

## Supplementary Material 14 – Educational material for Implementation Champions

### *Train the trainer example session*

#### **Agenda**

<b>Session 1: Introduction and background</b>		
10.00-10.05	Welcome and introductions	
10.05-10.35	Outline of project and importance of project and role of champions	
10.35-11.05	Ethics and law of decision-making process	
<b>Session 2: The intervention in detail and what it means for you</b>		
11.15-11.40	Components of the intervention we are delivering	
11.40-12.10	Presentation of long version of training materials	
12.10-12.30	Look through short version and opportunistic training materials	
12.30-13.00	Lunch	
<b>Session 3: Implementing the intervention in your Trust</b>		
13.00-13.45	Simulation case: training practice	
13.45-14.30	Developing a strategy	
14.30-15.00	Wrap up and next steps	

**Prompts for session three: Developing a strategy:**

What is referral process at your trust – sketch out on flip chart

At each stage consider:

- Who will be involved (key groups)?
- How do you access those groups?
- Who are the opinion leaders/change makers in these groups?
- How do you engage the opinion leaders/change makers?
- How do you encourage teams to get involved in the process and use the forms (referral form, patient and family information leaflets, DSF)?
- Where will the forms be kept/accessed? What is the usual mechanism for accessing forms in your Trust?
- How will you know if the forms are being used?
- What will you do if they are not being used?
- What (and who) are the challenges to implementation?
- How would you overcome them?
- What are the opportunities for training and dissemination?



## Decision-making for ICU admissions

### Legal and ethical framework

Train the trainers workshop 2017



## Decision-making



### What is the ethically relevant decision?

- Decision to refer or not to refer?
- Decision to admit or not to admit?
- What is the best treatment for this patient?

## Decision-making

WARWICK

- Decisions regarding patient care
  - Patient has capacity (consent/shared decision making)
  - Patient lacks capacity (best interests)

## Decision-making

WARWICK

### Patient has capacity

#### Common law:

- *Montgomery v Lanarkshire Health Board (Scotland)* (Supreme Court 2015)
- For consent to medical treatment to be valid, the patient must be put into a position to decide personally what is material to him or her. Material risks include what a reasonable person in the patient's position might attach significance to and any reasonable alternative treatment. In addition the doctor should be reasonably aware of specific risks that this patient might attach significance to. *Requires dialogue with the patient*

## Decision-making

WARWICK

### Mental Capacity Act 2005:

- If no relevant ADRT or LPA then:
- The legal principle is that the decision must be made in the person's best interests (section 4)

In determining what is in a person's best interests, the person making the determination must not make it merely on the basis of—

- (a) the person's age or appearance, or
- (b) a condition of his, or an aspect of his behaviour, which might lead others to make unjustified assumptions about what might be in his best interests.

## Decision-making

WARWICK

### Patient has capacity

#### Mental Capacity Act 2005

- A person aged 16 and over is assumed to have capacity
- Note cognitive impairment per se does not mean lack of capacity
- Implications for patients who have learning difficulties or dementia

**You need to talk to the patient**

## Decision-making

WARWICK

### Patient lacks capacity

#### Mental Capacity Act 2005:

- A valid and applicable advance refusal of treatment must be respected
- A registered Welfare Lasting Power of Attorney must be respected (the holder of the LPA can make decisions as a proxy for the patient, but must do so according to the principle of best interests)

## Decision-making

WARWICK

#### Mental Capacity Act 2005:

- If no relevant ADRT or LPA then:
- The legal principle is that the decision must be made in the person's best interests (section 4)

In determining what is in a person's best interests, the person making the determination must not make it merely on the basis of—

- (a) the person's age or appearance, or
- (b) a condition of his, or an aspect of his behaviour, which might lead others to make unjustified assumptions about what might be in his best interests.

## Decision-making

WARWICK

### Mental Capacity Act 2005:

You must consider—

(a) whether it is likely that the person will at some time regain capacity to make a decision (b) if it appears likely that he will, when that is likely to be.

You must, so far as reasonably practicable, permit and encourage the person to participate as fully as possible in any decision affecting him/her.

## Decision-making

WARWICK

### Mental Capacity Act 2005:

You must consider, so far as is reasonably ascertainable—

(a) the person's past and present wishes and feelings (and, in particular, any relevant written statement made by him when he had capacity),

(b) the beliefs and values that would be likely to influence his decision if he had capacity, and

(c) the other factors that he would be likely to consider if he were able to do so.

## Decision-making

WARWICK

### Mental Capacity Act 2005:

You must take into account, if it is practicable and appropriate to consult them, the views of—

(a) anyone named by the person as someone to be consulted on the matter in question or on matters of that kind,

(b) anyone engaged in caring for the person or interested in his welfare,

(c) any donee of a lasting power of attorney granted by the person, and

(d) any deputy appointed for the person by the court,

## Decision-making

WARWICK

- A decision to refer or admit/not admit to ICU is a decision about whether to withhold a potentially life sustaining treatment
- Clinical component    what *can* we do?
- Ethical component    what *should* we do?
- Both need justification



## Professional guidance

WARWICK

24. The starting point for reaching good decisions is careful consideration of the patient's clinical situation,... You must carry out a thorough assessment of the patient's condition and consider the likely prognosis...

25. You should identify treatment options based on:

- (a) up-to-date clinical evidence about effectiveness, side effects and other risks
- (b) relevant clinical guidelines on the treatment and management of the patient's condition, or of patients with similar underlying risk factors, such as those issued by the National Institute for Health and Clinical Excellence (NICE) and the Scottish Intercollegiate Guidelines Network (SIGN).

## Professional guidance

WARWICK

16(f) ...the doctor must consult with members of the healthcare team and those close to the patient (as far as it is practical and appropriate to do so) before reaching a decision. When consulting, the doctor will explain the issues; seek information about the patient's circumstances; and seek views about the patient's wishes, preferences, feelings, beliefs and values. ...The doctor must take the views of those consulted into account in considering which option would be least restrictive of the patient's future choices and in making the final decision about which option is of overall benefit to the patient.



## Professional guidance



WARWICK

40. The benefits of a treatment that may prolong life, improve a patient's condition or manage their symptoms must be weighed against the burdens and risks for that patient, before you can reach a view about its overall benefit. ...

41. The benefits, burdens and risks associated with a treatment are not always limited to clinical considerations, and you should be careful to take account of the other factors relevant to the circumstances of each patient.



WARWICK

## What is the ethically relevant question?

- Should we refer/admit this patient to ICU?
- **What treatment options would be best for this patient?**



What would a good decision making process look like? 



Transparent  
Consistent  
Ethically justified  
Evidence based  
Patient centred

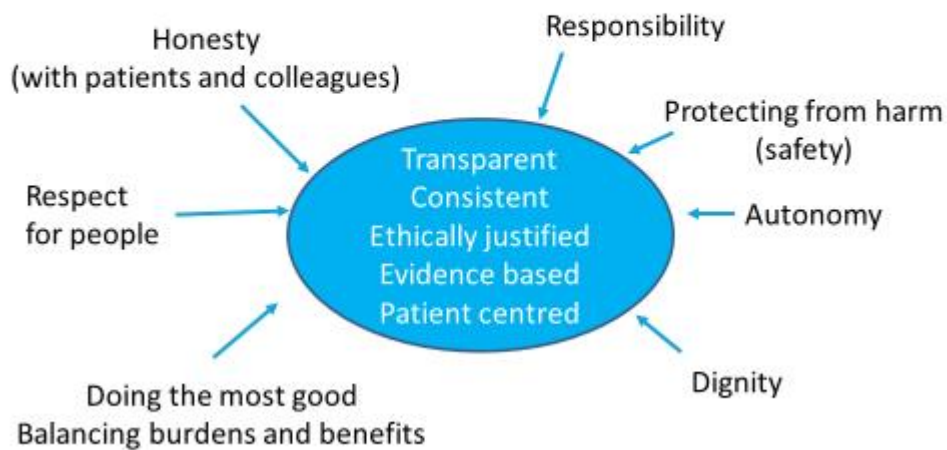


  
Ethical framework

- Principles
- Particulars
- Perspectives

## Principles

WARWICK



## Particulars

WARWICK

- Clinical information
  - Acute condition
  - Previous health/co morbidities
  - Functional reserve
- Contextual information
  - Family situation
  - Patient's quality of life (as perceived by them)
  - Lasting power of attorney
  - Capacity to deliver care on the ward
  - Capacity to deliver care on ICU



