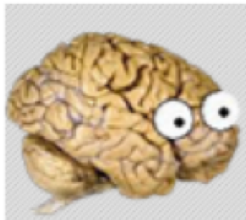
Death: Heart or Brain?



Neuroskeptic

« Why Scientists Shouldn't Replicate Their Own Work Ben Carson and the Power of the Hippocampus »

Brain Activity At The Moment of Death

By Neuroskeptic | March 3, 2017 2:48 pm

What happens in the brain when we die?

Canadian researchers Loretta Norton and colleagues of the University of Western Ontario examine this grave question in a new paper: **Electroencephalographic Recordings During Withdrawal of Life-Sustaining Therapy Until 30 Minutes After Declaration of Death**

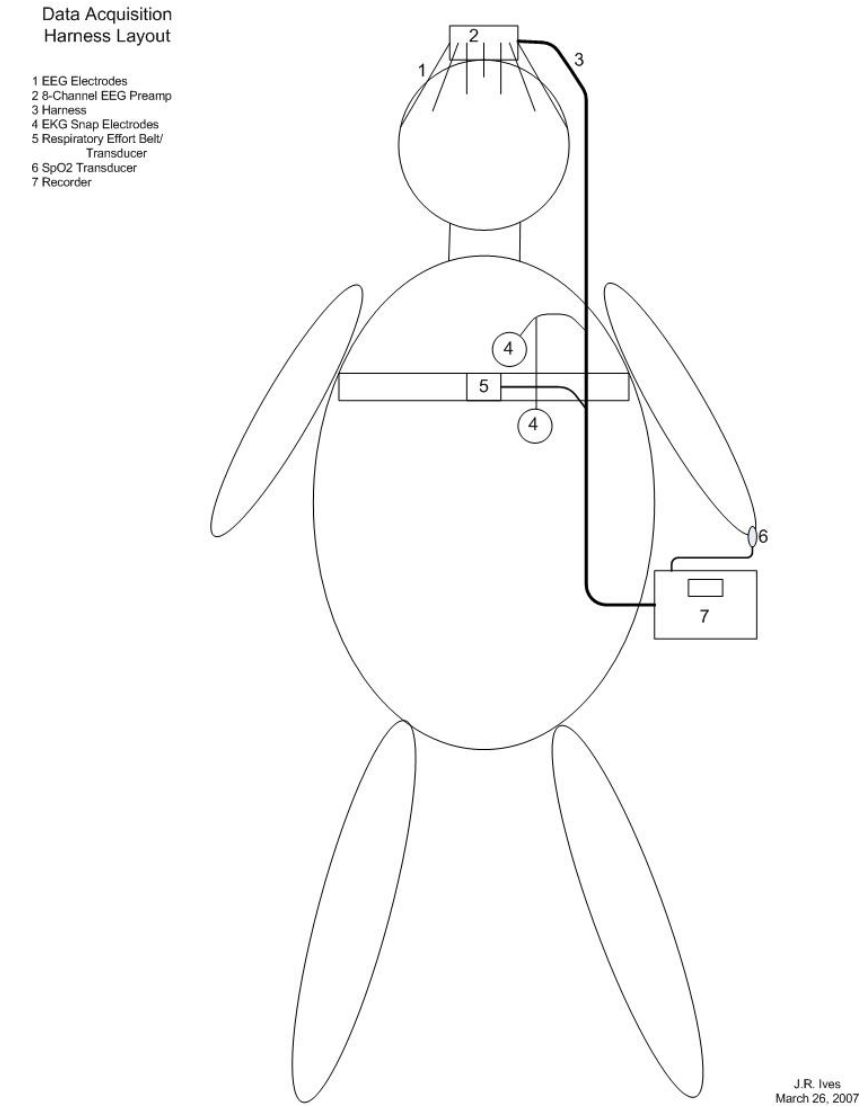
WHERE DO YOU GO WHEN YOU DIE? THE INCREASING SIGNS THAT HUMAN CONSCIOUSNESS REMAINS AFTER DEATH

BY KASTALIA MEDRANO ON 2/10/18 AT 8:00 AM

Vital Signs After Cardiac Arrest Following Withdrawal of Life-Sustaining Therapy: A Multicenter Prospective Observational Study

Sonny Dhanani, MD[1,2,3]; Laura Hornby, MSc[4,5]; Roxanne Ward, BScN, MSc[1,2]; Andrew Baker, MD[6,7]; Peter Dodek, MD[8,9]; Jane Chamber-Evans, BScN, MSc[4,10,11]; Rob Fowler, MDCM[7,12]; Jan O. Friedrich, MD[6,7]; Robert M. Gow, MBBS[2,3,13]; Demetrios J. Kutsogiannis, MD[14,15]; Lauralyn Mcintyre, MD[16,17,18,19]; Franco Momoli, PhD[18,19,20]; Karine Morin, LLM[21]; Tim Ramsay, PhD[18,19]; Damon Scales, MD[7,12]; Hilary Writer, MD[1,2,3]; Serafettin Yildirim, BMgmt[22]; Bryan Young, MD[23,24]; Sam Shemie, MD[4,25,26]; on behalf of the Canadian Critical Care Trials Group and in collaboration with the Bertram Loeb Chair and Research Consortium in Organ and Tissue Donation

Crit Care Med 2014



ORIGINAL ARTICLE

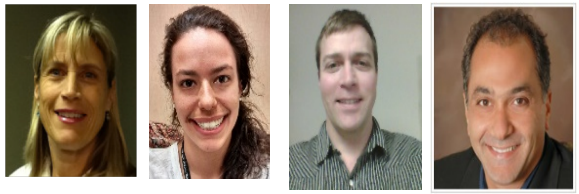
Electroencephalographic Recordings During Withdrawal of Life-Sustaining Therapy Until 30 Minutes After Declaration of Death

Loretta Norton, Raechelle M. Gibson, Teneille Gofton, Carolyn Benson, Sonny Dhanani, Sam D. Shemie, Laura Hornby, Roxanne Ward, G. Bryan Young

ABSTRACT: ***Background:*** The timing of the circulatory determination of death for organ donation presents a medical and ethical challenge. Concerns have been raised about the timing of electrocerebral inactivity in relation to the cessation of circulatory function in organ donation after cardio-circulatory death. Nonprocessed electroencephalographic (EEG) measures have not been characterized and may provide insight into neurological function during this process. ***Methods:*** We assessed electrocortical data in relation to cardiac function after withdrawal of life-sustaining therapy and in the postmortem period after cardiac arrest for four patients in a Canadian intensive care unit. Subhairline EEG and cardio-circulatory monitoring including electrocardiogram, arterial blood pressure (ABP), and oxygen saturation were captured. ***Results:*** Electrocerebral inactivity preceded the cessation of the cardiac rhythm and ABP in three patients. In one patient, single delta wave bursts persisted following the cessation of both the cardiac rhythm and ABP. There was a significant difference in EEG amplitude between the 30-minute period before and the 5-minute period following ABP cessation for the group, but we did not observe any well-defined EEG states following the early cardiac arrest period. ***Conclusions:*** In a case series of four patients, EEG inactivity preceded electrocardiogram and ABP inactivity during the dying process in three patients. Further study of the electroencephalogram during the withdrawal of life sustaining therapies will add clarity to medical, ethical, and legal concerns for donation after circulatory determined death.

