SRTR-AOPO Donor Potential Exploration

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March 12, 2015
Rockville, MD
Visualizing Donor Potential

A. Total Deaths in the DSA
B. In Hospital Ventilated Deaths
C. Reported Deaths
D. "Potential" Donor
E. Imminent Deaths
F. Eligible Deaths
G. Authorized Donor
H. Donor
Visualizing Donor Potential

Data Currently Captured by OPTN/SRTR:
A. Total Deaths in the DSA
B. In Hospital Ventilated Deaths
C. Reported Deaths
D. “Potential” Donor
E. Imminent Deaths
F. Eligible Deaths
G. Authorized Donor
H. Donor
OPTN Data on Donor Conversion

Reported Deaths:
All deaths or imminent deaths (ventilated and non-ventilated) reported by a hospital to the OPO, tissue or eye bank located within the OPO service area.

Potential Donor???

Imminent & Eligible Referrals

Timely Referrals

Donors
Example OPO in 2013, OPTN Data:

- **Reported Deaths:** All deaths or imminent deaths (ventilated and non-ventilated) reported by a hospital to the OPO, tissue or eye bank located within the OPO service area.

- **29,878**
  - Potential Donor???
  - 618 (2%)
  - 601 (97%)
  - 218 (36%)

Timely Referrals
Donors
OPTN Data: Percent of Reported Deaths That Were Imminent or Eligible Deaths, By OPO, 2013

Donations Service Area (OPO)

Average across 58 OPOs: 2%
OPTN Data: Percent of Imminent or Eligible Deaths That were Timely Referrals, By OPO, 2013

Average across 58 OPOs: 87%

Donations Service Area (OPO)
OPTN Data: Percent of Timely Referrals That Become Donors, By OPO, 2013

Average across 58 OPOs: 49%
Current Conversion Rates Publicly Reported by SRTR

Table B1. Measures of donation rate*, 07/01/2013 to 06/30/2014

<table>
<thead>
<tr>
<th></th>
<th>MNOP</th>
<th>National</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Min.</td>
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<tr>
<td>Eligible Deaths</td>
<td>161</td>
<td>31</td>
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<tr>
<td>Deceased Donors (All)</td>
<td>154</td>
<td>39</td>
</tr>
<tr>
<td>Deceased Donors Meeting Eligibility Criteria</td>
<td>122</td>
<td>18</td>
</tr>
<tr>
<td>Observed Donation Rate Per 100 Eligible Deaths</td>
<td>75.8</td>
<td>58.1</td>
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<tr>
<td>Expected Donation Rate Per 100 Eligible Deaths</td>
<td>78.0</td>
<td></td>
</tr>
<tr>
<td>Standardized Donation Rate Ratio (95% CI)</td>
<td>0.97</td>
<td>0.97 (0.88,1.05)</td>
</tr>
</tbody>
</table>

*The donation rate is calculated as the number of deceased donors meeting eligibility criteria per 100 eligible deaths.
Current Conversion Rates Publicly Reported by SRTR

Figure B4. Standardized donation rate ratios (observed/expected), 07/01/2013 to 06/30/2014
Visualizing Donor Potential

A. Total Deaths in the DSA
B. In Hospital Ventilated Deaths
C. Reported Deaths
D. “Potential” Donor
E. Imminent Deaths
F. Eligible Deaths
G. Authorized Donor
H. Donors (meeting Eligible Death definition)

Current SRTR Conversion Rate:
Alternate Picture of The Donor Conversion Process

A. “Potential” Donor
B. Imminent Death
C. Eligible Death
D. Authorized Donor
E. Donor
Alternate Picture of The Donor Conversion Process

A. “Potential” Donor
B. Imminent Death
C. Eligible Death
D. Authorized Donor
E. Donor

Arguably a better donor conversion metric:

Donors (E) __________________________ Potential Donors (A)
Conversion of Potential Donors

Reported Deaths:
All deaths or imminent deaths (ventilated and non-ventilated) reported by a hospital to the OPO, tissue or eye bank located within the OPO service area.

