The Current State of Organ Procurement

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Who is Donor Alliance?

- Organ Procurement Organization (OPO)
- Not-for-profit, Federally designated by CMS
  - Exist to provide organs for transplant
- Performance metrics
- Cost-based reimbursement for kidneys
  - Through Medicare
- Defined service area
  - Colorado and most of Wyoming
- Donor Hospitals, Transplant Centers and OPOs function as a contained unit
Charges

• Provide organ and tissue recovery services to the 107 acute care and critical access hospitals throughout Colorado and Wyoming

• Provide trained staff to work with donor families, donor hospitals, coroners and funeral homes

• Provide trained organ and tissue recovery staff to maximize the gift
Responsibilities

• Advocate for donor and donor family rights
• Advocate for waiting organ and tissue recipients
• Facilitates family approach, authorization for donation, organ evaluation, management of potential organ donors, organ & tissue recovery and community development efforts
United Network for Organ Sharing
as of 3/7/12

248 Organ Transplant Centers in the U.S.
• 28,535 tx in 2011

113,190 people waiting for a life-saving organ tx
• 72,558 active
• >2000 in Colorado

4 Organ Transplant Centers in Colorado
• University, CHC, PSL, Porter

58 OPOs
• 14,144 deceased donors in 2011
What is the Donor Potential?

• ~1:100 deaths in an acute care setting meet criteria for brain death

• Limiting factors
  – Speed limits, vehicle safety, helmets, DUI laws
  – Decreased violent crime
  – Older demographics
  – Distrust of medical system
  – Neurological care protocols

• Brain Dead Donors
  – 8 organs possible

• Donation after Circulatory Death (DCD)
  – 5 organs at best
Types of Deceased Organ Donors

**Donation after Brain Death**
- Death declared via brain death criteria in ICU
  - Remains on mechanical support until organs removed
- Only ~1:100 hospital deaths results in brain death
- Heart, lungs, liver, kidneys, pancreas and sm. intestine

**Donation after Circulatory Death**
- Family decides to withdraw ventilator support
- Death declared via absence of cardio/pulmonary function in ICU or OR
  - Must be asystolic w/in 60 minutes
- Kidneys, liver
  - Lungs and heart less common
Donation Process

- Brain Death declared
- Family approach and authorization
- Donor management begins
- Coroner release, if applicable
- Infectious disease testing, stat results
- Organ system(s) evaluation
- Organ allocation
- Organ recovery
- Follow-up with data entry, family and hospital letters
Deceased Donors by Year: 2000-2011*

*2011 data are estimates and are preliminary.
Donor Alliance
Organs Transplanted by Year

- 2005: 395
- 2006: 343
- 2007: 312
- 2008: 356
- 2009: 368
- 2010: 394
- 2011: 446
I’ve always wondered....

- What does the heart on my license mean?
- How does organ allocation work?
- What about tissue grafts?
Colorado Donor Registry

- Opt-in donation system in the U.S.
- Advance Directive
  - NOK cannot override patient wishes
- 67% of Colorado licensed drivers are on Registry
  - One of the highest in the nation
  - Average is ~50%
- European model of presumed consent is not as effective as US model
Organ Allocation

• UNOS system determines policy
  – Grassroots process with input from all sectors (tx ctr, OPO, patients, public)

• Different scoring system for each organ
  – Sickest have highest priority
  – Local recipients have priority

• Tissue typing for some organs
  – Mandatory sharing
Tissue Donation

- Bone, skin, tendons, cardiovascular, soft tissue, fresh cartilage, joints
- Cardiac death
- Eligibility by age and health history
- Donor Alliance has close to 1,000 tissue donors per year
- Relationships with processors
  - Distribute to hospitals
Donor Alliance Recovery Center
State of the Art Facility

• Tissue Recovery in OR at Bonfils
  – Since 1998, 90% of donors transferred

• Best Practice
  – Better quality control for surgeons
  – Don’t bump elective cases, free up ICU beds
  – Longer donor management with increased organ placement

• Three ORs
  – One fully committed to organ recovery
Donor Care Unit
Organ Recovery Operating Room
Utilization Plan

• Simulation training conducted
  – Wells Center and AMR ambulance
  – Transported donor, moved into OR
• Stable abdominal only donors
• Brain Dead only
• Adult only
• Ready to go operational Feb 1.
Organ Preservation

• Static process (ice)
  – Most cost effective
• Dynamic process (machine)
  – Longer preservation times
  – Allows organs to recover function
  – Measurement of function possible
• Kidneys
• Lungs
Kidney Preservation
Perfusion Pump
Ex-vivo Lung Perfusion

Clinical trials almost completed with 12 transplants
2,385 license plates on the road!!
Need 3,000 by July 2013
$50 per plate
Available outside renewal cycle