

OPTN/UNOS Liver and Intestinal Organ Transplantation Committee
Report to the Board of Directors
June 21-22, 2010
Richmond, VA

Summary

I. Action Items for Board Consideration

- The Board is asked to approve modifications to Policy 3.6.4.4 (Liver Transplant Candidates with Hepatocellular Carcinoma (HCC)) that will make the policy internally consistent. (Item 1, Page 3)
- The Board is asked to approve modifications to Policies 3.6.4.1 (Adult Candidate Status) and 3.6.4.2 (Pediatric Candidate Status) that would reverse changes to those policies that were approved by the Board in December 2006 but have not been implemented. (Item 2, Page 4)

II. Other Significant Items

- The Committee hosted a forum on “Concepts Related to Liver Allocation and Distribution” on April 12, 2010, in Atlanta, GA. (Item 3, Page 6)
- The Committee circulated three requests for Alternative Allocation Systems (AAS) and Alternative Local Units (ALU) for public comment in March 2010. (Item 4, Page 12)
- The Committee will be proposing changes to Policy 3.6.4.4 (Liver Transplant Candidates with Hepatocellular Carcinoma (HCC)) to incorporate the radiology criteria recommended during the HCC Consensus Conference held in November 2008, to be circulated for public comment in the fall of 2010. (Item 5, Page 13)
- The Committee will be proposing changes to the adult liver-intestine allocation algorithm and new criteria for intestine program surgeons and physicians, to be circulated for public comment in the fall of 2010. (Item 6, Page 14)
- The Committee developed templates for centers to use when submitting an application for one of the MELD/PELD exception diagnoses approved by the Board in June 2009; this is a manual process to be used instead of UNetSM programming. (Item 7, Page 15)
- The Committee will be proposing three changes to the pediatric candidate liver allocation criteria, to be circulated for public comment in the fall of 2010. (Item 8, Page 16)

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OPTN/UNOS Liver and Intestinal Organ Transplantation Committee
Report to the Board of Directors
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W. Kenneth Washburn, MD, Chair
Kim M. Olthoff, MD, Vice Chair

This report presents the OPTN/UNOS Liver and Intestinal Organ Transplantation Committee's (Liver Committee) deliberations during its November 18, 2009, and April 13, 2010, meetings, February 1, 2010, and April 7, 2010, conference calls, and the forum on Concepts Related to Allocations and Distribution held in Atlanta, GA on April 12, 2010.

I. Action Items for Board Consideration

1. Minor Change to Policy 3.6.4.4 (Liver Transplant Candidates with Hepatocellular Carcinoma (HCC)). Policy 3.6.4.4 lists the criteria for Stage II HCC in two places: in the first paragraph of Policy 3.6.4.4, and following the policy text in Table 3. Table 3 defines a T2 tumor as "T2 One nodule 2.0 - 5.0 cm; two or three nodules, all <3.0 cm" while the text in the first paragraph states that "A candidate with an HCC tumor that is greater than or equal to 2 cm and less than 5cm or no more than 3 lesions, the largest being less than 3 cm in size (Stage T2 tumors as described in Table 3)." The text in the first paragraph should read "less than *or equal to* 5cm" to be consistent with the Milan criteria outlined in Table 3, and with UNetSM programming. The Committee submits the following for consideration by the Board of Directors:

**** RESOLVED, that Policy 3.6.4.4 (Liver Transplant Candidates with Hepatocellular Carcinoma (HCC)) shall be amended as set forth below, effective pending notice to the membership:**

3.6.4.4 Liver Transplant Candidates with Hepatocellular Carcinoma (HCC). Candidates with Stage II HCC in accordance with the modified Tumor-Node-Metastasis (TNM) Staging Classification set forth in Table 3 that meet all of the medical criteria specified in (i) and (ii) may receive extra priority on the Waiting List as specified below. A candidate with an HCC tumor that is greater than or equal to 2 cm and less than or equal to 5cm or no more than 3 lesions, the largest being less than 3 cm in size (Stage T2 tumors as described in Table 3) may be registered at a MELD/PELD score equivalent to a 15% probability of candidate death within 3 months. The largest dimension of each tumor must be reported (i.e., 3.2cm x 5.1cm must be reported as 5.1cm).

Committee vote: 22 in favor, 0 opposed, 0 abstentions

This proposed modification was not circulated for public comment as it a clarification of existing policy only, and does not alter organ allocation. A mini-briefing paper is attached as **Exhibit A**. A resource and impact statement is not provided for this proposal as it will not require programming in UNetSM.

2. Request to Reverse Approved Changes to Policy 3.6.4.1 (Adult Candidate Status) and 3.6.4.2 (Pediatric Candidate Status). Currently, Status 1A/1B cases not meeting the criteria outlined in policy are reviewed by the Status 1A/1B Review Subcommittee, which makes recommendations to the Committee regarding the appropriateness of the listings. Centers with multiple infractions within the last two years are forwarded to the Membership and Professional Standards Committee (MPSC). During the April 2010 meeting, Committee members were reminded that in December 2006, the Board approved a recommendation from the Committee that Status 1A/1B cases not meeting criteria would be sent to the Regional Review Boards (RRB) for retrospective review rather than to the Subcommittee. Committee members questioned this earlier decision, asserting that the process for reviewing these cases via the Status 1A/1B Review Subcommittee is working well, and that compliance with the policy has improved over the last few years. Committee members expressed the concern that RRB members rotate on and off the boards on a regular basis and are often not as familiar with the policy as the Status 1A/1B Review Subcommittee members. The Committee unanimously voted to reverse the Board-approved language. This would apply to both adult and pediatric candidates. The Committee submits the following for consideration by the Board of Directors:

**** RESOLVED, that Policies 3.6.4.1 (Adult Candidate Status) and 3.6.4.2 shall be amended as set forth below, effective pending notice to the membership:**

3.6.4.1 Adult Candidate Status. Medical urgency is assigned to an adult liver transplant candidate (greater than or equal to 18 years of age) based on either the criteria defined below for Status 1A, or the candidate’s mortality risk score as determined by the prognostic factors specified in Table 1 and calculated in accordance with the MELD Scoring System. A candidate who does not have a MELD score that, in the judgment of the candidate’s transplant physician, appropriately reflects the candidate’s medical urgency, may nevertheless be assigned a higher MELD score upon application by his/her transplant physician(s) and justification to the applicable Regional Review Board that the candidate is considered, by consensus medical judgment, using accepted medical criteria, to have an urgency and potential for benefit comparable to that of other candidates having the higher MELD score. The justification must include a rationale for incorporating the exceptional case as part of MELD calculation. A report of the decision of the Regional Review Board and the basis for it shall be forwarded to for review by the Liver and Intestinal Organ Transplantation and Membership and Professional Standards Committees to determine consistency in application among and within Regions and continued appropriateness of the MELD criteria.

Status	Definition
7	A candidate listed as Status 7 is temporarily inactive. Candidates who are considered to be temporarily unsuitable transplant candidates are listed as Status 7, temporarily inactive.
1A	A candidate greater than or equal to 18 years of age listed as Status 1A has fulminant liver failure with a life expectancy without a liver transplant of less than 7 days. For the purpose of Policy 3.6, fulminant liver failure shall be defined as described in (i)-(iv). Centers that list candidates not meeting these criteria for Status 1A will have the case retrospectively reviewed by the Regional Review Board (RRB). Cases not resolved at the regional level will be referred to the Liver and Intestinal Organ

Transplantation Committee for review; this review by the Liver and Intestinal Organ Transplantation Committee may result in further referral of the matter to the Membership and Professional Standards Committee for appropriate action in accordance with Appendix A of the Bylaws. Candidates meeting the criteria in (i)-(iv) will be listed in Status 1A without RRB review.

