Pre-conference Nurses' Course

european hiv hepatitis co-infection

Ms Lynda Greenslade

Royal Free London NHS Trust, UK

Pre-conference Nurses' Course

Ms Lynda Greenslade

Royal Free London NHS Trust, UK

COMPETING INTEREST OF FINANCIAL VALUE ≥ £1,000:	
Speaker Name	**Statement**
Lynda Greenslade	Has been a speaker at an educational meeting for nurses sponsored by Norgine
Date	26th November 2015

Hepatitis C and Cirrhosis

European HIV Hepatitis Co-infection (EHHC) Conference 2015

Lynda Greenslade MSc, RGN
Clinical Nurse Specialist in Hepatology
Royal Free London NHS Foundation Trust

10th December 2015

Royal Free London NHS
NHS Foundation Trust

Aims of the session

* Background to HCV and cirrhosis
* What is cirrhosis
* Complications of cirrhosis
* Nurses role in managing complications of cirrhosis
* Bringing it all together

HCV and cirrhosis

* Liver disease causes approximately 2% of all deaths
* 90% of people who die from liver disease are under 70 years old
* More than 1-in-10 deaths of people in their 40s are from liver disease
* People dying from liver disease often have complex end of life care needs and over 70% die in hospital

www.hcvaction.org.uk September 2013

"Liver disease constitutes the third commonest cause of premature death in the UK and the rate of increase is substantially higher in the UK than other countries in western Europe"

