### Ribavirin

**Indication** | Chronic hepatitis C  
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**INN** | Ribavirin  
**Medicine type** | Chemical agent  
**List type** | Core  
**Additional notes** | For the treatment of hepatitis C, in combination with direct acting anti-viral medicines  
**Formulations** | Parenteral > General injections > IV: 1000 mg per 10 mL phosphate buffer solution ; 800 mg per 10 mL phosphate buffer solution  
Oral > Solid: 200 mg ; 400 mg ; 600 mg  
**EML status history** | First added in 2013 (TRS 985)  
**Sex** | All  
**Age** | Adolescents and adults  
**Therapeutic alternatives** | The recommendation is for this specific medicine  
**Patent information** | Patents have expired in most jurisdictions  
**Wikipedia** | Ribavirin  
**DrugBank** | Ribavirin  

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**ATC codes:** J05AP01  
**ICD11 code:** 1E91.1  
**Summary of evidence and Expert Committee recommendations**

Globally, approximately 150 million people are infected with hepatitis C and it is estimated that 350 000 people die each year from hepatitis C-related liver disease (1). The goal of therapy is to produce a sustainable virological response (SVR) which can potentially result in the reversal of liver injury and can prevent serious consequences such as cirrhosis, end-stage liver disease, hepatocellular carcinoma and death. When compared with standard interferon-alfa alone, interferon-alfa in combination with ribavirin increased the SVR from 10–20% to 40–60% (2, 3). The long-acting pegylated formulation in combination with ribavirin has further increased SVR rates to 50–60% for genotype 1 and to 80% for genotypes 2 and 3 (4, 5). A recent meta-analysis showed that treatment success rates in low- and middle-income countries were similar to those obtained in high-income countries (6). Head-to-head randomized controlled trials – including the large randomized IDEAL trial (n = 3070) – demonstrated similar SVR rates for peginterferon alfa-2a and alfa-2b (41% versus 39% in IDEAL) in combination with ribavirin (7). While peginterferon alfa-2a or alfa-2b in combination with ribavirin has been the standard of care for chronic hepatitis C, the new direct-acting oral antiviral agents (bocepravir and telaprevir) are more effective but more expensive (8, 9). The Expert Committee noted that there are several more direct-acting antivirals in development. Pegylated interferons + ribavirin are associated with a range of adverse events that often require dose reduction and discontinuation. Adverse events that resulted in treatment termination were reported in 39 studies and were present in 4% (95% CI: 3–5) (6). Peginterferon alfa-2a and alfa-2b appear to be similarly tolerated (3). Before treatment patients must be screened, RNA measurements and genotyping (which require high-level laboratory support) must take place, and facilities are required for liver biopsy and for detecting and managing complications. WHO is developing guidelines for the screening, care and treatment of hepatitis C. Other expert bodies such as NICE (10), the European Association for the Study of the Liver (11) and the American Association for the Study of Liver Diseases (12) recommend peginterferon alfa-2a or alfa-2b with ribavirin for treatment of hepatitis C. Ribavirin was already listed in the EML and EMLc for viral haemorrhagic