<< No further changes to Policy 3.6.4.1 >>

3.6.4.2 Pediatric Candidate Status. Medical urgency is assigned to a pediatric liver transplant candidate (less than 18 years of age) based on either the criteria defined below for Status 1A or 1B, or the candidate’s mortality risk score as determined by the prognostic factors specified in Table 2 and calculated in accordance with the Pediatric End-Stage Liver Disease Scoring System (PELD) for pediatric candidates <12 years or with the MELD System (defined above in Policy 3.6.4.1) for pediatric candidates 12-17 years. Based on the variables included in allocation score calculation in the MELD system, MELD scores may offer a more accurate picture of mortality risk and disease severity for adolescent candidates. Pediatric candidates 12-17 years will use a risk score calculated with the MELD system while maintaining other priorities assigned to pediatric candidates. A candidate who does not have a risk of candidate mortality expressed by the PELD or MELD score that, in the judgement of the candidate’s transplant physician, appropriately reflects the candidate’s medical urgency or was listed at less than 18 years of age and remains on or has been returned to the Waiting List upon or after reaching age 18 may nevertheless be assigned to a higher or the appropriate PELD or MELD score and pediatric classification (for candidates listed at less than age 18 who turn age 18) upon application by his/her transplant physician(s) and justification to the applicable Regional Review Board that the candidate is considered, by consensus medical judgement, using accepted medical criteria, to have an urgency and potential for benefit comparable to that of other candidates having the PELD or MELD score. The justification must include a rationale for incorporating the exceptional case as part of the PELD/MELD calculation. A report of the decision of the Regional Review Board and the basis for it shall be forwarded for review by the Liver and Intestinal Organ Transplantation and Membership and Professional Standards Committees to determine consistency in application among and within Regions and continued appropriateness of the PELD or MELD criteria.

Status	Definition
7	A pediatric candidate listed as Status 7 is temporarily inactive. Candidates who are considered to be temporarily unsuitable transplant candidates are listed as Status 7, temporarily inactive.
1A/1B	A pediatric candidate listed as Status 1A or 1B is located in the hospital's Intensive Care Unit (ICU). For purposes of Status 1A/1B definition and classification, candidates listed at less than 18 years of age who remain on or have returned to the Waiting List upon or after reaching age 18 may be considered Status 1A/1B and shall qualify for other pediatric classifications under the following criteria. There are five allowable diagnostic groups: (i) fulminant liver failure; (ii) primary non function; (iii) hepatic artery thrombosis;

(iv) acute decompensated Wilson’s Disease; and (v) chronic liver disease. Candidates meeting criteria (i) (ii), (iii), or (iv) may be listed as a Status 1A; those meeting criteria (v) may be listed as a Status 1B. Within each diagnostic group specific conditions must be met to allow for listing a pediatric candidate at Status 1A or 1B. Centers that list candidates not meeting these criteria for Status 1A or 1B will ~~have the case retrospectively reviewed by the Regional Review Board (RRB). Cases not resolved at the regional level will~~ be referred to the Liver and Intestinal Organ Transplantation Committee for review; this review by the Liver and Intestinal Organ Transplantation Committee may result in further referral of the matter to the Membership and Professional Standards Committee for appropriate action in accordance with Appendix A of the Bylaws. Candidates meeting the criteria in (i)-(v) will be listed in Status 1A or Status 1B without RRB review.

<< No further changes to Policy 3.6.4.2 >>

Committee vote: 20 in favor, 0 opposed, and 0 abstentions

This proposed modification was not re-circulated for public comment as it is an administrative/procedural change and does not impact organ allocation. A mini-briefing paper is attached as **Exhibit B**. A resource and impact statement is not provided for this proposal as it will not require programming in UNetSM.

II. Other Significant Items

3. Forum Planning and Post-Forum Discussion. In June 2009, the Board approved the Committee’s request for a public forum on liver distribution. The Committee later broadened the scope of the forum to include allocation and distribution. Two subcommittees were created to develop the forum agenda and content: the Forum Planning Subcommittee, and the Allocation and Distribution Subcommittee. The Forum Planning Subcommittee was charged with developing the format and agenda of the forum, working with the Allocation and Distribution Subcommittee to develop a Request for Information (RFI), engaging stakeholder groups for input and participation in the forum, and authoring a report after the forum.” The Allocation and Distribution Subcommittee was charged with evaluating the current and future possible allocation/distribution algorithms; developing several different options that can be presented at the forum; soliciting input through an RFI; and other avenues for potential enhancements to the current allocation and distribution systems. The Subcommittees met 14 times between August 2009 and April 2010 to prepare for the April 12, 2010, forum, held in Atlanta, GA. Minutes from each of these calls are attached as **Exhibit C**; these may be helpful in understanding the many concepts being explored by the Committee.

November 18, 2009, Committee discussions: Review of Scientific Registry of Transplant Recipients (SRTR) Modeling Efforts

During the November 2009 meeting, the Committee received an update on the transplant survival benefit models being developed by the SRTR. This included new LSAM modeling run for “Share positive

benefit,” which is based on the Share 15 concept but replaces the MELD/PELD 15 threshold with a survival benefit score of greater than zero. The Committee was concerned about the complexity of the formula from which the benefit scores are derived and the applicability of the benefit score in a clinical setting. The Committee asked that the SRTR develop a simplified model, perhaps using the top five most significant factors in the current model. The Committee also asked for modeling of the “Share 15 national” concept, which would extend the current Share 15 policy to all candidates nationally with a MELD/PELD score of 15 or higher before any patients with lower MELD/PELD scores. The Committee asked the SRTR to investigate other thresholds for the use of concentric circles as the initial distribution unit, perhaps starting with a 250-mile radius. The Committee discussed other concepts for constructing distribution units, such as population density or some percentage of the waiting list. The Committee reviewed a draft of the RFI, which included many of these concepts.

The RFI was posted on the UNOS website on December 18, 2009 (**Exhibit D**), and all individuals on the UNOS Communications mailing list were invited to review the RFI and respond to a brief survey, which was open until February 1, 2010. Several of the transplant societies and patient groups (AST, ASTS, ILTS, AASLD, and TRIO) were also asked to provide the web link to their membership.

February 1, 2010, Committee discussions: Forum Update and Review of SRTR Modeling Efforts.

