3 Cases of Futility?

NOOSA
Peri-operative SIG meeting

September 2014
Nic Randall
Patient 1

- Fractured Left NOF
  - Tripped and fell bringing in washing

- Mandarin Speaking 83 year old
- Independent
  - Walks with out Aids (30-45 mins on flat)
  - Some Cognitive Decline (STM Loss)
- Lives with Daughter
- Interstitial Lung Disease (Not Treated)
Anaesthetic

- Consent obtained from Daughter
- Spinal + Sedation
- Moderate Metaraminol requirement
- Oxygen requirement 6L via Hudson Mask
- Recovery
Resuscitation Plan

Medical Records Code

Health Service Logo

Surname
Given Name(s)
Date of Birth

AFFIX PATIENT LABEL HERE

Complete either section A or section B AND complete the Reason for Decision in section C.

A

Patient is for treatment aimed at PROLONGING LIFE (Tick one option only)

☐ Patient is for FULL TREATMENT including CPR
☐ Patient is NOT FOR CPR but is for intubation for respiratory failure
☐ Patient is NOT FOR CPR OR INTUBATION but is for non-invasive ventilation or inotropes
☐ Patient is NOT FOR CPR, INTUBATION, OR VENTILATION but is for the following ACTIVE MANAGEMENT: (eg. antibiotics, tube feeding)

Guide to staff

☐ For Code Blue
☐ Not for Code Blue

(BPR = Cardiopulmonary Resuscitation - provision of cardiac compression, ventilation, DC reversion)

☐ Yes ☐ No

OR

☐ Patient is for treatment aimed at SYMPTOM MANAGEMENT

Not for Code Blue or MET call

Ensure that palliative care plan has been made, and medication prescribed

Indicate other medical orders (consider appropriateness of other treatments, investigations, review all medications)

B

REASON FOR DECISION: (tick all that apply)

☐ Medical decision based on what is medically indicated for this patient. Reason for decision:

☐ Has patient been informed of decision? ☐ YES ☐ NO ☐ previously informed ☐ N/A

☐ Has family been informed of this decision? ☐ YES ☐ NO ☐ previously informed ☐ N/A

☐ Decision of competent patient or Substitute Decision-Maker (SDM)

☐ Family has indicated that additional treatment is not in the patient’s best interests and the doctor concurs

Name of Substitute Decision-Maker: ___________________________ Relationship to patient: ___________________________

☐ Doctor’s signature: ___________________________ Doctor’s Name: ___________________________

Doctor’s Position: ___________________________ Date: ___________________________

Consultant who approved: ___________________________

If changes are required the Plan should be rewritten and the old Plan crossed through and marked “VOID”
Resuscitation Order

- Completed on ward
- Discussed with daughter

- Not for ...
  - CPR
  - Intubation (or ventilation)

- Active management options
  - NIV
  - Inotropes
What does "Resuscitation" mean?
What does Resuscitation mean?

- Australia and New Zealand Resuscitation Council

"Cardiopulmonary resuscitation is the technique of chest compressions combined with rescue breathing. The purpose of cardiopulmonary resuscitation is to temporarily maintain a circulation sufficient to preserve brain function until specialised treatment is available"
DNR ≠ CPR
What does Resuscitation mean?

- **Intubation / CPR**
- **Cardiovascular Support**
  - Peripheral Vasopressors
  - CVL + Inotropic / Vasopressor Support
- **Respiratory Support**
  - CPAP / BiPAP
  - Intubation
- **Palliative Procedures**
  - Repair #NOF
Controversy Surrounds DNR

• **DO NOT ATTEMPT / NOT FOR**
  – Negatively associated terms
  – Focus is *with-holding* therapy

• **Allow Natural Death (AND)**
  – Reality
  – Focus on what we will do
Theatre

How can we manage the resuscitation order in Perioperative setting?
What's wrong with DNR Orders?
What's Wrong with DNR...

• Not Anaesthetist Friendly
  – Anaesthesia by necessity involves practices and procedures that may be viewed as 'resuscitation'

• Predominantly 'Procedure' Directed
  – Goal Directed or Patient Centred

• DO NOT ATTEMPT / NOT FOR
  – Negatively associated terms
  – Focus is with-holding therapy
How much "Resuscitation" is appropriate?