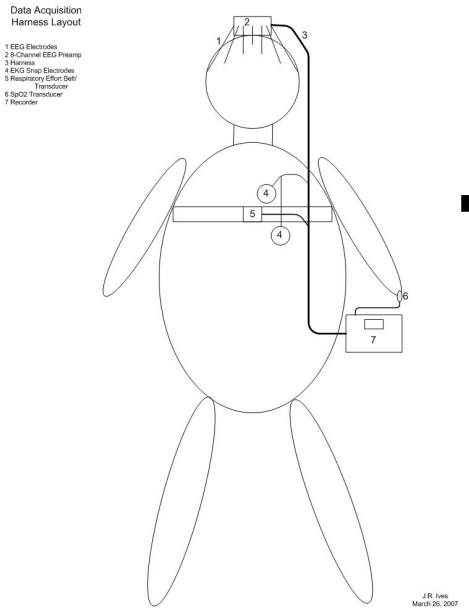
Can J Neurol Sci 2016

Laura Hornby Clinical Research Project Manager
Amanda van Beinum Central Research Coordinator
Nathan Scales Biomedical Engineer
Sam Shemie Senior Investigator



The Canadian DONATION and TRANSPLANTATION Research Program

Death Prediction and Physiology after Removal of Therapy



The DePPaRT Study

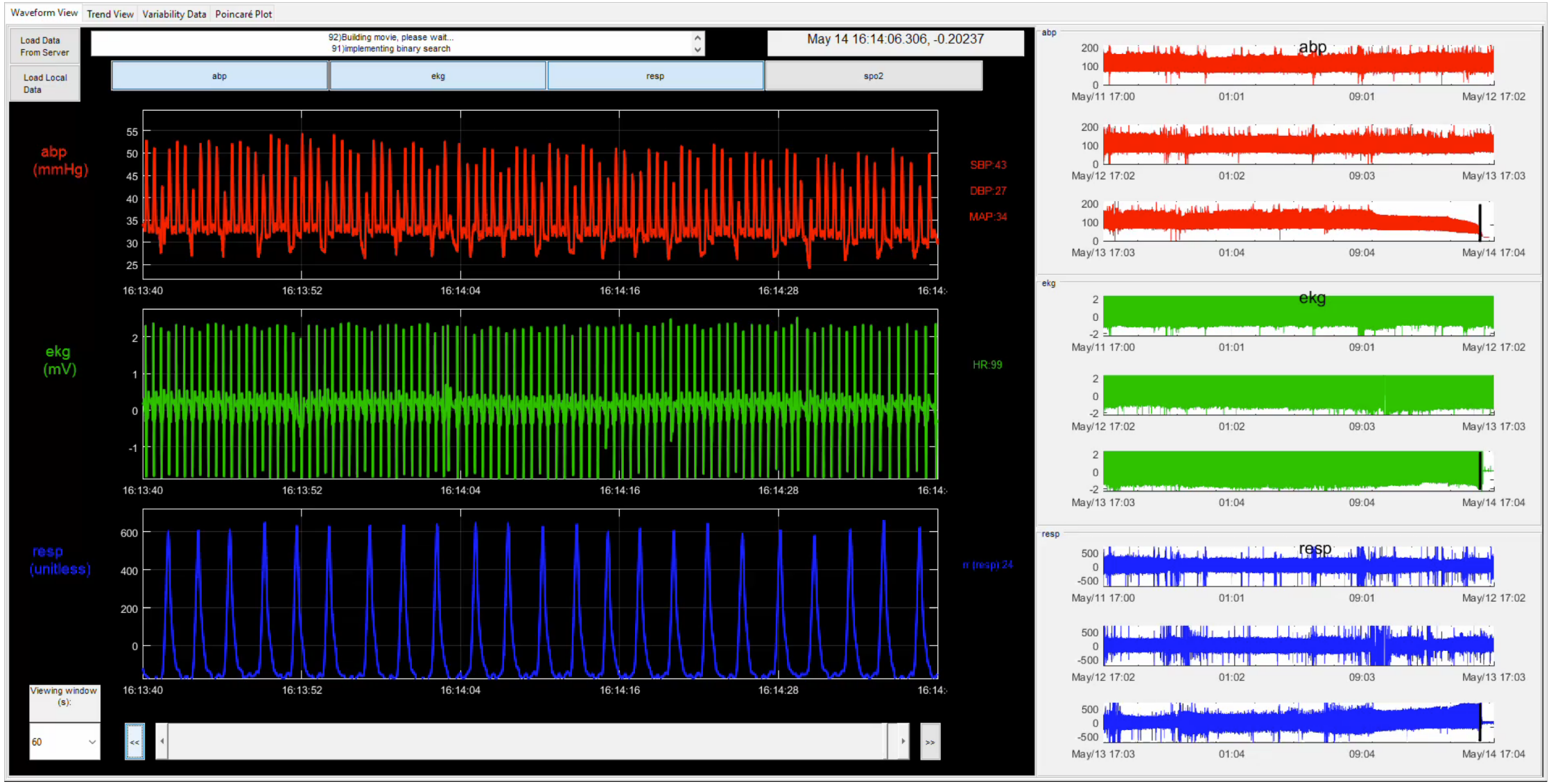
Sonny Dhanani, MD FRCPC
University of Ottawa, Canada

Progress to Date

- **Total Active Sites:** 20
  - 16 in Canada, 3 in Czech Republic, 1 in Netherlands
  - 1 pediatric (CHEO)
- **Final Enrollment:** 654 patients
  - 378 Canadian (7 pediatric)
  - 235 international patients
- **Consent rate:** 94% (45 refusals out of 690 asked)
- **Protocol compliance:** ~90%

1. **Autoresuscitation**
2. **Predictors of death after withdrawal of life sustaining treatment**
3. **Family experiences**

Vital signs during dying process after withdrawal of life sustaining therapy



Brain Blood Flow Testing

1. Radionuclide angiography
2. CT angiography
3. Traditional 4 vessel cerebral angiogram
4. MR angiography
5. Transcranial doppler
6. CT or MR perfusion

We currently cannot distinguish between passive filling, detectable flow & brain tissue perfusion

Chassé et al. Systematic Reviews 2013, 2:100
http://www.systematicreviewsjournal.com/content/2/1/100

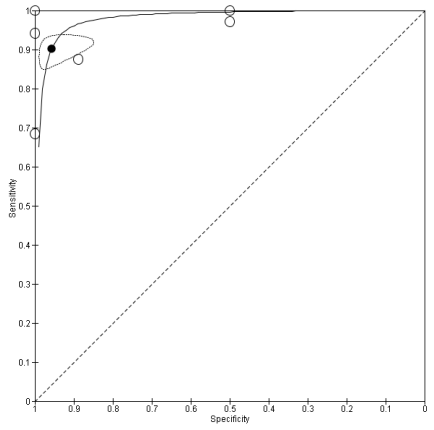
SYSTEMATIC REVIEWS

PROTOCOL Open Access

Ancillary testing for diagnosis of brain death: a protocol for a systematic review and meta-analysis

Michaël Chassé[1*], Peter Glen[2], Mary-Anne Doyle[3], Lauralyn McIntyre[1], Shane W English[1], Greg Knoll[1], Jean-François Lizé[4], Sam D Shemie[5], Claudio Martin[6], Alexis F Turgeon[7], François Lauzier[7] and Dean A Fergusson[1]

Test	Studies	Participants
4-vessel angio vs clinical Dx	35	1022
Nuclear test vs clinical Dx	45	1596
CT-Angio vs clinical Dx	19	708
CT-Perfusion scan vs clinical Dx	7	144
TCD vs clinical Dx	65	3016
EEG vs clinical Dx	42	1887
Evoked Potentials vs clinical Dx	45	1524
MRI vs clinical Dx	8	141
MRI-Angio vs clinical Dx	1	0
MRI perfusion vs clinical Dx	1	5
Xenon-CT vs clinical Dx	1	30
Other comparator	8	256



Or in other words:
For each 100 patients:

- 10 classified as alive when in fact "dead"
- 6 classified as dead when in fact alive
- With 95% CI reaching 80% for specificity and 85% for sensitivity

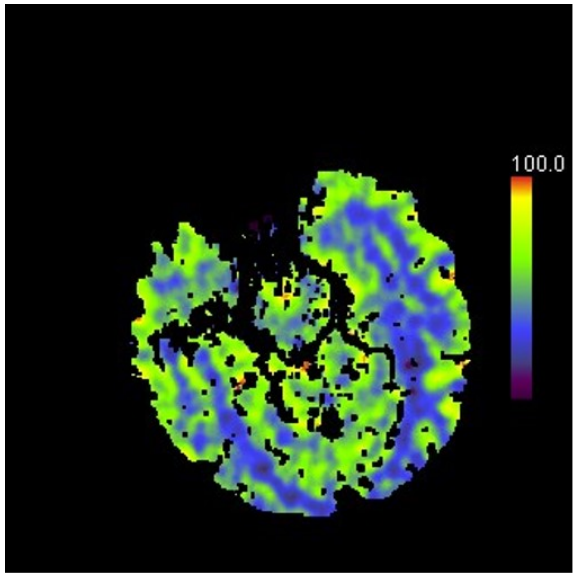
Prospective study of CT-perfusion in clinical brain death

- Prospective multicenter diagnostic test study
- Deeply comatose patients (n=300) with no factors preventing clinical brain death exam
- Test: CT-Perfusion (with secondary CTA reconstruction)
- Comparator: Complete clinical examination
- N=110/300 as of Jan 2019