The Committee met by teleconference to discuss the plans for the forum. The Committee reviewed some of the recent LSAM modeling analyses that had been requested by the full Committee and the Allocation and Distribution Subcommittee. Many of these were mentioned either in the public comment responses from spring 2009, or in the RFI survey feedback. These include net benefit, tiered sharing, concentric circles, and using a percentage of the waiting list for distribution. Using its microsimulation model, LSAM, the SRTR modeled the current MELD-based system using concentric circles for distribution, where the first tier of distribution is 250 nautical miles (NM), the second tier is 500 NM, etc. The Committee had previously reviewed models with the first tier at 500 NM. The SRTR also presented results of the “Share 15 National” system that extends sharing for MELD/PELD 15 nationally. The median distance between the donor hospital and transplant center and the decrease in total deaths were provided for these two systems and for previously modeled systems. The SRTR also provided plots of the median distance versus the decrease in total deaths and the percent shared versus the decrease in total deaths for the systems modeled to date. When compared with the “Concentric 35 system” (where the first tier of distribution is defined as 0-500 nautical miles), “Concentric 250” resulted in half the median distance traveled and approximately half as many fewer total deaths. The National 15 system is similar to the “Share 35” Local and Regional systems (shown to the Committee previously) in terms of median distance traveled between donor hospital and transplant center and decrease in total deaths. It was suggested that the SRTR model the “Share35 Regional” combined with the “Share 15 National,” which the Allocation and Distribution Subcommittee had requested this during a previous call. In general, most of the modeled systems resulted in similar trade-offs between decreased deaths and increased distance, with the exception of the transplant benefit models.

The SRTR had been asked to model a distribution system that is based on waiting list population, and was seeking direction from the Subcommittee regarding how such a system would be constructed. Questions posed to the Subcommittee, and the Subcommittee’s answers, were reported to the full Committee:

- Will there be a “local” distribution unit? Response: The system should be run with and without local distribution unit.

- Is the location of the waitlisted patient defined by the home zip code or transplant center zip code? Response: Transplant center zip code.
- What percentage of the national waiting list should be included in the first, second, third, etc., tiers of allocation? Response: Distribution areas should be based on a percentage of active Status 1A/1B candidates and candidates with a MELD/PELD score greater than 15 who are on transplant center waiting lists that are closest to the donor hospital. The first tier should include up to 5% of this list, the second tier up to 10%, the third tier up to 30%, and then to 100%.
- As the circle expands to include waitlisted patients around the donor hospital, what happens when another transplant center is “touched” (i.e., some but not all of the candidates would be included in the tier)? Response: The model should include all the patients in that center, regardless of the resulting percentage of the waiting list, as defined in question 3.

The SRTR is developing descriptive analyses to help the Committee understand the logistics of how this system may be modeled.

The Committee met briefly by conference call on April 7, 2010, to review slides being presented by Committee members at the upcoming forum.

April 12, 2010, Forum on “Concepts Related to Liver Allocation and Distribution” Atlanta, GA

Approximately 160 individuals attended the forum in Atlanta, GA, with another 70 participating via LiveMeeting®. James J. Wynn, MD, OPTN/UNOS President, moderated the forum, with W. Kenneth Washburn, MD, Committee Chair, as co-moderator. The overall goals of the forum were as follows:

- Start a new conversation with the community about possibilities for improving liver allocation and distribution;
- Share information and perspectives on current liver allocation and distribution policies, and potential opportunities for, and challenges associated with, improving patient outcomes (pre- and post-transplant);
- Get input from the community about possible directions for policy development and what evidence would be important to support any allocation and distribution improvements;
- Discuss and get input on several concepts for improving patient outcomes; and
- Explore additional research and feedback that will help evaluate any future options.

The intended outcomes of the forum were:

- Greater understanding among all stakeholders about hopes and concerns associated with liver allocation and distribution policies;
- Greater understanding of allocation/distribution concepts that do and don’t resonate with the community at the current time; and
- Greater understanding of desired directions for further work.

There were 12 topical presentations, with audience polling after many of the presentations, and time for questions and answers. Topics and speakers included:

- Historical perspectives of liver allocation/distribution - Russ Wiesner, MD
- Current state of Allocation and Distribution - John Lake, MD
- OPTN Policy Development and Feedback from RFI / Highlights of concepts being explored- John Roberts, MD
- Liver Allocation: A Patient-Centric Approach in Regions 1 and 9 - Patricia Sheiner, MD
- Maximizing the Yield of the Donor Pool - Joseph Tector, MD
- Region 8 and “Share 29” - Lawrence Hunsicker, MD
- Liver discards and utilization: a national perspective - Jean Emond, MD
- Enhancements to the MELD score – W. Ray Kim, MD
- Presentation of Transplant Survival Benefit - Robert Merion, MD
- DSA as a distribution unit - James Eason, MD
- Concentric Circles for distribution - Julie Heimbach, MD
- Tiered Sharing distribution - Goran Klintmalm, MD

A formal summary of the forum deliberations, including the audience polling results, is being written for publication.

April 13, 2010, Meeting: Review of Forum Held on April 12, 2010, Atlanta, GA

The following is a brief summary of Committee members’ impressions from the forum:

- The MELD score is not “broken” but could be improved; any changes would have a relatively small impact. Fine-tuning the MELD score could be a long-term goal for the Committee. The MELD score is good at predicting pre-transplant mortality, but there was interest in transplant benefit as a way to incorporate post-transplant outcomes.
- Changes to distribution should be made in small incremental steps.
- The community is split on many issues, and, as one member summarized “there is polarization between those who are comfortable with what we are doing and those who feel their patients are underserved because they don’t have the access to organs that other places have.”
- There are strong feelings about geographic inequities caused by using the DSA and Regions for distribution. Some felt that changes to distribution should be the Committee’s short-term goal, as the provisions in the OPTN Final Rule related to geography have not been acted upon. However, many members again asserted that changes to distribution would likely require small incremental steps.
- There were many comments about OPO effectiveness and about single-center OPOs.
- There appeared to be support for some tiered sharing, Share 15 National, and the “risk equivalent threshold” (RET) concepts. The Committee felt that there was not much support for concentric circles or population density and that this could be put on hold for now, or could be an ongoing item for the Subcommittee to pursue.
- There was strong support for increased utilization, decreased discards, and/or expedited placement of livers. This may have the largest potential impact in terms of increasing transplants, and was the only thing that achieved great consensus. There was support for an official pathway for expedited placement that would make it more transparent.
- The Committee must collaborate with the OPO Committee and OPO community.

- The Committee needs to identify clear goals and objectives for any new proposal. The Committee must also identify metrics that can quantify “disparities,” so that improvements can be measured.

Following this discussion, the Committee reviewed the data from the tiered sharing LSAM modeling runs. The SRTR was asked to model a “two-tiered” system as described in **Table 1**, with additional runs with upper thresholds at 29, 25, and 22. The SRTR compared the median distance traveled between the donor hospital and recipient center, the number of transplants by categories of MELD score, deaths by type (pre-transplant, post-transplant, post-removal), and the percent shared under each system modeled. Each of the two-tiered systems resulted in higher median distances traveled between the donor hospital and transplant center when compared to the current allocation rules. The distance increased as the MELD score for the upper threshold was reduced. All of the two-tiered systems resulted in fewer total deaths compared to current allocation rules in the simulations. The decrease in the number of deaths ranged from 73 to 88 (**Figure 1**). A summary of the trade-off between the reduction in deaths and the increase in distance donor livers would travel for the models reviewed to date is shown in **Figure 2**.

