ashm

DECISION-MAKING IN HCV

UNITED KINGDOM

HCV

Hepatitis C testing

STEP 1 Could it be hepatitis C?

- **Patient request**
- **Abnormal liver function test (LFT)**
- **Doctor concern**
- **Presence of risk factors**
  - Injecting drug use
  - Sharing of snorting equipment
  - Birth in high prevalence country
  - Blood transfusion before September 1991 or a blood product (such as clotting factor) before 1986 in the UK
  - Unsterile tattooing and body piercing
  - Unsterile medical and dental procedures and blood transfusions in high prevalence countries
  - Time in prison
  - Needlestick injury
  - Mother to child transmission is around 5%
  - Household transmission is very rare
  - Sexual transmission is rare but can occur in certain populations, such as men who have sex with men (MSM) or those who are Human Immunodeficiency Virus (HIV) positive
- **Jaundice** or acute hepatitis

Order:
Hep C antibody (Ab)
LFT

If possible acute hepatitis, also order HCV RNA

If reflex testing done in local laboratory, request HCV RNA if anti-HCV positive

STEP 2 Review results

- **Hep C Ab -ve**
  LFT normal
  (means hepatitis C unlikely, HCV RNA not needed)
- **Hep C Ab -ve**
  LFT abnormal
  or possible acute hepatitis C
- **Hep C Ab +ve**

STEP 3 Check HCV RNA

- **Hep C Ab -ve**
  HCV RNA -ve
  means hepatitis C unlikely
- **Hep C Ab -ve**
  HCV RNA +ve
  means acute hepatitis C
- **Hep C Ab +ve**
  plus repeated HCV RNA +ve
  means chronic hepatitis C (chronic if > 6 months)
- **Hep C Ab +ve**
  plus repeated HCV RNA –ve
  means cleared hepatitis C

STEP 4 Follow up and referral

- **Repeat**
  Hep C Ab
  if recent (possible window period)
  or ongoing risk
- **Option 1***
  Further assessment and treatment in primary care
- **Option 2***
  Refer to specialist care for further assessment and treatment
- **Repeat**
  HCV RNA
  if ongoing risk

Get informed consent in a culturally appropriate manner.

Discuss:
- Reason for test
- Risk factors
- Meaning of a positive antibody test
- Availability of treatment if HCV RNA positive
- Mechanism for communicating test results

Convey test result

If positive, results should always be provided in person and explain:
- Natural history
- Modes of transmission and risk reduction
- Availability of treatment
- Need for ongoing, potentially lifelong monitoring for liver disease - for cirrhosis and cancer, if already evidence of liver damage
- Lifestyle factors e.g. alcohol minimisation, diet
- Availability of peer support services, information and support services