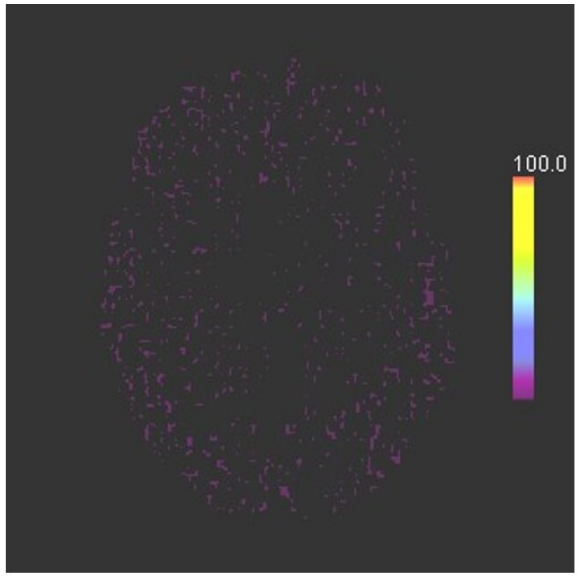
Michaël Chassé

Jai Jai Shiva Shankar

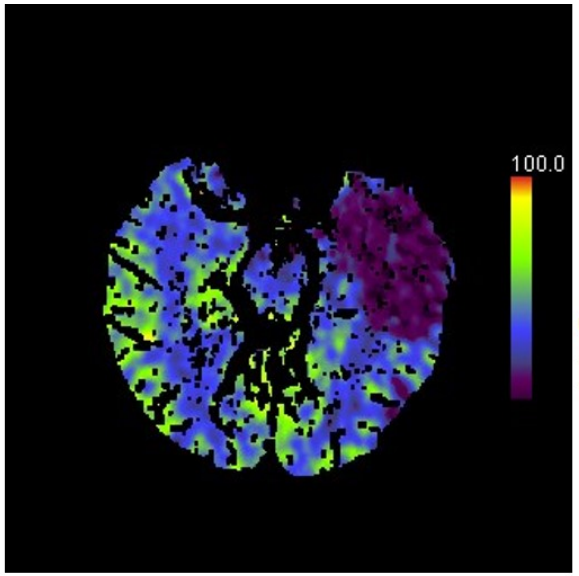
CT Perfusion



Normal

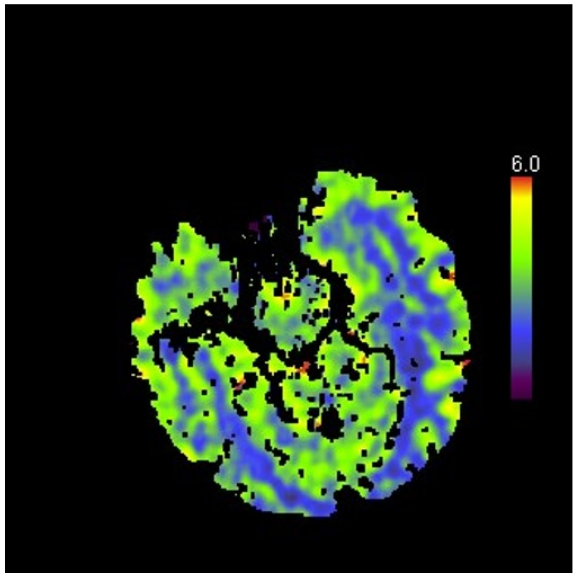


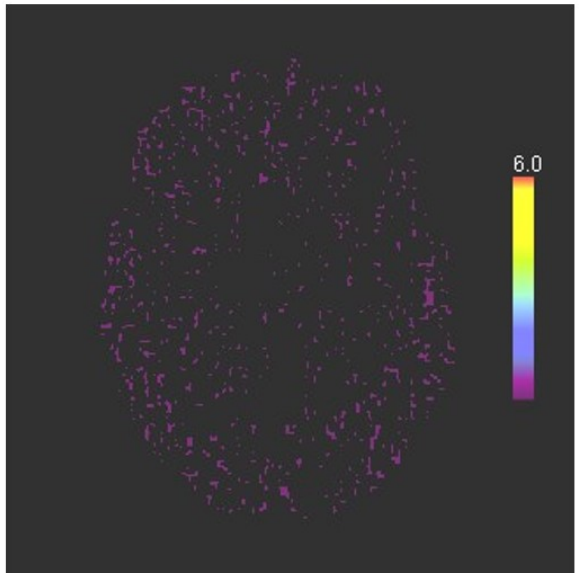
Whole brain death

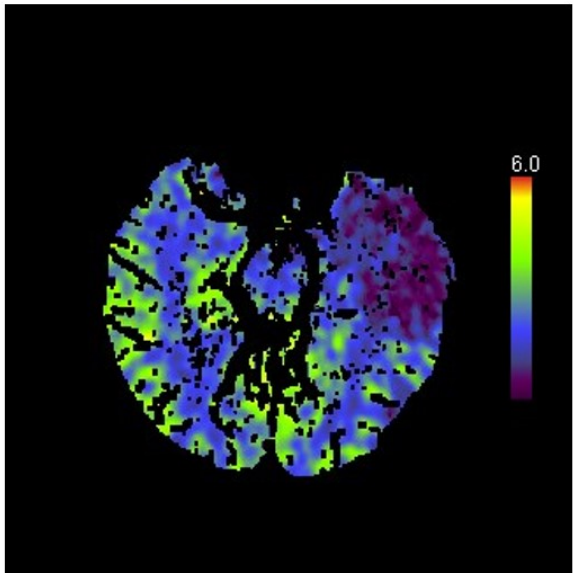


Isolated brainstem death

Cerebral
Blood Flow







Cerebral
Blood Volume

Jai Jai Shankar, with thanks

Canada DONATE

Building
a national platform
for clinical trials in deceased donor care

Maureen O. Meade, MD
Critical care consultant, Hamilton Health Sciences
Hospital donation physician, Trillium Gift of Life Network
Professor, McMaster University

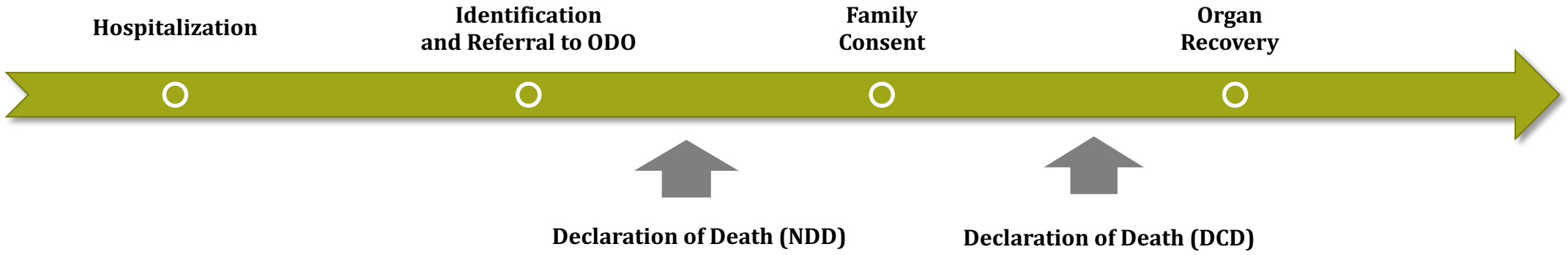
Organ donor management in Canada: recommendations of the forum on Medical Management to Optimize Donor Organ Potential

Sam D. Shemie, Heather Ross, Joe Pagliarello, Andrew J. Baker, Paul D. Greig, Tracy Brand, Sandra Cockfield, Shaf Keshavjee, Peter Nickerson, Vivek Rao, Cameron Guest, Kimberly Young, Christopher Doig; on behalf of the Pediatric Recommendations Group

