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MEDICAL SCHOOL

Improving decision-making around referral and admission to intensive care: best evidence to best practice

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University Hospitals Coventry and Warwickshire NHS Trust

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Health Services and
Delivery Research
Programme

NHS
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Health Research

HS&DR Programme

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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?'

- Systematic reviews of the evidence surrounding admission to ICU
  - Factors that influence decision-making
  - Experiences of decision-making surrounding admission to ICU among patients, families and staff.
- Work package 1: a focussed ethnographic study of real-life decision-making practice
- Work package 2: A choice experiment to determine the priority given to factors in the decision-making surrounding admission to ICU
- Work package 3: the development and implementation of a decision-support intervention
- Work package 4: the development of a tool to test the efficacy of the decision-support intervention

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Systematic reviews

- What are the patient and clinician related factors that affect decisions around unplanned admissions to an intensive care unit?
- What are the experiences of clinicians, patients and families of the process of referral and admission to an intensive care unit?

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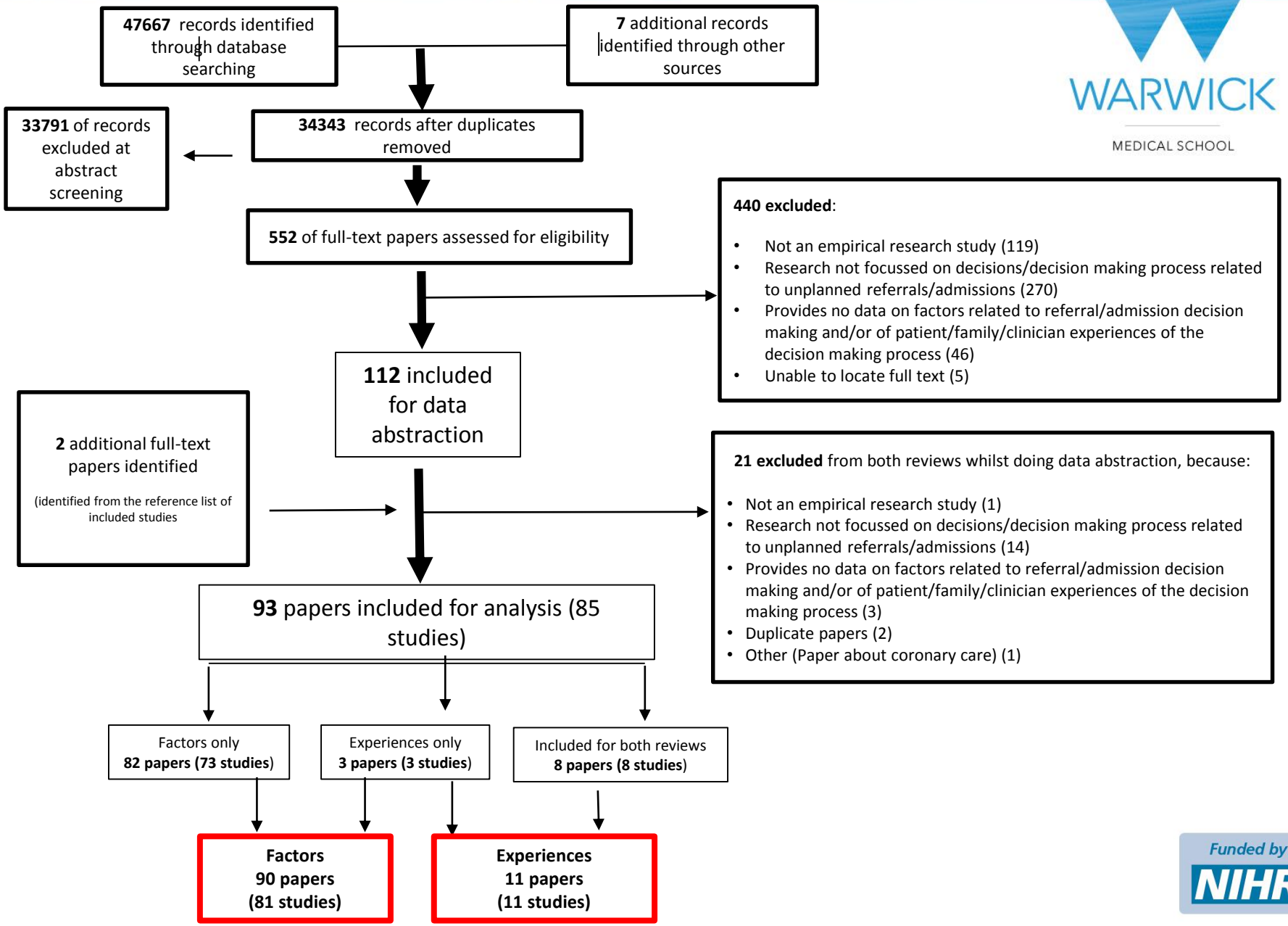

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Factors review

- Patient related factors
  - Medical
  - Non-medical
- Clinician related factors
- Organisational related factors

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Patient related factors (medical)

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- Type of acute illness :26 studies (10)

Respiratory disease associated with reduced likelihood of admission compared to other investigated conditions

- Severity of acute illness:36 studies (7)

No clear effect on decision to admit or refuse admission

- Presence of DNACPR

Patients with DNAR (DNACPR) order less likely to be admitted

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Patient related factors (medical)

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- Presence of chronic illness: 23 (5)

Dementia, chronic respiratory or heart failure, mental disorder, or metastatic cancer without hope of remission all associated with increased odds of refusal. Also general category of chronic disease

- Severity of chronic illness: 17 (5)

No clear effect of severity of chronic illness on decision whether to admit

- Functional status: 30 (9)

Increased dependency/poor quality of life associated with reduced odds of admission

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Patient related factors (non medical)

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- Age: 46 (15)

increased odds of refusal to ICU with increasing age

- Gender: 27 (7)

3 – no difference, 1 - females more likely to be admitted than males, 3 - males more likely to be admitted than females

- Ethnicity: 9 (4)

Inconsistent findings but overall no effect of ethnicity noted

- Patient/family preference: 25 (4)

Variable effect on decision making

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Clinician related factors

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- Seniority of ICU clinician: 7 (3)