* Option 1 or Option 2 depending on commissioning arrangements

DECISION-MAKING IN HCV

UNITED KINGDOM

Hepatitis C assessment and treatment

Testing and Diagnosis	
Confirm chronic HCV infection	• Anti-HCV +ve indicates exposure to HCV virus • HCV RNA +ve confirms current infection
Check HCV genotype, viral load and baseline screening	• HCV genotype determines treatment choice • Quantitative HCV RNA test - if low viral load, consider shorter duration of therapy if genotyp 1 • Full Blood Count (FBC) • Urea, electrolytes, creatinine (UEC) • Liver function test (LFT) and INR
Pre-treatment Assessment	
Assess liver fibrosis: could they have cirrhosis?	• Cirrhotic status determines treatment regimen and length • Detect signs of chronic liver disease: jaundice, asterixis, hepatomegaly, splenomegaly, ascites, peripheral oedema • Undertake non-invasive assessment of fibrosis: o FibroScan assessment if available (>11.5 kPa consistent with cirrhosis) o Serum bio markers such as APRI (if score >1.0, significant risk of cirrhosis), FIB-4, HepaScore • A low albumin and/or a low platelet count suggests cirrhosis • Liver ultrasound if cirrhosis suspected to detect portal hypertension (splenomegaly, dilated portal vein, ascites, varices) and HCC screening
Detect other causes of liver disease	• Check for viral coinfection: o HIV Ab o Hepatitis A – check hep A IgG; vaccinate if -ve o Hepatitis B – check HBsAg, anti-HBc and anti-HBs; vaccinate if all –ve • Heavy alcohol intake • Fatty liver disease • Further investigations (e.g. iron studies) if indicated or abnormal LFT post treatment
Detect other major co-morbidities	• Renal disease • Mental health • Drug and alcohol use • Heart disease - may not be able to use ribavirin (causes anaemia); perform ECG if ribavirin prescribed and patient has risk factors for IHD
Review previous HCV treatment	• Choice and length of treatment is influenced by genotype and prior HCV treatment experience / response
Consider contraception, pregnancy	• DAAs are not recommended for use in pregnant or lactating women • Dual forms of contraception are required during treatment and for 6 months post-treatment if ribavirin is prescribed
Assess adherence	• Determine likelihood of adherence with medication, readiness to have treatment and the need for adherence support • Current injecting drug use is not a contraindication for HCV treatment

Treatment, Monitoring and Follow-up	
Review drug interactions	• Check for potential drug interactions with current medications including over the counter drugs at www.hep-druginteractions.org. DAA selection and dose may need to be modified or current medication may need to be reviewed prior to treatment.
Select treatment regimen[2]	• Refer to your local clinical guidelines[1,2]. Choice of treatment regimen should follow reccomendations on the most cost-effective regimen for the NHS, unless there are clinical reasons to choose an alternative regimen.
Treat and monitor	• Monitoring should be individualised, see Table 1 • Side effects of DAA therapy are generally mild
Post treatment follow-up (Table 1)	• SVR (cured), normal LFT, no cirrhosis – no further follow-up needed • SVR (cured) but persistently elevated LFTs – require evaluation for other liver diseases • No SVR (not cured, HCV detectable 12 weeks post-treatment) need specialist referral • Cirrhosis – lifelong monitoring and specialist care o 6-monthly abdominal ultrasound (hepatocellular carcinoma screening) o Endoscopic surveillance for oesophageal varices o Osteoporosis; 2-yearly DEXA scans and monitor serum vitamin D

INR: International Normalised Ratio; IHD: Ischaemic Heart Disease; DAAs: Direct Acting Antivirals;
APRI: AST to Platelet Ratio Index; FIB-4: Fibrosis 4; SVR12: undetectable plasma HCV RNA 12 weeks post treatment

Table 1: Monitoring on-treatment and post-treatment

Routine monitoring for a 12-week treatment regimen		
	Blood tests	HCV virology
Week 0	FBC, U&Es, LFTs	HCV RNA (quantitative)
Week 4, 8*	LFTs	
Week 12 (End of Treatment)	LFTs	
Week 12 after End of Treatment (SVR)	LFTs	HCV RNA (qualitative)

*LFTs at week 8 instead of week 4 if taking Zepatier

Note: At each visit, assess for medication adherence, treatment adverse events and drug-drug interactions. Some people will require closer monitoring

APRI SCORE CALCULATOR

$$APRI = \left(\frac{\frac{\text{AST Level (IU/L)}}{\text{AST (Upper Limit of Normal) (IU/L)}}}{\text{Platelet count } (10^9/\text{L})} \right) \times 100$$

Or use an online calculator at:

www.hepatitisc.uw.edu/page/clinical-calculators/apri

Links to resources

1. Guidelines - Scotland: http://bit.ly/2AHIN6c
2. Guidelines - England: http://bit.ly/2FS7QGq

This resource was created by the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine and has been adapted for the UK by the International Network on Hepatitis in Substance Users in collaboration with local partners.

www.inhsueducation.org

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