

## **PURPOSE**

To describe the referral process for potential pediatric heart and kidney transplant recipients at BC Children's Hospital (BCCH).

## **SCOPE**

This policy applies to the BCCH Multi-Organ Transplant (MOT) Program clinic personnel responsible for reviewing referrals and for assessment of pediatric patients requiring a solid organ transplant. It covers process and procedures from the referral of a potential transplant recipient to deferral/approval for transplantation.

## **RESPONSIBILITIES**

### **MOT Program Director**

- Approval of external program referrals

### **Organ Transplant Service Directors**

- For their respective transplant services: Initial review of referral, chair review committee deliberation.
- Assigns of transplant physician to complete assessment
- Signs-off on approval for transplantation

### **Transplant Physician (may also be the service director)**

- Initiates assessment, writes orders for the assessment, reviews and sign-off on all results/reports, final summary of assessment.

### **Pre-transplant coordinator**

- Coordinates the intake and assessment process of patients referred for transplant, working with the Nursing Unit Clerk, Pre-transplant.
- Works collaboratively with MOT clerk to ensure appropriate documentation is compiled and patients are booked for appointments.
- Documents patient assessment and progress in PROMIS.
- Documents the review/assessment process in the BCCH Health Record.
- Provides family and patient education and documents learning outcomes.

### **Nursing Unit Clerk, Pre-Transplant**

- Tracks referral correspondence, obtains relevant records, and books appointments relevant to the pre-transplant assessment. Receives and compiles results/reports.
- Maintains a dedicated a copy of the clinic pre-transplant assessment chart. Ensures relevant reports and documentation, are signed -off before filing.
- Filing of all primary documents and chart notes in the primary medical record, and maintaining a copy for the MOT chart (for ready access and reference).

### **Administrative Secretary, Multi-Organ Transplant Program**

- Updates the agenda and takes minutes and records decisions made during the review committees.

## OTHER

The BC Children's Hospital Multi-Organ Transplant (MOT) Program coordinates referrals for pediatric heart, kidney, liver, lung transplant assessment primarily from British Columbia and the Yukon Territory. Guidelines for pre-transplant assessment are set locally, based on national and international norms and are discussed separately. Heart and Kidney transplant referrals are reviewed and assessed at BCCH. Liver and Lung transplant assessments are performed external to BCCH.

- The Kidney Transplant Assessment and Activation Committee (KTAAC) and the Cardiac Surgical Conference are responsible for the adjudication of referrals for kidney or heart transplantation respectively and for making a recommendation to the MOT Program to proceed.
- The MOT Program guidelines for eligibility are consistent with the Canadian Society of Transplantation consensus guidelines on eligibility for kidney transplantation (2005) and Canadian Cardiac Transplant Network's Cardiac Transplant Eligibility and Listing Criteria in Canada (2012).
- The decision to accept a referral for pre-transplant assessment in no way guarantees that the patient will be listed at the time the pre-transplant assessment is complete.

## DEFINITIONS

**Organ transplant service director:** Refers to the specific director for each of the respective organ transplant services, i.e. heart, liver, lung and kidney.

**Pre-transplant coordinator:** Depending on the particular organ transplant service, the coordinator is either the nurse or nurse practitioner who is responsible for coordinating the pre-transplant assessment.

**MOT team:** Refers to the MOT program child life specialist, dietitian, nurses, pharmacist, physiotherapist, psychologist, social worker, and other affiliated professionals.

**PROMIS:** The Patient-Reported Outcomes Measurement Information System, which is used by the BC Renal Agency and BC Transplant to collect patient specific data, medication history, labs and clinical outcomes.

**Sub-specialty trainee:** Includes residents completing sub-specialty certification in cardiology, cardiac surgery, nephrology, urology or who are completing a transplant fellowship.