Variable results; 2 studies suggested attending physicians (consultants) more likely to admit than juniors

- Seniority of referrer: 4

Referral by consultant associated with increased likelihood of admission

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Organisational related factors

- ICU resource/bed availability: 33 (10)

Majority (7/10) multivariate analyses found association between bed availability and likelihood of admission

- Specialty of referring unit: 8 (4)

Surgical patients more likely to be admitted than medical patients

- Time of day: 8 (2)

No clear association

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Experiences review

11 studies (10 qualitative, 1 quantitative)

Experiences of HCPs (9), patient (1), family member (1)

Themes

- Professional environment/relationships
- Communication, including communication (or lack of it) with patients and family
- Context of limited resources, with associated pressures to admit certain groups of patients
- Overarching theme of lack of agency/control

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Summary

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- Many studies looking at wide range of factors influencing admission to ICU
- Marked heterogeneity
- Many of poor quality
- Decisions influenced by age, gender, type of illness, presence of chronic illness, functional status, presence of DNACPR order, referring specialty, seniority of referrer, and ICU bed availability
- No clear association with severity of acute illness
- Few studies looking at experience of decision-making process
- Key themes are communication, relationships, and perceived loss of control
- Very little known about patients' and family's experience

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The decision making events: observation and interviews

Our questions

- How are decisions about whether to admit a patient to an intensive care unit made?
- What are the experiences of patients, families and clinicians involved in the decision-making process, and what are their views on how these decisions should be made?
- What would constitute an ethically justifiable process for these decisions?

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Our purpose

- To inform the Discrete Choice Experiment
- To inform design of the decision support framework, accompanying training and professional support and evaluation tool

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What we did

- Shadowed ICU doctors in six NHS trusts
- Observed 55 decisions to admit or not to ICU involving 46 patients on wards or in emergency departments
- Interviewed:
  - 43 ICU doctors observed making these decisions
  - 30 referring doctors (31 of the 55 referrals)
  - 28 volunteer specialist doctors who refer to ICU but we had not observed a decision about one of their referrals
  - 10 family members soon after a decision to admit or not to ICU
  - 4 family members about three patients three months after the decision tool

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Major tensions identified

- patient safety - being confident a patient for active treatment will not die from a treatable condition
- balance between giving a patient the chance to benefit from care on ICU versus limiting treatment burden for frail patients
- fair utilisation of ICU-beds and provision of support needed by clinical teams treating severely ill patients on the wards.

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Reasons for referral beyond patient need for organ support/intensive monitoring

- help with a procedure: monitoring during endoscopy or ward team struggling to take blood gases
- advice when doctors unsure what was going on with patient or when they wanted reassurance they were doing the right thing
- pre-emptive planning for a patient or the ward team wanted the ICU team to keep an eye on a patient when they knew this might not happen on the ward

'The reason for contacting ITU was to provide appropriate oversight …during the night… cover over night is not great… one or two agency nurses possibly. There is no onsite kidney specialist overnight'. Nephrology consultant, Case 7, Site 6

What types of information are used in ICU admission decisions

- Clinical information
  - (acute and chronic illness)
  - Overall look of patient
- Functional status of patient (how far could the patient walk?)
- Age (Referring clinicians felt that they had to advocate harder for an older person to be admitted).
- Views of patient or family members (infrequently)
- Patient safety (on ward)
- Number of available ICU beds

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What is the variation in approach to decision-making among ICU doctors?

Doves and hawks

"So I was fairly clear that I didn't think the patient would benefit from coming to intensive care but the patient still had needs and the patient in this case had end of life care needs that didn't seem to be being addressed so I went down to the ward" ICU-consultant, Index event 3, Hospital 5

- Doves acknowledged that different ICU-consultants might make a different decision for the same patient.
- Hawks described themselves as less inclined to admit a patient and saw themselves as a gatekeeper, being fair to all patients in resource distribution

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What made a good decision-making process?

- A calm and reassuring environment created by ICU doctors
- Time for assessment (ICU doctors had more time)

'It's a lot easier to do things in a calm environment and I think part of that comes from the intensivists themselves. … they're able to take charge of a situation with ease… even the most stressful situations
Medical registrar, Index event '2, Hospital 2

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What made a good decision-making process?

- Comprehensive and trustworthy information about the patient
- Knowing what's important to the patient
- A holistic approach to the patient assessment
- Clinicians talked about balancing benefits and burdens during the decision-making BUT explicit balancing of factors for and against ICU admission was RARELY observed.

'He was only 50 years old, but he had a life limiting condition … his malignancy and weighing up which one of those is more important is very tricky'. Referring geriatric registrar, Index event 4, Hospital 5

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What made a good decision-making process?

- Collaborative relationship between ICU doctors and referring teams
  - ICU doctors who are receptive and non judgmental with their referring colleagues
  - Referring teams who understand and support ICU in management of patient care
- Close collaboration building mutual trust and confidence between the ICU-registrar and the ICU-consultants
- Family members receiving clear information with an opportunity to ask questions
- Consultant to consultant referrals

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Most decision making about ICU admissions was perceived as going well – but some did not go well

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What made a poor decision-making process?

- Misunderstanding between the ICU team and referring team about the reason for the referral, and the reality of treatment whether on ICU or on the ward

- Chaotic environment creating pressure to make a decision

'It's very difficult to intubate a patient and ventilate and be thinking about the background at the same time.' ICU-registrar, Index event 3, Hospital 3

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What made a poor decision-making process?

- Lack of support for doctors in training out of hours
- Poor communication about the patient between clinical teams including poorly written clinical records
- Family member difficulties with understanding and coping with situation – often unable to help with relevant information

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What would constitute an ethically justifiable process for ICU admissions?

- Shared understanding and mutual respect between clinicians
- Good communication (including written communication)
- Good information about patient
- Patient involvement in decision-making where possible
- Patient's values taken into account
- Explicitly identifying the reasons for and against admission to ICU including:
  - Need for ICU
  - Ability to benefit from ICU
  - Patient's wishes

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What would constitute an ethically justifiable process for ICU admissions?

