Chronic Hepatitis C Treatment and Monitoring Algorithm: Direct Antiviral Agent (DAA) Combination (Interferon-Free)

**Diagnosis of chronic hepatitis C virus infection, including baseline measurement of HCV viral load:**
- **HCV RNA Detection and Quantification by Real-Time Reverse Transcription-PCR (RT-PCR), Serum**
  - If HCV RNA level is ≥500 copies/mL, then HCVG / Hepatitis C Virus Genotype, Serum will be performed automatically.
  - If HCV RNA level is <500 copies/mL, order: HCVQN / Hepatitis C Virus (HCV) RNA Detection and Quantification with Reflex to HCV Genotype, Serum in 1 to 2 months, if clinically indicated.

**Start DAA combination therapy (per current guidelines)**
- Decision made to start antiviral therapy
- Decision not to start antiviral therapy
  - Continue monitoring patient for:
    - Liver function
    - HCV viral load
    - Clinical symptoms
- At 4 weeks of treatment:
  - Repeat HCVQN
  - Continue monitoring patient for:
    - Liver function
    - HCV viral load
    - Clinical symptoms

**Undetectable HCV RNA**
- Complete remaining duration of treatment (12 or 24 weeks total, per current guidelines)
- At 12 weeks after treatment ended, repeat HCVQN for “sustained virologic response” (SVR)
  - SVR achieved at 12 weeks
  - Optional
- At end of treatment (12 or 24 weeks total) repeat HCVQN
  - Undetectable HCV RNA
  - HCV RNA detected (any level)

**HCV RNA detected (any level)**
- At 24 weeks after treatment ended, repeat HCVQN (to verify SVR)
  - SVR achieved at 24 weeks
  - Optional
- At end of treatment (12 or 24 weeks total) repeat HCVQN
  - Undetectable HCV RNA
  - HCV RNA detected (any level)

**Nonresponder**
- HCV RNA detected (any level)

**Relapser**
- HCV RNA detected (any level)

**SVR achieved at 24 weeks**
- Optional

**Undetectable HCV RNA**
- Continue planned treatment
- At 6 weeks of treatment, repeat HCVQN
  - HCV RNA detected but not quantifiable
  - HCV RNA of >10x the level at week 4 of treatment
  - No recommendations per current guidelines
- HCV RNA detected at any level
  - Optional
- Nonresponder
  - Treatment failure
  - STOP treatment

**HCV RNA detected (any level)**
- At 4 weeks of treatment:
  - Repeat HCVQN

**Undetectable HCV RNA**
- At end of treatment (12 or 24 weeks total) repeat HCVQN

**HCV RNA detected (any level)**
- At 24 weeks after treatment ended, repeat HCVQN

**Nonresponder**
- HCV RNA detected at any level

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* www.hcvguidelines.org