DCD Lung Transplant Collaborative

OPTN *Collaborative Improvement*

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Table of Contents

Preface

This Improvement Guide has been developed in conjunction with the OPTN Donation after Circulatory Death (DCD) Lung Transplant Collaborative. This collaborative improvement project aims to support efforts to increase the transplantation of DCD lungs by identifying and sharing effective practices and employing a collaborative model. The volume of DCD lung transplants conducted per program varies throughout the nation, while data from these types of transplants reflect favorable outcomes. This collaborative improvement project seeks to address this variation in practice.

Several Practice Model Organizations (PMOs) were identified and studied in order to develop the Improvement Guide, which reflects learnings and understandings of key effective practices. These two key drivers to success were identified: Optimizing Internal Transplant Processes and Patient Care Practices and Strengthening Collaboration with OPOs. While these drivers are not the only ones transplant programs can address to improve and grow their DCD lung transplant volumes, they emerged as important contributors to this desired effort.

To best utilize the interventions and changes, organizations should ...

1. **Examine your process.** Identify the key roles and responsibilities in your process from outreach and referrals to authorization, donor management, and procurement. Host and facilitate a process mapping session, document your work processes, and validate them with your team.

2. **Identify opportunities for improvement.** Analyze your process map and look for ambiguous or problem areas. Review your baseline data – what information indicates an area for improvement?

3. **Plan small tests of change.** Use the interventions to identify the changes best suited for your organization to test. It is best practice to start with small tests of change. For example, draft and test a protocol with one person in one setting. Write down questions you want to answer, and collect data through process measures or observation.

4. **Test changes and analyze your results.** What have you learned from testing your intervention? Decide to adapt, adopt, or abandon the change. Continue testing and use your analyses to determine whether the changes or interventions are resulting in improvements within your populations.

5. **Implement improvements.** When you are ready, develop a plan for implementing a tested, proven change within your transplant program. Decide who will be responsible for communicating, tracking, and ensuring sustainability of improvement.

Disclaimer: Use of this Improvement Guide does not does not guarantee compliance with OPTN policies, bylaws, or obligation

Change Concept 1: Optimizing Internal Transplant Processes and Patient Care Practices

Key components of a robust DCD lung transplant program include maintaining comprehensive internal transplant protocols and ensuring consistent application of established processes. Internal transplant processes may be improved by streamlining multi-disciplinary team communication, refining acceptance practices, and conducting in-depth case reviews and identifying potential areas for improvement. Sharpening these components may lead to increased efficiency and a potential increase in lung transplant opportunities. Lung programs should strive to evaluate the overall effectiveness of the program's practices throughout the continuum of care.

Change Concept 2: Strengthening Collaboration with OPOs

Successful DCD lung transplantation relies heavily on effective collaboration with the OPO community. Lung programs should consider ways to improve collaboration and communication with OPOs when reviewing organ offers and preparing for organ recoveries. Working to establish effective communication plans for recovery needs and logistics may help to facilitate successful DCD lung recoveries.

Change Concept 1: Optimizing Internal Transplant Processes and Patient Care

A: Program Structure and Practices

🚀 Intervention 1: Evaluate effective staffing models and internal communication plans

Establishing and evaluating staffing roles and defining responsibilities on a continuous basis will provide guidance and continuity within the transplant team. Input from the multidisciplinary team in transplantation discussions helps to ensure effective internal communication. Consider including coordinators, pulmonologists, physician assistants, and other relevant staff in conversations to allow for more robust planning and consistent protocol application.

⚙️ Recommended actions:

1. Identify key lines of internal communication and refine those processes (i.e., templated email communication).
2. Develop a dynamic process and clear communication pathways when evaluating organ offers, to include:
   a. A review of donor offers with pulmonologists, surgeons, and other identified key personnel to ensure consistent decision-making practices.
   b. A review of the process for prioritizing organ offers, such as time of death predictions, team bandwidth, and/or distance.
3. Review recovery staffing plans and evaluate necessary recovery team participants.
4. Establish an internal communication process for ensuring that staff receive key information throughout the process when utilizing external or local recovery staff to assess or procure organs.
5. Review staffing models for pre- through post-transplant patient management and evaluate the structure/use of coordinators, including:
   a. Transplant coordinator roles and responsibilities.
   b. The on-call structure and processes.
   c. The flow of communication including transfer of patient care coordination (i.e., hand-offs, rounding, etc.).