Can Med Assoc J 2006

Deceased Donation Leading Practices 2003-2019

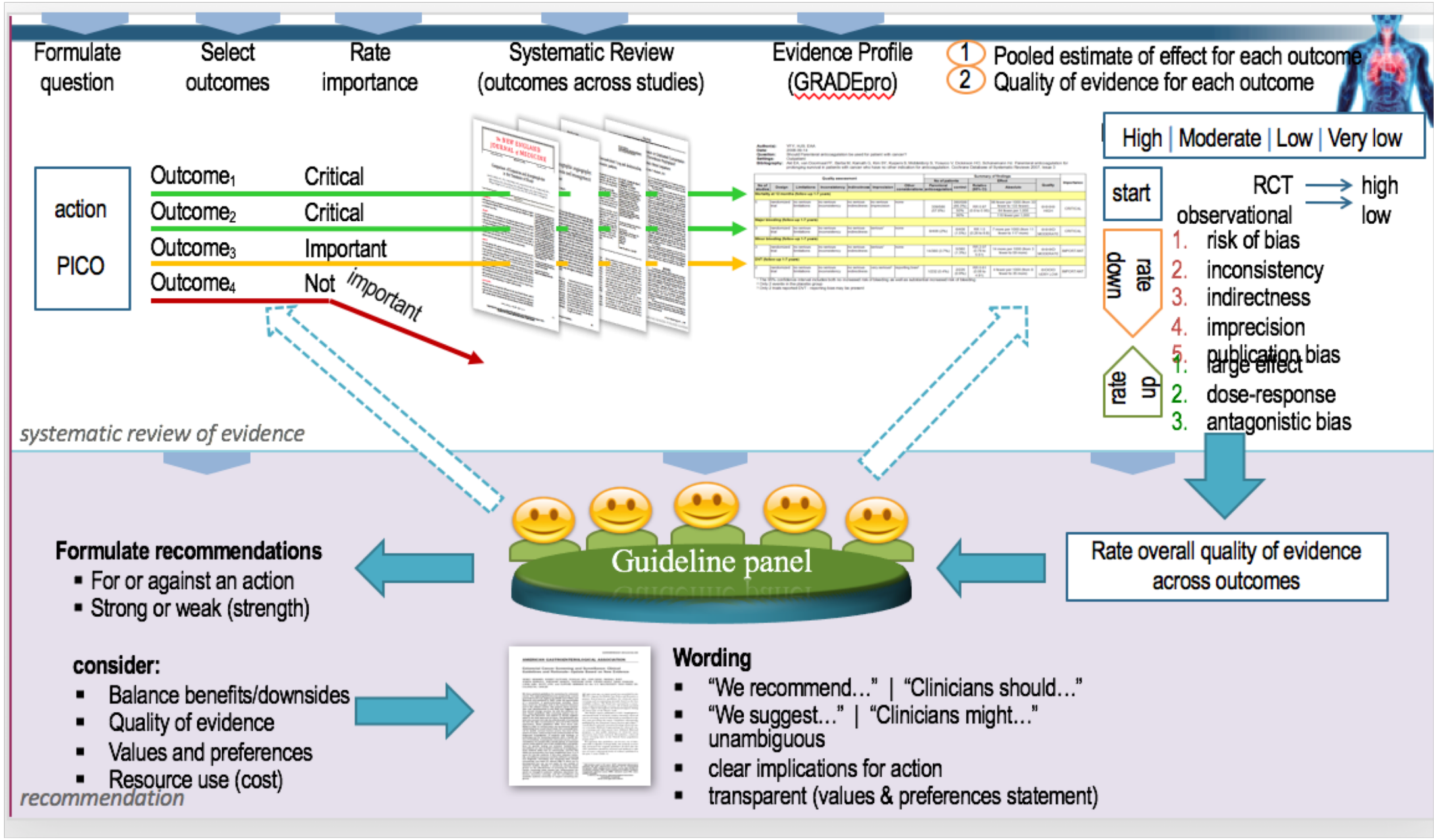
n = 18



- ✓ Death Determination, NDD, DCD (2003, 2005, 2007, 2012)
- ✓ Donor Management (2004)
- ✓ Controlled DCD (2005)
- ✓ Donation Physician Specialists (2011, 2015)
- ✓ System OTDT Ethics (2011)
- ✓ End-of-life Family Conversations/ Consent (2014)
- ✓ Pediatric DCD (2014-16)
- ✓ Death Audits/Medical Record Review (2015-17)
- ✓ Donor ID&R System Accountability (2015-17)
- ✓ ECMO-CPR-organ donation (2016-18)
- ✓ OD Conscious Competent Patient (2016-18)
- ✓ DCD Quality Assurance (2016-18)
- ✓ Donor Management CPG update (2016-18)
- ❖ DCD Heart Donation and Transplantation (2018)

Canadian Blood Services
BLOOD PLASMA STEM CELLS ORGANS & TISSUES

Clinical Practice Guideline Development: AGREE/GRADE



ELSEVIER

Journal of Clinical Epidemiology 103 (2018) 134–137

Journal of Clinical Epidemiology

COMMENTARY

GRADEing the un-GRADE-able: a description of challenges in applying GRADE methods to the ethical and implementation questions of pediatric organ donation guidelines

Matthew J. Weiss[a,b,c,d,*], Laura Hornby[d], Sam D. Shemie[d,e,f], Amber Appleby[d], Bram Rochwerg[d,g,h]

[a]*Division of Pediatric Intensive Care, CHU de Québec, Centre Mère-Enfant Soleil, Québec, QC, Canada*
[b]*Medical Director of Donation, Transplant Québec, Montréal, QC, Canada*
[c]*Department of Pediatrics, Université Laval, Faculté de Médecine, Québec, QC, Canada*
[d]*Deceased Donation, Canadian Blood Services, Ottawa, Ontario, Canada*
[e]*Division of Critical Care, Montreal Children's Hospital, McGill University Health Centre and Research Institute, Montreal, QC, Canada*
[f]*Professor of Pediatrics, McGill University, Montreal, QC, Canada*
[g]*Department of Medicine (Division of Critical Care), McMaster University, Hamilton, Ontario, Canada*
[h]*Department of Health Research Methods, Impact and Evidence, McMaster University, Hamilton, Ontario, Canada*

Accepted 15 June 2018; Published online 30 June 2018

Abstract

Canadian Clinical Practice Guidelines for Organ Donor Management

Ian Ball MD
For the CBS Organ Donor Management
Guideline Committee

Canadian Blood Services
BLOOD PLASMA STEM CELLS ORGANS & TISSUES

A Question for the UK SNOD Community

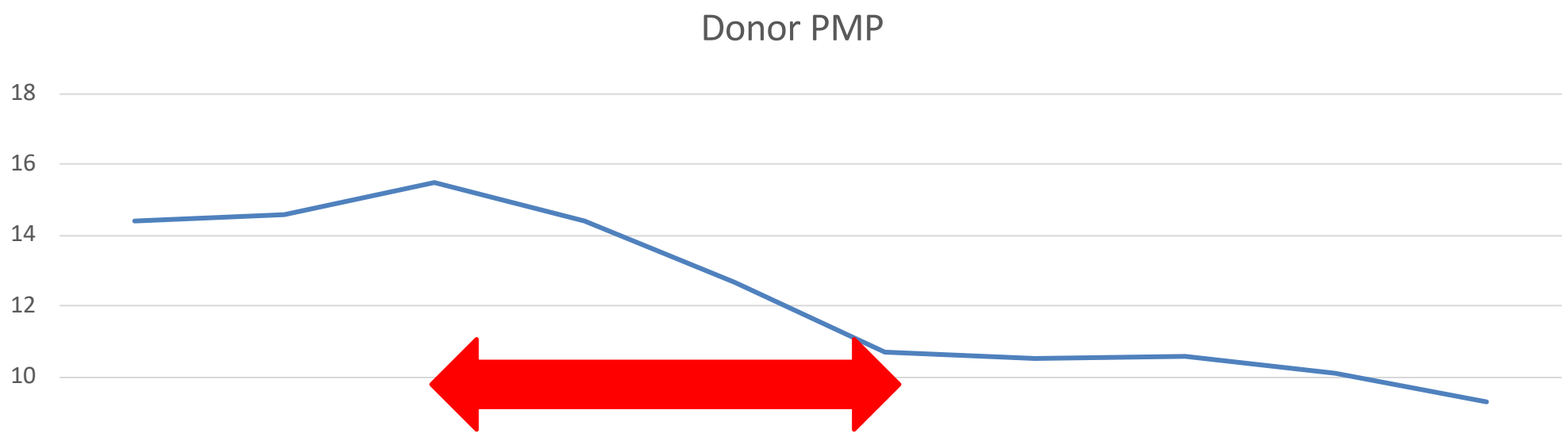
Why are like-minded countries expensively & laboriously reviewing & judging the same published literature to develop country-specific clinical practices guidelines?

Potential for collaboration??