- Explicitly balancing reasons for and against admission and being aware of own biases
- Communicating the decision clearly to referring team and family including
- Willingness to review decision over time
- Collegiate decision-making
- Logging referrals
- Supportive environment

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Choice experiment

Determining ICU consultant and outreach nurses preferences for ICU admission

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- Research questions
- What is the influence of patient related factors on ICU consultant and outreach nurses decisions regarding admission to ICU?
- What is the variability of preferences and decision rules among ICU consultants when making these decisions?

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Choice experiment

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- Survey technique used in health economics and health services research to investigate the preferences of a particular group (patients, public, health care professionals) in a range of topics.
- Investigates the influence of a range of features on a particular decision by eliciting a series of choices between two or more hypothetical choice options.
- Steps in process:

(i) identify the most relevant patient features for the ICU admission decision making process (factor plus level);

(ii) combine these patient features into hypothetical patient profiles
(iii) create a set of choices to elicit participants' preferences.

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1. * The following two patients have both been referred with sepsis.
Please keep in mind:

   1. Please imagine you are unable to attend the patients and must rely on this information provided by a senior registrar whose opinion is reliable.
   2. The patients are too unwell to provide any opinion on what they would want to happen.

Patient A	Patient B
79 years old	66 years old
with mild dementia, started on Aricept in the last month	with moderate COPD (FEV1 65% predicted). One course of steroids and antibiotics in the last year
Mobile to shops with family; has to rest climbing stairs.	Mobilises independently; walks dog daily.
NEWS of 8 (Temp: 36.1C; Resp rate: 24; SpO2: 92% on 60% FiO2; GCS:15; Pulse: 120; Systolic BP: 140mmHg)	NEWS of 11 (Temp: 37.7C; Resp rate: 23; SpO2: 90% on 60% FiO2; GCS: 15; Pulse: 90; Systolic BP: 85mmHg after adequate iv fluids).
Registrar saw the patient earlier and tells you that they look like they are tiring	Registrar has seen the patient and tells you that they are stable, and "holding their own"
Patient is on a busy acute ward with 1 trained nurse per 8 patients; The ward sister is worried the ward cannot cope with looking after the patient.	Patient is on a busy acute ward with 1 trained nurse per 4 patients; critical care outreach nurses are available to provide further support
The patient's family have already approached the ward doctors and said that they insist on the patient being admitted to ICU	The patient's family say they have never discussed ICU admission or end-of life care: they will leave all the decisions to the medical team

For each patient please indicate if you would NOT admit the patient:

Patient A:

- **Admit**
- **Not Admit**

Patient B:

- **Admit**
- **Not Admit**

Now assuming there is only one ICU bed currently available: Please indicate which patient you would prioritise for admission:
(If you would not admit either patient, for the purposes of the questionnaire, we would still like you to prioritise one of the patients for admission. In this case please indicate which patient you would be more likely to admit for life-sustaining therapy)

- **Patient A**
- **Patient B**

Results

- 303 consultants (nationally representative sample)
- 189 CCOR nurses (nationally representative sample)
- Overall quality of data was high

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Consultant preferences

		MLE (SE)	RI	OR [95% CI]
Constant (No admission)		3.671 (0.131)	-	-
Age (Ref: 89 years old)	*39 years*	2.488 (0.074)	23.9%	12.04 [10.42 - 13.91]
	66 years	1.609 (0.063)		5 [4.42 - 5.65]
	79 years	0.934 (0.066)		2.55 [2.24 - 2.9]
Co-morbidity type (Ref: Prostate cancer)	*COPD*	-0.04 (0.06)	3.8%	0.96 [0.85 - 1.08]
	Dementia	-0.391 (0.06)		0.68 [0.6 - 0.76]
	Heart failure	-0.292 (0.069)		0.75 [0.65 - 0.86]
Co-morbidity severity (Ref: Severe)	*Mild*	1.859 (0.063)	17.9%	6.42 [5.67 - 7.26]
	Moderate	1.406 (0.062)		4.08 [3.61 - 4.61]
Functional status (Ref: Bad)	*Good*	1.489 (0.054)	14.3%	4.43 [3.99 - 4.92]
	Intermediate	0.978 (0.056)		2.66 [2.38 - 2.97]
NEWS (Ref: score = 5)	*11*	0.784 (0.058)	7.5%	2.19 [1.96 - 2.45]
	8	0.12 (0.053)		1.13 [1.02 - 1.25]
Look (Ref: Good)	*Bad*	1.055 (0.056)	10.2%	2.87 [2.57 - 3.21]
	Intermediate	0.752 (0.06)		2.12 [1.89 - 2.39]
Safety (Ref: Good)	*Bad*	0.26 (0.041)	2.5%	1.3 [1.2 - 1.41]
Family views (Ref: Unsure)	*No*	-1.791 (0.061)	19.9%	0.17 [0.15 - 0.19]
	Yes	0.277 (0.051)		1.32 [1.19 - 1.46]
SD Individual errors		0.962 (0.054)	-	-

Model statistics: 303 respondents; 7,272 observations; 19 model parameters; Log-likelihood = -5,663.4

MLE: Maximum likelihood estimate; SE: Standard error; SD: Standard deviation; OR: Odd ratio; CI: confidence interval; RI: Relative impact

Preference heterogeneity among consultants

		Class #1 "Age oriented"		Class #2 "Age dominant"		Class #3 "Holistic"		Class #4 "Family dominant"	
		OR	RI	OR	RI	OR	RI	OR	RI
Age (Ref: 89 years old)	*39 years*	17.37	24%	48.86	31%	2.98	16%	8.63	17%
	66 years	5.74		12.14		2.24		4.68	
	79 years	2.91		4.71		1.55		1.2	
Co-morbidity type (Ref: Prostate cancer)	*COPD*	1.16*	3%	1.2	5%	1.15	5%	1.47	4%
	Dementia	1.21*		1.53*		1.18*		1.16*	
	Heart failure	1.36*		1.41*		1.22*		1.19	
Co-morbidity severity (Ref: Severe)	*Mild*	7.94	17%	11.7	20%	3.08	16%	7.96	17%
	Moderate	4.34		5.54		2.34		8.39	
Functional status (Ref: Bad)	*Good*	6.08	15%	7.78	17%	1.82	10%	5.48	13%
	Intermediate	3.17		3.58		2.05		2.85	
NEWS (Ref: score = 5)	*11*	3.17	10%	2.06	6%	2.78	19%	1.08*	2%
	8	1.26		1.55		1.35*		1.14	
Look (Ref: Good)	*Bad*	3.54	10%	2.19	6%	2.89	15%	2.73	8%
	Intermediate	2.55		1.45		2.83		1.55	
Safety (Ref: Good)	*Bad*	1.52	3%	1.19	1%	1.03	0%	1.57	4%
Family views (Ref: Unsure)	*No*	7.88*	18%	4.45*	14%	3.02*	19%	40.21*	35%
	Yes	1.12		1.24		1.21		2.2	

Model statistics: 303 respondents; 7,272 observations; 75 model parameters; Log-likelihood = -5,392.9.

