

Name of Policy: <u>Blood Type A2, A2B Kidney Transplant Policy</u> Policy Number: 3364-140-47 Department: Kidney Transplant Administration Approving Officers: AVP, Patient Care Services/Chief Nursing Officer Responsible Agent: Transplant Surgeons, Transplant Coordinators Scope: The University of Toledo Medical Center	 THE UNIVERSITY OF TOLEDO <small>1872</small>
	Effective Date: January 1, 2024 Initial Effective Date: January 1, 2021

<input type="checkbox"/> New policy proposal	<input type="checkbox"/> Minor/technical revision of existing policy
<input type="checkbox"/> Major revision of existing policy	<input checked="" type="checkbox"/> Reaffirmation of existing policy

(A) Policy Statement

A2 donor kidneys have been successfully transplanted into blood type B and O recipients who demonstrate low Anti-A2 antibody titers. The graft survival for these recipients who accept an A2 donor kidney are similar to ABO-compatible transplants. This will provide an opportunity to expand access to kidney transplants for blood group B and O recipients by offering the allocation of A2 and A2B donor kidneys. ***OPTN policy permits transplantation of A2 deceased donor kidneys into B recipients.***

(B) Purpose of Policy

This policy will define blood type B and O candidates who are eligible for A2 and A2B donor kidney offers at UTMC as well as how these patients will be monitored before and after transplantation. Blood group B recipients will need to meet specific Anti-A2 titer threshold levels and maintain this criteria every 90 days to be eligible for UNOS deceased donor organ offers of A2 and A2B donor kidneys. Blood group O recipients will need to meet specific Anti-A2 titer threshold levels to be eligible for living donor kidney offers. Potential candidates will also need to sign a consent prior to becoming eligible for this type of transplant.

(C) Procedure

1. All recipients that are identified to have blood type B will be educated on the option of potentially receiving a blood type A2 or A2B donor kidney. Any recipient that has blood group O and has a potential living donor (either direct donation or through paired exchange) with blood group A2 will be educated on the option of potentially receiving that kidney. The recipients will be given the opportunity to ask questions, then will sign an informed consent and verbalize understanding prior to listing for this type of organ offer. The recipients can change their minds at any time without any consequence and can decline any organ offer at any time without any effect on their waiting time.

2. Eligibility:

- Blood type B recipients will be eligible to receive living and deceased donor transplants from Blood type A2 and A2B donors if the following criteria are met:
 - o Current Anti-A2 titers must be 1:8 or lower, if titer is 1:8, it must be repeated
 - o Peak titers are not considered
 - o Titers are repeated every 90 days (=- 20 days)
 - o Eligibility must be entered in UNET and reconfirmed every 90 days (=- 20 days)
- Blood type O recipients will be eligible to receive living donor transplants from Blood type A2 donors
 - o Current Anti-A2 titers must be 1:8 or lower, if titer is 1:8, it must be repeated

- Peak titers are not considered
- Titers are repeated every 90 days (=- 20 days)
- Titers must be entered in the transplant center EMR and verified every 90 days (=- 20 days). Eligibility must be reconfirmed prior to transplant.
- All Blood type A and AB living donor candidates with be subtyped for A2.

3.Titering:

- 1) An anti- A2 titer will be drawn upon education of a blood group B or O patient.
 - a. The titer will be drawn here at UTMC and is sent to the appropriate send out lab
 - b. Sample is a full pink top tube (6ml) of *fresh whole blood*, minimum volume is 3ml
- 2) Acceptable titer $\leq 1:4$
- 3) Titer of 1:8 must be repeated
 - a. If the titer remains 1:8, the patient is not eligible for A2 to B transplantation
 - b. If the titer decreases to 1:4, the patient is eligible for A2 to B transplantation
 - c. If the titer increases to 1:16, the patient is not eligible for A2 to B transplantation
- 4) Titers of $\geq 1:16$ at any point (even a single draw) are automatically not eligible for A2 to B transplantation. In addition, any 2-fold increase in titer levels will also make a patient not eligible.

1:4	Acceptable	
1:8	Must repeat	1:8 on repeat = excluded. 1:4 on repeat acceptable
1:16	Unacceptable at any point.	

4. Consent will also be obtained for A2 at the time of transplant. The on-call organ offer team will discuss and document patient acceptance of an A2 deceased donor kidney in the patient transplant EMR. The living donor coordinator will document the recipient's acceptance of an A2 donor kidney in the patient transplant EMR at the time of the scheduling of the transplant surgery.

5. Post-transplant care will be standard with the same immunosuppression guideline that is used with all patients. The standard post-transplant lab work will be obtained in addition to follow up anti A2 titers in all recipients of A2 to B or A2 to O transplants monthly for months (1, 2 and 3) post-transplant, then at months 6, 9 and 12 post-transplant.

Approved by:	Review/Revision Date:
<u>/s/</u> Kurt Kless MSN, MBA, RN, NE-BC Chief Nursing Officer	1/1/2021 11/14/2023
<u>/s/</u> Michael Rees, MD, PhD Director, Renal Transplant Program	
<i>Initial Policy Completed By: Director, Renal Transplant Program, Transplant Administrator</i>	Next Review Date: 1/1/2027
Policies Superseded by This Policy:	