Management of Acute Brain Injury – treatment escalation plan

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Intensive Care

**Intensive Care Medicine** (ICM) also referred to as critical *care medicine*, is that body of specialist knowledge and practice concerned with the treatment of patients, with, at risk of, or recovering from potentially life threatening failure of one or more of the body organ systems.
Devastating Brain Injury

Any neurological condition that is assessed at the time of hospital admission as an immediate threat to life or incompatible with good functional recovery AND where early limitation or withdrawal of therapy is being considered.

Harvey et al., ‘Management of Perceived Devastating Brain Injury after Hospital Admission’.
Cases on my unit

- 19yr Hypoxic post epileptic fit
- 23yr Traumatic Road Traffic Collision
- 56yr Hypoxic cardiac arrest due to choking
- 62yr Septic encephalopathy to Weil’s Disease
- 68yr PRES (Malignant hypertension)
- 72yr CVA, disseminated TB and metastatic CA
- 75yr Post AVR & MVR with peri-op CVA
My unit

1000 patients per year

60% Emergency

80% Lack Capacity

PDOC can be diagnosed after 4 weeks
Treatment Escalation Planning is tricky

Physiology is confusing

People are even more confusing
Conflict

- 70% of ICU staff members have reported conflicts in intensive care – staff/staff and staff/family
- Families, ICU physicians and nurses report conflicts in up to 80% of patients requiring a treatment-limitation decision

Decisions

- Few patients die on ICU unexpectedly
- 70% of patients who die on ICU have some form of limitation of treatment

My Unit

- 1000 patients per year
- Mortality 20%
- 200 deaths per year
- 140 after withholding or withdrawing life-sustaining treatment
- 112 of those decisions have some degree of conflict
Prospect Theory and Framing
Framing

Participants were asked to choose between two treatments for 600 people affected by a deadly disease. Participants were first asked to choose between 2 different options:

- If Program A is adopted, then 200 people will be saved (72%)
- If Program B is adopted, there is a 1/3 probability that 600 people will be saved and a 2/3 probability that no people will be saved. (28%)

The same participants were then asked to choose between Program C and D

- If Program C is adopted, 400 people will die (22%)
- If Program D is adopted, there is a 1/3 probability that 600 people will be saved and a 2/3 probability that no people will be saved (78%)
Framing

- Treatment options A (72%) & C (22%) are the same

- Treatment options B (28%) & D (78%) are the same
Prospect Theory
Cognitive Biases

- Optimism bias - The tendency to be over-optimistic, overestimating favourable and pleasing outcomes. (Relatives)

- Backfire effect - The reaction to disconfirming evidence by strengthening one's previous beliefs. (Relatives/Clinicians)

- Curse of knowledge - When better-informed people find it extremely difficult to think about problems from the perspective of lesser-informed people. (Clinicians)
Cognitive Biases

- Reactance - The urge to do the opposite of what someone wants you to do out of a need to resist a perceived attempt to constrain your freedom of choice.

- Groupthink - desire for harmony or conformity in the group results in an irrational or dysfunctional decision-making outcome.

- Bias blind spot - The tendency to see oneself as less biased than other people.
“The single biggest problem in communication is the illusion that it has taken place.”
- George Bernard Shaw
Prognostication

... it is precisely this group of patients with the worst expected prognosis, who might have their outcome substantially benefitted by aggressive management and specialist care.

...A clear understanding of patient wishes and preferences will influence decision making

Harvey et al., ‘Management of Perceived Devastating Brain Injury after Hospital Admission’.
Treatment Escalation Plans

... ‘the “will and preferences” paradigm must replace the “best interests” paradigm to ensure that persons with disabilities enjoy the right to legal capacity on an equal basis with others.’

General Comment No. 1 on Article 12 of the United Nations Convention on the Rights of Persons with Disabilities
Mediation

The process by which someone tries to end a disagreement by helping the two sides talk.
“There isn't time -- so brief is life -- for bickerings, apologies, heartburnings, callings to account. there is only time for loving -- & but an instant, so to speak, for that.”
Mark Twain