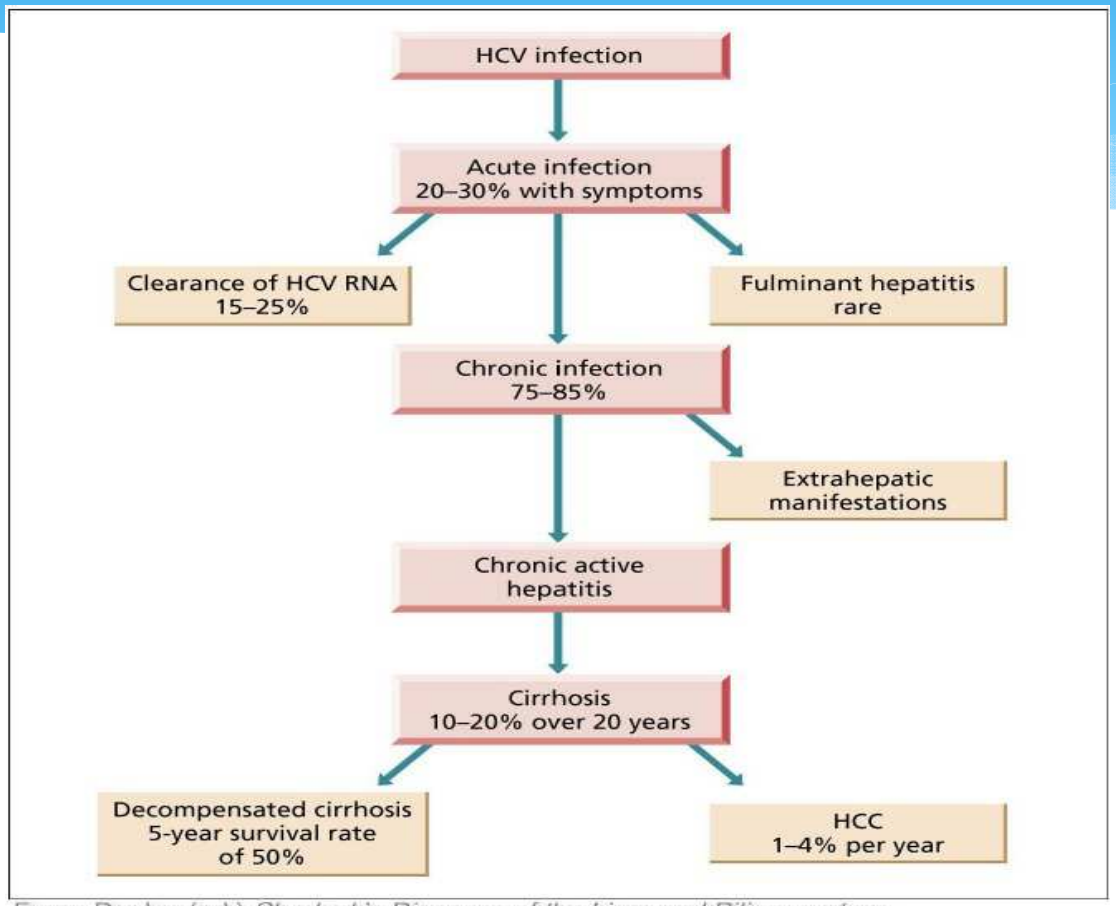
HCV and cirrhosis

* The efficacy of the new antiviral medications, along with government funding and the setting up of operational delivery networks (ODNs) is resulting in many more people with chronic liver disease being cured of HCV.

* With the added longer-term benefits on underlying liver pathology

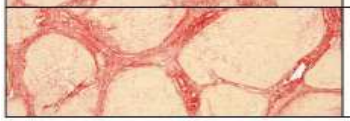
* PHE estimates that 160,000 people in England are infected with HCV with many still unaware of their infection. (Williams, 2015)