## PROCEDURE

### Referral for Pre-Transplant Assessment

1. Referral for kidney, heart or liver transplant assessment may be made by any qualified physician, but typically originates from specialists affiliated with the end-stage organ failure program.
  - 1.1 A completed and signed referral from the referring physician is sent to the administrative & data entry clerk for processing.
2. The nursing unit clerk registers receipt of the referral by stamping the referral with date and initiates initial review of referral.
3. The nursing unit clerk forwards the referral to the specified organ transplant service director (liver, heart, kidney, lung) for initial review.
4. The organ transplant service director reviews referral and determines whether it is appropriate, based on program specific guidelines. If the referral is incomplete or inconsistent with guidelines, the director will seek clarification from the referring physician.
  - 4.1 If additional information or clarification is sought from the referring physician, the referral is held in limbo by the organ transplant service director until it is resolved.

- 4.2 The transplant service director determines whether the referral will be reviewed by the BCCH MOT program or whether the referral should be directed to an external transplant program.
5. The organ transplant service director dates and signs-off on the referral once review is completed (signed, dated).
6. The organ transplant service director forwards the referral to the pre-transplant coordinator to initiate the formal referral review process.
7. The signed-off referral documentation is provided to the nursing unit clerk and forwarded to the hospital medical record and a copy retained for the MOT patient chart.
  - 7.1 The nursing unit clerk confirms that all documents have been properly signed off prior to filing.

### **Referral to an External Transplant Program for Assessment**

8. The pre-transplant coordinator coordinates any BCCH component of the assessment and will forward the referral to an external transplant program specified by the organ transplant service director.
  - 8.1 This may include an adult transplant program in British Columbia or an out-of-province pediatric transplant program.
9. Out-of-province referrals must first be approved by BC Transplant, and are subsequently forwarded to the MOT director for review.
  - 9.1 The MOT director reviews the referral and forwards the request for out-of-province referral approval for assessment in writing to BC Transplant (BCT). A copy of the referral is kept for the patient chart.
  - 9.2 The request is reviewed by the BCT Provincial Executive Director (or authorized designate).
  - 9.3 BCT adjudicates the request, requests additional information as required and provides a decision to the MOT director (signed, dated).
  - 9.4 If approved, the MOT director will forward the approval documentation to the pre-transplant coordinator to initiate the out-of-province referral process.
  - 9.5 Pre-transplant coordinator completes "Out of Province Referral" form and sends to BCT, to be entered into PROMIS.
  - 9.6 The signed-off out-of-province approval documentation and copy of the Out of Province Referral form are provided to the administrative and data entry clerk and forwarded to the hospital medical record, and a copy retained for the MOT patient chart. The nursing unit clerk confirms that all documents have been properly signed off prior to filing.
10. The pre-transplant coordinator will liaise with the external transplant program to determine referral requirements, and follow the procedures for referral as dictated by that program.
  - 10.1 If the referral is accepted, the BCCH program resources, assessment and coordination will be provided by the BCCH MOT program as needed to facilitate timely assessment.
11. The referral is considered active under the BCCH MOT program until such a time as the external program provides a disposition related to the assessment.
  - 11.1 The pre-transplant coordinator will periodically update the status of referral and assessment to the organ transplant service director and the MOT director, using the "Out of Province List".