## Perspectives



WARWICK

- The patient
  - Current views/values/wishes
  - Previously known/expressed views/values/wishes (ADRT)
  - Nominated representative (LPA)
  - What is important to this person in relation to their treatment?
- Family/friends
  - Their knowledge of patient
  - Their views on benefits and burdens of treatment



## Perspectives

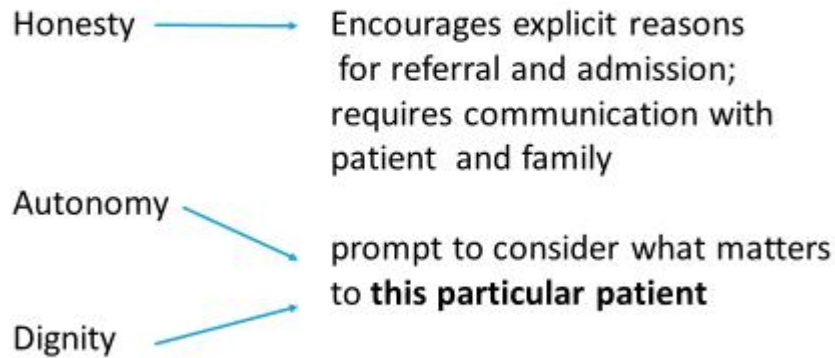


WARWICK

- The referring team (may know patient better)
  - Consultant
  - Junior doctors
  - Nurses (ward and outreach)
- The ICU team (expert knowledge of treating the critically ill patient)

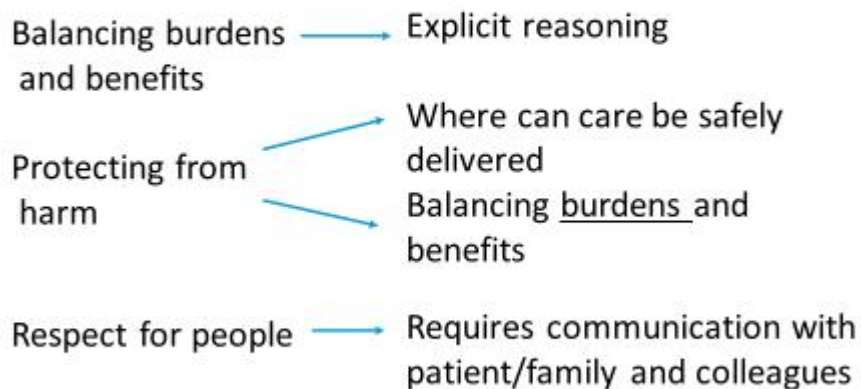
## Principles to practice

WARWICK



## Principles to practice

WARWICK



## Development of support for decisions around referral and admission to ICU

WARWICK

- Draws on research findings
- Reflects best current practice
- Mitigates for possible shortcomings in process
- Integrates ethical reasoning into decision-making process
- Addresses whole of decision-making process

### 1. Referral mechanism

WARWICK

- **No current standards in referral**
- Improve communication between clinical teams
- Prompt gathering of relevant information
- Prompt best interests deliberation at referral stage
- Improve communication with patient and family

## 2. Patient and family support

WARWICK

### 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.



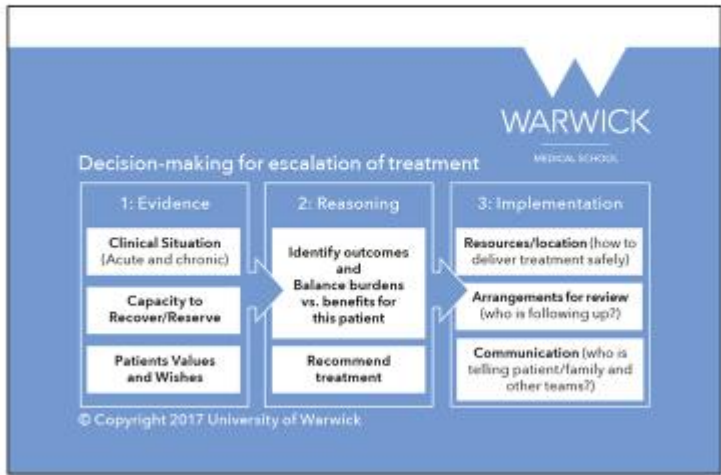
- Leaflets for patients and family/friends
  - Explains the process and reasoning to patients and families
  - Supports them to participate
  - Provides links to ongoing support

## 3. Decision-support framework

WARWICK

- **Currently no standard system for process of decision-making**
  - A. Address context of decision-making
  - B. Information gathering
  - C. Deliberation on optimal therapy for the patient and the most appropriate setting for that care
  - D. Communication of the decision and planning for future care

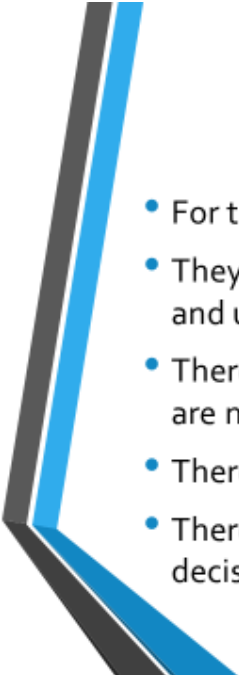




*Presentation for champions to use (long version for large/formal meetings)*

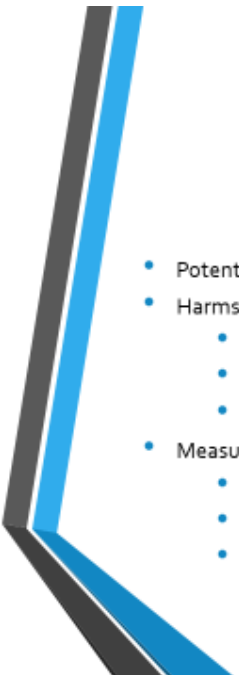


Decisions to refer and admit to intensive care :  
improving quality and process



## Why does it need improving?

- For the patient these are life and death decisions
- They are often made in circumstances where there is limited time and uncertainty of outcome
- There is evidence of substantial variation in how these decisions are made
- There are no nationally used guidelines
- There is little in the way of training for clinicians making these decisions



## Why is it difficult?

### **Intensive Care**

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

## Decision-making


- A decision to refer or admit/not admit to ICU is a decision about whether to withhold a potentially life sustaining treatment
- Clinical component what *can* we do?
- Ethical component what *should* we do?
- Both need justification

Addressing the problem:  
NIHR funded project to look at process of decision making

Systematic reviews

Observational study

Questionnaire Study –  
(ICU consultants and outreach nurses)



## Systematic review

### Factors affecting decisions to admit to ICU

#### Patient related

- Current functional status / quality of life
- Patient age
- Presence of chronic illness
- Patient preference
- Family preference
- Gender

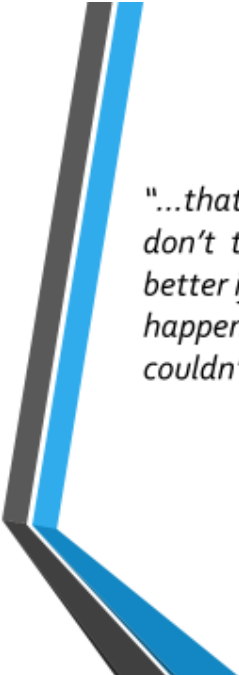
#### Clinician/organisation related

- Seniority of clinician
- Prognostic pessimism / perception of futility
- Clinician's specialty
- Patient's "specialty"
- ICU bed availability
- Advance care plan or directive
- Time of day



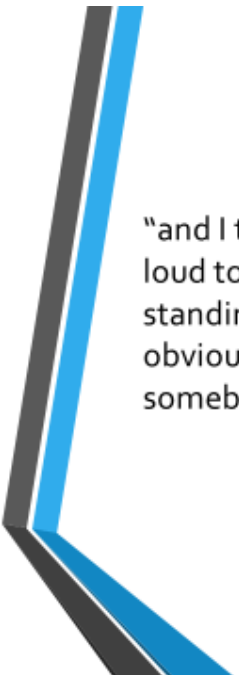
## Observational study

- Complex decisions
- Lack of communication/shared understanding between referral team and ICU regarding:
  - Reason for referral
  - Responsibility for ongoing care
- Little evidence of weighing factors for and against admission
- Difficulties with communicating with/involving patient's family
- Anxiety, confusion, and isolation experienced by family



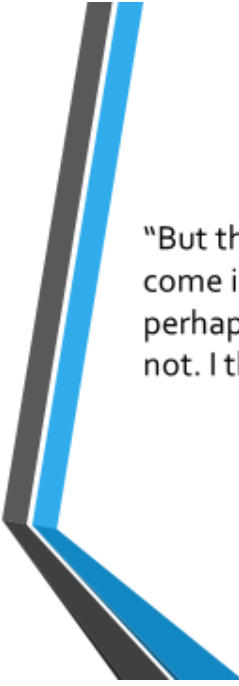
*"...that's difficult because you yourself are in a bit of turmoil ... you don't take in everything that they're saying to you and it would be better if they were able to say to you, 'Right this happened, that has happened, we are now moving her,' and they make the decision. I couldn't make the decision as whether to move to intensive care or..."*

*Patient's son*



"and I think he was, he was sort of maybe thinking out loud, out loud to himself and maybe saying to R you know, and we're sort of standing there thinking, "Oh my gosh, flipping hell!" because obviously like you know, I always think well when they're helping somebody breathe, you know, well what's wrong?"


