Gilbert's syndrome

This is another one of those conditions that can throw us a curve ball when we are working our way through a pile of results as duty doctor on a hot August afternoon! Is that isolated raised bilirubin something to worry about or not?

This BMJ review reminds us how to make the diagnosis (BMJ 2011;342:d2293).

Remind me, what is Gilbert's syndrome?

A reminder of some physiology…

Bilirubin is a by-product of haemoglobin. To excrete bilirubin, it is usually conjugated by the glucuronyl transferase enzyme. Those with Gilbert’s syndrome have a defect coding for the gene that makes glucuronyl transferase.Gilbert’s syndrome is an autosomal recessive (usually!) condition. Prevalence in Western European populations is about 5–10% and many are unaware they have it.

A missing enzyme means that affected individuals can’t conjugate bilirubin as efficiently, leading to raised unconjugated bilirubin levels which may cause intermittent episodes of non-itchy jaundice. Apart from the jaundice, patients are asymptomatic (actually they may have symptoms but these are from the underlying trigger, e.g. the infection, not the Gilbert’s syndrome itself).

Triggers include infections, dehydration, fasting, surgery, lack of sleep and physical exertion. Some drugs can also trigger the jaundice – protease inhibitors, gemfibrozil (a fibrate used in hypertriglyceridaemia), and a subgroup have abnormal paracetamol metabolism although this is not associated with toxicity at therapeutic doses.

May be diagnosed during an episode of jaundice or on bloods done for other reasons (isolated hyperbilirubinaemia).

Diagnosis

Look for other causes of hepatic disease (abdo pain, features of cholestatis such as pale stools and dark urine with pruritus).

Examine to exclude hepatosplenomegaly and stigmata of chronic liver disease.

Investigations

- LFTs including conjugated (direct) and unconjugated (indirect) bilirubin.
  - Look for a raised unconjugated bilirubin with a normal conjugated bilirubin (or if elevated should be <20% of total bilirubin).
  - Other LFTs and albumin should be normal and there should be no other features of chronic liver disease.
  - Urine dip: there should be no bilirubin in the urine as unconjugated bilirubin is not water soluble.

- FBC with reticulocyte count to exclude haemolysis.

- Genetic testing is possible, but not widely advocated (harmless disease, no treatment).

- Referral /scanning not indicated unless doubt over diagnosis.

Other rare causes of unconjugated hyperbilirubinaemia

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<thead>
<tr>
<th>Haemolysis</th>
<th>Drugs</th>
<th>Other causes</th>
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<tr>
<td>Autoimmune haemolytic anaemia</td>
<td>Rifampacin</td>
<td>Reabsorption of large haematoma</td>
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<td>G6PD deficiency</td>
<td>Methyldopa</td>
<td>Thyrotoxicosis (can affect glucuronyl transferase activity and therefore bilirubin conjugation)</td>
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<tr>
<td>Sickle cell disease</td>
<td>Sulfasalazine</td>
<td>Crigler–Najjar syndrome type 2 (another genetic disorder of bilirubin clearance, usually presents as jaundice in childhood)</td>
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<td>Thalassaemia</td>
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<td>Hereditary spherocytosis</td>
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<td>Prosthetic heart valve</td>
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Advice for patients with Gilbert’s syndrome

- The jaundice is harmless and is not associated with liver damage. It will resolve over a few days.
- Normal diet and alcohol intake is fine.
- Report any episodes of jaundice that are atypical (e.g. associated with other symptoms or not resolving within a few days as this may suggest another cause).
This should have no impact on life expectancy or insurance.

**Gilbert’s syndrome**

- A nice one to spot, if you do! Look for a raised unconjugated bilirubin blood level in the absence of disease/other biochemical abnormalities.

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*We make every effort to ensure the information in these pages is accurate and correct at the date of publication, but it is of necessity of a brief and general nature, and this should not replace your own good clinical judgement, or be regarded as a substitute for taking professional advice in appropriate circumstances. In particular check drug doses, side effects and interactions with the British National Formulary. Save insofar as any such liability cannot be excluded at law, we do not accept any liability for loss of any type caused by reliance on the information in these pages.*

*GP Update Limited*

*September 2016*
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Our comprehensive one-day update courses for GPs, GP STs, and General Practice Nurses.
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Unbiased Completely free from any pharmaceutical company sponsorship.
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• 6 CPD credits in a lecture-based format, with plenty of time for interaction, humour and video clips, to keep you focussed and awake.
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• 12 months subscription to www.gpcpd.com. With three times the content of the handbook, it allows you to capture CPD credits as you read on the site and use it in consultations! It also comes with Focused Learning Activities - Online learning activities to provide evidence for your appraisal and earn hundreds further hours of CPD credits.
• Buffet lunch and refreshments throughout the day!

What’s not included? Our courses contain NO theorists, NO gurus, NO sponsors, NO reps on the day! Just real-life GPs who will be back at the coal face as soon as the course has finished.

www.gp-update.co.uk
**The GP Update Course – our flagship course!**

With the amount of evidence and literature inundating us, it can be hard to know which bits should change our practice, and how. Our GP presenters summarise and discuss the results of the most important new evidence and guidance, concentrating on what it means to you and your patients in the consulting room tomorrow.

