DonorNet®2007 Implementation

Use of the PDSA Improvement Model

10/25/06

The following is an outline for using the Plan-Do-Study-Act improvement model to test the changes required by Transplant Center and Organ Procurement Organization (OPO) personnel to effectively allocate organs using DonorNet®2007. It is crucial that DonorNet®2007 improvement teams use the momentum of their current efforts in the HRSA Organ Transplant Breakthrough Collaborative to improve the efficiency of the allocation process and increase the number of transplanted organs. This outcome measure is the ultimate driver for successfully implementing DonorNet®2007.

This outline assumes that improvement team members, comprised of both Transplant Center and OPO personnel, understand how DonorNet®2007 is designed and operates to increase the efficiency of communicating, evaluating, responding, and closing organ allocation offers. A period of training using the resources provided by UNOS (www.DonorNet2007.net) should be planned prior to any initial testing of the application in the organization. Once roles and responsibilities are understood, the use of the application is tested to understand both the technological and organizational changes that will be required to effectively implement DonorNet®2007.

I. Drivers for change
   A. OPTN Policy Requirements (Policies 3.4.6 & 7.5 to be implemented April 30, 2007)
   B. Links to HRSA's Organ Transplant Breakthrough Collaborative
      1. First Things First: #4. Focused Change Agenda based on analysis of current hospital data.
      2. High Leverage Changes: #3 Deploy a self-organizing OPO/Hospital Team.
      3. High Leverage Transplant Practices:
         a. Transplant Center is organized to have effective, efficient placement conversations with the OPO, "talk with each other, not at each other".
         b. Establish top-down accountability for maximizing organ acceptance and use.
         c. Proactively manage each transplant center waitlist to assure appropriate list readiness.
         d. Mobilize the appropriate expertise and resources in a timely manner.
         e. Streamline communications so offers go directly to those authorized to make decisions.
   C. An opportunity to contribute to our 3.75 organs/donor goal!

II. Establish an improvement team for each Transplant Center
   A. Transplant Center Personnel
   B. OPO Personnel
   C. Team Resources
      1. Hospital Information Technology
      2. MTN Information Technology
      3. UNOS Information Technology
      4. UNOS Organ Center
      5. Communication Vendor
   D. Team Leader
   E. Facilitator

III. Educate improvement team on DonorNet®2007
   A. www.DonorNet2007.net
   B. Screen prints and presentations of DonorNet®2007 work flow
   C. Demonstration version of DonorNet®2007 application available in November 2006

IV. Choose work processes to test using the PDSA model
   A. Communication Devices and Computer User Interfaces
      1. Handheld devices (Pagers, Cell Phones/PDAs)
      2. Workstations (Desktops and Laptops)
   B. Transplant Center contact call schedule maintenance
   C. Donor Data Entry
      1. Uploading donor data from OPO database to DonorNet®2007
      2. Contingency plans for data entry
   D. Attaching images / movies to donor record
   E. Notification Process – sending (OPO) and receiving (Transplant Center)
      1. Local
      2. Regional
   F. Initial donor information required from OPO when presenting an offer
   G. Complete information required from OPO after Transplant Center indicates a "Provisional Yes"
   H. Import Offers
   I. Evaluating and responding to the offer
   J. Closing the match

V. Questions to answer during "Plan"
   A. What do you want to learn?
   B. What policy or procedure do you want to change or establish?
   C. What is the scope of the test? (# cases, certain type of cases, local vs regional, etc.)
   D. What measure(s) will you use to indicate success? Is the measure already established or not?
      1. DonorNet®2007 Metrics for Success (to be used in Phase 2 pilot period)
         a. Number of transplanted organs
         b. Rate of Transplant Center viewing of DonorNet® data & attachments
         c. Number of donor record attachments utilized
         d. Time from pronouncement to cross clamp
         e. Number of offers made per organ
         f. Discard rates
         g. Sequence number (rank) of accepting candidates
         h. Number of Transplant Centers contacted beyond accepting candidate
         i. Mean and median response times by Transplant Center/OPO
         j. Time between notification and response
         k. Time between organ offer and response
         l. Number of organs placed in each round of notification
         m. Number of "provisional yes" responses that become accepted and refused
         n. Number of automated refusals due to no response to organ offer notification
         o. Type of devices used to receive/acknowledge organ offer notification
      2. Other measures identified by Improvement Team
   E. What can you do by next Tuesday to improve the process? Determine Who, What, When, and How. Determine the test activities, data collection, and resources needed to support the Plan.
   F. What do you think will happen when you execute the plan? This will help you think about cause-effect relationships in your work process. By predicting what will happen, you are testing your knowledge of the work process. Your theories form the basis for your team's lessons learned.
   G. Clearly define the plan by assigning specific responsibilities for carrying out activities, making decisions, and tracking measures.
   H. Determine who will analyze results and prepare them for review and analysis by the team. Determine when this analysis will be done.

VI. Questions to answer during "Do"
- A. Are you executing the plan as planned? If changes were needed to execute the plan, why?
- B. While carrying out the plan, what are the results in terms of the measure(s) you chose?
- C. Are there interesting consequences (positive and negative) of executing the plan that were not anticipated?
- D. Is there anything preventing the plan from being executed? Are there additional or different resources required to support the plan?

VII. Questions to answer during "Study"
- A. How can the data be analyzed to address what you wanted to learn from the test? Are there any statistical tools that will show trends or patterns in the data?
- B. What does the data collected on your measure(s) tell you about your test?
- C. Were your predictions correct? Why or Why Not?
- D. Is there any new information you know as a result of the test?
- E. What did you learn from the test?

VIII. Questions to answer during "Act"
- A. Based on your lessons learned, do you have any new ideas or theories to test about the work process? What are they and how do they affect the "Plan" for the next cycle of testing?
- B. Do you need to change the scope of your test for the next PDSA cycle? Will you test more cases? Will you test different types of cases?
- C. How do you address the barriers to executing the test plan? How will these barriers be addressed in the next PDSA cycle?
- D. Are different or more resources required to continue testing in the next PDSA cycle?
- E. Do you need to establish a contingency plan for certain conditions in the work process?
- F. Has the team executed a sufficient number of tests to establish a new, improved level of performance of the work process?
- G. What elements need to exist in policies or procedures that the team wanted to change or establish as a result of the PDSA testing cycles?

This document was developed and contributed by Mike Kelly, Quality Systems Manager for Midwest Transplant Network, to help DSAs in implementing the new DonorNet® system. If you have questions or would like more information on using this process in your area, you may contact Mike at (913) 262-1668 or mkelly@mwtn.org.

UNOS appreciates Mike's willingness to share this valuable process with the entire transplant community.