Decision Making In ICU

Not As Straightforward As It May Seem

Patrick Neligan
MA MB FFARCSI FJFICM
Medical Director Critical Care
Galway University Hospitals

Contents

- Decisions regarding admission to ICU
- How patients die in ICU
- The problem of cognitive dissonance and optimism bias
- Why there is conflict over end of life decisions
- The family meeting and end of life

Ann is 68 years old

- History of breast cancer + bone mets
- Treated with chemotherapy
- She is hypoxaemic and hypotensive
- EWS is 8
- The oncology team are requesting ICU admission
- Is this appropriate? Is she going to die? How are going to decide?

What is Intensive Care

- A location where patients with life threatening conditions are kept alive using a variety of technologies until they recover or die.
- High intensity nursing and medical care

Intensive Care

- Various technologies and drugs administered to support organ systems and prevent suffering
- UCHG ICU:
  - 800 admissions per year
  - 15% mortality rate
- UCHG HDU:
  - 450 admissions per year
  - 2% mortality rate
### Care Levels

- **Level 0 WARD**
  - Nursing level 1:6
  - Labour Ward

- **Level 1 More Monitoring**
  - 1:3 or 1:4 PACU

- **Level 2 HDU**
  - Single Organ Failure
  - 1:2 Nursing NIV/Pressors

- **Level 3 ICU**
  - Multi Organ Failure
  - 1:1 Nursing IPPV/CRRT

### Who Goes To ICU

- **NEONATES**
- **INFANTS**
- **TODDLERS**
- **ELDERLY**
- **Congenital Respiratory Disease**
- **Postpartum Haemorrhage / Eclampsia / ATE / FLP / AFE / FLP**
- **Trauma, Poisoning, Self Harm, Lifestyle associated**
- **Surgery, Cardiovascular Disease, Pneumonia**

### ICU Interventions

- **Respiratory support**
  - NIV / IPPV / Tracheostomy
  - ECMO

- **Cardiovascular support**
  - Inotropes, vaspressors, IABP, VAD
  - Renal support

- **CRRT / IHD**
  - Neurological Support
  - Induced coma / ventriculostomy

### Other stuff

- **Monitoring devices**
- **Antimicrobials**
- **Nutrition – EN / TPN**
- **SCDs**
- **Vac dressings**
- **Rotating beds**
- **Induced hypothermia**
- **Etc etc etc**

### UCHG ICU

- **Average age of admission = 59-60**
- **Average age of death = 68-69**
- **Average duration of admission = 3.5 days**
- **Average duration prior to death = 5.5 days**

### RIP with LOS

- **< 7 days**
- **7-14 days**
- **14-21 days**
- **> 21 days**
### Who Dies in ICU?
- Patients with insufficient physiologic reserve to recover from multi-organ failure
- Usually elderly patients
- Brain injured patients
- Patients with chronic diseases – cirrhosis, liver failure, COPD

### Scenario
- The Patient has had a massive stroke and the family are really angry
- Threatening to sue me
- Can you admit to ICU
- I think it will calm them down?

### “Commision” Bias
- A tendency towards action rather than inaction
- “To be seen to be doing something”
- You haven’t died properly unless you’ve died in ICU

### Death In ICU
- Brain Death
- Cardiac Arrest
  - Failure to resuscitate
  - Decision not to resuscitate
- Withholding life sustaining therapy
- Withdrawing life sustaining therapy
- Actively ending life

### Martin 81 years
- Background history of COPD
- Home oxygen therapy
- Admitted with confusion, tachycardia and hypotension
  - 3qSOFA criteria
- Given antibiotics and 3 Litres of CSL
- BP does not respond
- Is she for critical care?

### Withdrawing versus Withholding Life Sustaining Therapy
Withholding

- A decision is made to admit but to LIMIT (NOT TO ESCALATE) therapy
- Usually on non invasive ventilation – not for intubation (for HDU not ICU)
- Not for dialysis
- Limit set on vasopressor therapy
- Not for CPR
- Huge risk of OMISSION BIAS

Limits

Intubation
IPPV
Dialysis
CPR

Fluids
Antibiotics
Pressors
Inotropes
NIV

Day 3

LIMITS SET ON INTERVENTIONS

RECOVERING

DETERIORATING

END OF LIFE CARE

SPECIFY PLEASE

CAN HAVE

- Fluids
- Enteral feeds
- Vaspressors
- Inotropes
- Antibiotics
- Antiarrhythmics
- High flow nasal oxygen
- Non Invasive Ventilation

CANNOT HAVE

- Endotracheal intubation
- Mechanical Ventilation
- Renal replacement therapies
- Blood Products
- Invasive cardiovascular devices
- CPR in event of cardiac arrest (or drugs but no shock etc)

