

1. Drugs causing jaundice

A junior doctor asks for advice. He has a patient on lisinopril, digoxin, furosemide, salbutamol, prednisolone and flucloxacillin. The patient has developed jaundice. He wants to know which drug is most likely to be responsible.

Suggested questions to ask include:

(a) Has the patient any history of liver disease?

Is there a potential non-drug cause?

(b) When did the patient's jaundice start?

(c) Which drug(s) were started during the few weeks before signs/symptoms developed?

Medication which the patient has been taking for years can be discounted as an unlikely cause. But medicines started a few days or weeks before symptoms/signs first appeared are the most likely causes.

(d) Do you have recent LFTs and are they improving, deteriorating or stable?

Some drugs may produce a particular pattern of deranged LFTs and this may help with identifying a cause. If LFTs are improving despite no medication being changed, perhaps there is a non-drug cause. If LFTs are severely deranged and getting worse, there is a greater need for prompt identification and resolution of the cause.

(e) Has any other medication been stopped recently?

It's worth asking this question in case a potential cause is overlooked.

(f) Is the patient taking any OTC drugs, herbal products or illicit drugs?

If you can't identify a cause this is worth looking into. Most doctors would automatically ask about drug abuse in a patient with jaundice, but they may overlook less obvious drugs like anabolic steroids, and some herbal and OTC medicines have caused liver damage.

Suggested sources:

- Try SmPCs, Micromedex, AHFS Drug Information, and/or Martindale if you have them
- You could try LiverTox or look for an up-to-date literature review of drug-induced liver disease.

2. Simvastatin following a liver transplant

A GP calls to ask whether simvastatin may be used in a patient who had a liver transplant in 1991. They are currently stabilised on ciclosporin and azathioprine. A recent blood test indicated a raised total cholesterol.

Suggested questions to ask include:

(a) How is the transplant functioning? What is the clinical condition of the patient? What are the results of any recent liver function tests, or other diagnostic liver tests?

To check on whether simvastatin is suitable for this patient in view of their transplant and to advise on the dose and frequency.

(b) What is the patient's lipid profile? What other risk factors do they have?

Is a statin definitely indicated?

(c) Does the patient have any other medical conditions or take any other drugs?

To enable you to check on interactions or whether simvastatin may have any undesirable effects in this patient.

Suggested sources:

- SmPCs, Stockley for interactions, Martindale and/or Micromedex if you have it.
- Check for expert guidance such as that produced by transplant or cardiovascular medicine bodies.
- You could search for published literature using Embase or Medline.

3. Antidepressants and hepatitis C

On a ward round, the registrar asks you about a young woman with hepatitis C. He would like to prescribe her an antidepressant, but he has read in the BNF that all of them seem capable of causing hepatic side effects. Which would be the best one to choose?

Suggested questions to ask include:

(a) What antidepressant did you have in mind?

Hopefully this question will give you insight into what has been tried before, if anything, and which antidepressant the registrar thinks would be most effective/preferred.

(b) What is the extent of the liver impairment, and what is the clinical condition of the patient?

You cannot advise the enquirer without knowing the extent, severity and duration of the liver damage.

(c) Medical history and other medication being taken

Check for interactions and cautions/contra-indications.

Suggested sources:

- BNF, SmPCs, psychiatry resources (e.g. Maudsley prescribing guidelines, Psychotropic Drug Directory by Bazire).
- Your local mental health trust may have guidelines on the subject.