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**Lab Dept:** Chemistry

**Test Name:** **CYCLOSPORINE LEVEL (FOR TRANSPLANT PATIENT)**

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***General Information***

**Lab Order Codes:** CYC

**Synonyms:** CSA, Cyclosporin A, Sandimmune®; Gengraf; Neoral

**CPT Codes:** No charge, if the transplant was at UM/Fairview.

**Test Includes:** Cyclosporine level measured in ug/L.

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***Logistics***

**Test Indications:** This test is used to monitor blood concentration of cyclosporine A. This test selectively measures only the parent drug. Dose or dose intervals are adjusted to achieve therapeutic concentration.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Fairview University Labs (Fairview code: CYC)

**Phone Numbers** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** Same day, test set-up daily

**Special Instructions:** Usual sampling time is immediately prior to the next dose.

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***Specimen***

**Specimen Type:** Whole blood

**Container:** Lavender top (EDTA) tube  
Alternate tube: Green (Li or Na Heparin), no gel tube

**Draw Volume:** 2 mL (Minimum: 0.4 mL) blood

**Processed Volume:** Same as Draw Volume

**Collection:** EDTA whole blood (purple top) is preferred. Heparinized whole blood is acceptable.

**Special Processing:** Lab Staff: **Do Not** centrifuge specimen. Submit specimen in original collection container. Store and ship specimen at ambient temperature.

Sendouts: Do Not order this test in Atlas. Specimen must be accompanied with a UM transplant requisition. Forward promptly.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimens

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***Interpretive***

**Reference Range:**

Therapeutic range based on draw immediately prior to next dose. Default Therapeutic Range: 50 – 400 ug/L	
<b>Kidney Transplant (months post transplant):</b>	<b>Range (ug/L)</b>
<b>Pediatric</b>	
0 – 3 months:	175 - 200
3 – 6 months:	150 – 175
6 – 9 months:	125 – 150
9 – 12 months:	100 – 125
>12 months:	75 – 100
<b>Adult</b>	
0 – 3 months:	175 – 200
3 – 6 months:	150 – 200
6 – 12 months:	125 – 150
>12 months:	75 – 100
<b>Heart Transplant (months post transplant)</b>	<b>Range (ug/L)</b>
<b>Pediatric</b>	
0 – 12 months:	200 –250

>12 months:	100 – 125
EBV PCR >1000 copies/mL:	80 – 100
<b>Adult</b>	
0 – 3 months:	150 – 250
3 – 6 months:	125 – 225
6 – 12 months:	100 – 200
>12 months:	50 – 150
<b>Heart – Lung Block</b>	200 – 250
<b>Lung Transplant (months post transplant)</b>	<b>Range (ug/L)</b>
0 – 12 months:	175 – 225
>12 months:	125 – 175
<b>Liver Transplant (months post transplant)</b>	<b>Range (ug/L)</b>
0 – 6 months:	150 – 200
>6 months:	100 – 150
<b>Pancreas Transplant (months post transplant)</b>	<b>Range (ug/L)</b>
0 – 6 months:	200 – 250
6 – 12 months:	150 – 200
>12 months:	100 – 150
<b>Bone Marrow Transplant</b>	200 – 400 ug/L

**Critical Values:** >400 ug/L

**Limitations:** The recommended therapeutic ranges described above apply to trough specimens collected just before the next dose. Blood collected at other times will yield higher results.

**Methodology:** Liquid Chromatography/Tandem Mass Spectrometry (HPLC-MS/MS)

**References:**

[Fairview University Web Page](#) November 2012

**Updates:**

8/20/2009: Critical value previously listed as >60 ug/L.  
11/12/2012: Updated reference ranges.