Patient's wife



“But they’re obviously making decisions because different doctors come in but you don’t maybe realise why they come in. But then perhaps somebody later will come and explain to you or perhaps not. I think it’s just a bit hit and miss.”

Patient’s daughter

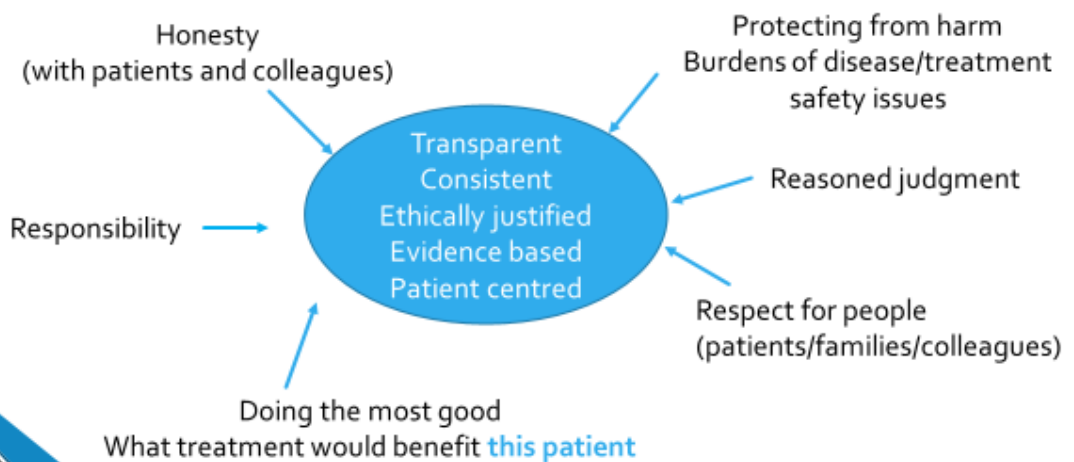
## Observational study


- BUT: there were also examples of good practice to learn from
- 

What would a good decision making process look like?



Ethically grounded clinical decision making





## Why doesn't it always happen like this?

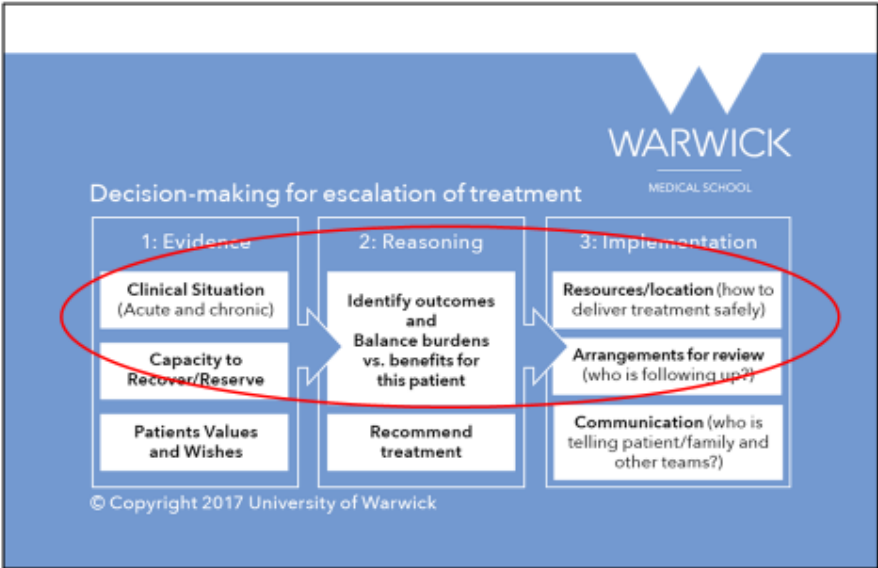
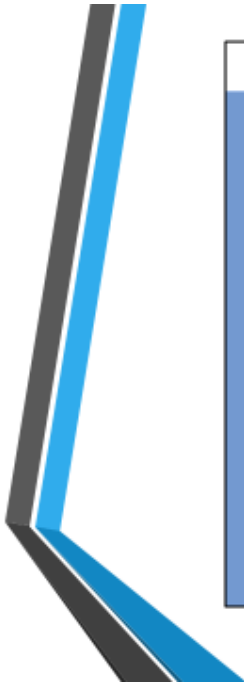
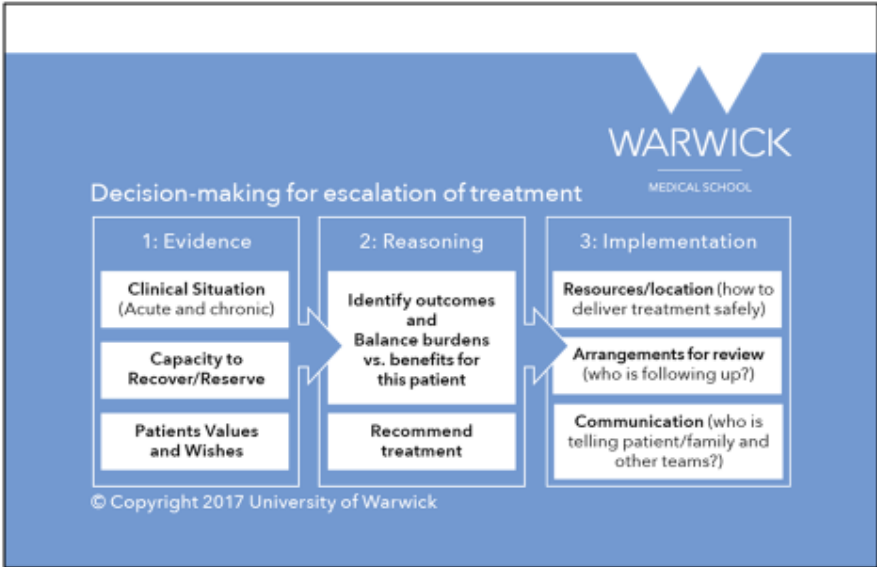
- Complicated
- No time
- Limited information available
- Outcomes are uncertain
- Unclear lines of responsibility



## How can we make it better?

- Provide a structured framework for decision-making that:
  1. Records relevant clinical evidence and patient wishes
  2. Prompts patient centred, ethically justified decision making
  3. Guides implementation, communication, and review





## Providing a structured framework

Hospital admission date: \_\_\_\_\_  
 Date of assessment: \_\_\_\_\_  
 Time of assessment: \_\_\_\_\_

**Critical Care Referral Form**

This form should be used to guide and record the critical care request. It should be completed from either an identified consultant or a designated consultant. It should be completed in consultation with the patient and their family.

**Indication:** (Please describe the patient's condition)

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

**Patient's values and wishes:** (Please refer to the patient's values and wishes. Please note any health care proxy or advance directives. Please document reasons if the patient is unable to consent.)

Please document source of information: (patient, family, patient care coordinator, etc.)

**Recommendation:**

A.1. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.2. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.3. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.4. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.5. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.6. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.7. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.8. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.9. Do you recommend to consider admission to ICU/CCU for further investigation support?

A.10. Do you recommend to consider admission to ICU/CCU for further investigation support?

Other patient or carer wishes to which have been given an information sheet regarding what to expect in ICU/CCU?

