Before initiating HIV treatment, order:
- HIVQN / HIV-1 RNA Detection and Quantification, Plasma to determine baseline viral load. (This is Mayo Clinic Laboratories' standard treatment monitoring assay)
- OR
- HIQDR / HIV-1 RNA Quantification with Reflex to Genotypic Drug Resistance to Reverse Transcriptase, Protease, and Integrase Inhibitors, Plasma to determine baseline viral load and antiviral drug resistance profile

After initiating or modifying antiretroviral therapy (ART), order HIVQN or HIVDR within 2 to 4 weeks, followed by 4- to 8-week intervals until the levels become undetectable.*
- In patients on stable, suppressive ART regimens for ≤2 years, order HIVQN or HIVDR every 3 to 4 months for up to 2 years.*
- In patients on stable, suppressive ART regimens for >2 years, order HIVQN or HIVDR every 6 months to confirm durable viral suppression.*

For newly infected patients who have known HIV-1 RNA level of 1000 copies/mL, order HIVDR / HIV-1 Genotypic Drug Resistance to Reverse Transcriptase, Protease, and Integrase Inhibitors, Plasma

If patient is not responding to treatment (ie, viral load is not dropping as expected)

Very treatment-experienced patient
- Consider phenotypic drug resistance tests:
  - FPHIV / Phenosense HIV Drug Resistance Replication Capacity (for HIV-1 RNA level ≥500 copies/mL)
  - FPFUZ / Phenosense Entry HIV Drug Resistance Assay (for HIV-1 RNA level ≥500 copies/mL)
  - FFTRP / Trofile Co-Receptor Tropism Assay (for HIV-1 RNA level ≥1,000 copies/mL)
  - FFTRO / Trofile DNA Co-Receptor Tropism Assay (for HIV-1 RNA level <1,000 copies/mL)

Relatively treatment-naive patient
- HIV-1 RNA ≥1000 copies/mL
- Order HIVDR to guide selection of drug combinations
- If multiple resistance mutations are detected without obvious drug options