Natural History of HCV

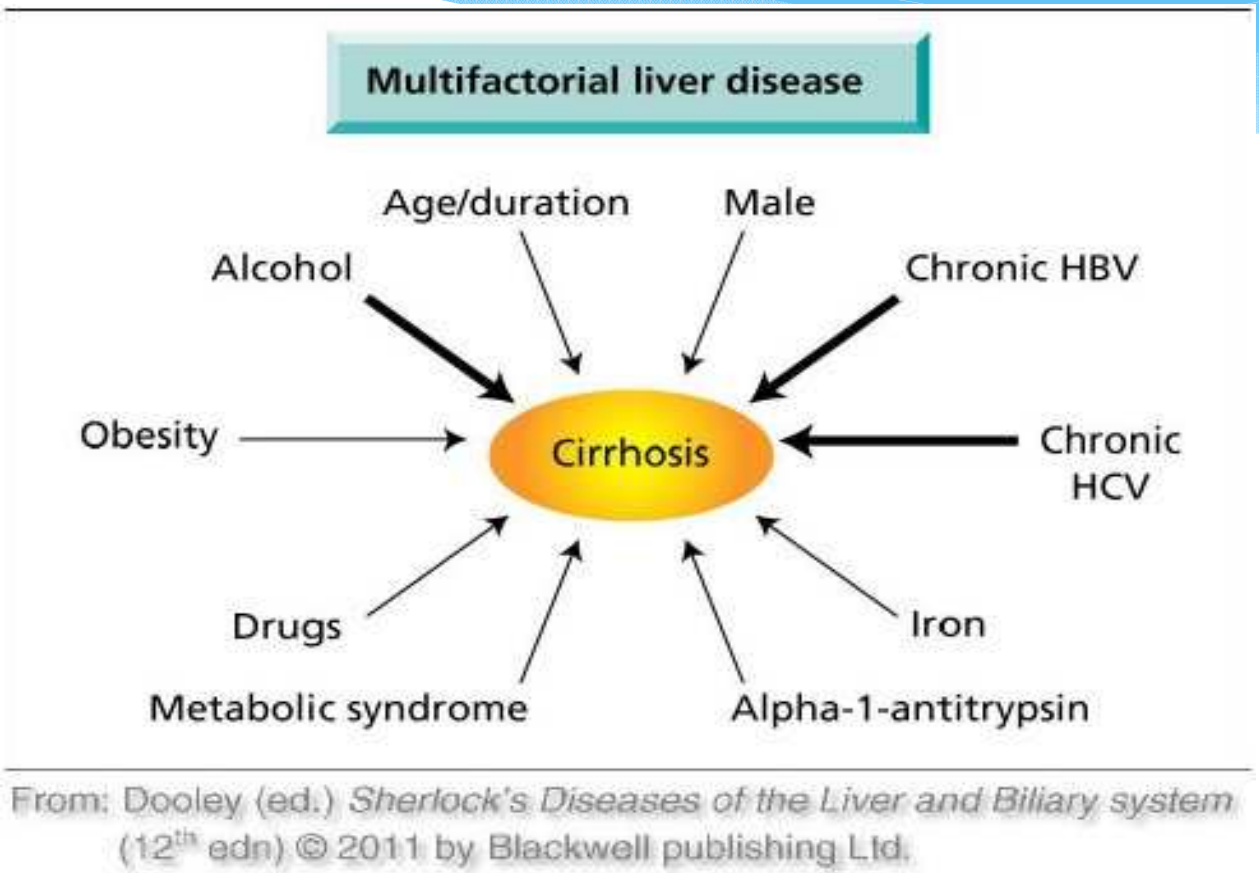


From: Dooley (ed.) *Sherlock's Diseases of the Liver and Biliary system* (12th edn) © 2011 by Blackwell publishing Ltd.

Stage components of the Ishak score for fibrosis

Appearance	Ishak stage: Categorical description	Ishak stage: Categorical assignment	Fibrosis measurement*
	No fibrosis (normal)	0	1.9%
	Fibrous expansion of some portal areas ± short fibrous septa	1	3.0%
	Fibrous expansion of most portal areas ± short fibrous septa	2	3.6%
	Fibrous expansion of most portal areas with occasional portal to portal (P-P) bridging	3	6.5%
	Fibrous expansion of portal areas with marked bridging (portal to portal (P-P) as well as portal to central (P-C))	4	13.7%
	Marked bridging (P-P and/or P-C), with occasional nodules (incomplete cirrhosis)	5	24.3%
	Cirrhosis, probable or definite	6	27.8%

Remember liver disease can have several causes



From: Dooley (ed.) *Sherlock's Diseases of the Liver and Biliary system* (12th edn) © 2011 by Blackwell publishing Ltd.

Royal Free London NHS
NHS Foundation Trust

Changing Landscape of HCV Cirrhosis

* With the Early Access Programme extending out in February 2016 to those with mild to severe fibrosis more patient will be treated and with a success rate of around 95% for most genotypes.
* This should prevent many developing cirrhosis in the future and its complications especially Hepatocellular Carcinoma (HCC).
* **BUT we don't know what the time frame is for the benefits of sustained viral response in these patients so screening for complications is still important**

Making the diagnosis of cirrhosis in HCV

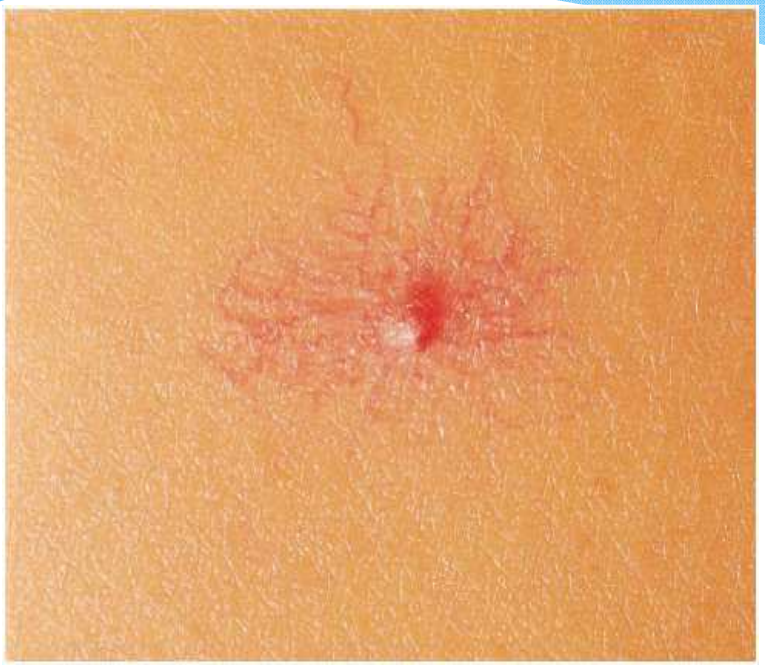
* Risk factors for viral hepatitis
* But don't forget other risks such as alcohol, obesity, diabetes in at risk populations
* Blood tests to make the diagnosis and rule out other causes – liver database
  * Anti-HCV antibodies are the first-line diagnostic test for HCV infection
  * If anti-HCV antibodies are detected, HCV RNA should be determined by a sensitive molecular method (EASL, 2015)
* Non-invasive tests such as fibroscan to detect liver stiffness
  * 12.5 is indicative of cirrhosis
  * 11.5 for access to the new medications via NHS England
  * Radiological – ultrasound or CT scan

