1. Patients on immunosuppressive drugs should have appropriately timed levels obtained at regular intervals:
   - Daily during hospitalization
   - Post hospitalization:
     - Twice weekly for 1st month
     - Weekly for 2nd month
     - Biweekly for 3rd month
     - Monthly until the end of the first post transplant year
     - Every 3 months thereafter

2. Drug dosages need to be modified if the levels are outside the target range.

3. Drug levels also need to be checked:
   - In the event allograft function deteriorates
   - Potential or suspected drug interactions are suspected

4. Maine Transplant Program no longer recommends sirolimus maintenance therapy unless all other therapeutic options have been exhausted due to inferior outcomes compared with conventional therapy.

5. Maine Transplant Program no longer recommends that leflunomide levels be checked given paucity of data suggesting benefit.

6. For patients on dual immunotherapy, aim to run CI levels at higher end of range.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Timing of level</th>
<th>&lt;3 months</th>
<th>3-12 months</th>
<th>&gt;12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tacrolimus</td>
<td>12 hr. trough</td>
<td>10-12 ng/ml</td>
<td>7-10 ng/ml</td>
<td>3-7 ng/ml</td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>12 hr. trough</td>
<td>230-300 ng/ml</td>
<td>160-230 ng/ml</td>
<td>70-130 ng/ml</td>
</tr>
<tr>
<td>Sirolimus</td>
<td>24 hr. trough</td>
<td>8-12 ng/ml</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Originated: 3/8/07
Revised: 6/12/08, 6/10/11, 1/30/12, 2/12/13, 8/23/16
Reviewed: 4/30/19