Challenges/Threats


RESPECT
ETHICS
INTEGRITY

German Deceased Donation Trends



INDEPENDENT News InFact Politics Voices Indy/Life Sport Business Video Culture Subscribe

News › World › Europe

Doctor in court over organ donor fraud scandal as transplant centres across Germany placed under criminal investigation

Prosecutors charged that he had changed data on the files of at least 25 patients to push them up the transplant list

Tony Paterson | Monday 19 August 2013 17:44 BST | 0 comments

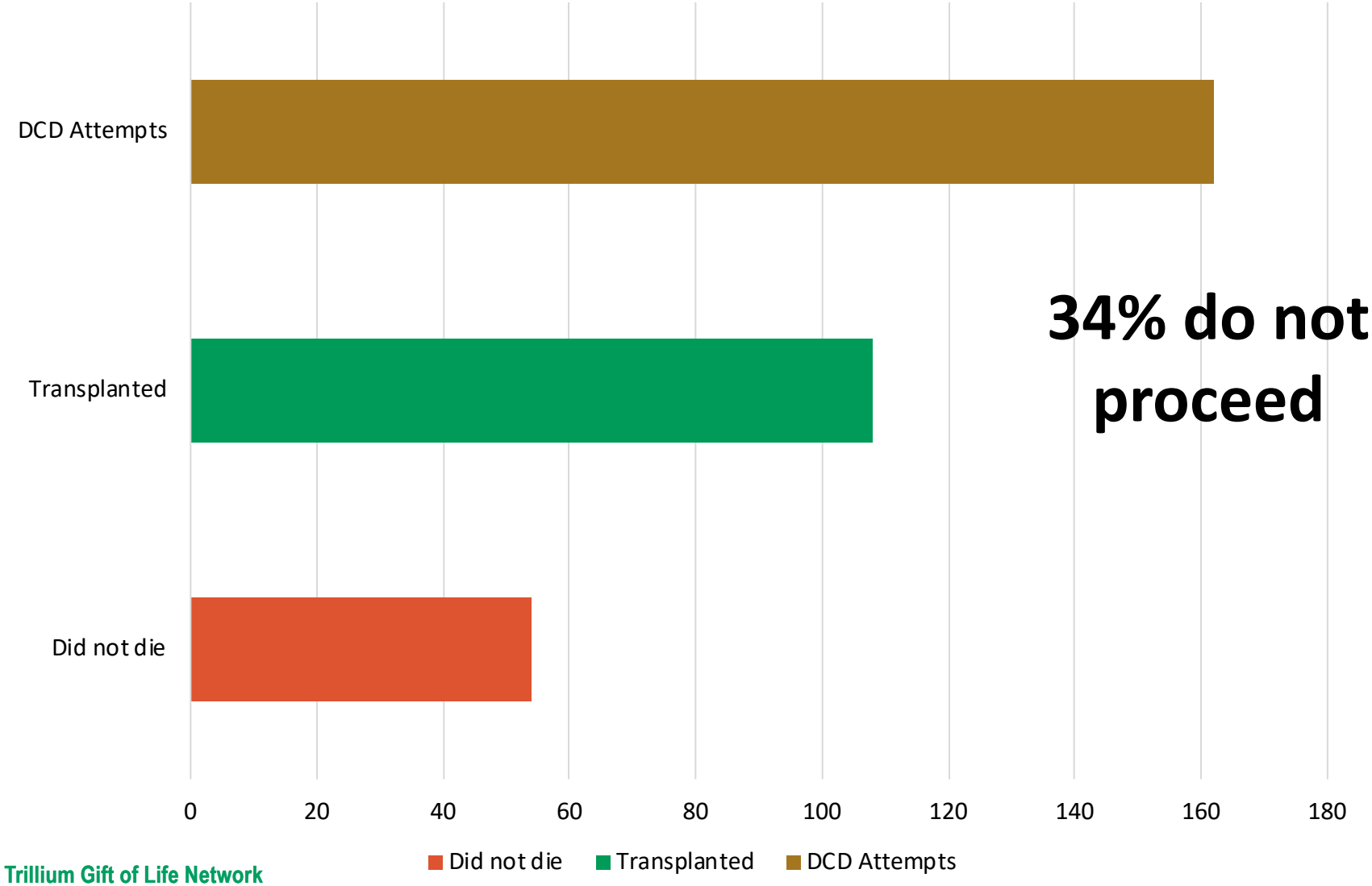
Eurotransplant

DCD: Ethical Tensions

The decision to withdraw life sustaining treatment	VS	The decision to donate organs
Optimizing the quality of the dying process	VS	Optimizing the quality and quantity of the donated organs
Obligations to provide balanced informed consent	VS	Belief that we should promote organ donation
Belief that we need to follow the “dead donor rule”	VS	Protecting and fully respecting the donor’s wishes

Truog, CCCF 2017

DCD Donors & DCD Did Not Die Within Acceptable Time by Donor Hospital 2016 Calendar Year



With thanks, Andrew Healey

A gift ungiven: The anguish of losing a loved one can be compounded when their wish to be an organ donor can't be fufilled

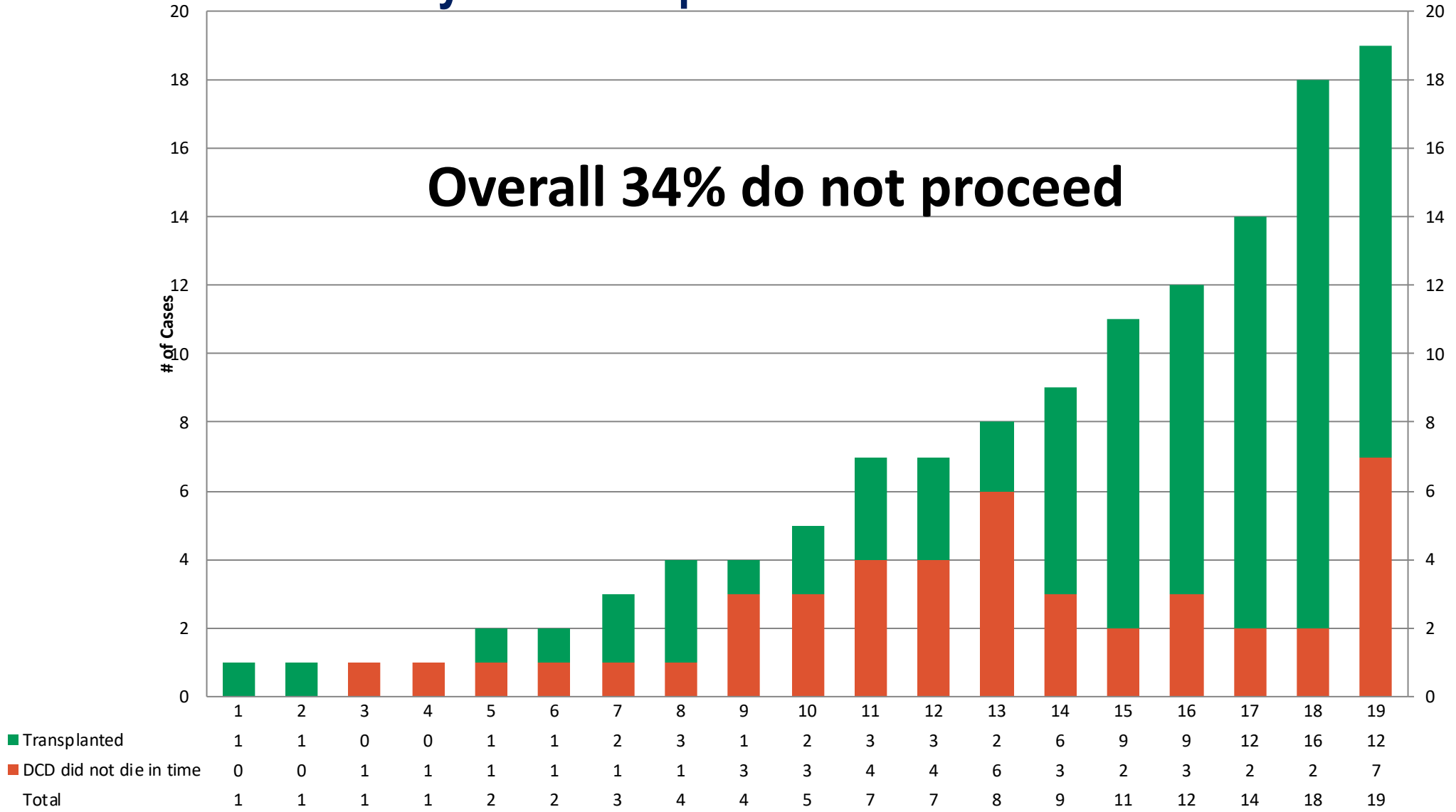
ELIZABETH PAYNE

More from Elizabeth Payne

Published on: March 26, 2018 | Last Updated: March 26, 2018 12:46 PM EDT

Trillium Gift of Life Network

DCD Donors & DCD Did Not Die Within Acceptable Time by Donor Hospital 2016 Calendar Year