Withdrawal

- Gradual removal of life sustaining therapies that will usually result in EOL
- Weaning MV and extubation
- Discontinuation of vasopressor therapy
- Discontinuation of renal replacement therapy
- Stopping of therapeutic interventions:
  - Antibiotics, anti-thrombotics, diuretics etc
  - Controversial – feeds and fluids

Simultaneously

- "Anti-Suffering" medicines are administered to minimize symptoms
- Non Controversial:
  - Opioids
  - Anti-cholinergics
- Partially Controversial
  - Benzodiazepines / Propofol
- Highly Controversial
  - Muscle Relaxants
Withdrawal [Cook 2001]

- Withholding or withdrawing,…can be orchestrated to occur quickly or slowly, changing the tempo of the dying process
- PACE and SEQUENCE based on:
  1. Potential suffering of patient
  2. Vicarious suffering by others
  3. Speed of death

Table 2: Frequencies of Patient End-of-Life Categories by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Unwanted CPR Death</th>
<th>Withholding Life-Sustaining Treatment</th>
<th>Withdrawing Life-Sustaining Treatment</th>
<th>Active Shortening of the Dying Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern</td>
<td>108 (50.2%)</td>
<td>48 (23.3%)</td>
<td>575 (28.0%)</td>
<td>714 (40.4%)</td>
</tr>
<tr>
<td>Central</td>
<td>156 (72.0%)</td>
<td>42 (21.7%)</td>
<td>412 (20.5%)</td>
<td>470 (26.5%)</td>
</tr>
<tr>
<td>Southern</td>
<td>401 (51.2%)</td>
<td>194 (24.7%)</td>
<td>522 (65.5%)</td>
<td>725 (93.7%)</td>
</tr>
<tr>
<td>Total (N = 406)</td>
<td>875 (51.5%)</td>
<td>330 (20.7%)</td>
<td>1918 (112.7%)</td>
<td>2909 (182.9%)</td>
</tr>
</tbody>
</table>

End-of-Life Practices in European Intensive Care Units
The Ethicus Study

Table 3: Distribution of End of Life Practices by Physician’s Religion

<table>
<thead>
<tr>
<th>Physician’s Religion</th>
<th>Total No. of Physicians</th>
<th>Unwanted CPR Death</th>
<th>Withholding Life-Sustaining Treatment</th>
<th>Withdrawing Life-Sustaining Treatment</th>
<th>Active Shortening of the Dying Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td>1415</td>
<td>317 (22.4%)</td>
<td>490 (34.9%)</td>
<td>397 (28.4%)</td>
<td>49 (3.5%)</td>
</tr>
<tr>
<td>Protestant</td>
<td>471</td>
<td>104 (22.0%)</td>
<td>318 (67.1%)</td>
<td>37 (4.1%)</td>
<td>3 (0.6%)</td>
</tr>
<tr>
<td>Jewish</td>
<td>277</td>
<td>108 (39.4%)</td>
<td>521 (67.1%)</td>
<td>27 (3.1%)</td>
<td>0</td>
</tr>
<tr>
<td>Hindu</td>
<td>299</td>
<td>57 (19.1%)</td>
<td>277 (93.0%)</td>
<td>6 (2.1%)</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>87</td>
<td>39 (44.6%)</td>
<td>258 (29.8%)</td>
<td>210 (24.0%)</td>
<td>12 (13.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>3947</td>
<td>838 (21.2%)</td>
<td>2395 (50.2%)</td>
<td>1986 (40.2%)</td>
<td>244 (4.9%)</td>
</tr>
</tbody>
</table>

EPILAT STUDY – France 2015

Table 4: Probabilities of Death Over Time for Withholding, Withdrawing, or Active Shortening of the Dying Process (OSDP)

- Withholding: 0.6
- Withdrawal: 0.3
- Active Shortening: 0.1

Figure: Probability of Death Over Time for Withholding, Withdrawing, or Active Shortening of the Dying Process (OSDP)
**EPILAT Study**

- 43 French ICUs in first half of 2013
- Nearly all withdrawal patients die in ICU.
- Only 50% of withheld patients die in ICU.
- 2/3 are discharged alive from hospital.

