Collaborative Innovation and Improvement Network (COIIN)

Andrew Weiss, MD
Medical Director, Kidney and Pancreas Transplant Program
Virginia Mason Medical Center
Seattle, WA
Background

• Perception in transplant community that decision to accept or utilize higher Kidney Donor Profile Index (KDPI) kidneys influenced by concern over possible outcomes review by UNOS or Centers for Medicare and Medicaid Services (CMS)

• While the kidney transplant waiting list continues to grow, potentially hundreds of higher KDPI kidneys are being discarded each year

• Research suggests that these higher KDPI kidneys could be transplanted with good outcomes.

• Use of higher KDPI kidneys may provide better patient survival and quality of life compared to remaining on the waitlist or dialysis for some patients.
What is COIIN?

• A 3 year OPTN/UNOS program to pilot an alternative approach to transplant center performance monitoring

• Goals of COIIN:
  – reduce the risk-avoidance behaviors associated with current monitoring system
  – develop and test an alternative quality monitoring framework
  – create a collaborative approach toward performance improvement and effective practices

• The overall aim of the project: increase transplantation, particular focus on moderate to high KDPI kidneys defined as a KDPI score greater than 50%.
Building COIIN Change Packages

1. Identify Practice Model Hospitals
2. Perform Site Assessments and Surveys based on Key Drivers
3. Convene for Think Tank
4. Identify Key Themes and refine Effective Practices
5. Choose Change Concepts, Build Change Ideas, and refine Process Measures
6. Assess Pilot Hospitals
7. Develop Action Plans with accompanying Process Measures
Selection of Practice Model Hospitals

• Centers were chosen if they were:
  – In the top of 5-tiers of risk-adjusted adult kidney graft survival taken from the December 2015 Program Specific Reports
  – In the top 25% of organ acceptance rates
• Acceptance rates were calculated using match runs from Dec 4, 2014 through Aug 31, 2015.
• 14 programs identified in the top 25% of acceptance rates as well as in the top graft survival tier
• Of these, 11 programs had performed 45 transplants or more annually
• These 11 programs were asked to move forward as “practice model hospitals”
Practice Model Hospitals

• 11 hospitals identified across the country
  • 3 in Region 6!
  • OHSU, Virginia Mason, UW

• Practice model hospitals are participating in an effort to design a “tool kit” of effective practices to share with other transplant hospitals in order to increase the use of these types of kidneys.
Practice Model Hospitals

• Site assessments performed at 5 of the centers
  – 1.5 day visits
  – Interview key staff on process used by the model hospital regarding acceptance and utilization of moderate to high KDPI kidneys
  – Interview personnel at OPO to better understand degree of collaboration
  – Interview 4-5 candidates on waitlist

• Think Tank: Convened June 2016 Richmond, VA
COIIN and Relational Coordination

- Does the degree of Transplant Program and OPO interaction impact quality of care?

- Relational Coordination Theory:
  - Measure of the quality of relationships and communication that is involved in the coordination of work
  - 7 dimensions
    - Relationships - Shared goals, shared knowledge, mutual respect
    - Communication – Frequent, Timely, accurate, focus on problem solving

- Participants at model hospitals and OPOs completed relational coordination survey answering questions focused on these 7 dimensions

Jody Hoffer Gittell and Anthony L. Suchman 2013, provided by UNOS.
Primary Acceptance Drivers

Top Three Drivers
1. Patient Characteristics
2. Outcomes Monitoring and Data Management
3. Effective OPO / TXO Hospital Communication and Relationships

- Effective OPO and TXP Hospital Communication and Relationships
- Outcomes, Monitoring, and Data Measurement
- Hospital Structure and Process
- Patient Characteristics
Secondary Acceptance Drivers

Top 5 Secondary Drivers:
1. Biopsy timing and application
2. TXP Culture and/or aggressiveness
3. Understanding the impact of KDPI and KAS data
4. Frequent internal data analysis
Primary Utilization Drivers

Top 3 Drivers of Utilization
1. Recipient / Wait List management
2. Surgery timing
3. Evidence-based kidney quality assessment

- Surgery timing
- Organ packaging, labeling, and shipping
- Organ receipt
- Recipient / Waitlist management
- Evidence-based kidney quality assessment
- Proactive hospital Quality Improvement programs
- Payer incentives
- Pre-transplant standard protocols
Secondary Utilization Drivers

Top 5 Secondary Drivers:
1. Knowledge of pumping perfusion status
2. Biopsy Decision making criteria
3. Cross Match work completed prior to primary acceptance
4. Timely/ Efficient Kidney transport
5. Donor Kidney RCC Management Techniques
COIIN Pilot Program

• COIIN has been accepting applications for the Pilot Program

• To be considered for participation in the pilot program:
  – Perform a minimum of 45 kidney transplants in the past 12 months or average over the past three years.
  – Currently not under review by UNOS Membership and Professional Standards Committee for kidney outcomes
COIIN Pilot Program

• 3 areas of focus
  – Offer and Acceptance
  – Waitlist Management
  – Care Coordination
Pilot Program Goals:

• Program will explore the use of an alternative monitoring process to encourage innovation and limit the current risk adverse behaviors associated with the current monitoring process.