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Transplanted	1	1	0	0	1	1	2	3	1	2	3	3	2	6	9	9	12	16	12
DCD did not die in time	0	0	1	1	1	1	1	1	3	3	4	4	6	3	2	3	2	2	7
Total	1	1	1	1	2	2	3	4	4	5	7	7	8	9	11	12	14	18	19

With thanks, Andrew Healey

The Canadian **DONATION** and **TRANSPLANTATION** Research Program

Programme de recherche en **DON** et **TRANSPLANTATION** du Canada

www.cntrp.ca

CANADIAN FAMILY EXPERIENCES WITH DCD

Jennifer A Chandler
Vanessa Gruben
Amanda van Beinum
Aimee Sarti
Lindsey McKay
Sonny Dhanani

Canadian Family Experience with DCD

	Recontact Consent	Consented to Interview	Refused Interview	Lost to follow up
DePPaRT	48	28 (58%)	5 (10%)	15 (31%)
TGLN	14	8 (57%)	0	6 (43%)
TOTAL	62	36 (58%)	5 (8%)	21(34%)

Type of case	Number
DCD consent (successful attempt)	14
DCD consent (failed attempt)	14
DCD Refusal	4
Found to be DCD ineligible	3
Found to be NDD	1

Jennifer A Chandler
Vanessa Gruben
Amanda van Beinum
Aimee Sarti
Lindsey McKay
Sonny Dhanani

Preliminary observations -

- Impact of time
  - Delaying WLST in order to donate
    - Sometimes welcomed: "gave us more time with him"
    - Sometimes not: "I'm questioning my registration, whether I'd put my kids through that again"
  - Difficulty of the "window"
    - Multiple families found it **hard to be "hoping" for death** in order to be able to donate. One called it "torture."
    - Multiple families wanted something done to **"speed it up"**

Preliminary observations

- Handling unsuccessful DCD attempts
  - Preparing family
  - Continuing care for px and family after failed attempt
  - Celebrating all attempts as valuable
- Conflict of interest and trust
  - **Occasional suspicion death was hastened**
- Important quality improvement
  - Asking for monetary donation in letter thanking family for donating tissue

Transplant **Intensive Care**

It used to be Transplant pushing a resistant ICU
Now it's a motivated ICU pushing Transplant

Transplant **Intensive Care**

Erosion of Resistance to Organ Donation

- Ethical
- Philosophical
- Religious
- Cultural
- ICU culture

Provides obstacles and challenges but..
Serves to check and balance the system

Media, variability in practices, suspicion…

LIVE BBC NEWS CHANNEL

Page last updated at 22:04 GMT, Sunday, 25 May 2008 23:04 UK

E-mail this to a friend Printable version

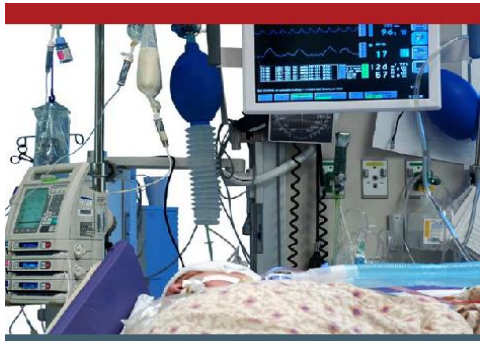
Patients wrongly certified dead

Patients in five English hospitals have been incorrectly diagnosed as being dead over the past five years, the BBC has discovered.

The information was obtained under the Freedom of Information Act by the Donal MacIntyre programme.

In each case the mistake was later realised, the programme reports.

Doctors says that cases of an incorrect diagnosis are rare

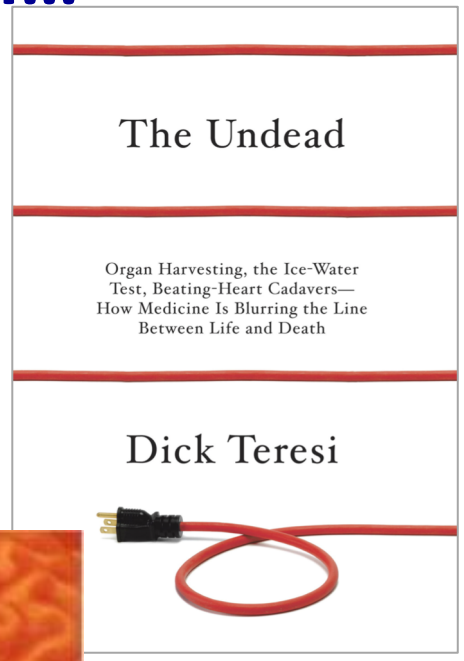


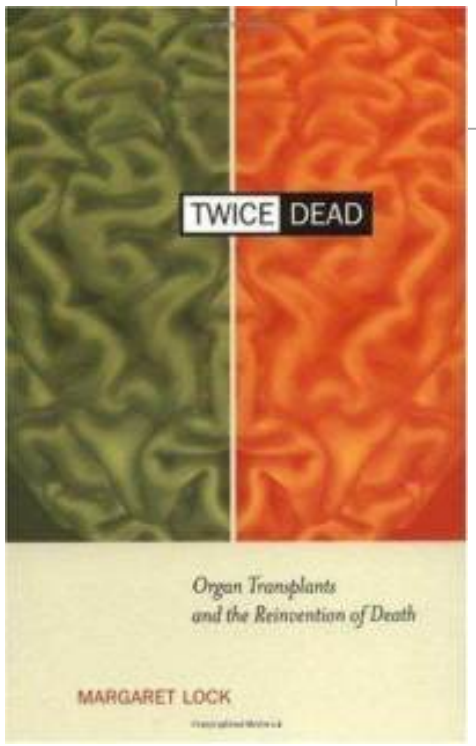
Death, Dying, and Organ Transplantation

Reconstructing Medical Ethics at the End of Life

FRANKLIN G. MILLER
ROBERT D. TRUOG

OXFORD





Organs taken from patients that doctors were pressured to declare brain dead: suit

By JAMIE SCHRAM Police Bureau Chief
Last Updated: 7:43 AM, September 26, 2012
Posted: 1:17 AM, September 26, 2012

The New York Organ Donor Network pressured hospital staffers to declare patients brain dead so their body parts could be harvested — and even hired "coaches" to

Reflective Questions for Donation Medicine

Is it Defensible?

- The ability to explain and account for one's decisions and actions in light

How to manage Moral Uncertainty

- Refers to situations where one is not sure whether something is "right" and/or what values or principles may apply to a particular situation.

Canadian Blood Services
BLOOD PLASMA STEM CELLS ORGANS & TISSUES

Ethics Guide for Donation Physicians

Recommendations developed through a national collaboration among Canadian deceased donation experts and bioethicists, and endorsed by the Canadian Medical Association

Released November 2015

Canadian Blood Services — Blood, Plasma, Stem Cells, Organs & Tissues

Association Médicale Canadienne — Canadian Medical Association

OPEN

Ethics Guide Recommendations for Organ-Donation–Focused Physicians
Endorsed by the Canadian Medical Association

Sam D. Shemie, MD,[1,2,3] Christy Simpson, PhD,[4] Jeff Blackmer, MD,[5,6,7] Shavaun MacDonald, MD,[8] Sonny Dhanani, MD,[7,9,10] Sylvia Torrance, MD,[11] Paul Byrne, MD,[12,13] and on behalf of the Donation Physician Ethics Guide Meeting Participants

Abstract: Donation physicians are specialists with expertise in organ and tissue donation and have been recognized internationally as a key contributor to improving organ and tissue donation services. Subsequent to a 2011 Canadian Critical Care Society-Canadian Blood Services consultation, the donation physician role has been gradually implemented in Canada. These professionals are generally intensive care unit physicians with an enhanced focus and expertise in organ/tissue donation. They must manage the dual obligation of caring for dying patients and their families while providing and/or improving organ donation services. In anticipation of actual, potential or perceived ethical challenges with the role, Canadian Blood Services in partnership with the Canadian Medical Association organized the development of an evidence-informed consensus process of donation experts and bioethicists to produce an ethics guide. This guide includes overarching principles and benefits of the DP role, and recommendations in regard to communication with families, role disclosure, consent discussions, interprofessional conflicts, conscientious objection, death determination, donation specific clinical practices in neurological determination of death and donation after circulatory death, end-of-life care, performance metrics, resources and remuneration. Although this report is intended to inform donation physician practices, it is recognized that the recommendations may have applicability to other professionals (eg, physicians in intensive care, emergency medicine, neurology, neurosurgery, pulmonology) who may also participate in the end-of-life care of potential donors in various clinical settings. It is hoped that this guidance will assist practitioners and their sponsoring organizations in preserving their duty of care, protecting the interests of dying patients, and fulfilling best practices for organ and tissue donation.