Consent: (with ICU/CCU team available) Yes/No

Other: (Please specify)

Referring: (Please specify)

Referral: (Please specify)

Discussed with consultant: \_\_\_\_\_

Hospital admission date: \_\_\_\_\_  
 Date of assessment: \_\_\_\_\_  
 Time of assessment: \_\_\_\_\_  
 Assessment number: (for patient assessment): \_\_\_\_\_

**Critical Care Decision-Making Form**

This form can be used to guide and record the decision-making process regarding the critical care patient's ability to recover from critical illness. It should be completed in consultation with the patient and their family.

**Evidence: Clinical evidence:** (Please describe the patient's condition and any other relevant information to decision-making regarding recovery)

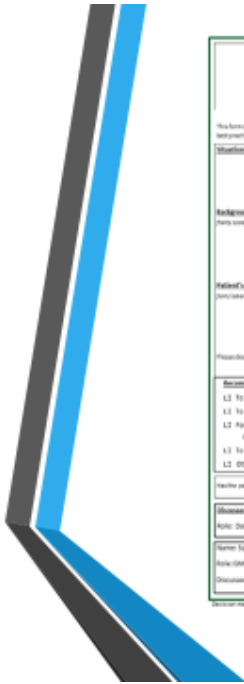
**Evidence: Ability to recover from this critical illness based on evidence:** (in an American format, including the patient's values, preferences, and expectations for quality of life)

**Evidence: Patient, values and wishes:** (Please refer to the patient's values and wishes regarding their treatment and the possibility of recovery. Please note any health care proxy or advance directives. Please document reasons if the patient is unable to consent.)

Please document source of information: (patient, family, patient care coordinator, etc.)

## Referral process

- Referral mechanism is important
- SBAR format
- Consultant to consultant referrals are the preferred model
  - Most senior available clinician
  - Referrals should not be delegated
- Clear involvement of patient/advocate
  - Information leaflet
- Clear recommendation: what is being asked for?
- Document referral to whom and when
- **Use the form**



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 completed from GMS, and designed to support appropriate decision-making. It should not replace direct verbal communication.

**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:** (This is a response to the advance care statement of the patient. Please refer to ReSPECT form where possible. Please document reasons for the information available.)

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

**Recommendation:**

L1 To obtain a review to consider admission to ICU/HDU for full or limited organ support  
 L2 To obtain a review but not necessarily to admit to ICU/HDU  
 L3 For assistance with a specific therapy to be delivered outside ICU (venous access, help with NIV etc. Please specify)  
 L4 To obtain a review to plan care in the event of deterioration  
 L5 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: \_\_\_\_\_

**Form Signature:** \_\_\_\_\_  
 Role: GMS number: \_\_\_\_\_  
 Discussed with consultant: \_\_\_\_\_

Version 1.0 - 2019

## Referral form

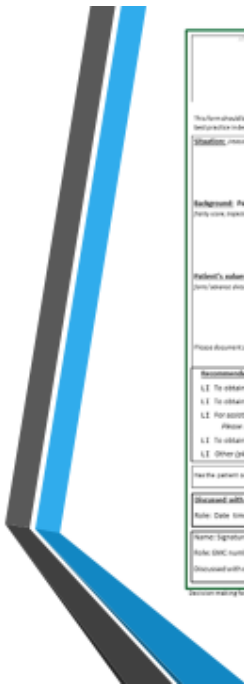
Situation: reason for referral

Background: medical history and evidence regarding ability to recover from critical illness (frailty score score, trajectory of illness, physiological reserve, etc)

Patients values and wishes: what is important to the patient about outcomes of their care

Note presence of any ReSPECT form or advance care plan  
 Please document reasons if no information available

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



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 completed from GMS, and designed to support appropriate decision-making. It should not replace direct verbal communication.

**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:** (This is a response to the advance care statement of the patient. Please refer to ReSPECT form where possible. Please document reasons for the information available.)

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

**Recommendation:**

L1 To obtain a review to consider admission to ICU/HDU for full or limited organ support  
 L2 To obtain a review but not necessarily to admit to ICU/HDU  
 L3 For assistance with a specific therapy to be delivered outside ICU (venous access, help with NIV etc. Please specify)  
 L4 To obtain a review to plan care in the event of deterioration  
 L5 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: \_\_\_\_\_

**Form Signature:** \_\_\_\_\_  
 Role: GMS number: \_\_\_\_\_  
 Discussed with consultant: \_\_\_\_\_

Version 1.0 - 2019

## Referral form

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?

# Patient and family information

## 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.



## 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.



## Decision support framework

Hospital admission date:  
 Date of assessment:  
 Time of assessment:  
 Assessment number (for correspondence)

Edited decision support form  
 This form can be used to guide and record the decision-making process regarding the critical care support a patient will need 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, in a previous illness** (e.g. functional reserve, trajectory of illness, exercise capacity, dependence, self-reported QoL, frailty score)

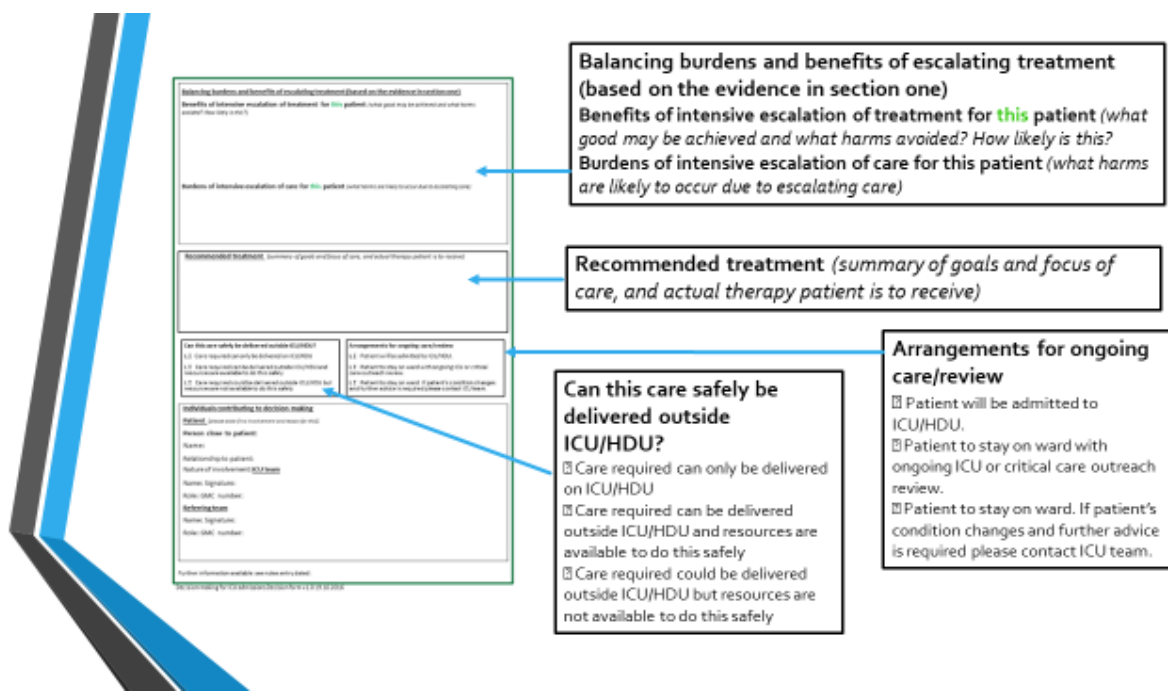
**Evidence: Patient values and wishes** (what is important to the patient with regard to their treatment and the potential outcomes? Please note ReSPECT form/advance refusal of treatment if available.) If no information is available please say why.

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

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

**Evidence (ability to recover from critical illness)**  
(e.g. functional reserve, trajectory of illness, exercise capacity, dependence, self-reported QoL, frailty score)

**Evidence (patient's values and wishes)**  
(what is important to the patient with regard to their treatment and the potential outcomes? Please note ReSPECT form/advance refusal of treatment 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 .....

**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: .....

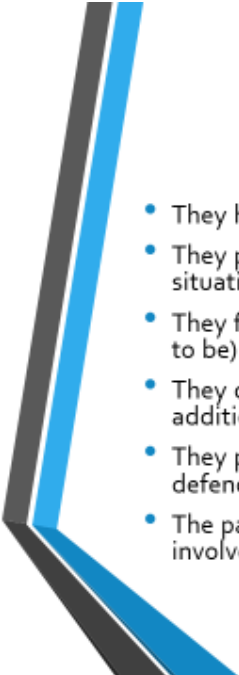
Role: GMC number: .....

**Referring team**

Name: Signature: .....

Role: GMC number: .....

Further information available: see notes entry dated .....