BUT liver biopsy still gold standard if any doubt

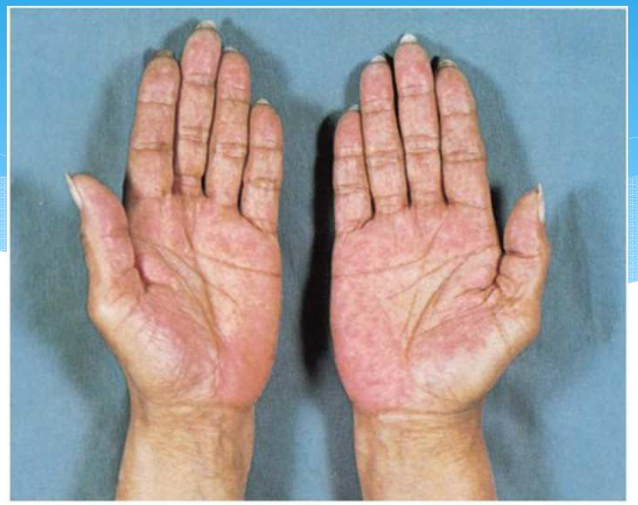
HCV and cirrhosis

* Liver disease is often a **silent** progressive disease.
* Many patients will still present in the later stages of the disease with cirrhosis and its complications which may include:
  * Jaundice
  * Variceal Bleeding
  * Ascites
  * Hepatic Encephalopathy
  * Sepsis
  * Hepato-renal syndrome
  * Malnourished
  * Hepatocellular carcinoma (HCC)

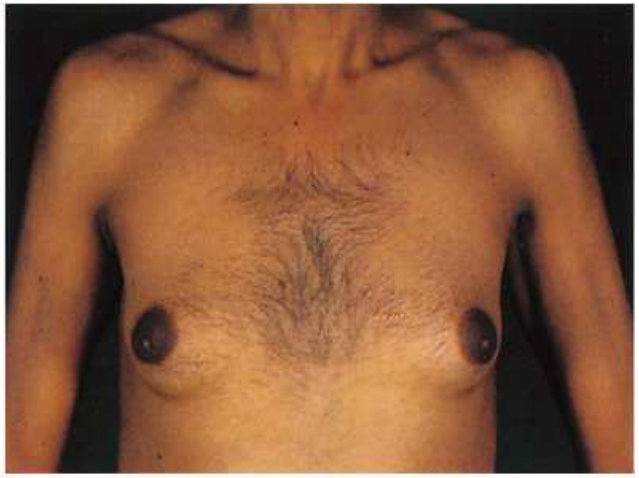
Physical signs of cirrhosis



From: Dooley (ed.) *Sherlock's Diseases of the Liver and Biliary system* (12th edn) © 2011 by Blackwell publishing Ltd.