(*Transplantation* 2017;101: S41–S47)

Transplantation 2017

OPEN

Ethics Guide Recommendations for Organ-Donation–Focused Physicians

Endorsed by the Canadian Medical Association

Sam D. Shemie, MD,[1,2,3] Christy Simpson, PhD,[4] Jeff Blackmer, MD,[5,6,7] Shavaun MacDonald, MD,[8] Sonny Dhanani, MD,[7,9,10] Sylvia Torrance, MD,[11] Paul Byrne, MD,[12,13] and on behalf of the Donation Physician Ethics Guide Meeting Participants

Transplantation 2017

1. Be aware of overt and covert pressure from family and/or staff
2. Acknowledge these pressures
3. Advocate adherence to recommended practices
4. Should not engage or condone:
   - Withholding appropriate analgesia/sedation for fear of perceptions about expediting death
   - Providing analgesia/sedation that may expedite death as its primary aim
   - Providing analgesia/sedation intended to hasten death in order to ensure the patient's/family's wishes for donation are realized.

In 2012, the CBS Deceased Donation Medical Advisory Committee (DDAC) requested that the Canadian Critical Care Society develop national recommendations for the procedures and actions regarding WLST .

ORIGINAL

Guidelines for the withdrawal of life-sustaining measures

James Downar[1*], Jesse W. Delaney[2], Laura Hawryluck[3] and Lisa Kenny[4]

Abstract

Background: Withdrawal of life-sustaining measures is a common event in the intensive care unit yet it involves a complex balance of medical, legal and ethical considerations. Very few healthcare providers have been specifically trained to withdraw life-sustaining measures, and no comprehensive guidelines exist to help ensure clinicians deliver the highest quality of care to patients and families. Hence, we sought to develop guidelines for the process of withdrawing life-sustaining measures in the clinical setting.

Methods: We convened an interdisciplinary group of ICU care providers from the Canadian Critical Care Society and the Canadian Association of Critical Care Nurses, and used a modified Delphi process to answer key clinical and ethical questions identified in the literature.

Results: A total of 39 experienced clinicians completed the initial workshop, and 36 were involved in the subsequent Delphi rounds. The group developed a series of guidelines to address (1) preparing for withdrawal of life-sustaining measures; (2) assessment of distress; (3) pharmaceutical management of distress; and (4) discontinuation of life-sustaining measures and monitoring. The group achieved consensus on all aspects of the guidelines after the third Delphi round.

Conclusion: We present these guidelines to help physicians provide high-quality end of life (EOL) care in the ICU. Future studies should address their effectiveness from both critical care team and family perspectives.

Keywords: Consensus, Delphi technique, Standards, Critical care, Terminal care, Palliative care, Life support care

Canadian Blood Services

Int Care Med 2016

Canadian Blood Services
Société canadienne du sang

CANADIAN CRITICAL CARE SOCIETY
THE VOICE OF CRITICAL CARE

Brief

GUIDELINE IMPLEMENTATION AND QUALITY ASSURANCE DEVELOPMENT FOR WITHDRAWAL OF LIFE SUSTAINING MEASURES (WLSM) IN HOSPITALS SUPPORTING DONATION AFTER CIRCULATORY DEATH (DCD)

1. **Implementation tools**
   a) documentation tool
   b) family information package
   c) system audit tool
   d) case audit tool
2. **Quality assurance tools**
   a) order set
   b) checklist
3. **WLSM organizational policy template**

2nd Annual **MAID2018**

Medical Assistance in Dying Conference

May 4-5, 2018 | Pre-conference: May 3, 2018
Shaw Centre | Ottawa, Ontario


NATIONAL REVIEW THE CORNER

THE CORNER

POLITICS & POLICY

Canada Conjoining Euthanasia/Organ Donation

By WESLEY J. SMITH | January 5, 2018 7:04 PM

In my first anti-euthanasia column, published in *Newsweek* in 1993, I warned that eventually medicalized killing/suicide would be conjoined with organ harvesting "as a plum to society."

TOP STORIES

1. approx. 3000 cases/y in Canada
2. approx. 20% neuromuscular diseases
3. 1st person consent for cDCD
4. Normal brain function prior to death…

Sheraton Gateway Hotel (Terminal 3, 3000 Toronto Pearson International Airport) – Alpine Room

Preliminary Data

Donors after MAiD in Ontario

Time period: July 1, 2016 to January 29, 2019

	Refs	Appr	Consent		Donors	
			Organ	Tissue	Organ	Tissue
OT	701	276*	40**	150	18	133
T	90	35	-	20	-	19
Total	791	311	40	170	18	152

Source: iTransplant

* Approach for organ and/or tissue (includes approach for tissue where organs ruled out).

** Consent was given for 7 cases but later rescinded

British Journal of Anaesthesia **108** (S1): i6–i9 (2012)
doi:10.1093/bja/aer355

EDITORIAL III

Brain death: time for an international consensus

M. Smith

Department of Neurocritical Care, The National Hospital for Neurology and Neurosurgery, University College London Hospitals, Queen Square, London WC1N 3BG, UK

E-mail: martin.smith@uclh.nhs.uk

neurocritical care society Neurocrit Care (2017) 26:446–449
DOI 10.1007/s12028-017-0375-x

ETHICAL MATTERS

Physician Power to Declare Death by Neurologic Criteria Threatened

Ariane Lewis[1] ; Thaddeus Mason Pope[2]

Controversies After Brain Death

When Families Ask for More

Chest 2016

1. Intra/international variability in concepts & practices
2. Right to refuse the apnea test
3. Irreversibility of brain death
4. Accommodation for refusal to accept brain death
5. Acceptable medical standards for brain death

	violate the personal religious beliefs of the patient. In these cases, death shall be declared, and the death fixed, solely upon the basis of cardio-respiratory criteria."
New York[5]	"Hospitals must establish written procedures for the reasonable accommodation of the individual's reli moral objections to use of the brain death standard to determine death when such an objection ha expressed by the patient prior to the loss of decision-making capacity, or by the surrogate decision Policies may include specific accommodations, such as the continuation of artificial respiration under circumstances, as well as guidance on limits to the duration of accommodation."

Suspected Brain Death? No

Ariane Lewis, MD
New York, NY
David Greer, MD
Boston, MA

Chest 2017

from Callaway's
brain. She cons
later said that s
a determinatio
evaluation was
performed an a
able to breathe
are taken off of
allow arterial ca
fall, which norm
to stimulate res
for determinati

Jahi McMath, girl declared brain dead three years ago, might still be technically alive, judge says

Jahi McMath before her surgery. (Associated Press)

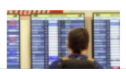
By **Associated Press**

SEPTEMBER 7, 2017, 11:55 AM | REPORTING FROM SAN FRANCISCO

In Case You Missed It

Mexican authorities report an 8.4 earthquake off southern coast, raising tsunami fears

an hour ago @ 12:10 am



Thousands of cruise ship passengers dropped off in Miami

Canadian Legal Challenges

Family's fight to keep daughter on life support will end with landmark decision on what death is

Taquisha McKitty has been hooked up to life support since September, when she was declared neurologically dead

Kate McGillivray · CBC News · Posted: May 15, 2018 12:39 PM ET | Last Updated: May 15

Taquisha McKitty has been declared brain dead but her family says she shows signs of life. (Instagram)

Toronto

Doctors say he's dead. Jewish laws say he's alive. Can a hospital turn off life support?

