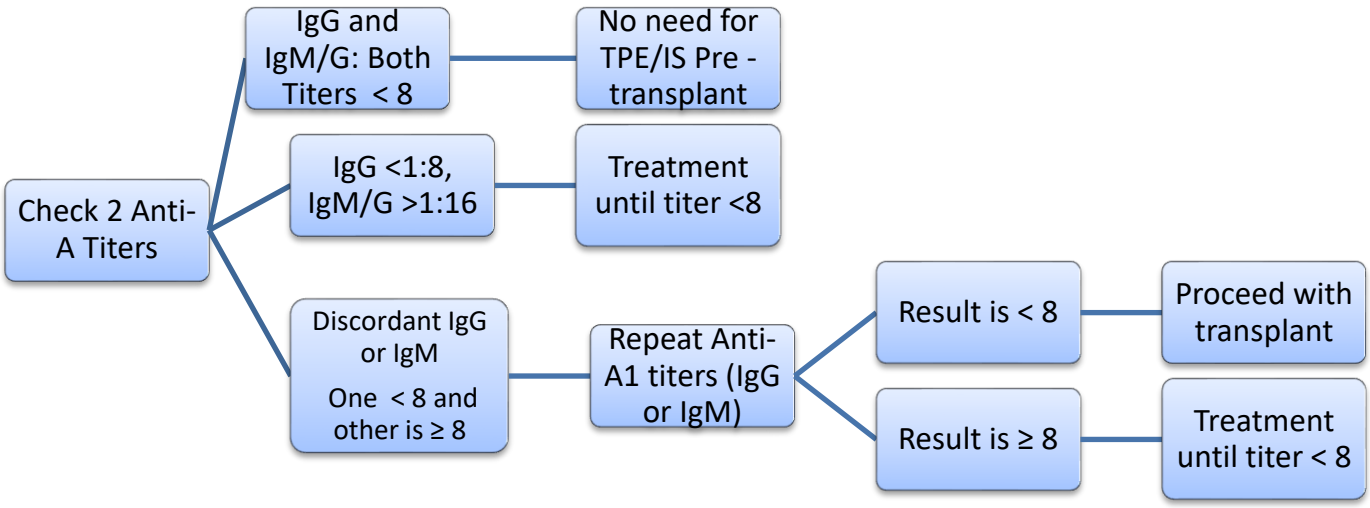
Guidelines: Anti-A Titer Monitoring for A2 (Non-A1) to O and non-A1/non-A1B to B Living Donor Kidney Transplants (case by case basis when NKR option is not available)

1. **Written consent from candidates regarding willingness to accept Non-A1 Kidney (include consent in both nephrology and surgery H&P at time of transplant)**
2. **Confirm candidate eligibility every 90 days in UNET**
3. **High Risk of rejection and graft loss if recipient anti-A1 IgG titer is >1:8 (also concern from elevated anti-A1 IgM titer; Norman et.al). Monitor titer levels for candidate eligibility as mentioned in #4**

4. **Pre-Transplant Anti-A1 Titer Monitoring:**

Check 2 anti-A titers AT TIME OF INITIAL EVALUATION and monitor quarterly



Anti-A Titer Monitoring for A1 to O Kidney Transplants

5. **<u>Pre-Transplant Desensitization Treatment (if Anti A1 Titers are ≥ 8):</u>**

(Cedar Sinai based protocol)

- 1 month prior to transplant – Initiate MMF 500mg po BID
- 2 weeks prior to transplant – Rituximab 375mg/m^2 IV X 1; Premed with Tylenol 650mg PO and Benadryl 25mg PO
- INITIATE Plasma Exchange (PLEX) 1.5 PV AT LEAST 48 HOURS AFTER RITIUXIMAB X 5 sessions given every other day, with the last session between 24-72 hours prior to transplant. Check anti-A titer prior to each pheresis session. REPLACEMENT FLUID: 5% Albumin. FFP BASED ON FIBRINOGEN/INR LEVEL.
- Following final PLEX – IVIG 2gm/kg IV X 1

6. **<u>Induction IS: 5 doses of ATG + Solumedrol per SOC protocol</u>**
7. **<u>Maintenance IS: TAC/MMF/Prednisone 5 mg daily (after taper)</u>**
8. **<u>Post-Transplant Anti-A1 Titer Monitoring:</u>**

- Monitor anti-A titers on POD 1, 2, 3, 5, 7, 10, 14, 30, 60, 90, 180, 270, and 365 and whenever clinically indicated due to renal allograft dysfunction

- If anti-A1 titer increases ≥ 16, treatment as above to reduce the titer

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<u>References:</u>

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2. Shaffer et. Al Clinical Transplantation 2015, Vol 29, Issue 4, 379-382
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4. Shaffer et. Al J Am Coll Surgery 2019
5. Gloor 2003, Transplantation 75: 971
6. Sorensen 2001, AJT 1: 296
7. Bryan 2005, Transplantation 80: 75