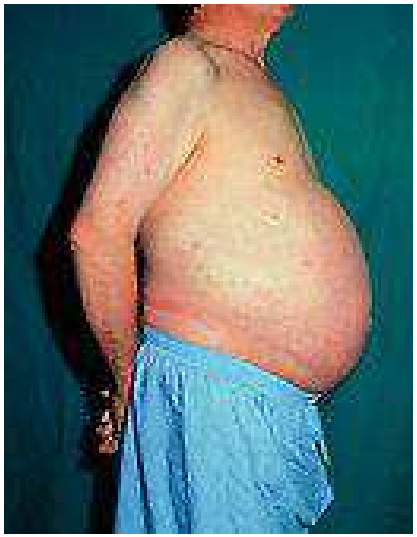


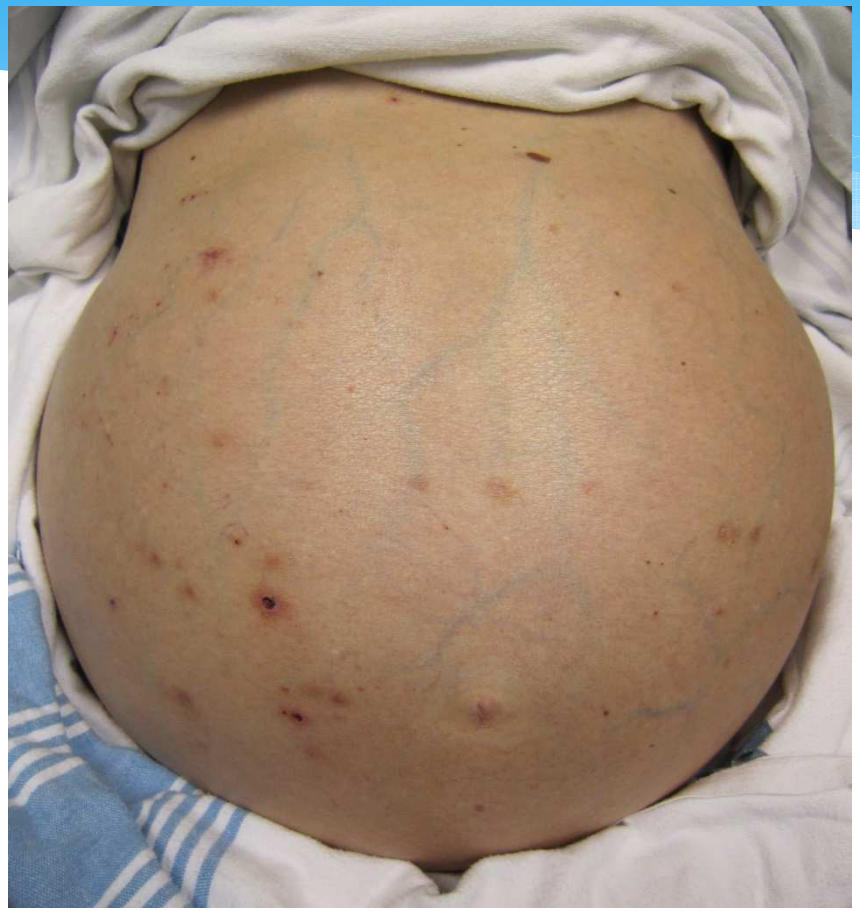
From: Dooley (ed.) *Sherlock's Diseases of the Liver and Biliary system* (12th edn) © 2011 by Blackwell publishing Ltd.

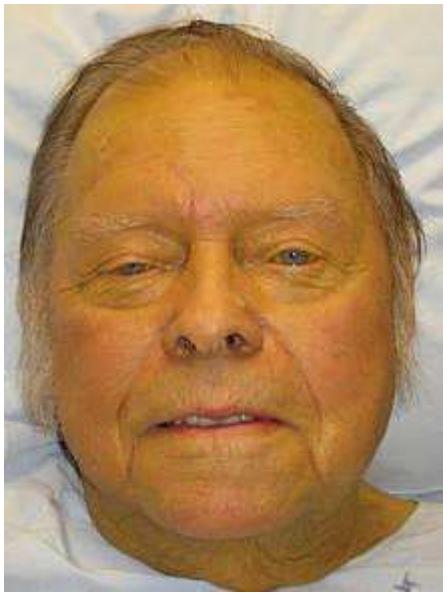


From: Dooley (ed.) *Sherlock's Diseases of the Liver and Biliary system* (12th edn) © 2011 by Blackwell publishing Ltd.