- Full ...?
  - Automatic suspension
- Limited...?
  - Defined how
- None...?
  - Don't start then
Suspension of DNR Orders

• Time and production pressure promotes efficiency and expediency rather than ethics

• Theatre staff discomfort with death

• 'Blurred' distinction between resuscitation and general anaesthetic care

• Consenting to surgery seen as inconsistent with DNR order

• Unacceptable in context of iatrogenic event

• Legal considerations
Call from Recovery...4 hrs later

- Hypotension (80/40)
- Confused (Muddled) / Drowsy
- Oxygen Saturations 88% (4L/NP)
- RBC x 1 Given
- Metaraminol Infusion
- Naloxone
- HFNP applied
- CXR - Ordered
Recovery Nurse...

“What's the resuscitation status?”

"The resus form says 'NFR'"
Goal Oriented Resuscitation

“Judicious Resuscitation based on the judgement of the attending medical team that stems from their understanding of the patients values and goals of the treatment / procedure”
INFORMED CONSENT FOR ANESTHESIA CARE IN THE PATIENT WITH AN EXISTING DO-NOT-RESUSCITATE (DNR) ORDER

Patients' decisions regarding their resuscitation status depend on their situation and vary over time. Because the administration of anesthesia involves many procedures that could be viewed as "resuscitation" in other settings, it is essential that patients with existing DNR orders re-examine and clarify them prior to anesthesia and surgery. Patients' reconsideration of their existing DNR status should be determined by their views of the balance between ....the expected benefits of the procedure requiring anesthesia care, and ....the burdens that may be imposed by anesthesia, surgery and postanesthesia management.

____ OPTION 1 - FULL RESUSCITATION

I, ______________________________, desire that full resuscitation measures be employed during my anesthesia and in the postanesthesia care unit, regardless of the situation.

____ OPTION 2 - LIMITED RESUSCITATION: PROCEDURE-DIRECTED

During my anesthesia and in the postanesthesia care unit,
I, ______________________________, refuse

____________________________________
____________________________________

____ OPTION 3 - LIMITED RESUSCITATION: GOAL-DIRECTED

I, ______________________________, desire attempts to resuscitate me during my anesthesia and in the postanesthesia care unit only if, in the clinical judgement of the attending anesthesiologist and surgeon, the adverse clinical events are believed to be both temporary and reversible.

____ OPTION 4 - LIMITED RESUSCITATION: GOAL-DIRECTED

I, ______________________________, desire attempts to resuscitate me during my anesthesia and in the postanesthesia care unit only, if in the clinical judgement of the attending anesthesiologist and surgeon, such resuscitation efforts will support the following goals and values of mine:

____________________________________
____________________________________

____________________________________ (Patient or Surrogate signature and date)
____________________________________ (Physician signature and date)
____________________________________ (Witness signature, if needed, and date)

Resuscitation Plan

• Who?
  – Advanced Care Directives
  – Resuscitation Plan currently exists
  – Life Prolonging Therapy (LPT) not indicated
    • Severe Dementia
    • Pre-morbid Co-morbidities
    • Pre-morbid Functional Status
Patient Centered Resuscitation

• Defines perioperative resuscitation in terms of outcomes rather than procedures

• Anesthetist
  – ascertains goals, objectives and values for care
  – holds them as the primary consideration in the event of an arrest or other physiologic disturbance

• Greater Procedural Flexibility
  – context of the untoward physiology plays a meaningful role in determining the clinical response it generates

• Goal Directed Approach
  – Pragmatic and ethical requisites upon the Anaesthetist to understand a patient’s values and objective
  – Enables limited Resuscitation to be meaningfully used
Success with Anaesthetic Resuscitation Plans

- Simple and Pragmatic
  - Could I explain it to my ‘mother-in-law’?
  - Can I explain it to the Surgeon?
  - Goal Directed v Procedure Directed

- Realistic
  - Does it fit in with my Anaesthetic Plan?

- Unambiguous
  - CPR discussed and limits established
  - Respiratory Support (and removal)
  - Vasopressors

- Pre-Operative Theatre Team Briefing
- Consent and Documentation
Success with Anaesthetic Resuscitation Plans

• Pre-Operative Theatre Team Briefing
  – Inform all theatre staff of Plan
  – Establish Level of intervention
  – Explain Rational for limitations
  – Outline discussions held
Procedure Directed

• Rigid-rule based (eliminates ambiguities)
• Similar to ward based treatment limitations
  – Blood transfusions, Antibiotics, peripheral vasopressors
  – Non invasive ventilation
  – No Dialysis

• Limited flexibility especially in context of OR
  – May not fully reflect intended message
  – "No - ventilation" (limited Bag / Mask?)
  – "Yes RBC transfusion" (MBT Protocol?)
NOF - Severe Respiratory Failure

