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

**Start:**

1. **Diagnosis of chronic hepatitis C virus infection, including baseline measurement of HCV viral load:**
   - Order:  HCVG / Hepatitis C Virus Genotype, Serum
   - Noninvasive elastography or liver biopsy to determine stage of liver fibrosis at baseline

2. **If HCV RNA level is ≥500 copies/mL, then HCVG / Hepatitis C Virus Genotype, Serum will be performed automatically**

3. **Order:**
   - HCVG / Hepatitis C Virus Genotype, Serum

4. **If HCV RNA level is ≥500 copies/mL, then HCVG / Hepatitis C Virus Genotype, Serum will be performed automatically**

5. **Undetectable HCV RNA**
   - Optional
   - At end of treatment (12 or 24 weeks total) repeat HCVQN
   - SVR achieved at 24 weeks

6. **HCV RNA detected (any level)**
   - Optional
   - At 24 weeks after treatment ended, repeat HCVQN (to verify SVR)
   - Relapser

7. **SVR achieved at 12 weeks**
   - Optional
   - At 12 weeks after treatment ended, repeat HCVQN for “sustained virologic response” (SVR)

8. **At 4 weeks of treatment:**
   - Repeat HCVQN
   - Start DAA combination therapy (per current guidelines)

9. **Continue monitoring patient for:**
   - Liver function
   - HCV viral load
   - Clinical symptoms

10. **Decision made to start antiviral therapy**
    - Complete remaining duration of treatment (12 or 24 weeks total, per current guidelines)

11. **Decision not to start antiviral therapy**
    - Continue monitoring patient for:
      - Liver function
      - HCV viral load
      - Clinical symptoms

12. **At 6 weeks of treatment, repeat HCVQN**
    - HCV RNA detected but not quantifiable
    - Optional
    - No recommendations per current guidelines

13. **HCV RNA of >10x the level at week 4 of treatment**
    - Optional
    - No recommendations per current guidelines

14. **At end of treatment (12 or 24 weeks total) repeat HCVQN**
    - HCV RNA detected (any level)
    - Nonresponder

15. **SVR achieved at 12 weeks**
    - Optional
    - At 12 weeks after treatment ended, repeat HCVQN for “sustained virologic response” (SVR)

16. **HCV RNA detected (any level)**
    - Optional
    - At 24 weeks after treatment ended, repeat HCVQN (to verify SVR)

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

18. **HCV RNA detected (any level)**
    - Optional
    - At 24 weeks after treatment ended, repeat HCVQN (to verify SVR)

19. **Relapser**
    - Optional
    - No recommendations per current guidelines

20. **Nonresponder**
    - Optional
    - No recommendations per current guidelines

21. **Treatment failure**
    - STOP treatment

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