Initial Treatment of Adults with HCV Infection

Initial treatment of HCV infection includes patients with chronic hepatitis C who have not been previously treated with interferon, peginterferon, ribavirin, or any HCV direct-acting antiviral (DAA) agent, whether investigational, or US Food and Drug Administration (FDA) approved.

Simplification of the treatment regimen may expand the number of healthcare professionals who prescribe antiviral therapy and increase the number of persons treated. This would align with the National Academies of Science, Engineering, and Medicine strategy to reduce cases of chronic HCV infection by 90% by 2030 (NAS, 2017).

- Simplified Pangenotypic HCV Treatment for Treatment-Naive Adults Without Cirrhosis
- Simplified Pangenotypic HCV Treatment Algorithm for Treatment-Naive Adults With Compensated Cirrhosis

The level of evidence available to inform the best regimen for each patient and the strength of the recommendation vary and are rated accordingly (see Methods Table 2). In addition, specific recommendations are given when treatment differs for a particular group (eg, those infected with different genotypes). Recommended regimens are those that are favored for most patients in a given group, based on optimal efficacy, favorable tolerability and toxicity profiles, and treatment duration. Alternative regimens are those that are effective but, relative to recommended regimens, have potential disadvantages, limitations for use in certain patient populations, or less supporting data than recommended regimens. In certain situations, an alternative regimen may be an optimal regimen for an individual patient or clinical setting. Specific considerations for pediatric patients and persons with HIV/HCV coinfection, decompensated cirrhosis (moderate or severe hepatic impairment; Child-Turcotte- Pugh [CTP] class B or C), HCV infection post liver transplant, and severe renal impairment, end-stage renal disease (ESRD), or post kidney transplant are addressed in other sections of the guidance.

Recommended and alternative regimens are listed by pan-genotypic activity and in order of level of evidence. When several regimens are at the same recommendation level, they are listed in alphabetical order. Regimen choice should be determined based on patient-specific data, including drug-drug interactions. Patients receiving antiviral therapy require careful pretreatment assessment for comorbidities that may influence treatment response or regimen selection. All patients should have access to an HCV care provider during treatment, although preset clinic visits and/or blood tests depend on the treatment regimen and may not be required for all regimens/patients. Patients receiving ribavirin require additional monitoring for anemia during treatment (see Monitoring section).

The following pages include guidance for management of treatment-naive patients by genotype (although most patients will fall into the simplified treatment algorithms above).

- Genotype 1
- Genotype 2
- Genotype 3
- Genotype 4
- Genotype 5 or 6

Mixed Genotypes

Rarely, genotyping assays may indicate the presence of a mixed infection (eg, genotypes 1a and 2). Treatment data for mixed genotypes with DAAs are sparse but utilization of a pangenotypic regimen is recommended in this circumstance (Chiu, 2020). When the correct combination or duration of treatment is unclear, expert consultation should be sought.

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Related References

Chiu WN, Hung CH, Lu SN, et al. Real-world effectiveness of glecaprevir/pibrentasvir and ledipasvir/sofosbuvir for mixed genotype hepatitis C infection: a multicenter pooled analysis in Taiwan. *J Viral Hepat*. 2020;27(9):866-872. doi:10.1111/jvh.13305.

National Academies of Sciences, committee on a national strategy for the elimination of hepatitis B and C, board on population health and public health practice: a national strategy for the elimination of hepatitis B and C: phase two report. Washington, DC: National Academies Press; 2017.