Meaningful Metrics to Support Quality Improvement in Living Kidney Donation

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Organ Transplant Center
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Disclosures

• I do not have anything to disclose
Objectives

• Discuss how quality indicators/metrics/performance measures are essential to driving quality in health care
• Identify the domains of health care quality as defined by the IOM
• Describe the types of health care quality measures
• Discuss the criteria to select indicators
QAPI – What Do We Mean

QA - Are we delivering quality care or how do we know (measure) the quality of the care we are delivering

PI - If the quality of care does not meet our standards, what or how do we improve the care
“Quality of care is a remarkably difficult notion to define”

Donabedian 1988.

“It seems likely that there will never be a single comprehensive criterion by which to measure the quality of patient care”

Klein, 1961
Institute of Medicine (IOM)

- The extent to which health services provided to individuals and patient populations improve desired health outcomes.

Agency for Healthcare Research and Quality (AHRQ)

- Healthcare is accessible, effective, safe, accountable and fair

Centers for Medicare and Medicaid Services (CMS)

- The right care for every person every time.
Without data you’re just another person with an opinion.

QAPI is Data Driven
Types of Health Care Quality Measures

Structures
Types of Health Care Quality Measures

Outcomes
## Quality Domains

### Safe
- Delivering health care which minimizes risks and harm to service users.

### Efficient
- Delivering health care in a manner which maximizes resource use and avoids waste

### Accessible
Acceptable/patient-centered

• Delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities

Equitable

• Delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status

Effective

• Delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need
Quality in Living Donation

Stakes are much higher in Living Donation
Recipient

Transplant Quicker
Better Organ

Donor

Death
Complication
Failed Transplant
Terminology

Performance Measurement/Quality Indicators
Terminology

Performance Measures
“In order to know how far we’ve got to go, we first have to establish *where we are*”
Quality/Performance Indicators/Measures

- Process
- Structure
- Outcome

Pre-Donation
Post-Donation
Donation Event
Indicator Selection

- Patient Safety Events
- Community Best Practice/Evidence Based
- Compliance Audit
- Patient Experience Data
- Morbidity & Mortality Case Review Conference
- High Risk Procedures/Processes
- Patient Complaints
Objective Quality Indicators

- Important/Relevant
- Measurable/Actionable
- Evidence-based
- Data Quality
- Feasible/Interpretatable
## Indicators Pre-Donation

### Outcome
- Higher-risk donor intervention
- Evaluation complications
- Weight loss when indicated prior to donation
- Effectiveness

### Process
- Timeliness of intake and evaluation
- Psychosocial clearance
- Informed consent/education
- Nutrition screening
- Kidney paired donation readiness process
- A2 typed prior to donation
- Donor risk screening
- NAT testing prior to donation
- Referral to evaluation completion
- ILDA documentation
Kidney Referrals to Transplant conversion

Patients referred from 4/1/22 to 9/30/22

Referrals to Transplant

- Referral: 351
- Evaluated: 197
- Waitlisted: 68

Referrals:
- Active: 0.57%
- Ineligible: 24.65%
- Evaluated: 56.29%
- Not Followed: 0.23%
- Declined: 10.86%
- Removed: 7.54%

Evaluations:
- Approved for Listing: 4.52%
- Waitlisted: 36.52%
- Deferred: 20.81%
- Declined: 42.19%
## Indicators Peri-Donation

<table>
<thead>
<tr>
<th>Process</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Final donor and recipient clearance prior to start of either surgery</td>
<td>• Conversion to open procedure</td>
</tr>
<tr>
<td>• ABO verification in the OR</td>
<td>• Operative times</td>
</tr>
<tr>
<td>• Timeliness of start of OR</td>
<td>• Length of Stay</td>
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<tr>
<td></td>
<td>• Aborted procedure</td>
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<td></td>
<td>• Return to the OR</td>
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<tr>
<td></td>
<td>• Blood loss/product use</td>
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<td>• Corneal abrasion</td>
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</table>
Indicators Post Donation

Process

- Multidisciplinary team involvement
- ILDA involvement

Outcome

- Re-admission in 7 and 30 days
- DVT/PR within 30 days
- Infection within 30 days
- Donor death
- Developed hypertension or worsening hypertension in 6 months post donation
- Significant weight gain
- LD f/u 6 mos., 12 mos., 24 mos.
  - Clinical
  - Laboratory
Quality indicator Definition/Details

- Denominator and numerator details
- Inclusions and exclusions
- Data source and data validation
- Sampling criteria
- Measurement frequency
University of Iowa Hospitals and Clinics Transplant Programs (IAIV) Living Kidney Donor Follow-up Rates for Donors Recovered between 2/1/2013 and 8/4/2022

Overall Rates by Follow-up Form

Timely and Complete Clinical Data
- 6 Month: 92.9%
- 1 Year: 91.0%
- 2 Year: 83.3%

Timely and Complete Lab Data
- 6 Month: 92.9%
- 1 Year: 88.5%
- 2 Year: 83.3%

Timely Status Date
- 6 Month: 95.7%
- 1 Year: 91.0%
- 2 Year: 83.3%

Timely and Complete Laboratory Data by Recovery Year and Form Type

Select Data Type on the Right

Percentages only reflect forms due before 4/13/2023. Data subject to change based on future data submission or correction.