### **Adjudication of Referral at BCCH**

12. The pre-transplant coordinator is responsible for coordinating the review process for each transplant service. The pre-transplant coordinator initiates the referral adjudication process:
  - 12.1 Notifies the nursing unit clerk and MOT team members with the name of the patient.
  - 12.2 Notifies the referring physician/care team that the referral has been forwarded to the relevant organ-transplant service review committee
  - 12.3 Notifies the MOT director and the MOT CNC.
13. The nursing unit clerk starts an MOT patient chart
  - 13.1 *NOTE: All original chart notes are forwarded to the hospital medical record. A copy of the chart notes are retained in the MOT chart for immediate reference during the assessment process.*
  - 13.2 The nursing unit clerk files copies of documentation related to the referral review.
14. Each BCCH organ transplant service has a review committee to adjudicate pre-transplant referrals, with terms of reference. The pre-transplant coordinator will add new referrals to the review committee agenda for discussion at the next meeting.
15. MOT team members will confer with members from the referring care team about the patient and will obtain/review relevant reports, in preparation for the review committee.
16. The organ transplant service director assigns the case to one of the transplant physicians on the organ transplant service.
  - 16.1 The case may be further assigned to a sub-specialty trainee, who will be supervised by the transplant physician. The transplant physician is required to sign off on all orders by the trainee.
  - 16.2 The transplant physician (or designated trainee) will make a written summary of the patient medical history for the review committee, using a standard assessment summary.
17. The administrative secretary will prepare the agenda for the monthly review committee meeting with the pre-transplant coordinator.
  - 17.1 The agenda is circulated a week in advance of the review committee meeting, which indicates the names of new referrals.
  - 17.2 The referring physician and referring team members are invited to attend the review committee.
18. The patient file is reviewed in accordance with the terms of the committee, and adjudicated according to transplant service guidelines for referral and transplant eligibility.
  - 18.1 The decision of acceptance/deferral of the referral is made at the committee meeting. The pre-transplant coordinator records the decision in the patient's health record and de-identified information is reflected in the minutes to protect patient privacy and confidentiality.
19. The pre-transplant coordinator will make a chart note on the decision of the review committee.
20. The pre-transplant coordinator will notify the referring physician/care team about the decision of the review committee (chart note for documentation).

### **Initiation of Assessment**

21. Upon acceptance of the referral by the review committee, the nursing unit clerk sends "BC Transplant Referral" form to BCT by fax to register patient with BCT for pre-transplant assessment. BCT will update the referral status in PROMIS.

- 21.2 In cases where expedited assessment is needed, the BC Transplant Referral form may be submitted in advance of the review committee decision, on the authority of the organ transplant service director.
22. The transplant physician writes orders to direct the investigations and consultations required for pre-transplant assessment, and provides the order set to the pre-transplant coordinator.
  - 22.1 Standard assessments are determined according to organ transplant service guidelines for the assessment.
  - 22.2 Additional investigations or consultation are recommended based on the review committee.
  - 22.3 At the discretion of the organ transplant service director, the orders may be written in advance of the formal committee review in order to expedite the assessment process. In this case, orders may be changed following the committee review.
23. The pre-transplant coordinator reviews the orders with the transplant physician and clarifies as needed.
24. The pre-transplant coordinator then reviews the orders with the nursing unit clerk.
25. The nursing unit clerk schedules an initial consultation with the transplant physician and pre-transplant coordinator in order to formally start the assessment.
  - 25.1 The assessment process is reviewed with the patient/parents. Informed consent is obtained from the patient/family prior before proceeding with assessment. A copy of the consent form is retained in the medical record.
  - 25.2 In some cases, the assessment process may be initiated prior to the initial consultation in order to expedite the assessment process.
26. The nursing unit clerk schedules investigations and consultations as requested.
  - 26.1 The nursing unit clerk uses the Pre-Transplant Kidney Assessment Worksheet to track the progress of investigations and referrals. The Worksheet is kept in the MOT copy of the patient chart.
  - 26.2 Pre-formatted requisitions are available for use with the order set.

### **Patient and Family Education**

27. In parallel with the assessment process, the pre-transplant coordinator provides education sessions to the patient and primary caregivers/patient to prepare for transplantation.
  - 27.1 Sessions are scheduled directly between the pre-transplant coordinator and the family.
  - 27.2 The pre-transplant coordinator charts the outcome of each education session.

### **Review Procedures**

28. The nursing unit clerk collects and compiles the reports of the pre-transplant assessment as they are completed.
  - 28.1 Copies of reports for the medical record are provided to the MOT service, and these copies are kept in the MOT chart for quick reference.
  - 28.2 Upon receipt of patient documents/reports, the nursing unit clerk registers receipt by stamping each face sheet with a review stamp that tracks the document review and sign-off.
  - 28.3 The Worksheet is updated as each report is received.
29. The nursing unit clerk forwards these documents for initial review by the pre-transplant coordinator.