## Why use the forms?

- They help to structure decision making
- They prompt for what needs to be considered and may be missed in a pressured situation
- They facilitate ethically justifiable decision making (this is how we would want it to be)
- They don't include information that you shouldn't normally record so it is not additional work
- They provide a transparent record for future review (audit/learning/litigation defence)
- The patient and family leaflets help to structure conversations and support their involvement.



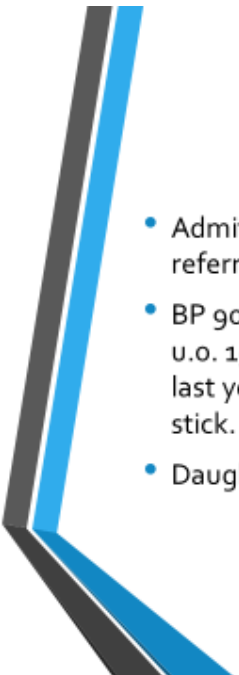
## How to use them?

- **Their use should not delay timely urgent treatment of seriously ill patients**
- Some boxes may require little information in some patients (or information may not be available)
- But noting absence of information provides a prompt to revisit this at a later time and obtain relevant information for further review and decision making



## How to use them?

- Paper version; available on wards and ICU; file in patient notes
- May be able to download and print off from Trust website
- Electronic version; has been developed but need Trust IT system to incorporate it



## Case 1: 79 year old female patient

- Admitted 3 days ago with pneumonia now has worsening NEWS score referred to Outreach for consideration of admission to ICU for organ support
- BP 90/50, HR 105, SpO<sub>2</sub> 91%, FiO<sub>2</sub> 0.80, RR: 32, 2000ml ivi in last 3 hours, u.o. 15ml/hr, conscious, History of DM, CKD, osteoporosis, arthritis, 1 fall in last year, takes a long time to climb stairs as not very strong. Walks with a stick.
- Daughter says she is very active, enjoys life, would hate to be "in a home"

## Decision support framework

<p><b>Hospital admission date:</b> Date of assessment: Time of assessment: Assessment number (in future assessments)</p> <p><b>ICU/HDU admission assessment form</b></p> <p>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 documentation.</p> <p><b>Indication: Chief</b> (Summarise a patient's acute condition and any other health issues in detail or other underlying conditions)</p> <p><b>Evidence: Ability to recover from critical illness based on evidence</b> (in a previous critical illness if there, include details of diagnosis and treatment (ICU/HDU care))</p> <p><b>Indication: Patient values and wishes</b> (where in comparison to the patient with regard to their response and expectations for critical care/ICU/HDU care based on shared decision making, if the information is available to you)</p> <p>Place a tick in one of the following boxes (check for completion in patient, discuss with patient)</p>
---

### Evidence (clinical):

79 year old female with new diagnosis of pneumonia, 3 days of treatment, now has worsening physiology:  
 BP 90/50, HR 105,  
 SpO2 91%, FiO2 0.80, RR: 32  
 2000ml i/v in last 3 hours, u.o. 15ml/hr,  
 GCS 14/15  
 History of DM, CKD, osteoporosis, arthritis.

### Evidence (ability to recover from critical illness)

1 fall in last year, takes a long time to climb stairs as not very strong. Walks with a stick. Frailty score 4 to 5  
 Reflects patient likely to have prolonged/incomplete recovery

### Evidence (patient's values and wishes)

Daughter says she is very active, enjoys life, would hate to be "in a home". Patient too unwell to discuss.

<p><b>Balancing burdens and benefits of escalating treatment (based on the evidence in this case)</b></p> <p><b>Benefits of intensive escalation of treatment for this patient</b> (what good may be achieved and what harm avoided? How likely is this?)</p> <p><b>Burdens of intensive escalation of care for this patient</b> (what are the risks to the patient's recovery?)</p> <p><b>Recommended treatment</b> (summarise clinical evidence of care, and what therapy patient is to receive)</p> <p><b>Can this care safely be delivered outside ICU/HDU?</b></p> <p>1.1. How likely is it to be delivered outside ICU/HDU?          1.2. How likely is it to be delivered outside ICU/HDU?          1.3. How likely is it to be delivered outside ICU/HDU?          1.4. How likely is it to be delivered outside ICU/HDU?</p> <p><b>Arrangements for ongoing care/review</b></p> <p>1.1. How likely is it to be delivered outside ICU/HDU?          1.2. How likely is it to be delivered outside ICU/HDU?          1.3. How likely is it to be delivered outside ICU/HDU?          1.4. How likely is it to be delivered outside ICU/HDU?</p> <p><b>Individuals contributing to decision making</b></p> <p><b>ICU/HDU</b> (where care is received or intended and where care is planned)</p> <p><b>Where care is planned:</b>          Name:          Role:          Relationship to patient:          Nature of involvement (ICU/HDU):          Name, Signature:          Role, GMC number:  <b>Escalating team</b>          Name, Signature:          Role, GMC number:</p> <p>Further information available upon request (date):</p> <p>For completion by the clinician (ICU/HDU) (ICU/HDU)</p>
---

### Balancing burdens and benefits of escalating treatment

#### Benefits of intensive escalation of treatment for this patient

Patient unlikely to survive without pressor and ventilatory support. Very likely to need renal replacement therapy as well. Short term organ support may allow more time for antibiotics to resolve pneumonia

#### Burdens of intensive escalation of care for this patient

Functional status post critical illness may be severely curtailed, this is likely to be unacceptable (according to daughter). Full organ support will be distressing and prolonged in all likelihood.

#### Recommended treatment

This lady should be admitted for non-invasive ventilation and vasopressor support as ceiling of care. Not for acute RRT or invasive ventilation as deterioration to point of requiring these would show failure of therapy, and no chance of recovery acceptable to patient.

### Arrangements for ongoing care/review

✓ Care required can only be delivered on ICU/HDU

✓ Patient will be admitted to ICU/HDU.

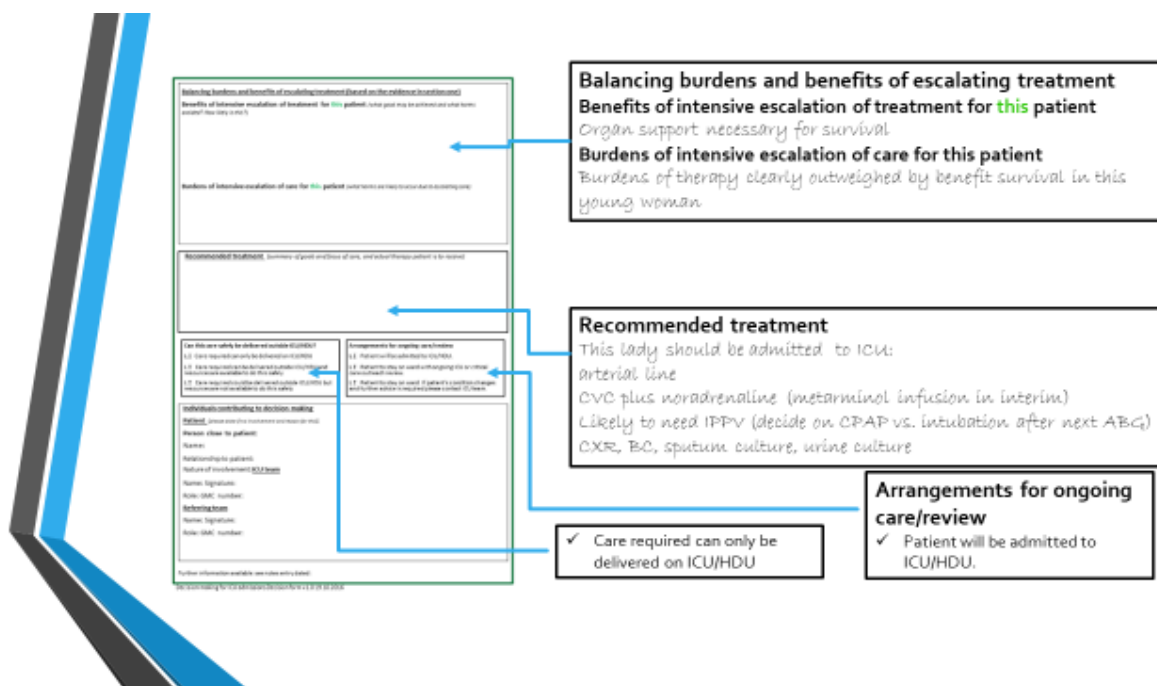


## Case 2: 35 year old female patient

- Admitted 1 day ago with sepsis: unknown source.
- She has suddenly got much worse on ward, with a low blood pressure and high respiratory rate. Outreach have called ICU team directly as they are worried.
- BP 76/50, HR 115, SpO<sub>2</sub> 88%, FiO<sub>2</sub> 0.85, RR: 30, 2000ml ivi in last 1 hour, u.o. unknown, conscious but scared.
- History of asthma and ulcerative colitis. Previous caesarean section
- Works as a nursery nurse.


