
Lab Dept: Chemistry

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

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.

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.

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

Interpretive

Reference Range:

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

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