### 2016

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### 2017

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**The Women’s Health Update Course**

This one-day update is a comprehensive guide to understanding and managing common gynaecological problems in general practice. You will meet “the Fallopians”, a fictitious family with more gynaecological complaints than you can shake a speculum at. Using a case-based approach will give you the skills to manage your female patients in a real surgery.

We aim to make the day fun, interactive as well as educational. You will leave the course feeling more confident, knowledgeable and with a much stronger pelvic floor!!! The day is designed for all GPs and GP STs – not just those with a special interest.

### Exeter
- Thu 3 Nov

### London
- Fri 4 Nov

### Leeds
- Thur 10 Nov

### Manchester
- Fri 11 Nov

**The Cancer Update Course**

Within the next 15 years the need for cancer care will double and you will look after as many cancer survivors as diabetics.

Shared care follow up will become the norm, secondary care will pass responsibility to us.

A key 2015 Lancet Oncology commission paper warned that: “GP are inadequately trained and resourced to manage the growing demand for cancer care in high income countries”.

Education for GPs was one of their five key recommendations – we can help!

The Cancer Update Course covers many more topics in much more depth than our GP Update Course. It offers you time to reflect and put your cancer learning into practice.

Cancer care is changing – get ahead with the Red Whale Cancer Update Course.

### Manchester
- Thur 10 Nov

### Birmingham
- Fri 11 Nov

### Cambridge
- Thur 17 Nov

### London
- Fri 18 Nov
Our Upcoming Courses

Lead. Manage. Thrive! – The NEW management skills course for GPs.

Sometimes it feels like the thriving GP is an endangered species – demands on limited time and resources have never been higher. Our practices run in ever more complex ways and our teams extend beyond the practice walls. Often we get that instinctive feeling that there must be a better way to do things, but creating the space to make it happen can be difficult.

As usual Red Whale has done all the legwork to bring you a concise, practical and actionable one day course and handbook. Not only have we trawled through lots of relevant management, leadership and development literature, but we have also distilled its content through the lens of real GPs, enabling you to apply it to the reality of your practice.

Leeds Fri 18 Nov
Birmingham Sat 19 Nov
Bristol Fri 25 Nov
Cambridge Sat 26 Nov

Our Consultation Skills Courses

One-day small group courses designed for GPs, GP STs and General Practice Nurses.

The courses have a practical focus and lots of engaging exercises allowing delegates to rehearse the most effective consultation behaviours. But don’t worry, there won’t be any role playing in front of everybody!

The Telephone Consultation Course

With the increased importance of telephone consultations this course aims to deliver practical skills which can be put to use immediately. The telephone is being used more and more by nurses as well as doctors in primary care, for triage, consultation and follow-up; in the daytime as well as out of hours. Our goal is to help you overcome difficulties and leave you with concrete ideas to enhance your own telephone contacts with patients.

London Thu 6 Oct
Manchester Thu 13 Oct

The Effective Consultation Course

The course focuses on behaviours which enhance effective use of time in the consultation. Efficient consultations reduce clinical risk and lower the risk of complaints and lawsuits. The course uses the rich evidence base on which consultation behaviours enhance effectiveness and how to go about learning them. We focus on actions, and you will leave with many practical tips to use in your consulting room the following day.

Leeds Wed 5 Oct
London Fri 25 Nov

Prices

GP Update Course:
GP £195 | GP Registrar £150 | Nurse £150

All other courses:
£225 or £210 for members of www.gpcpd.com

(GPCPD members, please log in and then click on the relevant button within the ‘Member information’ box on the right of the home screen to get your discount code)

Red Whale In-House Courses

Did you know that all of our courses can also be run ‘in-house’ for CCGs, Clinical Groups and STs groups?

And don’t forget the usual perks of any Red Whale course

• A printed copy of the relevant Handbook covering the results of the most important research in primary care over the last 5 years.
• 12 months subscription to the relevant online CPD tracking tools, home of the Update Handbooks online and CPD tracker system.
• 100% unbiased content and 0% Pharma company sponsorship.

If you would like to discuss running an In-House Course with Red Whale please contact us:
Tel: 0118 960 7077 or email: info@gp-update.co.uk
I would like to come on the following course(s) (please write legibly!):

☐ The GP Update Course ............................................................. (location)............................................................. (date).........................

☐ The Women’s Health Update Course ............................................................. (location)............................................................. (date).........................

☐ The Cancer Update Course ............................................................. (location)............................................................. (date).........................

☐ Lead. Manage. Thrive! ........................................................................ (location)............................................................. (date).........................

☐ The Telephone Consultation Course ............................................................. (location)............................................................. (date).........................

☐ The Effective Consultation Course ............................................................. (location)............................................................. (date).........................

☐ The GPN (Nurse) Update Course ............................................................. (location)............................................................. (date).........................

I can’t attend a course but would like to order your Handbook or DVD:

☐ GP Update Handbook and 12 months access to GPCPD £150

☐ GP Update Handbook, DVD and 12 months access to GPCPD £225

☐ Women’s Health Update Handbook £70

☐ Cancer Update Handbook £70

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(Please write your email address clearly as we’ll use it to send your confirmation letter and receipt.)

Price as stated in the flyer for each course. If applicable, please provide your discount code here................................................

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