• Anaesthetic
  – Spinal Anaesthetic / Catheter
  – Failure - Abandon Surgery

• Vasopressor Support
  – Peri-operatively only
  – To stop at 6 hours and discharge from PACU
  – No Defibrillation / Medical management

• Agitation / Respiratory Failure
  – Not for intubation or Chest Compressions
  – Sedative medication
  – Palliative Care
NOF - Severe Respiratory Failure

- **Anaesthetic**
  - Primary - Spinal Anaesthetic / Catheter
  - Failure - General Anaesthesia

- **Vasopressor Support**
  - Perioperatively only
  - HDU - 24 hours then discharge to ward
  - Defibrillation - only for Tachy-arrythmias

- **Agitation / Respiratory Failure**
  - Not for Chest Compressions
  - Intubation to facilitate operation but
  - Extubation (regardless) at end of operation
  - Not for re-intubation
Palliative Care medications

- **Morphine** 2.5 - 5 mg PRN (IV/sc) q5-10min
  - RR 10-15
- **Haloperidol** 1-2mg PRN (IV/sc) q30min
  - Agitation/distress
- **Midazolam** 2.5 - 5mg PRN (IV/sc) q30-60min
  - Agitation/distress not relieved by above
- **Hyosciene Hydrobromide** 400mcg PRN q1-2hr (max 6 doses in 24 hours)
  - Respiratory secretions
Resuscitation Plan

• Completed prior to commencement of planned procedure
• Clearly Document
  – What burden is acceptable
  – Withholding
  – Withdrawing
  – Identify substitute decision maker
Palliative Care Language

• There is nothing more we can do…
  • Abandonment

• "We will do everything to ensure his last hours / days are as comfortable and dignified as possible"
Palliative Care Language

• Continuing is futile…
  • We have given up
  • Your family member is worthless

• "I am concerned that what we are doing is ineffective and distressing, continuing this outweighs the benefit, and it is time to stop and allow a natural death"
Palliative Care Language

• Terminal care / Comfort Care
  • Cliches
  • Obscures the intended message

• I'm very sorry but John is dying, we need to reset our goals of care to make comfort the priority, and allow him as natural a death as possible. My priority now is to ensure he is not in pain, does not feel anxious or distressed and can be with his family.
The End

• (Reluctantly) admitted to HDU
  • Vasopressor / NIV
• Progressive Respiratory Failure
• Family Meeting
  • Agreement to change care
• Died 48 hours postoperatively
83 year old Korean man

• 6 weeks ago functionally well - neck pain (gradual onset)
• Presents to ED via GP
  – Bilateral arm weakness
  – Parathesia for last 6 days
  – Unable to stand
  – Incontinent of urine and faeces last 3 days
  – Non English Speaking

• Background:
  – Diabetes type 2 on metformin
  – Stage 3 chronic renal impairment (eGFR 46)
  – Urosepsis
  – HTN
  – Gastric ulcer and hiatus hernia
Thoughts...Surgical

• Unlikely to have any useful recovery
• Small chance of recovery
  – regaining some function in his hands
• Prospect of improved pain (neck) control
• Risks of surgery High
• Patient keen to proceed to surgery
Thoughts...ICU

• Fixed Neurology
• No meaningful recovery likely
  – 83 year old
  – High cervical tetraplegia

• Not for HDU / ICU post-operatively

• Suggest Palliative Care & No Operation
Thoughts...Anaesthesia
Thoughts...Anaesthesia

• ICU say ‘No’ ... do we have that option?
Thoughts...Anaesthesia

• ICU say ‘No’ ... do we have that option?

• Family demands operation
Thoughts...Anaesthesia

• ICU say ‘No’ ... do we have that option?

• Family demands operation
  – Informed no provision for ICU / HDU

• Surgical Team feel ethically obligated to operate for "Palliative Reasons"
Ethical Considerations...

• Autonomy
  – Patients with capacity have right to decline
  – Does not require provision of treatment considered to be not medically indicated but demanded by the patient

• Beneficience and Non-Malefience
  – Medical team are obligated ethically and as a matter of common law to provide the treatments they believe are most beneficial and least harmful
Distributive Justice

• Australia and NZ
  • Egalitarian & utilitarian
  • Healthcare resources (should) used to provide greatest benefit to the greatest number

• Resource allocation / prioritisation
• Reasonableness
• Accountability
Anaesthetic Plan

- General Anaesthetic
- Arterial and Central Monitoring
- Enhanced Recovery in PACU
- Ward Based Care thereafter

- Documented
  - No CPR
  - Vasopressors
End of Case...