OR: Odd ratio; RI: Relative importance.

* These ORs have been reversed to indicate how likely the patient is to not be admitted.

Interaction between type and severity of co-morbidity

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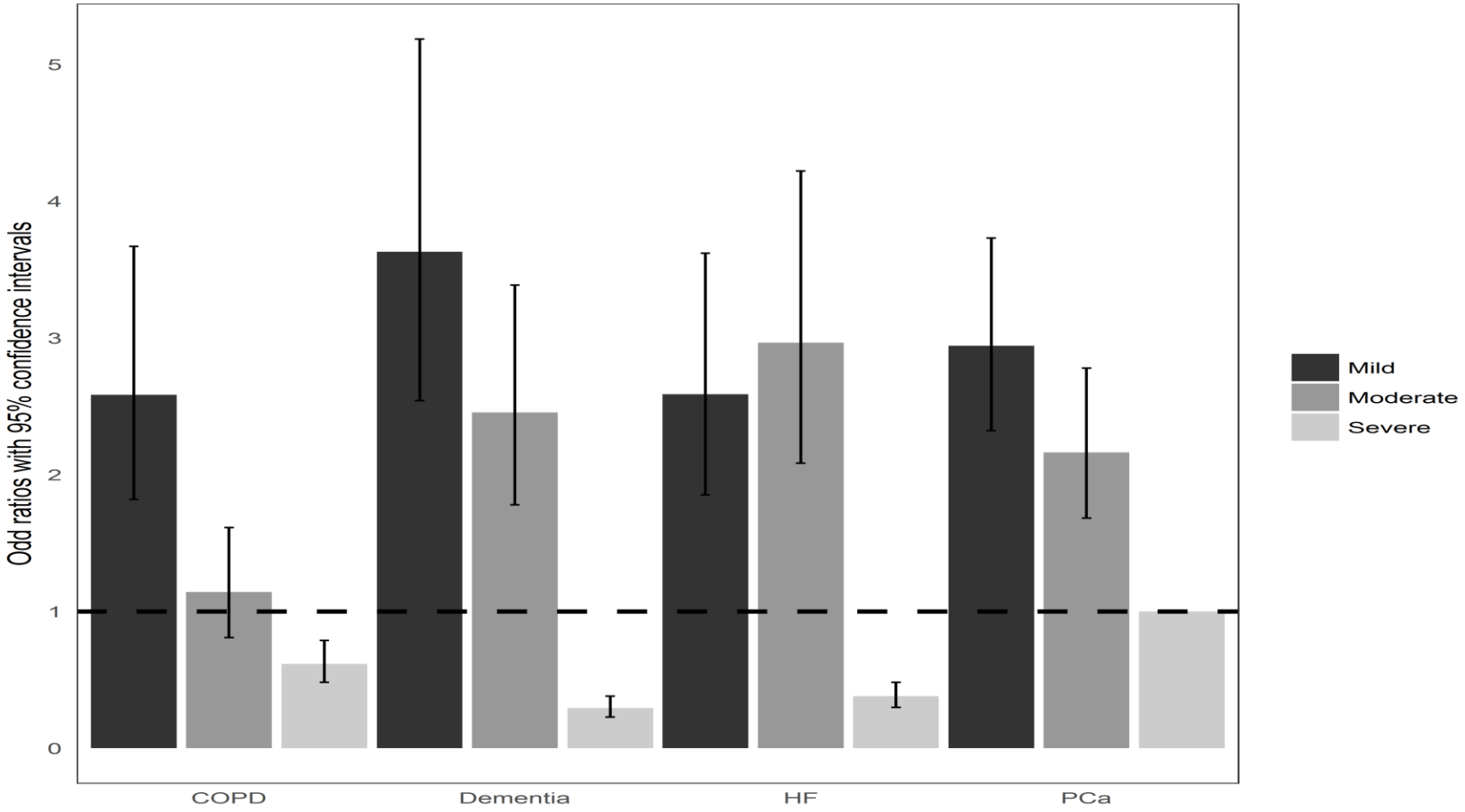

CCOR nurses preferences

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		MLE (SE)	RI	OR [95% CI]
Constant (No admission)		2.944 (0.152)	-	-
Age (Ref: 89 years old)	*39 years*	1.679 (0.077)	21.6%	5.36 [4.61 - 6.23]
	66 years	1.138 (0.072)		3.12 [2.71 - 3.59]
	79 years	0.615 (0.071)		1.85 [1.61 - 2.13]
Co-morbidity type (Ref: Prostate cancer)	*COPD*	-0.421 (0.069)	5.4%	0.66 [0.57 - 0.75]
	Dementia	-0.061 (0.073)		0.94 [0.82 - 1.09]
	Heart failure	-0.092 (0.076)		0.91 [0.79 - 1.06]
Co-morbidity severity (Ref: Severe)	*Mild*	1.328 (0.071)	17.1%	3.77 [3.28 - 4.34]
	Moderate	0.831 (0.07)		2.3 [2 - 2.63]
Mobility (Ref: Bad)	*Good*	0.884 (0.06)	11.4%	2.42 [2.15 - 2.72]
	Intermediate	0.525 (0.062)		1.69 [1.5 - 1.91]
NEWS (Ref: score = 5)	*11*	1.352 (0.068)	17.4%	3.86 [3.38 - 4.41]
	8	0.295 (0.061)		1.34 [1.19 - 1.51]
Look (Ref: Good)	*Bad*	0.946 (0.065)	12.2%	2.57 [2.27 - 2.92]
	Intermediate	0.65 (0.063)		1.92 [1.69 - 2.17]
Safety (Ref: Good)	*Bad*	0.262 (0.046)	3.4%	1.3 [1.19 - 1.42]
Family views (Ref: Unsure)	*No*	-0.777 (0.064)	11.5%	0.46 [0.41 - 0.52]
	Yes	0.12 (0.059)		1.13 [1 - 1.27]
SD Individual errors		1.104 (0.076)	-	-

