredictable context and collaboration
Missing or mistrusted information and patients', families' and nurses' views not sought
Disruptive environment
Conflicts and obscurity of responsibility for the patient during decision-making process
Inclusiveness of stakeholders including mentorship, collegial trust, multi-disciplinary approach and asking patient or family
Analytic skills of weighing of factors and values
Virtues of clarity, honesty, empathy and compassion and responsiveness in interaction with family
C. DECISION-MAKING AND SIMULTANEOUSLY CARING FOR FAMILY
Varying extent of stakeholder involvement
Clinicians decide in the light of multiple reasons both for and against admission
Supporting and informing family in turmoil
Dissonant decision-making among stakeholders and exclusiveness
Lack of transparent ethical analysis when reasoning about decision
Family not grasping the situation and impeded communication with them
Responsible organisation of ICU being an extended arm for patient and referring team in need of support
Moral responsibility and compassion for the patient
D. CLASSIFYING THE DECISION AND DEALING WITH THE AFTERMATH
The erratic nature of decision
Follow up system
Variable handovers
Recommendation of ward based care
Unclear post decision responsibility
Unclear information to parent team
Absence of palliative decision making

Ethical conflicts in decision-making surrounding admission to the intensive care unit

- Should all referrals be respected?
- Should a patient in severe physical and emotional distress be expected to give answers about treatment decisions?
- Is patient suffering acceptable to allow the process decision-making?
- Is being a sole decision-maker ethically justifiable?
- Should the threshold for admission to ICU be influenced by the availability of ICU beds?
- How can we allow for differing professional perspectives and judgment while ensuring fairness to all patients?