**Ann**

- Breast Cancer
- Septic Shock
- Lives with daughter Carmel
- Son Brian lives nearby
- Daughter Barbara in England
- Family and team want us to:
  - DO EVERYTHING

**Optimism Bias**

- Cognitive Dissonance
- Despite all of the signs you can’t bring yourself around to facing the truth
  - E.g. police officer/prosecutor – where convicted is proven innocent by DNA
  - “we know he did it, he’ll be back in”
- ICU doctors should be dispassionate

**Ann**

- Intubated and mechanically ventilated
- Lines
- Antibiotics & vasopressors & fluids
- AKI -> CRRT
- Progressively increasing pressor and oxygen requirement over 96 hours
- MULTI-ORGAN FAILURE

**Mixed Messages**

- Be aware of the problem of MIXED MESSAGES from healthcare providers
- The bedside nurse is saying something different from the intensivist who is saying something different from the primary care team
- And various other healthcare “visitors” may be giving different messages also
Family

- Need to overcome Optimism bias
  - 1. Denial that the patient is dying
  - 2. Disbelief that treatment options have run out
  - 3. Disagreements amongst themselves

Doctors

- Also need to overcome optimism bias
- Loss of self esteem if patient (on whom one operated) dies
- Concern about “league tables” and BLAME culture
- Shame at giving the wrong message

EOL - decision

- Futility is determined by
- Decision support tools - unhelpful
- Heuristics
  - Background medical condition
  - Severity of injury
  - Number of organs failed
  - Age
  - Quality of life
  - Support network

Quality of Life

- Hospital doctors are notoriously bad at judging patients’ quality of life (QOL)
- Patients perceived as having poor QOL often want more life sustaining therapy than doctors expect

Moral Hazards

**NEGATIVE**
- Bed shortage – and patients lining up
- Nurses are distressed
- Duration of care is prolonged – loss of interest
- Escalating cost (inadequate insurance)
- No chronic vent or rehab facilities
- Self fulfilling prophesies

**POSITIVE**
- Religious, Ethnic Issues
- Optimism Bias
  - By family
  - By healthcare providers
- Excess empathy
- Guilt
- Legal threats
The Negotiation

- Nurse "he’s doing badly, do you really think he is going to make it?"
- "I think he is suffering a lot"
- "I think he’s had enough"
- "Will you not talk with them and stop this"
- "I think what we are doing here is just plain wrong"

The Antagonist

- ICU Doctor / Primary Doctor / Family
  - Optimism bias
  - Status quo bias
  - Discontinuity of care
- Leading to conflict
- Which may be worse if EOL decision made and then reversed

Communication Skills

- Doctors receive minimal training in dealing with EOL
- Major mistakes:
  - Talking too much and not listening
  - Very short meetings
  - Using euphemisms rather than direct terms
  - Failure to use the term “dying” or “dead”

Communication Process

- Informal information at bedside by nurse
- Early formal family meeting to set the scene
- Continued informal updates by nurses and doctors at the bedside or small group meetings with main surrogates
- Major family end of life discussion
- Follow up meeting with “stragglers”
- Structured and well explained EOL process

Improving Family Care in ICU

- 1. The Nurse-Doctor Liaison Pair
  - Nurses and doctors should inform the family together
- 2. Regular Multidisciplinary Debriefing Meetings
  - Nurses and doctors exchange views
- 3. Shared decisions between nurses and doctors
- 4. Shared decisions with the family

Information vs Communication

- 4. Let the family talk
- 5. Open up visiting hours
  - 24 hour visiting should not be a problem
- 6. Have a "quick chat" with family on admission
- 7. Formal meeting on the third day
Proactive Family Conference

- **V – A – L – U – E**
- Value and appreciate what family members say
- Acknowledge their emotions
- Listen to their concerns
- Understand who the patient was in active life by asking questions
- Elicit questions from the family

Group Theory

- For decades we have known that, when placed in a group situation, participants will favor their group over other groups
- Thus, if you construct a “them vs us” (relatives versus ICU team) scenario – this may result in negative interaction

Bargaining Theory

- Shared decision making
- Importance of avoiding the perception of coercion
- Never ever mention costs or money
- Never make threats
- Ultimately there should be a feeling of consensus

Group Theory

- “Divide and Conquer”
- Invite the most powerful and persuasive members of the hostile group (family) into your group
- This gives them status
- This leads to them delivering your message (for which they develop ownership) to their group

WHEN DO WE NEED THE SUPPORT OF A PALLIATIVE CARE TEAM

- 1. Where withholding life sustaining therapy does not result in early death
- 2. Where death inevitable but not immediate after withdrawal (anoxic brain injury)
- 3. Where patients go out the ward.
SUMMARY

• 15% of patients admitted to mixed med-surg ICU will die
• Usually within 7 days
• Majority of patients die consequent of withdrawing or withholding life support
• Limited resuscitative strategies are both ethical and effective

Decisions

• A variety of different cognitive biases impede the decision making process
• A well structured end of life strategy is essential
• Key to this is the family meeting:
  – Let them talk
  – Avoid euphemisms