Table 1. Share 15_35 National (32, 29, 25, 22)

Regional Status 1A
Regional Status 1B
Local MELD/PELD >= 35 (32, 29, 25, 22)
Regional MELD/PELD >= 35 (32, 29, 25, 22)
Local MELD/PELD 15-34 (31, 28, 24, 21)
Regional MELD/PELD 15-34 (31, 28, 24, 21)
National Status 1A
National Status 1B
National MELD/PELD >= 15
Local MELD/PELD < 15
Regional MELD/PELD < 15
National MELD/PELD < 15

Figure 1

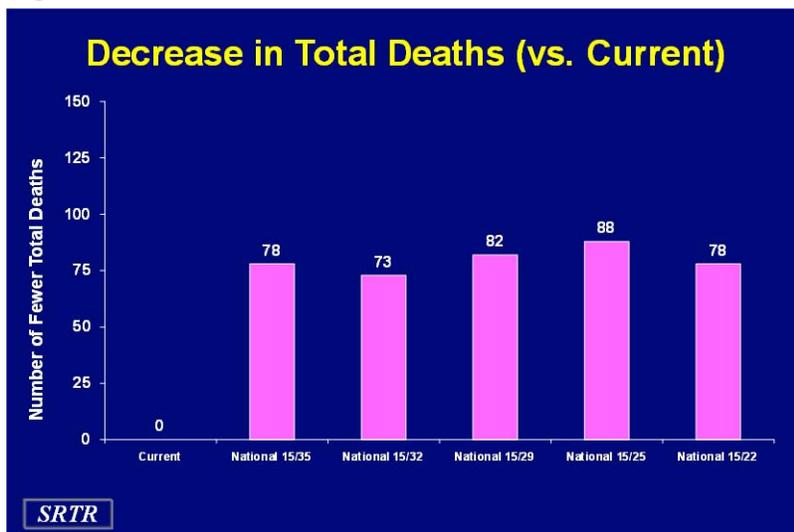
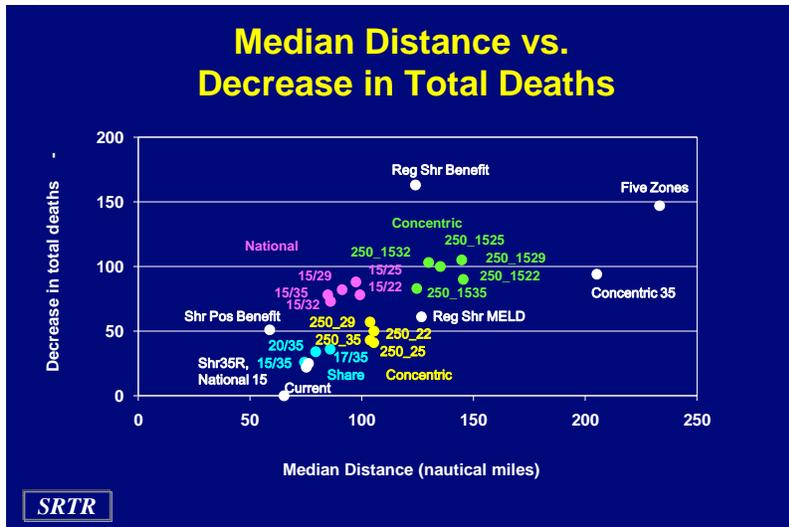


Figure 2



The Committee discussed concerns with the LSAM modeling methodology and results. The LSAM model uses historical acceptance/turn-down rates. This leads to fewer transplants with broader sharing, as organs that are currently shared outside the local area are more likely to be turned down. However, scenarios that would offer livers earlier to a wider area would likely lead to fewer discarded organs than projected. The SRTR could modify the LSAM acceptance model to reduce the effect of the “shared” status on that component. The Region 8 experience could perhaps add some insight into acceptance rates prior to versus after the AAS, as liver utilization did not change under the Region 8 AAS. Regarding metrics for distance organs traveled, Committee members suggested that the SRTR provide these data using several thresholds, e.g., the number or percentage of times a liver travels over 100 miles, 200 miles, etc. miles for the various tiered-sharing concepts versus the current system. The Committee also suggested that death rates in each MELD/PELD category would be more helpful than the total number of deaths, as there are many deaths in candidates with MELD/PELD scores less than 15, but this category also constitutes a large proportion of the waiting list.

Committee’s Path Forward

The Allocation and Distribution Subcommittee will to continue its work, and will investigate pursuing the “Share 15 National” and “Share 35 Regional” proposals as well as the risk-equivalent threshold, either alone or in combination. These were seen as three small, discreet incremental steps that the Committee could pursue to improve liver distribution. Another possible option is to encourage Regions or contiguous areas to pilot innovative ideas such as tiered sharing, as other areas may have different results than Region 8 based on their size and patient population.

The Committee requested an analyses of those patients who are transplanted with MELD/PELD scores less than 15 in order to understand how often, where, and in what types of patients these transplants are occurring. This may also help the Committee better understand the “single-center” OPO issues brought up during the forum. One Committee member also cautioned that a Share 15 national policy could negatively impact patients with hyponatremia, and asked that the sodium level of low-MELD transplant recipients be included in the analysis.

The Committee created a new working group to discuss utilization, discards, and expedited placement of livers. Committee members noted that there may need to be some compliance or oversight component for such a process, perhaps with some “penalty” or consequence for unnecessary discards. This group will include OPO representation.

4. Requests for Alternative Allocation Systems (AAS) and Alternative Local Units (ALU). The Committee must review any liver-related AASs or ALUs prior to their submission for public comment. During the November 2009 meeting, the Committee reviewed a request from Region 2 for an AAS that would allow a center that accepts a liver for an adult candidate, and is willing to split the liver, to transplant the remaining segment into another candidate on its waiting list. The Committee approved this proposal for review by the Policy Oversight Committee (POC) and submission for public comment by a vote of 19 in favor, 1 opposed, and 1 abstention. Following this meeting, two OPOs submitted applications for an AAS/ALU; a subcommittee was formed to review these and make recommendations to the Committee.

During the February 2010 conference call, the Committee reviewed a request from OneLegacy, an OPO in Southern California that serves five liver programs. This request was very similar to Region 2’s proposed AAS. Subcommittee members were generally in favor of the AAS, citing the OPTN Final Rule’s requirement that allocation policies “shall seek to achieve the best use of donated organs.” Subcommittee members cited concerns about the degree of informed consent necessary for the index patient to understand that he/she is being offered a whole liver, but is being asked to accept only part of the liver (and the associated increased risk) in order to benefit another patient (i.e., a child) on the list. Committee members felt that the index patient should receive the liver even if the final decision is to keep the whole liver. Subcommittee members also expressed concerns about the potential lack of transparency in the acceptance process, and suggested that the AAS review should include information about which candidates are bypassed in the split liver allocation. The Committee suggested that OneLegacy provide more detail about the endpoints that will be used to evaluate the AAS. Ultimately, the Committee agreed that the proposal should be circulated for public comment, with these concerns noted, by a vote of 16 in favor, 2 opposed, and 0 abstentions. The comments made about this proposal would also apply to Region 2’s proposal for a split liver AAS.

The second request was from three DSAs in Ohio who are requesting to form a combined waiting list for liver allocation. There are four DSAs in Ohio; one DSA and its affiliated centers in Ohio would not be participating. The other states in the Region (Indiana and Michigan) both have one DSA in each state. These states will have an opportunity comment during the public comment period.

