



Donation After Cardiac Death

- Barriers to increasing organ donations after cardiac death
- Key lessons learned from previous and ongoing efforts/next steps
- Uncontrolled Category II DCD

Kenneth E. Wood, DO

**Associate Professor of Medicine and Anesthesiology
Director, Critical Care Medicine and Respiratory Care
The Trauma and Life Support Center
University of Wisconsin Hospital and Clinics**



Key Barriers to Increasing DCD

Controversies and Questions

- Whether the patients are dead?
- Whether the practice constitutes active euthanasia?
- Whether there is a prohibitive conflict of interest for professionals and institutions?
- Whether there is adequate social support of dying patients and their families?
- Whether unethical and illegal practice is preventable?

Ethics Committee
Society of Critical Care Medicine
Crit Care Med 2001; 29:1826-1831



Key Barriers to Increasing DCD

Ethical Arguments

- **Nonmaleficence**
 - Physician prejudice
 - Potential increase in physical suffering
 - Procedure related/transfer to OR
 - Deny the presence and support of loved ones
 - Manipulation of care of dying patient
 - Withholding sedation analgesia to avoid appearance of active euthanasia
 - Hasten death if patient fails to succumb after withdrawal of life support
 - Potential to jeopardize “double effect” principle
- **Pragmatic slippery slopes**
 - Manipulation of timing of death
 - Defining irreversible cardiopulmonary arrest
 - Criteria for DCD
- **Potential conflicts of interest**