29,878

Potential Donor???

618 (2%)
Imminent & Eligible Referrals

601 (97%)
Timely Referrals

218 (36%)
Donors
AOPO-SRTR Study Objectives

• Understand what data various OPOs routinely collect regarding donor potential beyond imminent and eligible deaths.
• Estimate potential beyond converted donors.
• Results will inform a discussion about the potential for future standardized data collection.
• Future data may enable creation of improved performance metrics.
Data Received to Date

36 OPOs have been submitted to SRTR (62% of the 58 OPOs).

Note that some OPOs provided consolidated data, so some OPOs at right represent more than one OPO.
Percentage of Non-Donors out of Total Reported By the OPO
Percentage of Non-Donors out of Total Reported By the OPO

<table>
<thead>
<tr>
<th>OPO Code</th>
<th>% of records that were non-donors</th>
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<tbody>
<tr>
<td></td>
<td>10%</td>
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<tr>
<td></td>
<td>20%</td>
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<td>30%</td>
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<tr>
<td></td>
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<td>90%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

* indicates an outlier.
Donation Process & Reasons for Non-Conversion

Referral
- Medical Contraindication
- Coroner Restricted
- Missed BD approach
- Missed potential BD approach
- Not BD and Not DCD Candidate

Decision to Pursue
- No FPA, unable to reach family
- Organs Ruled Out Prior to Pursuing Authorization

Approach
- Potential BD, Patient Arrested
- BD, patient arrested
- Potential BD, family decline
- BD, family decline
- Potential DCD, family decline

Authorized
- Arrested prior to attempt

Attempted
- Organs Ruled Out
- Case Aborted
- Failed DCD
- List Exhausted
Preliminary Consolidated Results

5,346 donors out of 10,216 referrals:

Potential: 1.91 times the number of donors (91% more).

Assumes no exclusions.

Donor, 5,346, 52%

Non-Donor, 4,870, 48%
Preliminary Consolidated Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Referred</th>
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<td>151</td>
<td>47</td>
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<td>Coroner Restricted</td>
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<td>14</td>
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<td>Missed BD Approach</td>
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<td>Not BD, not a DCD Candidate</td>
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<td>730</td>
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<td>Attempted, organs ruled out</td>
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<td>Reason Not Reported</td>
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Preliminary Consolidated Results:
Reasons that are arguably immutable
**Preliminary Consolidated Results:**

**Items potentially modifiable**

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Preliminary Consolidated Results: Accessible Potential?

Donor, 5346, 61%

Non-Donor, 3363, 39%

5,346 donors out of 8,709 potential yields:

Potential: 1.63 times the number of donors (63% more).

Assumes ALL potentially modifiable cases are successfully converted... therefore an overestimate.
Donor Potential: Ratio of Potential to Donors

- Ratio of Potential to Donors:
  - Donor Potential: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0

- Total Potential by OPO:
  - OPO Average: 1.7
  - OPOs Combined: 1.63
Donor Potential: OPTN Data

Ratio of Timely I & E Referrals to Donors

- Ratio of Potential to Donors
- Total Potential by OPO

- OPO Average: 2.31
- OPOs Combined: 2.27
Extrapolating Findings to Actual 2013 Data

Actual Donors in 2013: 8268

If potential is 1.63 x 8268 actual donors in 2013, then donor potential may have been 13,476.
Summary of Findings Thus Far...

• Data supplied by 36 OPOs (62%), data have been analyzed for 32 to-date.
• OPOs vary in how they classify non-donors and “potential”, but common themes exist.
• If all modifiable cases were converted, potential is 1.63 times the number of current donors, or 13,476 in the year 2013.
• This aligns fairly well with I & E referral data supplied to the OPTN, which indicates 2.3 times more potential (before rule-outs, refusals, or other immutable causes of non-conversion).
Limitations

- OPO data are self-reported (a goal of the study is to find common themes and resolve the differences).
- While similarities exist, there is currently no standard definition for potential or reasons for non-conversion (again, this is a stated goal of the study).
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