The applicants’ hypothesis is that creation of the ALU will lead to broader sharing of livers across the three DSAs, allocation of organs to patients with higher MELD/PELD scores, fewer deaths on the waiting list, and decreased discards. The AAS would operate for four years. The Subcommittee was generally in agreement, citing the OPTN Final Rule’s goal of “distributing organs over as broad a geographic area as feasible.”

Ohio currently has a statewide list that the Board voted to dissolve following the lengthy AAS review process in 2008-2009. That statewide sharing agreement was not felt to meet the OPTN Final Rule’s criteria for a variance (i.e., time limited, with a research design, etc.), and not all the parties were still in support of its continuation. The Ohio Solid Organ Transplantation Committee (OSOTC) has appealed the Board’s decision to the Secretary of HHS. After discussion, the Committee approved this ALU for

circulation for public comment by a vote of 15 in favor, 1, opposed, and 2 abstentions. All three AASs were forwarded to the POC before being circulated for public comment.

5. HCC Subcommittee Report. A subcommittee was tasked with reviewing the recommendations made during the November 2008 HCC Consensus Conference for possible inclusion in policy. The conference paper, published in March 2010¹, recommended the adoption of a standardized electronic post-transplant pathology report. A proposed form had been designed, and was incorporated into the UNetSM Forms proposal circulated for public comment in March 2010. However, the Committee did not support that proposal going forward as written (as described in Item 10 of this report). However, the Committee asked to move forward with the proposed pathology form, by a vote of 16 in favor, 0 opposed, and 0 abstentions.

Three of the recommendations of the report will be tabled for now:

- Including HCC in the allocation score;
- Developing a policy for downstaging; and
- Expansion of the policy beyond the Milan criteria.

The allocation score was tabled until the Committee determines a path forward for changes to liver allocation subsequent to the forum. The Subcommittee felt that the last two items were not yet ready for incorporation into national policy.

Proposed Changes to Policy 3.6.4.4 to Incorporate Radiology Criteria.

The conference paper described a classification system to be used for HCC tumor pre-transplant imaging, based upon the classification systems that radiologists currently use for other cancers. While the nomenclature differs from what policy is currently using, it is important to begin using the system used by the radiologists who interpret the scans. The paper noted that, while the ability to classify HCC lesions that are between one and two centimeters is excellent, a lower limit of one centimeter should be set. This would require a change to the current policy, which allows two to three sub-centimeter lesions to qualify for a Stage T2 exception. The Committee supported this change. The proposed Class 5a lesion would replace the criteria for a Stage T2 exception. A revised policy based on these recommendations would include more specific requirements than the current policy, and will promote a clearer diagnosis of HCC. As these patients receive high priority on the list, it is important that the HCC diagnosis is accurate and can be documented. These criteria will be used in the NIH-approved ACRIN study, a multi-center trial that will compare pre-transplant imaging to post-transplant pathology.

The conference paper also includes several forms that centers would be asked to use for documenting the imaging requirements. Centers would not be required to send these to UNOS, but would maintain these forms in the patient record in case of audit. These forms will also be used by all centers participating in the ACRIN trial.

¹ Pomfret EA, Washburn K, Wald C, Nalesnik MA, Douglas D, Russo M, Roberts J, Reich DJ, Schwartz ME, Mieles L, Lee FT, Florman S, Yao F, Harper A, Edwards E, Freeman R, Lake J. Report of a national conference on liver allocation in patients with hepatocellular carcinoma in the United States. *Liver Transpl.* 2010 Mar;16(3):262-78.

6. Intestine Issues Working Group Report. Recently published data indicate that adult candidates awaiting a liver- intestine transplant have twice the mortality rate of adult liver-alone candidates. During the November 2009 meeting, Committee members discussed whether these candidates should receive a higher MELD/PELD score than they are currently assigned, or whether broader access to organs (e.g., a national share) is necessary. The Intestine Issues Working Group was charged with developing an evidence-based proposal to address this issue. The working group was also charged with developing surgeon and physician criteria for intestine programs. The Subcommittee met via several conference calls (**Exhibit E**), and presented its proposals to the full committee in April 2010.

Proposed Criteria for Intestine Program Physicians and Surgeons

The working group initially drafted criteria for intestine program physicians and surgeons based on the criteria used for liver program physicians and surgeons, modified to reflect the smaller volume of intestinal transplant programs. The working group also discussed whether there should be an alternate pathway for programs that have performed intestine transplants over many years, but may not meet the volume requirement for recent years. The group received feedback from the MPSC on its draft proposal.

During the April 2010 Committee meeting, the working group presented its recommendations. The group recommends that an intestinal transplant surgeon must have performed at least 10 intestinal transplants and 5 donor procurements as primary or first assistant. The experience may be gained through a fellowship, clinical experience, or a combination, over any time period with 5 transplants performed in the last 5 years. The intestine program must also be in a center that performs liver transplants. These requirements are simpler than those for liver and kidney, but due to the small number of programs and volume of transplants, the Subcommittee was advised by the MPSC that the intestine criteria could be more flexible. The Committee supported this proposal by a vote of 20 in favor, 0 opposed, and 0 abstentions. A formal proposal will be circulated for public comment in the fall of 2010 from the MPSC and Liver Committee.

Proposal for Increased Access for Adult Combined Liver-Intestine Candidates

The mortality for adult liver-intestine candidates at equivalent MELD scores is still much higher than that for liver-alone candidates despite the implementation of a policy that increases their MELD scores by an amount equal to a 10% increase in mortality risk. The pediatric donor intestine algorithm was modified to allow national allocation to these candidates and has provided much-needed access to these organs. The Subcommittee is recommending that the adult donor algorithm be modified in a similar fashion, as follows:

- Combined Local and Regional Status 1A Candidates²
- Combined Local and Regional Status 1B Candidates¹
- Local Candidates with MELD/PELD Scores ≥ 29
- National Liver-Intestine Candidates
- Local Candidates with MELD/PELD Scores ~~15-28~~ ≥ 15
- Regional Candidates with MELD/PELD Scores ≥ 15
- Local Candidates with MELD/PELD Scores < 15
- Regional Candidates with MELD/PELD Scores < 15

² Policy approved by the Board but not yet implemented.

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National allocation for these candidates should dilute the potentially negative impact on liver-alone candidates in some regions. The national allocation would only occur if there are not local candidates with a MELD/PELD score of 29 or higher. The Subcommittee also suggested that these candidates should be given an additional 5 points above their calculated MELD score. Recent data suggest that the discrepancy between the mortality (as reflected by the calculated MELD score) and the actual mortality is equivalent to approximately 5 MELD points. The additional points would thus prioritize candidates at an equivalent level of mortality risk when competing for local organs. The priority would be limited to candidates with short-bowel syndrome. The working group estimated this would provide access to an additional 15 to 20 patients per year, which is a small number of patients, but a large percentage of the liver-intestine candidates.

The group had questions about a policy change made in 2006, which requires that offers must be made using the liver match run, through all the local and regional MELD/PELD patients and national Status 1 patients, before offers can be made from the intestine match run. Committee members affirmed that this was intended, as the prior policy was seen as having a “loophole” that allowed livers to be offered to liver-intestine candidates who were not very ill when there were very sick liver candidates in the local and regional area. Some Committee members expressed concerns that the proposed change would take livers away from pediatric or liver-alone candidates; however, these candidates have options that liver-intestine candidates do not have (e.g., living donation). Once these candidates become cholestatic, their risk of death is very high. The Committee supported this proposal by a vote on 14 in favor, 3 opposed, and 2 abstentions. A formal proposal will be circulated for public comment in the fall of 2010.