📋 Suggested measures:

- Track use of templated email for internal communication
- Percent compliance with established communication standards, such as use of templates, checklists, etc.
- Track the opportunity to use external or local recovery staff to assess organs
- Track the opportunity to use external or local recovery staff to procure organs
- Compliance with multidisciplinary staff involvement in established organ offer reviews
- Adherence to established care coordination communication plans

Change Concept 1: Optimizing Internal Transplant Processes and Patient Care

A: Program Structure and Practices

> 🚀 *Intervention 2: Implement standardized case reviews of organs accepted and declined*

Establishing routine case reviews to identify key factors that influence organ offer decisions and reviewing the offer process may help to identify potential opportunities for improvement.

⚙️ Recommended actions:

1. Evaluate instances of accepted organs to:
   a. Review for compliance with internal acceptance practices and processes.
   b. Identify challenge areas to improve and/or successful practices to adopt for future cases.
2. Perform internal retrospective reviews of organ offer declines to:
   a. Review the process for organ offer declines (i.e., single or double staff review of organ offer declines).
   b. Review the trends of declines by selected criteria, such as staff/practitioners, days of the week, months, etc.
   c. Review the declines to ensure continuity of clinical decision-making (i.e., smoking history, BMI).
3. Perform a retrospective review with the host OPO to review offers declined but accepted and successfully transplanted elsewhere. Review donor clinical criteria and offer logistics to assess for potential transplant opportunities.

📋 Suggested measures:

- Track accepted organ offer trends
- Track organ offer decline reasons and circumstances
- Track organ offer declines that were transplanted elsewhere
- Compliance with established organ offer acceptance and decline practices
- Compliance with established cadence of internal and external case reviews

Change Concept 1: Optimizing Internal Transplant Processes and Patient Care

A: Program Structure and Practices

🚀 *Intervention 3: Review candidate listing and donor acceptance criteria*

Lung programs may want to consider reviewing candidate listing processes as well as acceptable donor criteria to maximize opportunities to evaluate potential DCD lung donor offers.

⚙️ Recommended actions:

1. Routinely review candidate records in **Unet^sm Waitlist^sm**.
    a. Review and select appropriate lung donor acceptance filters for each candidate.
    b. Consider selecting _yes_ on the "Accept DCD Donor" field for all applicable candidates.
2. Determine donor rule-in and rule-out parameters, such as age, acceptable recovery distances, cold time, etc.

📋 Suggested measures:

- Track number of patients added to waitlist based on refined criteria
- Track donor rule-in and rule-out reasons
- Compliance with established waitlist practices
- Compliance with donor acceptance and decline parameters

Change Concept 1: Optimizing Internal Transplant Processes and Patient Care

B: Candidate and Recipient Education and Care

Intervention 1: Review candidate evaluation and readiness processes

Ensuring patients are well-informed and prepared for the evaluation and transplant processes may provide a more seamless and efficient experience for both patients and providers.

Recommended actions:

1. Implement a comprehensive pre-transplant patient education program and be sure to:
   a. Determine key educational components and associated staff to include in patient education activities.
   b. Ensure patients are informed with clear expectations for evaluation, listing, transplant, and post-transplant processes.
2. Develop caregiver education and resources (i.e., seminars, support groups, brochures).
3. Review and revise patient evaluation protocols and practices to ensure streamlined and timely processes.
4. Develop practices to ensure patients are ready for transplant through maintenance of clinical information and completion of pre-habilitation activities.