### Decision support framework

<p>ICU admission date:</p> <p>ICU admission date:</p> <p>Date of assessment:</p> <p>Time of assessment:</p> <p>Assessment number (if appropriate):</p>	<p>ICU admission date:</p> <p>ICU admission date:</p> <p>Date of assessment:</p> <p>Time of assessment:</p> <p>Assessment number (if appropriate):</p>
<p><b>Evidence: Clinical</b> (focus on patient's acute condition and any other relevant issues in decision-making)</p> <p>This form can be used to guide and record the decision-making process regarding the critical care support a patient may need should require. It is designed to support best practice in decision-making.</p>	<p><b>Evidence (clinical):</b>          35 year old female          PUO? urinary sepsis          Now has severe sepsis/septic shock/resp failure          ?AKI          History of UC (well controlled), asthma (well controlled),          ABC: pH: 7.25, PO<sub>2</sub>: 9.0, PaCO<sub>2</sub>: 3.0, BE: -6.0, lactate: 5.0,          FIO<sub>2</sub>: 0.85.          BP 76/50, HR 115, SpO<sub>2</sub> 88%, RR: 30</p>
<p><b>Evidence: Ability to recover from this critical illness based on evidence, in a clinical setting</b>          (history of illness, current status, assessment and monitoring, etc.)</p>	<p><b>Evidence (ability to recover from critical illness)</b>          Fit young woman, full time work, good nutritional status</p>
<p><b>Evidence: Patient values and wishes</b> (only in relation to the patient with regard to their response and the patient's wishes. Please refer to patient's personal history, if the information is available, etc.)</p>	<p><b>Evidence (patient's values and wishes)</b>          No information available: patient too unwell, no family present.</p>



## Further information

- Name and contact details of Trust champions
- Slides available on Trust intranet?
- Link to study website (slides and forms)



## Decisions to refer and admit to intensive care : improving quality and process



### Why does it need improving?

- For the patient these are life and death decisions
- They are often made in circumstances where there is limited time and uncertainty of outcome
- There is evidence of substantial variation in how these decisions are made
- There are no nationally used guidelines
- There is little in the way of training for clinicians making these decisions


## Why is it difficult?

### Intensive Care

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

## Decision-making

- A decision to refer or admit/not admit to ICU is a decision about whether to withhold a potentially life sustaining treatment
- Clinical component what *can* we do?
- Ethical component what *should* we do?
- Both need justification




Addressing the problem:  
NIHR funded project to look at process of decision  
making

Systematic reviews

Observational study

Questionnaire Study –  
(ICU consultants and outreach nurses)




Systematic review  
Factors affecting decisions to admit to ICU

**Patient related**

- Current functional status / quality of life
- Patient age
- Presence of chronic illness
- Patient preference
- Family preference
- Gender


**Clinician/organisation related**

- Seniority of clinician
- Prognostic pessimism / perception of futility
- Clinician's specialty
- Patient's "specialty"
- ICU bed availability
- Advance care plan or directive
- Time of day




## Observational study

- Complex decisions
- Lack of communication/shared understanding between referral team and ICU regarding:
  - Reason for referral
  - Responsibility for ongoing care
- Little evidence of weighing factors for and against admission
- Difficulties with communicating with/involving patient's family
- Anxiety, confusion, and isolation experienced by family



## Observational study


- BUT: there were also examples of good practice to learn from



What would a good decision making process look like?



Transparent  
Consistent  
Ethically justified  
Evidence based  
Patient centred

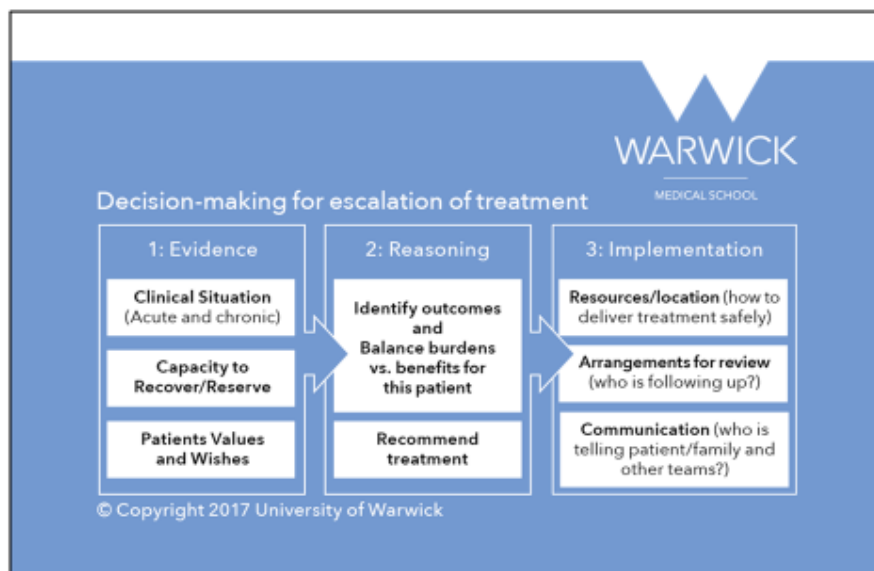


Why doesn't it always happen like this?

- Complicated
- No time
- Limited information available
- Outcomes are uncertain
- Unclear lines of responsibility

## How can we make it better?

- Provide a structured framework for decision-making that:
  1. Records relevant clinical evidence and patient wishes
  2. Prompts patient centred, ethically justified decision making
  3. Guides implementation, communication, and review







# Referral process

- Referral mechanism is important
- SBAR format
- Consultant to consultant referrals are the preferred model
  - Most senior available clinician
  - Referrals should not be delegated
- Clear involvement of patient/advocate
  - Information leaflet
- Clear recommendation: what is being asked for?
- Document referral to whom and when
- **Use the form**

## Referral form

Weighted admission date: \_\_\_\_\_  
 Date of assessment: \_\_\_\_\_  
 Time of assessment: \_\_\_\_\_

**Critical Care Referral Form**  
 This form should be used to guide and record referral for a patient on support. It is adapted from IMC, and designed to support the process of decision making. Information on how to use this form is available on the website.

**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

**Recommendation:**

L1 To obtain a review to consider admission to CC/ICU for full or limited organ support  
 L2 To obtain a review but not necessarily to admit to CC/ICU  
 L3 To apply for a specific therapy to be delivered outside of CC/ICU services, help with etc etc. Please specify:  
 L4 To obtain a review to plan care in the event of deterioration  
 L5 Other (please specify)

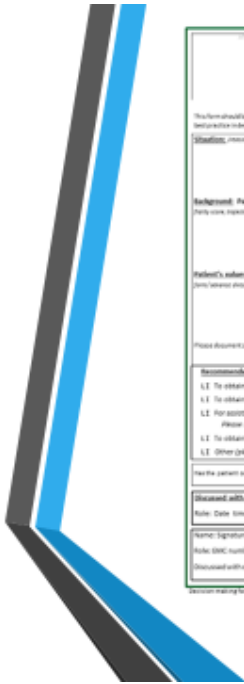
Has the patient or a person close to them been given an information sheet regarding referral to intensive care?

Discussed with (if a team member): Name: \_\_\_\_\_  
 Role: Date: Time: \_\_\_\_\_

Discussed with consultant: Name: Signature: \_\_\_\_\_  
 Role: GMC number: \_\_\_\_\_  
 Discussed with consultant: \_\_\_\_\_

Version 1.0 - 2018

- Situation: reason for referral
- Background: medical history and evidence regarding ability to recover from critical illness (frailty score, trajectory of illness, physiological reserve, etc)
- Patients values and wishes: what is important to the patient about outcomes of their care  
 Note presence of any ReSPECT form or advance care plan  
 Please document reasons if no information available  
 Please document source of information: (patient, family member or someone close to patient, advance care plan etc)



Hospital admission date: \_\_\_\_\_  
 Date of assessment: \_\_\_\_\_  
 Time of assessment: \_\_\_\_\_

**Critical Care Referral Form**

This form should be used to guide and inform referral for full organ support, it is added to the SBAS, and is used to support best practice in decision making. It should not replace clinical judgement and decisions.