7. MELD Exceptions Subcommittee Report. The MELD Exceptions Subcommittee created templates for centers to use when entering the required information for the standardized MELD/PELD exceptions approved by the Board in June 2009 (**Exhibit F**). The Board did not approve the UNetSM programming for these diagnoses, so a non-programming solution was developed. Centers must type the information into a Word document template (customized for each diagnosis) and paste the information into the narrative field in the exception application in UNetSM. These were tested and appeared to work well. The e-newsletter sent from UNOS to the transplant community included a link to the templates and instructions for their use.

During the November 2009 meeting, the Committee discussed an issue that had been brought to its attention during a conference call in October. There is an inconsistency in the way MELD/PELD scores are assigned to exceptions for candidates with HCC meeting the policy criteria versus other exceptions (including HCC not meeting criteria). Candidates with standard HCC exceptions are automatically assigned a MELD score of 28 upon the second extension, which is the correct score for a 10% increase in mortality risk. However, candidates with other exceptions receive a score of 27. There is a “work-around” that allows these candidates to be assigned the correct score by submitting a new application to the RRB. The Committee agreed that all candidates should receive the same score for the same number of extensions by a vote of 22 in favor, 0 opposed, and 0 abstentions.

The Committee reviewed two exceptional cases that were not approved by the RRB within 21 days, and were transplanted at the requested score. In one case, the Committee suggested that the center be sent a letter reminding them to provide appropriate documentation in its applications, and that future cases could

be referred to the Membership and Professional Standards Committee (MPSC). No action was taken on the other case.

The Subcommittee reviewed seven cholangiocarcinoma protocols, per Policy 3.6.4.5.2 (Liver Candidates with Cholangiocarcinoma), Table 4 (Criteria for MELD Exception for Liver Transplant Candidates with Cholangiocarcinoma (CCA)), and all but one met the criteria in the policy. If a center does not have an approved protocol, then the case must be referred to the RRB. The full Committee approved the six protocols by a vote of 17 in favor, 0 opposed, and 0 abstentions.

8. Joint Liver-Pediatric Subcommittee Report. Joint Pediatric-Liver Committee Subcommittee. The Subcommittee has developed several proposals for changes to the pediatric liver patient allocation criteria (**Exhibit G**).

Proposed Change to Policy 3.6.4.2 (Pediatric Candidate Status) - Removal of ICU Requirement from Status 1B Criteria

The MPSC had asked the Liver and Pediatric Transplantation (Pediatric) Committees to review the requirement that candidates must be in the ICU to qualify for Status 1A/1B. The MPSC was concerned that “the policy uses candidate location as a surrogate for severity of illness.” and that the definition of ICU may vary from center to center. The Subcommittee reviewed four years of data (2005-2009) to determine how many pediatric patients did not meet the Status 1A/B criteria solely because the patient was not in the ICU. Out of 261 pediatric cases not meeting criteria, 25 cases did not meet criteria solely because they were not in the ICU (i.e., other criteria were met). The Pediatric Committee felt that the other medical criteria in the policy (i.e., fulminant hepatic failure, GI bleeding, etc.) are strict enough to ensure that these candidates would otherwise meet the intent of the Status 1A/B criteria, and that the ICU requirement is unnecessary. The Pediatric Committee supported a motion to eliminate this requirement from the Pediatric Status 1A/1B requirements by a vote of 19 in favor, 0 opposed, 0 abstentions. The Status 1A/1B Review Subcommittee reviews all cases that do not meet criteria and are subsequently transplanted, and Subcommittee members reported that these cases typically are found to be appropriate.

The Committee asked whether this request, which will require programming in UNetSM, is necessary given the low number of cases (25 over 4 years) and the fact that there is already a mechanism for these patients to be listed with retrospective subcommittee review. The Committee discussed a non-programming solution, e.g., changing the policy but instructing the Subcommittee to consider these cases to be appropriate. One member suggested that the language should include a statement that the candidate being in the ICU is important but no longer required. Following discussion, the Committee approved a motion to remove the ICU requirement for pediatric Status 1A/1B candidates by a vote of 11 in favor, 7 opposed, and 3 abstentions. Policy language will be developed for review at the July meeting and a formal proposal will be circulated for public comment in the fall of 2010.

Proposed Change to Policy 3.6.4.4.1 (Pediatric Liver Transplant Candidates with Hepatoblastoma)

Currently, candidates with non-metastatic hepatoblastomas must be listed with a MELD/PELD score of 30 for 30 days before they can be listed as a Status 1B. The Pediatric Committee reviewed patients listed with an exception for hepatoblastoma between August 24, 2005, and July 31, 2009. Of these 100 patients, approximately one-half were transplanted with a MELD/PELD score of 30 (i.e., within the 30-

day period) and the rest were transplanted as a Status 1B. Children listed with this disease are often referred in the midst of chemotherapy, and there is a narrow window for them to be transplanted between rounds of chemotherapy. The Committee agreed that the data indicate that the 30-day period listed as a MELD/PELD score of 30 may not be necessary, and voted 21 in favor, 0 opposed, and 0 abstentions to remove this requirement. This proposal will be circulated for public comment in the fall of 2010.

The Committee was informed that the Children's Oncology Group (COG) protocol involves an evaluation by a transplant center after two rounds of chemotherapy, with a recommendation that these candidates are not transplanted until after 4 rounds and after pulmonary metastatic disease is removed. This imposes a restricted window for treatment of these candidates even though transplant centers may evaluate them earlier than they are currently as a result of this protocol.

Policy 3.6.2.2 - Candidates Willing to Accept an Incompatible Blood Type Donor

The Pediatric Committee is concerned that candidates willing to accept an ABO incompatible liver do not appear on the match run unless they are listed in Status 1A/1B or with a MELD/PELD score of 30 or higher. The Pediatric Transplantation Committee recommended that these candidates should be able to appear at the end of the match run. The Committee supported this by a vote of 21 in favor, 0 opposed, and 0 abstentions. This will be circulated for public comment in the fall of 2010.

Split Liver Allocation

The Subcommittee has been discussing options for increasing the number of livers available for splitting. The current pediatric donor allocation sequence gives priority to candidates who are age 0-17. The Subcommittee considered a proposal to increase the pediatric donor age to age 21 for those candidates who would be willing to accept a left lateral segment. This would not be expected to decrease the number of livers offered to adult candidates. The Subcommittee reviewed data from April 28, 2006 through November 27, 2007 (**Exhibit H**). For all transplanted pediatric donors, 592 were between ages 18 and 21. The Subcommittee estimated that increasing the age for pediatric preference to 21 would result in 30 additional liver transplants over an 18 month period, doubling the number of splits performed currently, and increasing the age to 50 could result in 50 more transplants over that time frame.

Committee members raised several concerns about the proposal. First, small children already have reasonably good access to donor livers. While children less than one year of age are at very high risk of death, members felt it unlikely that grafts from 18-21 year-old donors would be used in this age group. Further, small-statured females are a population at high risk who could be disadvantaged by this proposal. Committee members also noted that there are many potentially splittable organs that are not being split, and were not convinced that increasing the age for donor preference would alter behavior in favor of more splitting.