LDF forms due between March 13, 2020 and March 31, 2021 are excluded from the rates above. See Documentation for more information.
### QAPI Dashboard - Kidney LD

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<tbody>
<tr>
<td>Referral to ready for scheduling (median)</td>
<td>≤ 30 Days</td>
<td>71</td>
<td>83</td>
<td>55</td>
<td>152</td>
<td>55</td>
<td>69</td>
<td>82</td>
<td>112</td>
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### Pre-Donation Outcomes

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<tbody>
<tr>
<td>LD Evaluation clinic volume</td>
<td>Trend</td>
<td>49</td>
<td>52</td>
<td>56</td>
<td>34</td>
<td>41</td>
<td>38</td>
<td>47</td>
<td>46</td>
</tr>
</tbody>
</table>

| LD Infections Disease testing 28 days pre-op | 100% | 92% | 100% | 94% | 100% | 100% | 100% | 100% | 100% |
| LD Documentation compliance with OPTN 14.4 | 100% | 67% | 94% | 90% | 100% | 100% | 100% | 100% | 100% |

### Donation Episode: Process

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<tbody>
<tr>
<td>LOS Donation to Discharge ≤ 2 days</td>
<td>100%</td>
<td>92%</td>
<td>79%</td>
<td>93%</td>
<td>93%</td>
<td>71%</td>
<td>92%</td>
<td>75%</td>
<td>92%</td>
</tr>
<tr>
<td>VATT Blood sample collection</td>
<td>100%</td>
<td>100%</td>
<td>95%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
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### Donation Episode: Outcomes

<table>
<thead>
<tr>
<th>Donation Episode: Outcomes</th>
<th>Benchmark Target</th>
<th>FY21 Q4 (Apr-Jun 2021)</th>
<th>FY22 Q1 (Jul-Sep 2021)</th>
<th>FY22 Q2 (Oct-Dec 2021)</th>
<th>FY22 Q3 (Jan-Mar 2022)</th>
<th>FY22 Q4 (Apr-Jun 2022)</th>
<th>FY23 Q1 (Jul-Sep 2022)</th>
<th>FY23 Q2 (Oct-Dec 2022)</th>
<th>FY23 Q3 (Jan-Mar 2023)</th>
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<tbody>
<tr>
<td>Unplanned Return to OR within 30 days of Donation</td>
<td>≤ 15%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>14%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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### Post-Donation: Process

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<tbody>
<tr>
<td>LDF 6 month completion (clinical)</td>
<td>95%</td>
<td>100%</td>
<td>100%</td>
<td>95%</td>
<td>98%</td>
<td>99%</td>
<td>98%</td>
<td>97%</td>
<td>98%</td>
</tr>
<tr>
<td>LDF 12 month completion (clinical)</td>
<td>95%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>98%</td>
<td>99%</td>
<td>98%</td>
<td>98%</td>
<td>97%</td>
</tr>
<tr>
<td>LDF 24 month completion (clinical)</td>
<td>95%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>98%</td>
<td>98%</td>
<td>91%</td>
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### Post-Transplant: Outcomes

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<tbody>
<tr>
<td>Readmission 90 days post Discharge</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
<td>14%</td>
<td>0%</td>
<td>0%</td>
<td>Pending</td>
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<tbody>
<tr>
<td>12</td>
<td>20</td>
<td>15</td>
<td>14</td>
<td>10</td>
<td>14</td>
<td>11</td>
<td>12</td>
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Benchmarks

- OPTN Data Portal
- Peer reviewed journals
- Hospital compare resources
- Peer to peer compare
- Internal historic data
Transplant Comparison by Benchmark Program

Kidney, Pancreas

Variable
- ABO
- Age at Transplant
- CMV Status
- Diagnosis Group
- EPTS (K)
- Gender
- GFR (K)
- KPD (K)
- Race/ Ethnicity
- Share Type
- Status at Transplant
- Total

Benchmark Programs
- A
- B
- C

Organ
- (Multiple values)

Age group
- (All)

Donor type
- Living Donor

Multi-organ transplant
- No

14th Annual Living Donation Conference
Presented by the American Foundation for Donation and Transplantation
Themes:
- Greater convenience in testing and scheduling
- Involvement of previous donors in the process
- Education and promotion of donation through social media
- Unanticipated difficulties, specifically pain
- Financial concerns
Without context, data is meaningless.

- Help create context – information
- Draw conclusions/make decisions on information not data
## Terminology

### Quality Control
- Relates to monitoring & compliance
- Reactive - works on problems after they occur
- Led by management
- It **GUARANTEES** quality
- Asks if standards were met?
- Are deficiencies corrected?

### Quality Improvement
- Relates to learning and improvement
- Proactive – works on processes before problems occur
- Relies on measurement
- Data-driven decisions
- Led by staff – team effort
- Continuous
- Errors seen as opportunities for learning
### Performance Measures & Performance Improvement

<table>
<thead>
<tr>
<th>Reason for Performance Measure</th>
<th>Improvement Plan Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determining baseline</td>
<td>Conceptually committed to improvement work if baseline not satisfactory</td>
</tr>
<tr>
<td>Monitoring effect of change for improvement</td>
<td>Suggests a documented improvement strategy is actively in progress – PDSA cycles</td>
</tr>
<tr>
<td>Assessing sustained improvement</td>
<td>Retired improvement project/moved to monitoring phase</td>
</tr>
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</table>
Doing the same thing over and over and over again and expecting a different result is the definition of insanity.

Improvement can only occur through change

Not every change is an improvement
Quality Improvement

A comprehensive approach to ensuring high quality care

- Full spectrum of living donation services

Objective and proactive approach to improving the quality of care and services provided to patients

- Data driven

Identifies opportunities for improvement

- Addresses gaps in systems or processes

Develops or implements an improvement or corrective plan

Continuously monitors effectiveness of interventions
Cycle of Continuous Improvement

Data Collection

Analysis/Assessment

Change

Improvement

“Arriving at one goal should be the starting point to another”

Alexander Graham Bell
Questions?
References


Session Survey

Gwen McNatt, APRN, PhD, CNN, FNP-BC, FAAN | April 20th 11:00 AM-11:30 AM