• Will foster improvement efforts in a collaborative framework – allow participating programs to gain better understanding for how to approach their own future performance improvement work.

• Will provide a testing environment for rapid widespread improvement.
Disclaimer

- Description of COIIN in this talk is extrapolated from UNOS/OPTN data and publications and should not be construed as original work of the presenter.
Dr Jorge Reyes MD, FACS, FAAP
Professor of Surgery & Chief of the Division of Transplant Surgery UWMC
Increasing Organ Utilization through QAPI & Relational Coordination
Push and Pull
What is Relational Coordination?

Relational Coordination (RC) is a mutually reinforcing process of communicating and relating for the purpose of task integration. Relational coordination captures the relational dynamics of coordinating work.

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**Relationships**
- Shared Goals
- Shared Knowledge
- Mutual Respect

**Communication**
- Frequent
- Timely
- Accurate
- Problem-solving

The theory specifies three attributes of relationships that support the highest levels of coordination and performance:

- **shared goals** that transcend participants’ specific functional goals: increase # of transplants
- **shared knowledge** that enables participants to see how their specific tasks interrelate with the whole process: donor management
- **mutual respect** that enables participants to overcome status barriers that might otherwise prevent them from seeing and taking account of the work of others: productive tension

The three relational dimensions reinforce and are reinforced by specific...
Shared Goals, Knowledge, & Mutual Respect

- **Shared goals** increase participants’ motivation to engage in high-quality communication and predispose them towards problem-solving rather than blaming when things go wrong.

- **Shared knowledge** of each participant’s contributions to the overall work process enables timely communication across functions, an understanding of who needs to know what, why, and with what degree of urgency.

- **Mutual respect** increases the likelihood that participants will be receptive to communication from colleagues, increasing the opportunity for shared understanding.
...AND THAT IS WHY WE LIFT ON THREE...

COMMUNICATION
OPO Local Service Areas (square miles)

(source: SRTR data tables at www.srtr.org)
## UW Liver Transplantation - Cold Ischemic Times (Alaska, Hawaii)

### Table 9
Transplant Operation Characteristics, Deceased Donor Transplants

Transplants performed between 07/01/2012 and 06/30/2013
Center: University of Washington Medical Center (WAUW)
Organ: L: Liver

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<th>Cold Ischemic Time (Hours): Local (%)</th>
<th>Percentage in each category (except where noted)</th>
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<table>
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Where it all started…

Senior leadership meeting Sept 2013, mutual commitment to:

• Improve communication
• Build mutual trust
• Increase outcomes
• Improve for liver utilization, observed to expected lower than 0.90
Implemented QAPI Organ Utilization Review

- Started in October 2013 reviewing every organ donor, every organ, every month

- Was the organ transplanted? If not why?

- If not transplanted at the UW, where was it transplanted? What was the outcome?

- Identify communication and process improvement opportunities for LCNW and UWMC

- Identify any “missed opportunities”
Process Changes following QAPI Meetings

• Focused effort on reviewing liver utilization

• UWMC acceptance of livers in the OR, not to delay re-allocation

• After action reviews when there was a communication or process breakdown

• Increased real-time communication

• QAPI started with abdominal transplant, expanded to include thoracic transplant during QAPI reviews
LCNW Organ Donation Activity

---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---
LCNW | 153 | 132 | 128 | 156 | 174 | 154 | 139 | 148 | 141 | 119 | 142 | 163 | 176 | 162 | 197 | 200 | 145

Aug 31
LCNW Organs Transplanted

<table>
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<tr>
<th>Year</th>
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<tr>
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<td>476</td>
</tr>
<tr>
<td>2011</td>
<td>462</td>
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<tr>
<td>2015</td>
<td>640</td>
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<td>2016 Aug 31</td>
<td>460</td>
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</table>
30% increase in organs transplanted (2012-2015)
105% increase in hearts transplanted (2012-2015)
54% increase in lungs transplanted (2012-2015)
4% increase in livers transplanted (2012-2015)
LCNW Kidneys Transplanted by the University of Washington
January 1 - August 31 (2010 - 2016)

18% increase in kidneys transplanted (2012-2015)
Percentage LCNW DCD Livers Transplanted

2009: 33.3%
2010: 21.1%
2011: 30.6%
2012: 9.8%
2013: 22.9%
2014: 32.6%
2015: 34%

24.2% increase in DCD livers transplanted (2012-2015)
What is next?

- Continue QAPI Organ Utilization Review Meetings

- Abdominal, lung, and heart transplant program QAPI reviews to focus on specific communication and process improvements

- Increase the number of organs transplanted (appropriately matching donor and recipient factors)

- Optimize safety, quality, and outcomes

- Continued focus on saving more lives
Relational Coordination Process

- Relationships
  - Shared goals
  - Shared knowledge
  - Mutual respect

- Communication
  - Frequent
  - Timely
  - Accurate
  - Problem-solving