A motion to increase the pediatric preference to age 21 for candidates willing to accept a left lateral segment was not approved, by a vote of 4 in favor, 11 opposed, and 3 abstentions. The Committee is supportive of increasing the number of split liver transplants, but felt that the proposal would need to be simplified in order to be supported.

9. Status 1A/1B Review Subcommittee Report. During the November 2009 meeting, the Committee discussed Status 1A and 1B cases that did not meet the criteria in policy, and were therefore reviewed retrospectively by the Status 1 Review Subcommittee. Three cases will be forwarded to the MPSC for further action.
10. Proposed Modifications to Data Elements on the following Tiedi forms : Transplant Candidate Registration (TCR), Transplant Recipient Registration (TRR), Transplant Recipient Follow-up (TRF), Living Donor Registration (LDR), Living Donor Follow-up (LDF), Deceased Donor Registration (DDR), Histocompatibility Form (HF), and approval of a new Explant Pathology Form for Liver Recipients. Every three years, UNOS must submit its data collection forms to the Office of Management and Budget (OMB) for that agency's approval. At that time, changes (additions, modifications, deletions) may be made to the forms. Operational Guidelines approved by the Board in 2005 require that all changes to these forms must be reviewed by the POC and circulated for public comment before being submitted to the Board. The guidelines also stipulate that additions must adhere to the Principles of Data Collection (PODCs), which were also approved by the Board in 2005.

The process for the OMB forms submission began in early 2009. All proposed changes to the liver and intestine forms, which were proposed by the Subcommittee, other Committees and the SRTR, were vetted by the Committee. An expert panel developed recommendations for cardiovascular risk factors, primarily related to kidney recipients, which could be incorporated into the analyses in the SRTR's program-specific reports (PSRs). The Ad Hoc Data Management Working Group (ADMWG) then reviewed every proposed addition, deletion, and modification for adherence with the PODCs. After POC review of these recommendations, the proposal was circulated for public comment.

During the April 2010 meeting, the Committee reviewed the changes included in the public comment proposal related to the liver and intestinal organs Transplant Candidate registration (TCR), Transplant Recipient Registration (TRR), and Transplant Recipient Follow-up (TRF) forms, as well as the Living Donor Registration (LDR) and Living Donor Follow-up (LDF) forms, as these are most pertinent to the Committee. The Committee also reviewed those items that were added to all organ-specific forms. The Committee must also respond to any public comments received that relate to the liver and intestine forms. Only a limited number of elements on the liver and intestine forms were affected. The Committee had proposed a new form for electronic submission of post-transplant pathology data. Submission of these forms is already required, but they are currently faxed in to UNOS by the members, and the data are not being entered into UNetSM. The online form would allow standardized collection of these data and the ability to analyze them.

The Committee was informed that the AST and ASTS planned to submit a letter in opposition to the proposal. The societies are opposed to nearly every proposed change to the forms, and felt that the proposal did not conform to the process agreed upon in 2005. It was stated that many of the proposed additional data points have poor scientific support for inclusion, and the societies recommended that no data elements be added at this time. One objection related to the proposed pathology form. In order to capture data on all recipients with HCC, and not only those with an approved HCC exception at transplant, the Committee had proposed that two questions be added to the TRR. This would allow identification of patients with incidental tumors. If the answer to these questions is "No" then no further questions would be asked. The societies objected to requiring that these questions be asked of all liver recipients.

The Committee felt that it was not feasible to review every individual data element in the proposal during the meeting, and proposed that committee members review these and make specific recommendations for each during a subsequent conference call. The Committee could not support the proposal as written at that time. A motion to support the proposal was defeated by a vote of 1 in favor, 17 opposed, and 2 abstentions.

11. Center MELD/PELD Exception Appeal to the Liver Committee. The Committee discussed a request from a center to review an exceptional case MELD score application that had been denied several times by the RRB. After hearing the presentation from the center's representative, the Committee decided to uphold the actions of the RRB (19 in favor, 0 opposed, 3 abstentions).
12. International Normalized Ratio (INR) and MELD Score Variation. During the November 2009 meeting, James Trotter, MD, summarized problems related to the use of the INR as a determinant in the MELD score. These are related to the effect of significant inter-laboratory variability of the INR. Variability can undermine the fundamental purpose of the MELD score to provide an objective, simple and reliable means to prioritize patients for liver transplantation. The Committee did not take any action on this issue.
13. Memo from the *Ad Hoc* Disease Transmission Advisory Committee (DTAC) Regarding Emergency Explant and Re-listing. The DTAC requested that the Liver and Intestinal Organ Transplantation Committee review any existing policy language or Regional Review Board protocols that pertain to the unexpected need for re-transplant in the event of an unexpected malignancy found during donor autopsy, or a disease transmission. The DTAC felt that recipients involved in this situation should have the opportunity for a re-transplant as soon as possible, while also considering the severity of illness in others on the waiting list. During the February 1, 2010, conference call, the Committee discussed the request and many felt that these cases have been handled effectively on a Regional level. It was noted that these cases can be listed as a Status 1 and that, in a case recently reviewed retrospectively by the Status 1 Review Subcommittee, the Subcommittee felt the listing was appropriate.
14. Guidelines for Director of Liver Transplant Anesthesia. During the November 2009 meeting, the Committee reviewed the Guidelines for Director of Liver Transplant Anesthesia developed by the American Society of Anesthesiologists Committee on Transplant Anesthesia. These had been presented to the Committee in draft form in July. The Committee voted that the guidelines should be forwarded to the MPSC by a vote of 21 in favor, 1 opposed, and 0 abstentions.
15. Living Donor Liver Transplantation Requirements. A joint Subcommittee of the MPSC and the Liver and Living Donor Committees is proposing changes to the requirements for living donor liver transplant programs. The Committee was in unanimous support of the proposed changes during the November 2009 meeting.

**Committee Attendance at the
November 18, 2009 Committee Meeting
Chicago, IL**

NAME	COMMITTEE POSITION	In Attendance
W. Kenneth Washburn, M.D.	Chair	X
Kim Olthoff, M.D.	Vice Chair	
Michael Curry, M.D.	Regional Rep.	X
Stephen Dunn, M.D.	Regional Rep.	X
Nigel Girgrah, M.D., Ph.D.	Regional Rep.	X
Goran Klintmalm, M.D., Ph.D.	Regional Rep.	X
Scott Biggins, M.D.	Regional Rep.	X
John Ham, M.D.	Regional Rep.	X
Anthony D'Alessandro, M.D.	Regional Rep.	by telephone
Harvey Solomon, M.D.	Regional Rep.	X
Thomas Schiano M.D.	Regional Rep.	X
Shawn Pelletier, M.D.	Regional Rep.	X
James Eason, M.D.	Regional Rep.	X
Maureen Burke-Davis, RN, NP-C, CCTC	At Large	X
Patricia Carroll PA-C, CPTC	At Large	
Julie Heimbach, M.D.	At Large	X
Heung Bae Kim, M.D.	At Large	X
Timothy McCashland, M.D.	At Large	X
Lisa McMurdo, RN, MPH	At Large	X
Kenyon Murphy	At Large	X
John Roberts, M.D.	At Large	X
Debra Sudan, M.D.	At Large	X
Kerri Wahl, M.D.	At Large	X
Elizabeth Pomfret, M.D., Ph.D.	Ex Officio	X
Bernard Kozlovsky, M.D., MS	HRSA	X
Monica Lin, Ph.D.	HRSA	X
Mary Guidinger, MS	SRTR Liaison	X
John Magee, M.D.	SRTR Liaison	X
Douglas Schaubel, Ph.D.	SRTR Liaison	X
Ann Harper	Committee Liaison	X
Erick Edwards, Ph.D.	Research Support Staff	X
Manny Carwile	IT Support Staff	X