**Indication:** (please refer to)

**Background:** Patient's medical history and evidence regarding ability to recover from critical illness (e.g. chronic liver, respiratory or other abnormalities etc.)

**Patient's values and wishes:** (Use a pathway to the appropriate section of SBAS) (Please refer to SBAS) (Some relevant sections of SBAS are listed below. Please refer to the SBAS for the full list of sections.)

Please document source of information: <https://www.scot.nhs.uk/medica/medica/medica/medica/medica/medica/>

**Recommendation:**

I.E. To obtain a review to consider admission to ICU/HDU for full or limited organ support

I.E. To obtain a review but not necessarily to admit to ICU/HDU

I.E. For assistance with specific therapy to be delivered outside ICU (venous access, ACP with NIV etc. Please specify)

I.E. To obtain a review to plan care in the event of deterioration

I.E. Other (please specify)

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

**Obtained with ICU team members:** Name: \_\_\_\_\_  
 Role: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**Name:** \_\_\_\_\_  
**Role:** \_\_\_\_\_  
**Obtained with consultant:** \_\_\_\_\_

Document ready for download on Medica form 1.1.18 10/2018

### Referral form

- 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?

## Patient and family information

### 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.

### 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.



## Decision support framework

Hospital admission date: Date of assessment: Type of assessment: Assessment number (in future assessments)	
<p><b>ICU/HDU/Outpatient assessment form</b></p> <p>This form can be used to guide and record the decision-making process regarding the escalation support a critically ill or frail patient receives. It is designed to support best practice documentation.</p>	
<p><b>Evidence: Clinical</b> (factors in patient's acute condition and long term health relevant to decision about escalating treatment)</p>	
<p><b>Evidence: Ability to recover from critical illness based on evidence</b> (e.g. functional reserve, trajectory of illness, exercise capacity, dependence, self-reported QoL, frailty score)</p>	
<p><b>Evidence: Patient values and wishes</b> (what is important to the patient with regard to their treatment and the potential outcomes? Please note RESPECT form/advance care plan if available.) If no information is available please say why.)</p>	
<p>Please document source of this information: (patient, family or someone close to patient, advance care plan etc)</p>	

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

**Evidence (ability to recover from critical illness)**  
(e.g. functional reserve, trajectory of illness, exercise capacity, dependence, self-reported QoL, frailty score)

**Evidence (patient's values and wishes)**  
(what is important to the patient with regard to their treatment and the potential outcomes? Please note RESPECT form/advance care plan 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)

<p><b>Balancing burdens and benefits of escalating treatment (based on the evidence in section one)</b></p> <p>Benefits of intensive escalation of treatment for this patient, (what good may be achieved and what harms avoided? How likely is this?)</p>	
<p>Burdens of intensive escalation of care for this patient (what harms are likely to occur due to escalating care)</p>	
<p><b>Recommended treatment</b> (summary of goals and focus of care, and actual therapy patient is to receive)</p>	
<p><b>Can this care safely be delivered outside ICU/HDU?</b></p> <p>1.1. How likely is it to be delivered safely outside ICU/HDU?</p> <p>1.2. How likely is it to be delivered safely outside ICU/HDU but resources are not available to do this safely?</p>	<p><b>Arrangements for ongoing care/review</b></p> <p>2.1. How likely is it to be delivered safely outside ICU/HDU?</p> <p>2.2. How likely is it to be delivered safely outside ICU/HDU but resources are not available to do this safely?</p>
<p><b>Individuals contributing to decision making:</b></p> <p><b>Physician</b> (name and role in decision making)</p> <p><b>Other:</b> (name to patient)</p> <p>Name:</p> <p>Relationship to patient:</p> <p><b>ICU/HDU team:</b></p> <p>Name: (signature)</p> <p>Role: (name, number)</p> <p><b>Other:</b> (signature)</p> <p>Name: (signature)</p> <p>Role: (name, number)</p>	

**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: .....

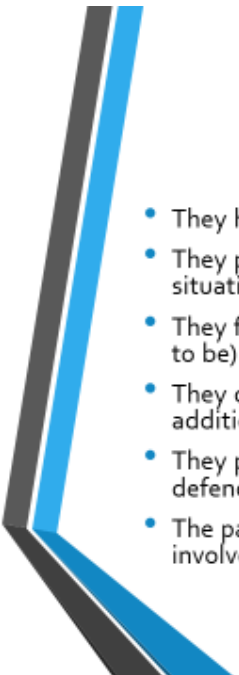
Role: GMC number: .....

**Referring team**

Name: Signature: .....

Role: GMC number .....

Further information available: see notes entry dated .....



## Why use the forms?

- They help to structure decision making
- They prompt for what needs to be considered and may be missed in a pressured situation
- They facilitate ethically justifiable decision making (this is how we would want it to be)
- They don't include information that you shouldn't normally record so it is not additional work
- They provide a transparent record for future review (audit/learning/litigation defence)
- The patient and family leaflets help to structure conversations and support their involvement.



## How to use them?

- **Their use should not delay timely urgent treatment of seriously ill patients**
- Some boxes may require little information in some patients (or information may not be available)
- But noting absence of information provides a prompt to revisit this at a later time and obtain relevant information for further review and decision making



## How to use them?

- Paper version; available on wards and ICU; file in patient notes
- May be able to download and print off from Trust website
- Electronic version; has been developed but need Trust IT system to incorporate it

## Case 1: 79 year old female patient

- Admitted 3 days ago with pneumonia now has worsening NEWS score referred to Outreach for consideration of admission to ICU for organ support
- BP 90/50, HR 105, SpO<sub>2</sub> 91%, FiO<sub>2</sub> 0.80, RR: 32, 2000ml ivi in last 3 hours, u.o. 15ml/hr, conscious, History of DM, CKD, osteoporosis, arthritis, 1 fall in last year, takes a long time to climb stairs as not very strong. Walks with a stick.
- Daughter says she is very active, enjoys life, would hate to be "in a home"

### Decision support framework

<p>ICU admission date</p> <p>Hospital admission date</p> <p>Date of assessment</p> <p>Time of assessment</p> <p>Assessment number (if appropriate)</p>	<p>ICU admission date</p> <p>Hospital admission date</p> <p>Date of assessment</p> <p>Time of assessment</p> <p>Assessment number (if appropriate)</p>
<p><b>Evidence: Clinical</b> (from a patient's case notes and any other relevant data in other settings)</p>	<p><b>Evidence (clinical):</b> 79 year old female with new diagnosis of pneumonia, 3 days of treatment, now has worsening physiology: BP 90/50, HR 105, SpO<sub>2</sub> 91%, FiO<sub>2</sub> 0.80, RR: 32 2000ml ivi in last 3 hours, u.o. 15ml/hr, GCS 14/15 History of DM, CKD, osteoporosis, arthritis.</p>
<p><b>Evidence: Ability to recover from this critical illness based on evidence, in a previous setting</b> (history of falls, walking aids, depression and memory loss, etc.)</p>	<p><b>Evidence (ability to recover from critical illness)</b> 1 fall in last year, takes a long time to climb stairs as not very strong. Walks with a stick. Frailty score 4 to 5 Reflects patient likely to have prolonged/incomplete recovery</p>
<p><b>Evidence: Patient values and wishes</b> (asked in regard to the patient with regard to their response and the patient's wishes) (e.g. patient's wishes, general wishes, if the information is available use only)</p>	<p><b>Evidence (patient's values and wishes)</b> Daughter says she is very active, enjoys life, would hate to be "in a home". Patient too unwell to discuss.</p>

**Balancing burdens and benefits of escalating treatment**  
**Benefits of intensive escalation of treatment for this patient**  
 Patient unlikely to survive without pressor and ventilatory support. Very likely to need renal replacement therapy as well. Short term organ support may allow more time for antibiotics to resolve pneumonia

**Burdens of intensive escalation of care for this patient**  
 Functional status post critical illness may be severely curtailed, this is likely to be unacceptable (according to daughter). Full organ support will be distressing and prolonged in all likelihood.

**Recommended treatment**  
 This lady should be admitted for non-invasive ventilation and vasopressor support as ceiling of care. Not for acute RRT or invasive ventilation as deterioration to point of requiring these would show failure of therapy, and no chance of recovery acceptable to patient.

**Arrangements for ongoing care/review**

- ✓ Care required can only be delivered on ICU/HDU
- ✓ Patient will be admitted to ICU/HDU.