- Poor Respiratory Effort
- Saturations 90% (FiO2 = 1.0)
- Remains Intubated and Ventilated

- Call to ICU...
  - "...can you provide 12 - 24 hours of ventilation to allow anaesthetic to wear off?"
Ethical Considerations...

• Anesthetist

• Intensive Care
Ethical Considerations...

• **Anesthetist**
  – Unethical to extubate in current condition now that he is intubated?

• **Intensive Care**
  – Unethical to continue burdensome and ineffective treatments in dying patient
End of Case...

• Extubated in Recovery
  – Documented Not for Reintubation
• 4 hours later ...
  – Respiratory Distress (secretions)
  – Given Morphine (presumed pain)
  – Respiratory Arrest
  – Died
Withdrawing Ventilation

• Why does this feel ethically different from not providing in first place?

• Ethically is there a difference?
With-holding / Withdrawing

• Ethically is there a difference?
  – No ...

  “If all factors are the same, whenever it would be ethical to withhold treatment, it is also ethical to withdraw the same treatment if it has already commenced”

• Legal and Professional guidelines support this position
Was this Futile?

• What is futile?
• Who decides?
• How can we define the term?
Futile Treatment

• Term 'coined' in late 80s

• Highly Subjective and powerful term
• Hard to refute by the person / family
• Can be influenced by clinicians views / values
• Has negative connotations
  • Unintended implication that person is not worth treating therefore "worthless"
• Ambiguous open to misinterpretation
Futile language

• Not beneficial
• Overly burdensome
• Not in the persons best interests
  • Decisions are being made based on the effectiveness of the treatment

• Risk
  • The outcome of the procedure is worse than allowing a natural death
  • Relies on understanding the patients goals and acceptable burden to them
Was this Futile?

• Highly anticipatable outcome
• Good death?
• Who benefited from the Proceedings
  – Family felt like they had 'done everything'
Mr JN

- 85 yo Male
- Surgical Emergency (ED)
- Sudden Onset Back Pain
- Known 5.5 cm AAA

- Retired Farmer
- Walks & helps with manual jobs
Current Condition

• Spont Breathing - 96% (2L)
• HR - 70, BP - 100/65
• GCS - 15/15
• FAST Scan - positive for fluid

• Red Blanket & straight to theatre?
ICU Team - Background

- Recently d/c following RMZ pneumonia
- Known Vascular Dementia (MMSE 19/30)
- IHD
  - STEMI 2005
  - PCI to RCA
- Chronic Kidney Impairment
Surgical Team

• CT Performed
  – Confirms infra-renal ruptured AAA

• Discussed with wife
  – Surgery carries a large risk
  – Death peri-operatively high
  – Likely significant functional decline
  – Will however die without surgery
  – JN wishes unable to be determined
Anaesthetist
Anaesthetist

What Can You Do?
Barriers to Stopping Surgery

- Patient / Family Expectation
- Surgical Momentum
- Anaesthetic Inertia
Surgery

- 2.5 Hour Procedure
- Infra-Renal Tube Graft
  - EBL - 3000 L
  - RBC - 7 units
- FFP - 4 units
- Cryo - 1 unit
- 4L Crystalloid
- Transferred to ICU
  - Extubated following morning
Success
...Or Maybe not
…Or Maybe Not

- March - 2013 (Geriatrician)
  - Cognitive Examination
  - Alzheimer's dementia
    - MMSE 25/30
    - ACE-R 60/100
  - CT Head
    - Mild/Mod small vessel disease
    - Lacunar infarcts (caudate / int capsule)
- Stop Driving!
Vascular Surgical Clinic

• Reviewed for Surgery
  – 5.5cm AAA (asymptomatic)
• Concerns Raised
  – re: Co-morbidities
• Referral
  – High Risk Anaesthetic Clinic
Anaesthesia
Anaesthesia

• High Risk Candidate
• 25-50 % Peri-operative Mortality
• Likely significant functional decline

• Recommended
  – Endo-Vascular Stent procedure
  – Not Cleared for Surgery
Interventional Radiology / Vascular

• Not amendable to Stenting

• "...on balance I would not recommend intervention (surgical) in his aorta although this could be considered on a risk benefit ratio if his aneurysm was perhaps a little larger at around 6cm."
Anaesthesia to ICU
ICU

• Agree High Risk
• At Best
  – Survives with increased level of care

• Recommends
  – Not for Surgery (ever)
  – Anaesthetic and Surgery
    • Outline this to family
    • Generate electronic alert
Progress

- Discharged from HDU
  - Progressive Respiratory Failure
  - Worsening kidney injury
  - Delirium and confusion develops

- Died at day 7 postoperatively
Success???