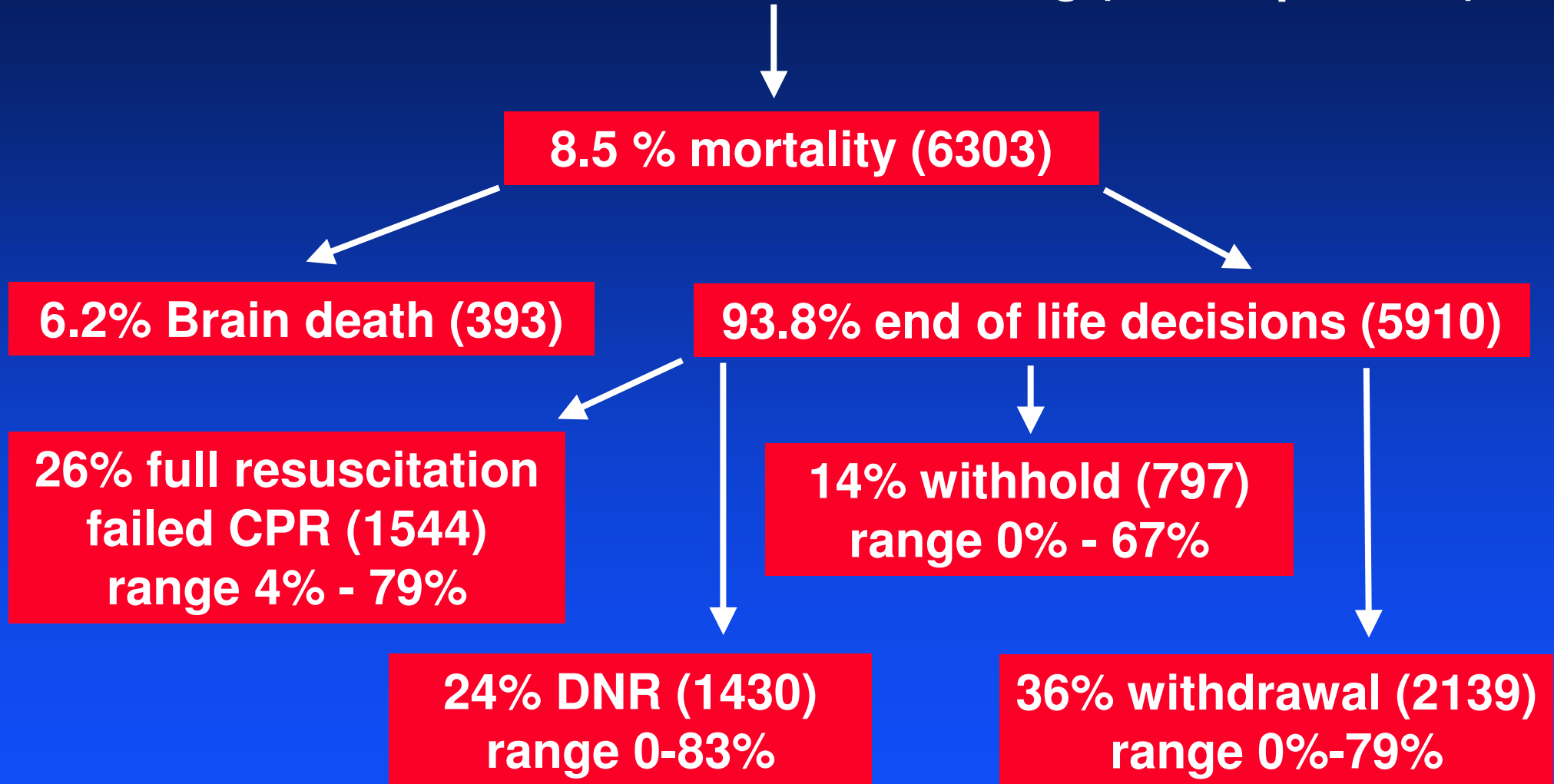
Key Barriers to Increasing DCD

- Earlier recognition of futility → withdrawal of support → removes potential DCD donors from donor pool
- Perceived needs of the transplant recipient/team supplant the needs of the critically ill patient
- Failure to understand brain death
- Failure to include donation into Living Wills and Advanced Health Care Directives
- Approach to the neurologically impaired vs neurologically intact potential DCD population
- Use of medications and interventions NOT relevant to the withdrawal of support prior to declaration



National Survey End of Life Care-ICU

110 institutions with critical care training (74,502 patients)





End of Life Care MICU

Global Cerebral Ischemia Post CPR

Retrospective

Proactive

Length of Stay

Hospital LOS	8.6 ± 1.6 days	4.7 ± 0.6 days*
MICU LOS	7.1 ± 1.4 days	3.7 ± 0.4 days*
Admit → DNR	3.5 ± 0.5 days	2.8 ± 0.4 days
Admit → Comfort	6.3 ± 1.2 days	3.5 ± 0.4 days*
DNR → Death	3.1 ± 1.0 days	2.2 ± 0.4 days

Spared Cost

Withhold	\$ 1341 ± 697	\$ 1516 ± 791
Comfort	\$ 6790 ± 1437	\$ 5390 ± 993

All Died → No Donors

Campbell CHEST 2003: 123:266-271



Key Barriers to Increasing DCD

- Earlier recognition of futility → withdrawal of support → removes potential DCD donors from donor pool
- Perceived needs of the transplant recipient/team supplant the needs of the critically ill patient
- Failure to understand brain death
- Failure to include donation into Living Wills and Advanced Health Care Directives
- Approach to the neurologically impaired vs neurologically intact potential DCD population
- Use of medications and interventions NOT relevant to the withdrawal of support prior to declaration



Donation as an Integral Part of End of Life Care

“Discharging patients from Critical Care units is as important as admitting them.”



Key Lesson Learned/Ongoing Efforts and Next Steps

- **Ensure donation is an integral part of end of life care**
- **Clear separation of decision to withdraw support and decision for donations**
- **Clear DCD Policy**
- **Defined hospital champion and resource**
- **Education (current)**
 - **Clinical triggers**
 - **Timely notification**
 - **Avert premature withdrawal**
 - **DCD training programs**
 - **DCD consultative services**
- **Education (proposed)**
 - **Input from major critical care societies (SCCM, ATS, ACCP, ACS)**
 - **ACGME curriculum requirements**
 - **Regional symposia**
 - **National meetings**



Key Lessons Learned/Ongoing Efforts and Next Steps

- **Research**
 - End of life integration
 - Auto-resuscitation
 - Predictive index of death
 - Assessments of ischemic time
 - Cost effective analysis
 - Data collection and outcomes assessment
- **Regulatory**
 - DCD policy
 - Incorporate donation into Advanced Health Care Directives
 - Accreditation
 - Re-imbursement