Ontario judge now tasked with deciding whether to continue life support for man deemed brain dead

Kate McGillivray · CBC News · Posted: Feb 15, 2018 12:57 PM ET | Last Updated: February 15

Intensive Care Med (2014) 40:788–797
DOI 10.1007/s00134-014-3242-7

CONFERENCE REPORTS AND EXPERT PANEL

International guideline development for the determination of death

Sam D. Shemie
Laura Hornby
Andrew Baker
Jeanne Teitelbaum
Sylvia Torrance
Kimberly Young
Alexander M. Capron
James L. Bernat
Luc Noel
and The International Guidelines for Determination of Death phase 1 participants, in collaboration with the World Health Organization

British Journal of Anaesthesia **108** (S1): i14–i28 (2012)
doi:10.1093/bja/aer397

BJA

REVIEW ARTICLES

International perspective on the diagnosis of death

D. Gardiner[1]*, S. Shemie[2], A. Manara[3] and H. Opdam[4]

[1] Adult Intensive Care, Nottingham University Hospitals NHS Trust, Derby Road, Nottingham NG7 2UH, UK
[2] Division of Critical Care, Montreal Children's Hospital, McGill University Health Centre, 2300 Tupper Street, Montreal, QC, Canada H3H 1P3
[3] Anaesthesia and Intensive Care Medicine, Frenchay Hospital, North Bristol NHS Trust, Bristol BS16 1LE, UK
[4] Department of Intensive Care, Austin Hospital, 145 Studley Road, Heidelberg, VIC 3084, Australia

* Corresponding author. E-mail: dalegardiner@doctors.net.uk

World Brain Death Project

Objectives:

- To consolidate and summarize the knowledge base surrounding the concept and practice of brain death, with a goal of establishing international professional consensus regarding the underlying principles and clinical practice.
- To serve as a framework of understanding for the current model of brain death, and **help guide future developments in the field**.

Gene Yong Sung, MD
Assistant Professor of Clinical Neurology, Director of Neuro Critical Care, LAC+USC Medical Center Inpatient Chief

David M. Greer, MD
Professor and Chairman, Department of Neurology,
Boston University School of Medicine

Sam D. Shemie, MD
Critical Care Physician, Montreal Children's Hospital; Professor of Pediatrics, McGill University

Ariane K Lewis, MD
Neurocritical Care
New York University

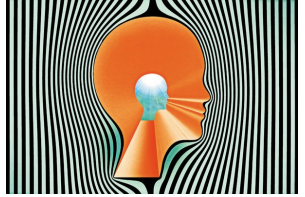
Sylvia Torrance
Center for Innovation
Canadian Blood Services

Contributors

Collaborating Organizations

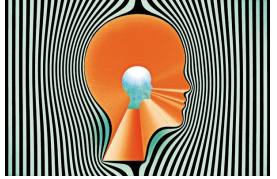
1. European Society of Intensive Care Medicine (ESICM)
2. China Brain Injury Evaluation Quality Control Centre
3. International Pan-Arab Critical Care (IPACCMS)
4. Neurocritical Care Society
5. Australia-New Zealand Intensive Care Society (ANZICS)
6. World Federation of Critical Care Nurses (WFCCN)
7. World Federation of Neurology (WFN)
8. World Federation of Neurosurgical Societies (WFNS)
9. World Federation of Pediatric Intensive & Critical Care Societies (WFPICCS)
10. World Federation of Societies of Intensive and Critical Care Medicine (WFSICCM)

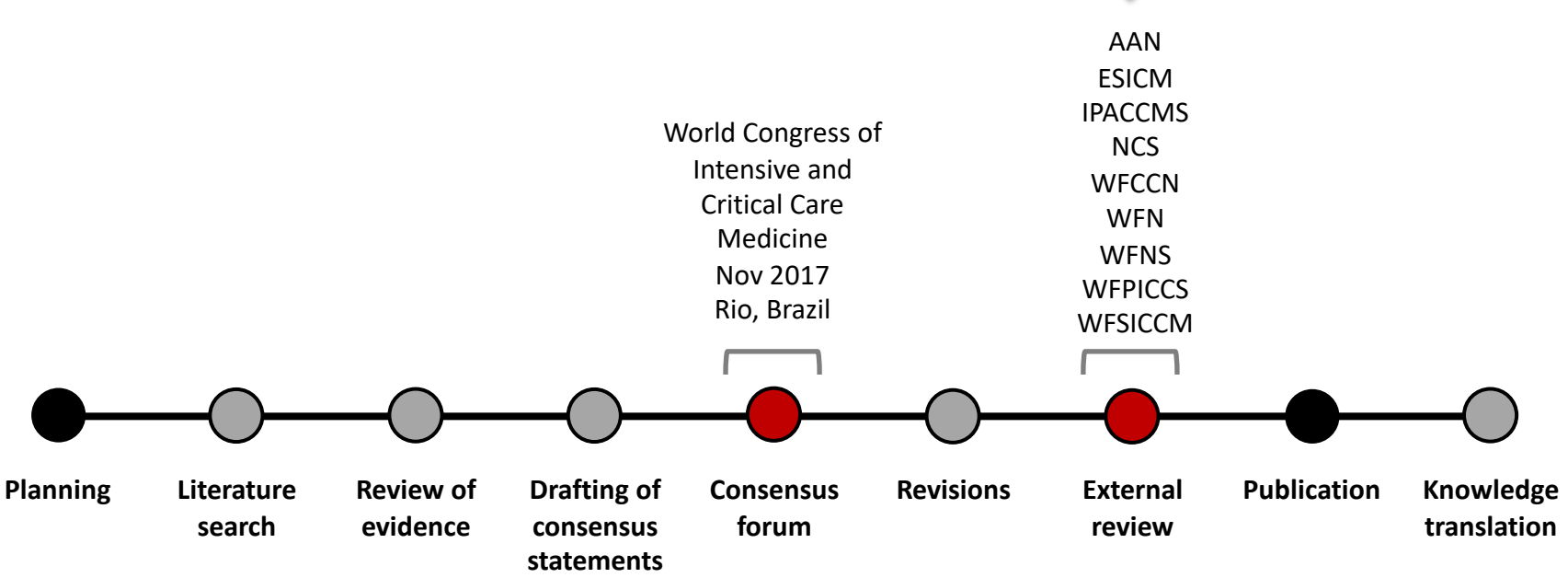
Topics:



- History of Brain Death
- Legal Issues
- Conceptual/Religious Issues
- Worldwide Variance
- Epidemiology, Clinical Settings, Etiology
- Pathophysiology
- Clinical Determination:
  - Prerequisites, Neurological Examination, Apnea Testing, Ancillary Testing
- Pediatric & Neonatal
- Modern Issues:
  - ECMO
  - Somatic Support
  - Non-acceptance & accommodation
  - Brainstem vs. Whole Brain
  - TTM
- Documentation and Communication
- Education
- **Future Research**

Process




AAN
ESICM
IPACCMS
NCS
WFCCN
WFN
WFNS
WFPICCS
WFSICCM
World Congress of Intensive and Critical Care Medicine Nov 2017 Rio, Brazil
Planning
Literature search
Review of evidence
Drafting of consensus statements
Consensus forum
Revisions
External review
Publication
Knowledge translation

Deceased Donation

Meet the Team!

Amber Appleby
A/Director

Jim Mohr
A/Associate Director

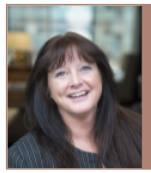
Dr. Sam Shemie
Medical Director

Ken Lotherington
Senior Program Manager

Lindsay Wilson
Senior Program Manager

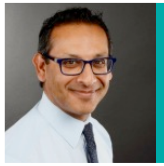
Jehan Lalani
Program Manager

Peggy John
Senior Program Manager, Program Operations

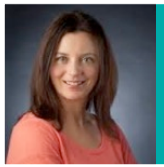


Debbie White
Stakeholder Support, D&T Secretariat

Consultants

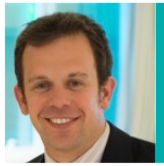


Sonny Dhanani
Medical



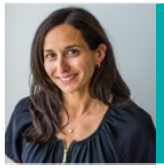
Jennifer Hancock
Medical

Laura Hornby
Clinical Research



Bram Rochwerg
Medical

Matthew Weiss
Medical



Samara Zavalkoff
Medical

2018

Deceased Donors PMP	**24.1 (39% cDCD)**	**23.8 (26% cDCD)**
Living Transplant PMP	**16.0**	**14.1**
Deceased Transplant PMP	**61.8**	**72**
Total Transplant PMP	**77.8**	**81.7**

END