Model statistics: 189 respondents; 4,536 observations; 19 model parameters; Log-likelihood = -3,950.7

MLE: Maximum likelihood estimate; SE: Standard error; SD: Standard deviation; OR: Odd ratio; CI: confidence interval; RI: Relative impact

Comparison between consultants and CCOR nurses preferences

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Summary

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- Patient's age is by far the most important determinant of consultants' admission decisions;
- Severity of main co-morbidity has more influence on consultants' decisions than severity of the acute condition (as measured by the NEWS score);
- Patient assessment by the registrar has more influence than objective clinical assessment (NEWS score).
- There is considerable heterogeneity in consultants' preferences
- There is a complex relationship between type and severity of co-morbidity
- CCOR nurses give more importance to physiological parameters (NEWS) than consultants and less importance the views of the family

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Development of a Decision Support Intervention

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

DSI development

Based on analysis of preceding work

1. Initial development of a draft DSI (conceptual framework and supporting resources):
2. Presentation of the DSI at a stakeholder conference to identify areas for revision and refinement.
3. Post-conference refinement of the DSI based on feedback
4. Development of educational materials
5. Refinement of the implementation strategy using Normalisation Process Theory

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DSI development

Regulatory background (GMC, MCA)

Ethical background

Accountability for reasonableness

- (Norman Daniels)

1. Transparency
2. Based on relevant factors
3. Open to revision
4. Appeal process

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Draft DSI

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Decision-support intervention

- Decision-making framework
  - Decision-support form
  - Referral form
- Patient and family information
- Educational resources
- Referral tracking

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Stakeholder conference

- Delegates included representatives from the following groups
  - People who have survived a critical illness
  - Patient groups who may be particularly likely to need intensive care treatment
  - Patient groups who may be disadvantaged in terms of access to health care
  - ICU doctors
  - ICU nurses and outreach nurses
  - Referring specialty clinicians
  - Regulatory authority, legal and health care management representation
- Focus groups and feedback

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Stakeholder conference feedback

Development of the referral and decision-support documentation:

- focus of the DSI was broadened to include decision-making regarding all forms of critical care support
- The term family member was changed to “person closest to the patient”
- The referral form was modified to be closer to the SBAR format.
- Specific references to patient safety and available resources were removed.

Development of the educational package:

- the importance of communication,
- relevant knowledge of legal and regulatory frameworks
- clear ethical framework, and guidance for using the forms.

Development of the patient and family support material:

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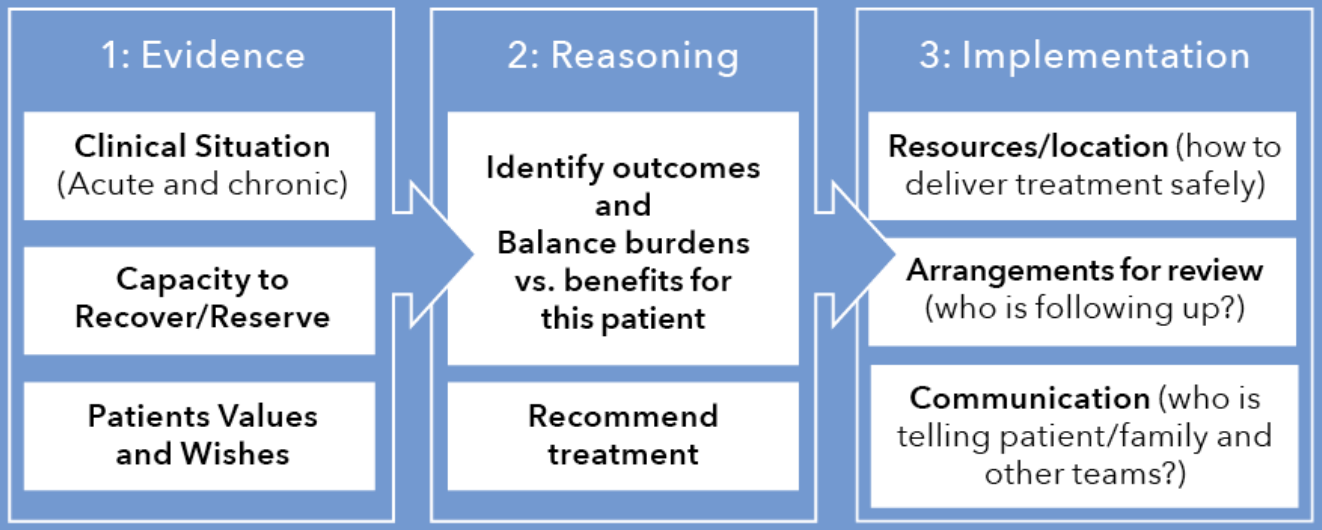
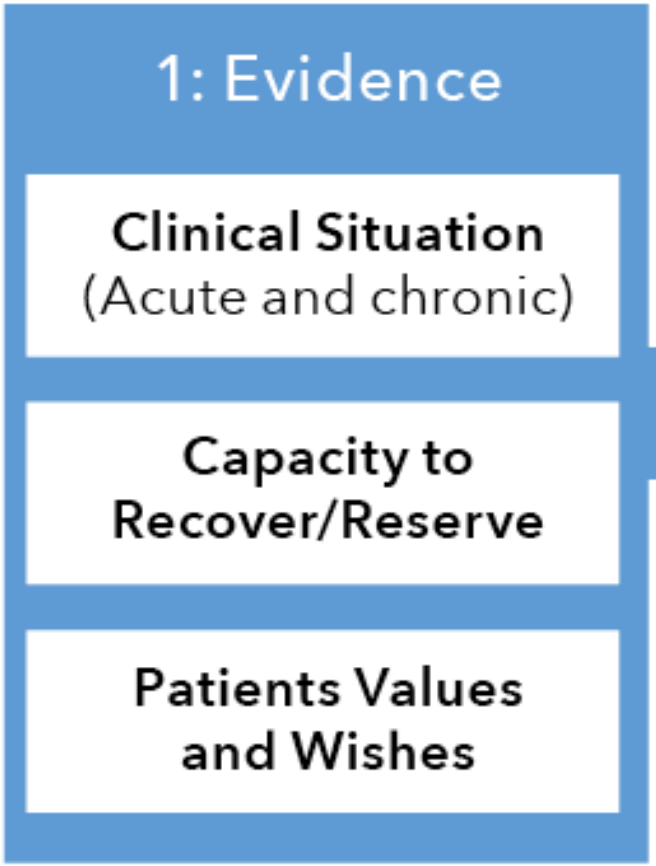
Decision-making for escalation of treatment