**Committee Attendance at the
February 1, 2010 Conference Call**

NAME	COMMITTEE POSITION	In Attendance
W. Kenneth Washburn, M.D.	Chair	X
Kim Olthoff, M.D.	Vice Chair	X
Michael Curry, M.D.	Regional Rep.	X
Stephen Dunn, M.D.	Regional Rep.	X
Nigel Girgrah, M.D., Ph.D.	Regional Rep.	X
Goran Klintmalm, M.D., Ph.D.	Regional Rep.	X
Scott Biggins, M.D.	Regional Rep.	X
John Ham, M.D.	Regional Rep.	X
Anthony D'Alessandro, M.D.	Regional Rep.	X
Harvey Solomon, M.D.	Regional Rep.	X
Thomas Schiano M.D.	Regional Rep.	X
Shawn Pelletier, M.D.	Regional Rep.	X
James Eason, M.D.	Regional Rep.	X
Maureen Burke-Davis, RN, NP-C, CCTC	At Large	X
Patricia Carroll PA-C, CPTC	At Large	X
Julie Heimbach, M.D.	At Large	
Heung Bae Kim, M.D.	At Large	
Timothy McCashland, M.D.	At Large	
Lisa McMurdo, RN, MPH	At Large	
Kenyon Murphy	At Large	X
John Roberts, M.D.	At Large	X
Debra Sudan, M.D.	At Large	X
Kerri Wahl, M.D.	At Large	
Elizabeth Pomfret, M.D., Ph.D.	Ex Officio	X
Robert Walsh	HRSA	X
Monica Lin, Ph.D.	HRSA	X
Mary Guidinger, MS	SRTR Liaison	X
John Magee, M.D.	SRTR Liaison	X
Nate Goodrich	SRTR Liaison	X
Robert Merion, MD	SRTR Liaison	X
Ann Harper	Committee Liaison	X
Erick Edwards, Ph.D.	Research Support Staff	X
Cliff McClenney	Regional Administrator	X
Shannon Edwards	Regional Administrator	X

**Committee Attendance at the
April 7, 2010 Conference Call**

NAME	COMMITTEE POSITION	In Attendance
W. Kenneth Washburn, M.D.	Chair	X
Kim Olthoff, M.D.	Vice Chair	
Michael Curry, M.D.	Regional Rep.	X
Stephen Dunn, M.D.	Regional Rep.	X
Nigel Girgrah, M.D., Ph.D.	Regional Rep.	X
Goran Klintmalm, M.D., Ph.D.	Regional Rep.	X
Ryutaro Hirose, M.D.	Regional Rep.	X
John Ham, M.D.	Regional Rep.	X
Anthony D'Alessandro, M.D.	Regional Rep.	
Harvey Solomon, M.D.	Regional Rep.	X
Thomas Schiano M.D.	Regional Rep.	X
Shawn Pelletier, M.D.	Regional Rep.	
James Eason, M.D.	Regional Rep.	X
Maureen Burke-Davis, RN, NP-C,	At Large	X
Patricia Carroll PA-C, CPTC	At Large	X
Julie Heimbach, M.D.	At Large	
Heung Bae Kim, M.D.	At Large	X
Timothy McCashland, M.D.	At Large	
Lisa McMurdo, RN, MPH	At Large	X
Kenyon Murphy	At Large	X
John Roberts, M.D.	At Large	X
Debra Sudan, M.D.	At Large	
Kerri Wahl, M.D.	At Large	
Scott Biggins, MD	At Large	X
Elizabeth Pomfret, M.D., Ph.D.	Ex Officio	X
Ray Kim, MD	Mayo Clinic	X
James Wynn, MD	Medical College of GA	
Chris McLaughlin	Ex Officio – HRSA	X
James Bowman, MD	Ex Officio - HRSA	X
Bernard Kozlovsky, M.D., MS	Ex Officio - HRSA	X
Monica Lin, Ph.D.	Ex Officio – HRSA	X
Robert Merion, MD	SRTR	X
Mary Guidinger, MS	SRTR	X
Ed Greene	SRTR	X
John Magee, MD	SRTR	X
Ann Harper	Committee Liaison	X
Erick Edwards, Ph.D.	Asst. Dir., UNOS Research	X
Shannon Edwards	Regional Administrator	X
Cliff McClenney	Regional Administrator	X
Karl J. McCleary, PhD	Dir. of Policy, Membership, and Regional Admin, UNOS	X

**Committee Attendance at the
April 13, 2010 Committee Meeting
Atlanta GA**

NAME	COMMITTEE POSITION	In Attendance
W. Kenneth Washburn, M.D.	Chair	X
Kim Olthoff, M.D.	Vice Chair	
Michael Curry, M.D.	Regional Rep.	X
Stephen Dunn, M.D.	Regional Rep.	X
Nigel Girgrah, M.D., Ph.D.	Regional Rep.	X
Goran Klintmalm, M.D., Ph.D.	Regional Rep.	X
Ryutaro Hirose, MD	Regional Rep.	X
John Ham, M.D.	Regional Rep.	X
Anthony D'Alessandro, M.D.	Regional Rep.	X
Harvey Solomon, M.D.	Regional Rep.	X
Thomas Schiano M.D.	Regional Rep.	By telephone
Shawn Pelletier, M.D.	Regional Rep.	X
James Eason, M.D.	Regional Rep.	X
Scott Biggins, M.D.	Regional Rep.	X
Maureen Burke-Davis, RN, NP-C,	At Large	X
Patricia Carroll PA-C, CPTC	At Large	
Julie Heimbach, M.D.	At Large	X
Heung Bae Kim, M.D.	At Large	X
Timothy McCashland, M.D.	At Large	X
Lisa McMurdo, RN, MPH	At Large	X
Kenyon Murphy	At Large	X
John Roberts, M.D.	At Large	X
Debra Sudan, M.D.	At Large	X
Kerri Wahl, M.D.	At Large	
Elizabeth Pomfret, M.D., Ph.D.	Ex Officio	X
Christopher McLaughlin	Ex Officio - HRSA	X
Bernard Kozlovsky, M.D., MS	Ex Officio - HRSA	X
Monica Lin, Ph.D.	Ex Officio – HRSA	X
Robert Merion, MD	SRTR	
Mary Guidinger, MS	SRTR	X
John Magee, M.D.	SRTR	X
Douglas Schaubel, Ph.D.	SRTR	X
Ann Harper	Committee Liaison	X
Erick Edwards, Ph.D.	Asst. Dir., UNOS Research	X
Mary D Ellison, PhD, MSHA	Asst. Exec. Director, UNOS	X
Brian Shepard	Dir. of Board and	X
Karl J. McCleary, PhD	Dir. of Policy, Membership, and Regional Admin., UNOS	X
Manny Carwile	IT Support Staff	X