30. The pre-transplant coordinator reviews the document to determine whether immediate review is required by the transplant physician (i.e. action required). The pre-transplant coordinator “signs off” on the document.
  - 30.1 If immediate review is required, it is forwarded and discussed with the transplant physician
  - 30.2 Otherwise, the document is filed for later review in the MOT chart.
31. The Transplant Physician will make recommendations to the referring physician for medical issues that may require immediate attention or that must be addressed prior to a final determination on transplant eligibility.
32. The transplant physician reviews all documents and reports from the pre-transplant assessment and signs off.
  - 32.1 This usually is done once all assessments are completed, unless there is need for more immediate review.
  - 32.2 The transplant physician returns signed-off documents to the nursing unit clerk.
33. If additional investigations are required based on reports from the transplant assessment, the transplant physician will provide orders for additional testing to the pre-transplant coordinator.
  - 33.1 These additional assessments will be similarly tracked by the nursing unit clerk.
  - 33.2 If issues arise during the assessment that may cause delay or deferral of transplant approval, then the transplant physician will request an appointment with the patient and family as soon as possible to review the issue.
34. The transplant physician updates the pre-transplant summary to include all relevant information from the assessment.
  - 34.1 Documents updated to the pre-transplant summary are marked as such for filing.
  - 34.2 Once updated, the nursing unit clerk files the reports from the assessment to the MOT chart.
35. Upon completion of the assessment, the pre-transplant coordinator arranges a final review consultation with the patient/family and transplant physician.

### **Disposition of Pre-transplant Assessment**

36. Formal approval for transplantation is adjudicated at the organ-specific review committee. The summary of the pre-transplant assessment is presented and reviewed by the committee according to their terms of reference.
  - 36.1 The decision of the committee is recorded in the minutes.
  - 36.2 The pre-transplant coordinator will chart the decision of the committee on the patient medical record, and inform the referring physician/team of the decision.
  - 36.3 The pre-transplant coordinator will update PROMIS with the status of assessment.
37. The transplant physician meets with the patient/family for a final review of the transplant summary and decision of the committee
  - 37.1 In order to expedite the assessment, the transplant physician may have the final review with the family prior to the review committee decision, but will reserve final approval until the committee has met.
  - 37.2 If the final review is before the review committee meeting, the pre-transplant coordinator will update the family about the committee decision following the meeting (and chart).



38. The transplant physician will provide a final summary of the pre-transplant assessment and the review committee decision for the medical record, and a letter to the referring physician.
39. If approved for transplant:
  - 39.1. The pre-transplant assessment summary will include recommendations for pre-transplant preparation, peri-transplant care and post-transplant management.
  - 39.2. The transplant physician will also provide orders for ongoing monitoring after approval, until a donor is available.
40. If approval is deferred (e.g. improved function, not yet meeting criteria for transplantation), the patient will be reviewed again by the review committee after a specified time period.
  - 40.1. The pre-transplant coordinator will schedule re-review by the committee
  - 40.2. If the patient status changes, the re-review will be expedited by the committee
41. If the approval is declined (e.g. change in health status making patient ineligible for transplantation), the patient will not proceed to transplant. Re-evaluation for transplantation at a future date will require a new referral.

## DOCUMENTATION

KTAAC Terms of Reference  
Referral to Transplant Program Guideline – Heart  
Referral to Transplant Program Guideline - Kidney  
Handout – “Your Child and CKD”

## REFERENCES

Knoll et al., [Consensus Guidelines on Eligibility for Kidney Transplantation](#) CMAJ - Nov 08, 2005.

<b>Doc No.: CC.14.03</b>	<b>Revision #: 001</b>
<b>Latest Revision Date:</b> 29-Jan-2018	<b>Effective Date:</b> 7-Feb-2018

Approved by: BC Children's Hospital Best Practice Committee	Approval Date: 07-Feb-2018
Approved by:	Approval Date:

#### REVISION HISTORY

Revision	Description of Changes	CO Ref.	Effective Date
00	Initial release	N/A	Feb 14, 2017
01	Update post-implementation for Best Practice & Policy Committee	Doc No MOT- GEN-002	Feb 7, 2018