1. Evidence collection in decision making



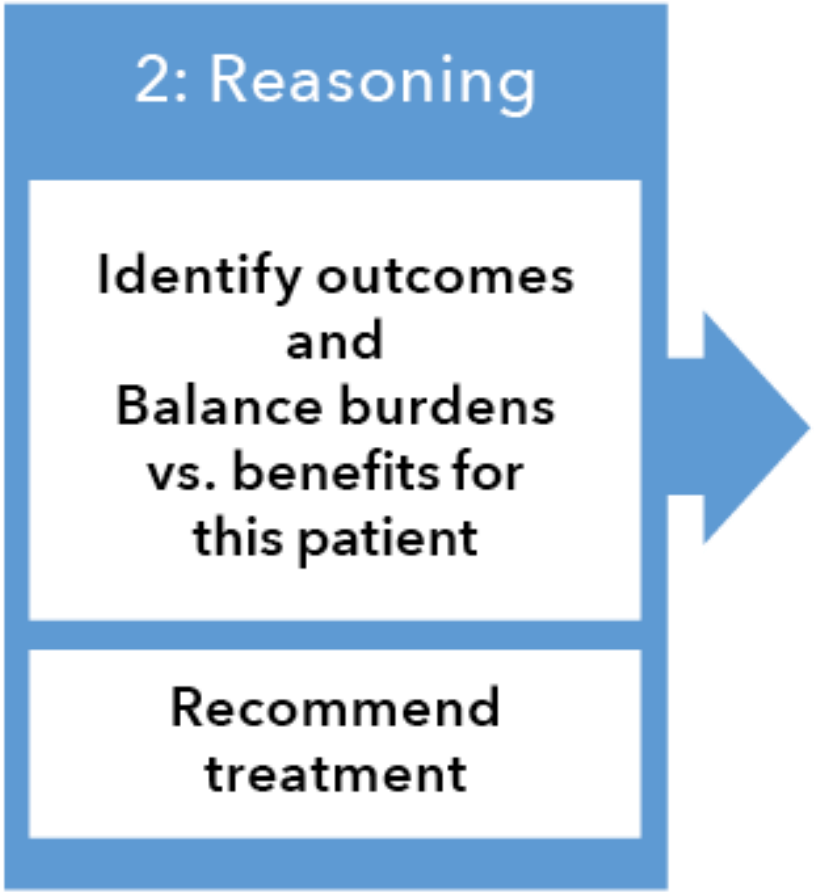
Ethnographic Data:

- **Data used in best observed practice of decision-making (structured)**
- **Communication between teams**
- **Communication with family and patient**
- **Gestalt assessment**
- **Holistic assessment**

Accountability for Reasonableness:

- **Relevant factors**
- **Transparency**

2. Reasoning in decision making



Ethnographic Data:

- **Clinical reasoning/balancing**
- **Holistic assessment**
- **Communication between teams**

Accountability for Reasonableness:

- **Relevant factors**
- **Transparency**

3. Implementation in decision making

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3: Implementation

Resources/location (how to deliver treatment safely)

Arrangements for review (who is following up?)

Communication (who is telling patient/family and other teams?)

Ethnographic Data:

- **Resources**
- **Communication between teams**
- **Communication with family and patient**

Accountability for Reasonableness:

- **Relevant factors**
- **Transparency**
- **Revision**
- **Appeals**

Affix patient sticker here

Hospital admission date: _____

Date of assessment: _____

Time of assessment: _____

Assessment number_____*(for repeat assessments)*

Critical care: Decision-support form

This form can be used to guide and record the decision-making process regarding the critical care support a critically ill patient should receive. It is designed to support best practice in decision-making.

Evidence: *Clinical* *(factors in patient's acute condition and long term health relevant to decision about escalating treatment)*

Evidence: Ability to recover from this critical illness based on evidence *(e.g: functional reserve, trajectory of illness, exercise capacity, dependence, self-reported QoL, frailty score)*

Evidence: Patient values and wishes *(what is important to the patient with regard to their treatment and the potential outcomes? Please note ReSPECT form/advance directive if available.) If no information is available please say why.*

Please document source of this information:(patient, family or someone close to patient, advance care plan etc)

_____

Balancing burdens and benefits of escalating treatment (based on the evidence in section one)

Benefits of intensive escalation of treatment for this patient *(what good may be achieved and what harms avoided? How likely is this?)*

Burdens of intensive escalation of care for this patient *(what harms are likely to occur due to escalating care)*

Recommended treatment *(summary of goals and focus of care, and actual therapy patient is to receive)*

Can this care safely be delivered outside ICU/HDU?

☐ Care required can only be delivered on ICU/HDU

☐ Care required can be delivered outside ICU/HDU and resources are available to do this safely

☐ Care required could be delivered outside ICU/HDU but resources are not available to do this safely

Arrangements for ongoing care/review

☐ Patient will be admitted to ICU/HDU.

☐ Patient to stay on ward with ongoing ICU or critical care outreach review.

☐ Patient to stay on ward. If patient's condition changes and further advice is required please contact ICU team.