Suggested measures:

- Track the number of education services used, such as seminars and support groups
- Track new patient completion of education requirements
- Evaluate the effectiveness of patient education (i.e., attendance, patient follow-through, etc.)
- Track compliance with patient and caregiver education

Change Concept 1: Optimizing Internal Transplant Processes and Patient Care

B: Candidate and Recipient Education and Care

Intervention 2: Enhance effective post-transplant practices

Transplant recipients should have a clear understanding of what to expect post-transplant. Programs should consider ways to ensure recipients are prepared to comply with post-transplant care and follow-up expectations. Robust education may help recipients stay compliant with post-transplant requirements, ultimately leading to positive patient outcomes.

Recommended actions:

1. Create strong post-transplant and discharge plans, to include:
   a. Discharge instructions, expectations, and materials, including checklists for prescriptions, infusion services, shipping locations for necessary labs, nearest hospital and other primary care provider locations.
   b. Clear follow-up requirements, timeframes, and expectations.
2. Establish post-transplant care seminars detailing what patients can expect in first three months and inform of local medical and support services.
3. Develop effective communication plans for all relevant clinical teams to provide consistent, comprehensive post-transplant care coordination.

Suggested measures:

- Track staff compliance with provision of discharge instructions
- Track patient compliance with follow-up requirements
- Track deployment of post-transplant care seminars and educational offerings

Change Concept 2: Strengthening Collaboration with OPOs

🚀 Intervention 1: Standardize the organ offer review process

Utilizing consistent donor review criteria helps to facilitate efficient communication with the each OPO and ensure continuity of decision-making. Additionally, understanding donor hospital protocols may help to inform recovery decisions.

⚙️ Recommended actions:

1. Determine the required and preferred clinical elements necessary for the review of donor offers, and:
   a. Develop a tool to ensure consistent application of criteria and periodically review tools to ensure alignment with standard practice.
   b. Communicate preferred donor evaluation clinical elements with each OPO and share templated tools.
2. Evaluate the use of death prediction tools/assessments to better inform decision-making.
3. Ensure discussion with the each OPO to clarify donor hospital protocols for pre-recovery donor testing.

📋 Suggested measures:

- Track consistent use of donor offer review criteria (i.e., use of tool)
- Track frequency and usefulness of OPO meetings

Change Concept 2: Strengthening Collaboration with OPOs

🚀 *Intervention 2: Formalize recovery logistics and expand recovery options*

Standardizing and sharing procurement needs helps OPOs to facilitate organ recovery and to foster consistency with donor hospitals. Additionally, engaging with local surgeons to assess and/or recover organs may increase opportunities for organ transplantation.

⚙️ Recommended actions:

1. Develop procurement checklists for OPOs to include both donor clinical requirements and logistical and equipment needs.

2. Discuss each OPO's provision of standard equipment and supplies in advance of recovery.

3. Establish a plan with each OPO to discuss the donor hospital's policies regarding comfort/palliative care, reintubation, declaration of death, and any other donor hospital-specific protocols.

4. Evaluate and explore potential opportunities to collaborate with local surgeons for donor assessment and/or procurement.

📋 Suggested measures:

- Track use of procurement checklists
- Track frequency of meetings with OPOs
- Track the occurrence and evaluate the effectiveness of external or local recovery staff to assess organs
- Track the occurrence and evaluate the effectiveness of external or local recovery staff to procure organs

Change Concept 2: Strengthening Collaboration with OPOs

🚀 *Intervention 3: Establish effective communication plans*

Effective communication between OPOs, donor hospital staff, and other transplant teams is essential for successful and consistent organ recovery and transplantation

⚙️ Recommended actions:

1. Work with OPOs to establish pre-OR huddles with other recovery teams. Consider implementing additional huddles between thoracic surgeons regarding use of perfusion.
2. Work with OPOs to define a real-time communication plan during the withdrawal process.
3. Develop feedback mechanism to share information with each OPO and other recovery teams regarding procurement process and experience.

📋 Suggested measures:

- Track the number of pre-OR huddles conducted
- Track rate of adherence to established OR communication plan
- Track the occurrence and evaluate the effectiveness of feedback sessions between OPO and recovery teams