Lab Dept:	**Microbiology/Virology**
Test Name:	**HIV-1 RNA QUANTIFICATION W/REFLEX TO GENOTYPIC DRUG RESISTANCE TO REVERSE TRANSCRIPTASE, PROTEASE, AND INTEGRASE INHIBITORS**

General Information

Lab Order Codes:	HIQDR
Synonyms:	N/A
CPT Codes:	87536 – HIV-1 RNA Detect/Quant 0219U – HIV-1 Genotypic Drug Resistance (if appropriate)
Test Includes:	HIV-1 RNA Quant reported as undetected or detected levels will be reported in copies/mL. If the RNA titer is > or = 1,000 copies/mL, then HIV-1 Genotypic Drug Resistance will be determined at an additional charge

Logistics

Test indications:	Quantifying plasma HIV-1 RNA levels (viral load) in individuals (including children) with known HIV-1 infection, followed by identification of HIV-1 genotypic mutations associated with resistance to nucleotide and nonnucleoside reverse-transcriptase inhibitors protease inhibitors, and integrase strain transfer inhibitors. Guiding initiation or change of combination antiretroviral therapy in individuals, including children, with HIV-1 infection
Lab Testing Sections:	Microbiology/Virology - Sendouts
Referred to:	Mayo Medical Laboratories (MML: HIQDR)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 10 days
Special Instructions:	Prior to requesting this test, the patient must have a known HIV-1 infection

Specimen

Specimen Type:	Blood
Container:	Lavender top (EDTA) tube
Draw Volume:	10.8 mL (Minimum: 6 mL) blood
Processed Volume:	3.6 mL (Minimum: 2 mL) plasma
Collection:	Routine blood collection, invert tube several times to mix so no clots form. Send to Children's laboratory as soon as possible for shipping to the reference lab facility.
Special Processing:	Lab Staff: Centrifuge blood collection tube and aliquot plasma into plastic screw top vial within 2 hours of collection. Ship specimen frozen on dry ice.
Sample Rejection:	Collected in wrong tube; specimen thawed; mislabeled or unlabeled specimens.

Interpretive

Reference Range:	Undetected
Critical Values:	N/A
Limitations:	The HIV-1 RNA detection and quantification assay is not approved by the FDA as a screening test for HIV-1 infection in donors of blood, human cells, tissues, or tissue products. A single HIV-1 viral load test result should not be used as the sole criterion in guiding therapeutic decisions and intervention in the clinical care of HIV-1-infected patients. Viral load results should be correlated with patient symptoms, clinical presentation, and CD4 cell count. Due to the inherent variability in the assay, physiologic variation and concurrent illnesses in the infected patients, changes of less than 100-fold (<2 log) in plasma HIV-1 viral load should not be considered significant changes. Viral load results below 20 copies/mL do not necessarily indicate absence of HIV-1 viral replication. Inhibitory substances may be present in the plasma specimen, leading to negative or falsely low HIV-1 RNA results. Improper specimen collection or storage may lead to negative or falsely lower plasma viral load results.
Methodology:	Real-Time Reverse Transcription-Polymerase Chain Reaction (RT-PCR)
References:	Mayo Medical Laboratories May 2022