Individuals contributing to decision-making

Patient *(please state if no involvement and reason for this)*:_____

Person close to patient:_____

Name:_____

Relationship to patient:_____

Nature of involvement:_____

ICU team

Name:_____ Signature: _____

Role:_____ GMC number: _____

Referring team

Name:_____ Signature: _____

Role:_____ GMC number: _____

Further information available: see notes entry dated:_____

Referral form and guidance

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Referring for critical care support: best practice for best care

(v1.1)

To get the right care for your patient consider the following:

1. Don't delegate to junior staff: consultant to consultant referrals are best
2. Be clear on what you are asking for: even if it is just another opinion
3. Consider the benefits and burdens of ICU for this person
4. What does the patient want? Speak to the patient or someone close to them

For more information: **www.warwick.ac.uk/ICUdecisions**

Developed in conjunction with University Hospitals Coventry and Warwickshire NHS Trust

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Affix patient sticker here

Hospital admission date: _____

Date of assessment: _____

Time of assessment: _____

Critical care Referral form

This form should be used to guide and record referral for critical care support. It is adapted from SBAR, and designed to support best practice in decision-making. It should not replace direct referrals and discussions.

Situation: *(reason for referral)*

Background: Patient's medical history and evidence regarding ability to recover from critical illness *(e.g: frailty score, trajectory of illness, physiological reserve, etc.)*

Patient's values and wishes: *(What is important to the patient about outcomes of their care) ? Please note any ReSPECT form/ advance directive.) Please document reasons if no information available.*

Please document source of information: *(patient, family member or someone close to patient, advance care plan etc)* _____

_____

Recommendation

- ☐ To obtain a review to consider admission to ICU/HDU for full or limited organ support
- ☐ To obtain a review but not necessarily to admit to ICU/HDU
- ☐ For assistance with a specific therapy to be delivered outside ICU *(venous access, help with NIV etc. Please specify)*_____
- ☐ To obtain a review to plan care in the event of deterioration
- ☐ Other *(please specify)*_____

Has the patient or a person close to them been given an information sheet regarding referral to intensive care? ☐

Discussed with ICU team member: Name:_____

Role:_____ Date _____ time:_____

Name:_____ Signature: _____

Role:_____ GMC number: _____

Discussed with consultant:_____

Patient and family information

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- To be given to patients and/or their families/someone close to them when they were recognised as being critically unwell
- Support discussion between clinicians and the patient/family
- Not to be given in isolation
- Initial development by PPI group
  - Development of separate patient and family information (PPI)
  - Crystal mark
  - Reading age
- Translations (for implementation study)
  - Sense checking by PPI

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Treating people who are critically ill
Information for patients

You have been given this information sheet because the doctors and nurses caring for you have asked the intensive care team for advice about your treatment. When someone becomes suddenly very unwell (critically ill), there are different options about what is the right treatment for them. This leaflet is about these options. We hope that this information will help you to understand what is happening, and to take part in discussions about your care. This will help the doctors and nurses make sure you get the treatment that is right for you. You do not need to read this, or take part in any discussions, if you do not want to.

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Treating people who are critically ill
Information for family and friends

You have been given this information sheet because someone close to you has been referred to the intensive care team. When someone becomes suddenly very unwell (critically ill), there are different options about the treatment they should receive. This leaflet tells you about these options. We hope that this information will help you to understand what is happening, and to help you when you speak to the doctors and nurses about the treatment.

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Educational resources

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1. Train the champion session
2. Grand Round presentation
3. Departmental presentation
4. Opportunistic teaching presentation
5. Lanyards and badges

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DSI development: Conclusion

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- How is this different to what I normally do?
  - Probably not much (most of the time)
    - Consistent
    - Transparent
    - Articulating complex decision-making
  - Getting the basics right; first time, every time.
- Structured
  - Education/training/standards

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Decision-support intervention implementation study

Implementation feasibility study

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Objectives

- To demonstrate the feasibility of implementing the Decision Support Intervention (DSI) at an organisational level, including its associated materials and training, in the context of a busy NHS trust.
- To explore intervention fidelity reviewing the actual use of the DSI, its impact on decision-making, and how this compares to its intended use.
- To explore the acceptability of the intervention, including the training and DSI materials to referring and admitting clinicians.

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Methods

- Implementation in three NHS Trusts sampled by size of ICU
  - (small <15 beds, medium 15-30 beds, and large >30 beds)
- Implementation champions identified
- Train the champion sessions
- Provision of DSI documentation (referral forms, DSF forms, patient and family information leaflets)
- Resource pack for champions with educational materials for training/informing staff
- Implementation period of 8 weeks followed by data collection over 6 weeks

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Methods

- Observation of a sample of education sessions during implementation period
- Interviews with the 6 implementation champions throughout implementation period looking at barriers and facilitators to implementation
- Quantitative data collection on form usage
- Interviews with 20 ICU doctors and 19 referring doctors on acceptability and impact on decision-making

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Barriers and facilitators to implementation

- Time and reach:
  - very short implementation period
  - The need to reach so many specialties (easier in small hospital)
  - Difficulty getting into educational programmes
  - Number of locums in hospital
  - Lack of time and resource to explain underlying conceptual framework/reasoning so focus on raising awareness of forms and how to use them

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Barriers and facilitators to implementation

- Selection of champions
  - Seniority and hierarchy
  - Base specialty of champions (ICU/outreach/referring teams)
  - Existing inter professional relationships

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Form usage

	Hospital A	Hospital B	Hospital C	All hospitals
Final number of referrals examined	63	14	104	181
Number of cases where any form was used (%)	28 (44.4)	3 (21.4)	20 (19.2)	51 (28.2)

Both forms were more likely to be used in older patients (statistically significant)

Both forms more likely to be used during the day (8am to 8pm) not statistically significant

Registrars use the forms more frequently than consultants (66.7% v 38.5% for referral forms; 44.2% v 28.9% for DSF forms)

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Patient and family information leaflets

- PILs and FILs were not used at any of our three sites
- Interviewees were unaware of them
- Participants thought concept useful but identified barriers to their use

I don't think he would have read it to be honest in that particular situation…I would probably prefer to use them in the less acute situation. – Referring clinician 6, Hospital B (Registrar, used form)