**Further information**

- Name and contact details of Trust champions
- Slides available on Trust intranet?
- Link to study website (slides and forms)

## Further information

- Name and contact details of Trust champions
- Slides available on Trust intranet?
- Link to study website (slides and forms)






## Decisions to refer and admit to intensive care : improving quality and process



### Why does it need improving?

- For the patient these are life and death decisions
- They are often made in circumstances where there is limited time and uncertainty of outcome
- There is evidence of substantial variation in how these decisions are made
- There are no nationally used guidelines
- There is little in the way of training for clinicians making these decisions



What would a good decision making process look like?

Transparent, Consistent, Ethically justified, Evidence based, Patient centred

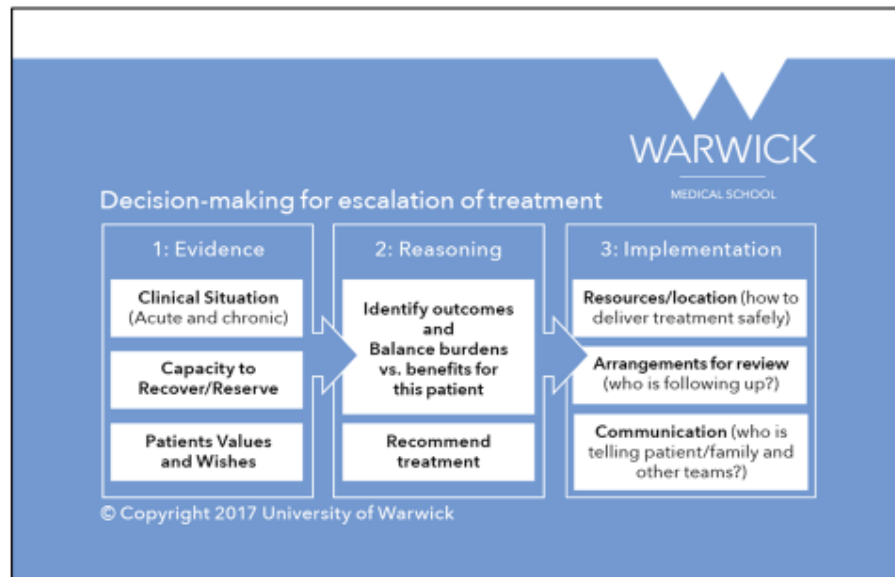
Why doesn't it always happen like this?

- Complicated
- No time
- Limited information available
- Outcomes are uncertain
- Unclear lines of responsibility



How can we make it better?

- Provide a structured framework for decision-making that:
  1. Is based on relevant clinical evidence and patient wishes
  2. Prompts patient centred, ethically justified decision making
  3. Guides implementation, communication, and review



## Providing a structured framework

- Referral form
- Patient and family Information Leaflets
- Decision support framework



## How to use them?

- **Their use should not delay timely urgent treatment of seriously ill patients**
- Some boxes may require little information in some patients (or information may not be available)
- But noting absence of information provides a prompt to revisit this at a later time and obtain relevant information for further review and decision making

## **Trust training**

### **Decision-making “table-top” simulation case.**

#### **Notes for trainers**

This simulated case is provided to allow an in-depth worked example of the decision-support framework in practice.

To run this simulation you will need the following:

1. A copy of these notes
2. The summary of clinical records sheet
3. A copy of the additional information: this should not be handed out to the trainees: it is to provide information which is only given when specifically asked for.

#### **Running the session:**

**Explain the following to the participants:**

**You have asked to see a patient on ward “X”. The telephone referral is that this is an 81 year old man with a pneumonia who now has a low blood pressure. The referring junior doctor (a medical FY2) has asked for a review.**

Now provide the following information:

**The hospital is full, with some patients waiting in the emergency department for a bed. There are no ICU beds immediately available: One bed may become available later if a ward bed can be found for a patient ready to be discharged. The ward the patient is currently on is well staffed by experienced staff (not agency staff); Critical care outreach is available 24 hours a day.**

Ask the group the following:

**You attend the ward and locate the patient. Describe what you would do next.**

When the clinical records are mentioned provide the group with the summary of clinical records sheet. Explain the following:

**A summary of the patient's case has been made by one of the medical junior doctors. There is no significant additional information available on the electronic records that is not here.**

Once the group has read through the summary of clinical records and discussed the contents a little, ask them what they would do next:

**So what do you want to do?**

If necessary prompt the group towards discussing with the patient and his son in order to get more information and elicit the patient's wishes. Use the "additional information sheet" to provide information as requested by the group.

Once the group have gathered all the relevant information from the patient and his son, as well as the clinical record ask them to use the form to come to a decision regarding treatment for this man.

Ask the group to talk through their decision-making with reference to the Decision Support Form and the process they have used.

## **Summary of Clinical Records**

81 year old man Referral from GP ?pneumonia.

Admitted yesterday, now on an acute medical ward.

**Presenting complaint:** Referred after a home visit from his GP due to breathlessness

Cough productive of brownish sputum.

Feeling hot and cold.

Poor appetite.

**Past med history:** Osteo-arthritis,

Hypertension,

THR 3 months ago: bleeding ++, pain ++. Prolonged rehab, pain

team referrals (now on regular MST).

Discharged from rehab ward 3 weeks ago.

Weight loss since surgery: seeing community dietician

**Social history:** Retired

Lives with his wife, (PD)

Carers twice daily

Plays golf regularly. Decreased mobility since op. ground floor of house only.

**Medication on admission:**

Bendroflumethiazide; Simvastatin; Ramipril; Ensure; Paracetamol; MST; Oramorph;

(No Known Drug Allergies)

**On Examination:** CVS: Shut down

Heart sounds are normal,

JVP not raised.

Resp: Creps at left base

Brown phlegm.

Abdo: abdomen soft, non-tender

No organomegaly or masses.

BS: +

**Admission bloods:** CRP: 122,

WCC: 18.0, Hb: 122, plt: 450.

Na: 122, K: 3.5, BUN: 14, Creatinine: 208

(4 weeks ago: BUN: 5mmol/l, Cr: 81micomol/l).

Other blood results are in normal limits. **Chest X-ray:** Patchy consolidation at the left base.

**Diagnosis:** CAP + AKI

Rx: iv fluids (4000ml 0.9% saline in last 12 hours)

Antibiotics (co-amoxiclav 1.2g i.v. t.d.s. Clarithromycin 500mg i.v. b.d.)

Salbutamol nebs

*Physiology on admission:*

Temperature: 38.0; GCS: 15/15;

SpO2 94% FiO2: 0.28 RR: 22

HR: 10 BP: 105/60

*Current physiology*

Temperature: 38.0 ; GCS: 14/15 (confused)



SpO<sub>2</sub> 92%; FiO<sub>2</sub>: 0.6 RR: 27

HR: 105 BP: 90/55

u.o: 20ml/hr

ABG: FiO<sub>2</sub>: 0.6 ; pH: 7.31, ; PaO<sub>2</sub>: 8.0 ; PaCO<sub>2</sub>: 3.4 ; lactate: 4.1 ; BE: -6.0

**Additional information to be provided if asked for by group**

***Social history:***

A retired manager and company director, but prior to that had been in the army. (He was in fact one of the few surviving British veterans of the Korean War). He lives with his wife, who suffers from Parkinson's disease.

Since previous discharge he has been paying for two visits per day of help to look after him and his wife. He is able to walk around the ground floor of his house but cannot walk farther than this. He uses a stair lift to get upstairs. The lift was originally installed for his wife.

***Examination:***

He appears very thin. His BMI is about 18 (183cm tall, 61.5kg). He appears cold and shut-down, slightly clammy to touch. He is coughing up brownish phlegm.

***Information from patient: (limited due to breathlessness and some confusion)***

"Don't like the bloody food here"

"I just want to get better and go home"

"Who's at home with my wife?"

***Information from family (son):***

His wife is increasingly disabled with Parkinson's and memory problems. During the last year he has taken on a lot of care duties for her. He has two children, one of whom lives and works in the USA, his other son lives in Leamington.

He has been in very good health all his life and has found this last month or so difficult; He has "lost a lot of weight". He is still very sharp. He could complete nine holes of golf using a cart prior to THR, and that was just because his hip hurt.

He "can be difficult". "I think he just wants to go home, he hates being in hospital. If he needs more treatment so he can go home he'll be fine with that."

(On being pressed further about what his father would want he says "But he really doesn't like being messed around with. He has hated being this dependent, and if he got worse he'd be miserable")