I think it's perfectly appropriate but I don't think it's going to work in the real world. – Referring clinician 6, Hospital A (Consultant, used form)

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Acceptability to clinicians

- Ease (or not) of use of forms

It wasn't difficult…If we do this for all the patients we send in I don't have an issue with that. – Referring clinician 6, Hospital C (Consultant, used form)

They're quite hard to write how you would, how would you write this down?...The burdens are quite hard to articulate, although we know they're there and we know they're profound. – Admitting clinician 2, Hospital C (Registrar, used form)

- Impact on workload/duplication of effort

I just feel that we have a lot of paperwork as medics to fill in already. And it just adds another piece of paper to what, bits we've already got to do. – Referring clinician 5, Hospital A (Medical Registrar, used form)

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Acceptability to clinicians

- Perceived threat to clinical authority/expertise

One could argue it's intensive care saying: 'You guys don't know what you're talking about, we'll make the decision for you'. – Referring clinician 7, Hospital C (Consultant, used form)

I don't need it to help me make a decision because like otherwise what have I been doing for the last ten years? – Admitting clinician 1, Hospital B (Consultant, never used form)

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Particular context of ED

- Much less time for making decisions
- Less information available
- ICU referral part of a complex and rapidly evolving situation
- However not all participants were averse to using the forms in ED

'[ED is] *like a busy bazaar, so it might be it sort of particularly adds a little bit of resting quiet normality to an otherwise slightly potentially mad referral with a lot of noise and a lot of things going on in the background.'* – Admitting clinician 6, Hospital B (Registrar, used form)

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Impact on decision-making

- Improves articulation and communication of referrals and decisions

It helped me frame the conversation I was going to have with the ITU registrar in terms of this patient, OK she's possibly borderline, she's elderly, got some other co-morbidities, not your kind of clear-cut ITU case but she's functioning independent and her family say she's got a good quality of life and I've got some evidence there to say that actually she should be, she's probably got a reserve that could be managed in ITU. – Referring clinician 2, Hospital A (Registrar, used form)

It just cemented and convinced me that actually I was doing the right thing…It gives you just a bit more err support in your decision-making so you can show…this is what I felt at the time. – Admitting clinician 6, Hospital B (Registrar, used form)

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Impact on decision-making

- Considering patients' wishes and values

I think the most important bit was actually speaking to the patient about their wishes. That I wouldn't automatically think about. – Referring clinician 6, Hospital B (Registrar, used form)

This form definitely made me write it in this case anyway…It's a good prompt and something that you should think about documenting every time even if you're not doing this form. – Admitting clinician 7, Hospital C (Registrar, used form)

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Improving documentation

Introducing an element of…accountability for that referral conversation is really, really useful. – Referring clinician 1, Hospital B (Registrar, never used form)

It's a good way of making sure that everyone documents the same…type of information. – Admitting clinician 3, Hospital A (Registrar, used form)

This is what I've done my whole life…it's just a written-down version of what I do every day so…probably the most helpful thing for me is to get me to write it down rather than help me make the decision…[It] *might save me from going to jail because I will have written things down in a more thorough format when anything goes wrong.* – Admitting clinician 1, Hospital B (Consultant, never used form)

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Summary (1)

- Uptake was variable across the three sites
- Implementation period was too short and gaining access to educational programmes a challenge
- When used forms were mainly completed reasonably well
- Balancing benefits and burdens, and identifying patients wishes and values were the least well documented on forms
- Concerns over additional workload

BUT

- Clinicians found the forms easy to use and they had a positive impact on the process of decision-making, particularly on thinking through their reasoning, communication between teams, and seeking the patient ‘s perspective

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Summary (2)

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- Failure of use of patient and family information leaflets
  - ? Lack of awareness (implications for training)
  - ? Timing (thought about too late or not enough time because of urgency of situation)
  - ? Resistance by staff to discussing difficult decisions with patients and their families (wish to avoid additional distress)

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Lessons for future implementation

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- Plan educational programme to support implementation:
  - Conceptual framework/reason for intervention
  - Timing of use of forms
  - Reassurance re perception of undermining clinical expertise/authority
- Senior Trust buy-in
- Electronic format
- Champions in referral units as well as ICU
- System to monitor use (referral log)
- Consider how to best to have a meaningful dialogue with patients and those close to them

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Decision-making for ICU admissions: Understanding and improving the decision-making process surrounding admission to the intensive care unit

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Discussion

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

Understanding decision-making

- Patient and family involvement
  - Involvement is invaluable
  - Involvement is avoided
- Assessment
  - The objective assessment
  - The “gestalt” assessment
  - The holistic assessment
- Reasoning
  - Use of information
  - Lack of clear reasoning
  - Variability between decision-makers

Improving Decision-making

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

Assessment

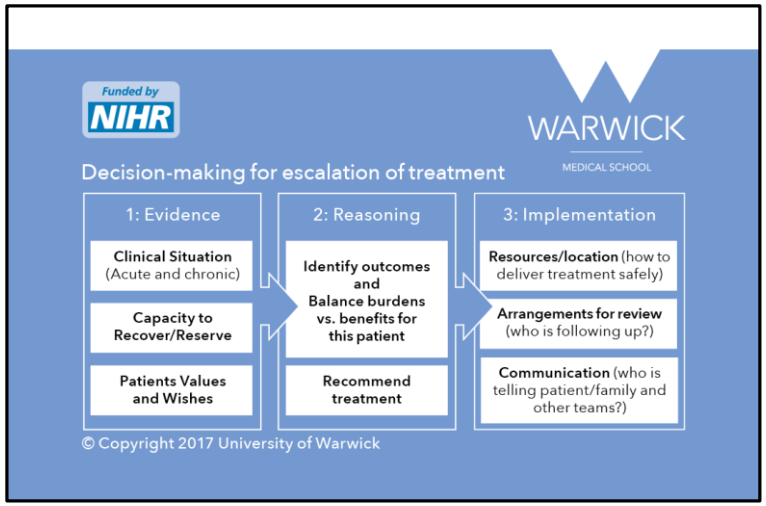
Communication

Patient and family involvement

Reasoning

Ways to improve

1. Organisation
2. Education
3. Environment



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Thank you

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