Complications of liver disease

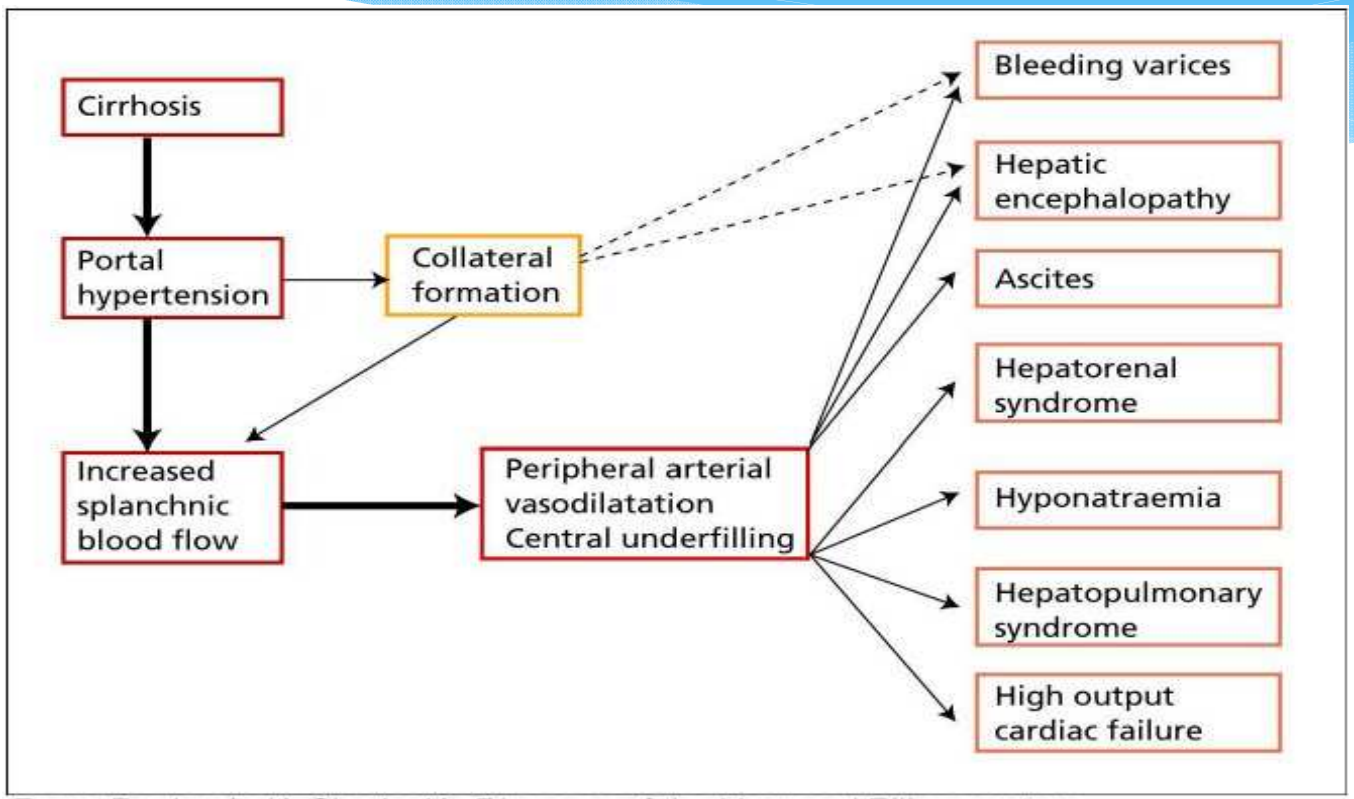






Royal Free London NHS Foundation Trust

Development of complications of cirrhosis



From: Dooley (ed.) *Sherlock's Diseases of the Liver and Biliary system* (12th edn) © 2011 by Blackwell publishing Ltd.

Royal Free London NHS
NHS Foundation Trust

Management of ascites

* **Ascites look out for:**
  * Spontaneous bacterial peritonitis
  * Dehydration
  * Impaired renal function
    * Low Na
  * Hepatic Encephalopathy
  * Umbilical hernias and bowel obstruction

* First presentation treat with **diuretics** –spironolactone first choice 100-400mg po
* Do a urinary Na
* No added salt diet
* Add furosemide if leg oedema present
* May become diuretic resistant /unresponsive:
  * Regular paracentesis
  * TIPS / Candidate for alpha pump in clinical trial
  * Transplant assessment

Management of Hepatic Encephalopathy (HE)

* **HE – can be difficult to detect**
  * Early signs can affect sleep pattern, concentration,
  * Worsening cognitive behaviour,
  * Inability to work
  * Change in personality
  * Drowsiness
  * Coma (EASL, 2014)

* **Treatment aims to find precipitating causes**
  * Over diuresed
  * Sepsis
  * Variceal Bleeding
  * Constipation
  * Sedation

  * Treat by treating cause and use lactulose to pull out toxins in the gut (it changes the Ph of gut)
  * Add in Rifaximin if second episode on lactulose
  * Patient and carer educations about early identification
  * Consider referral for transplantation

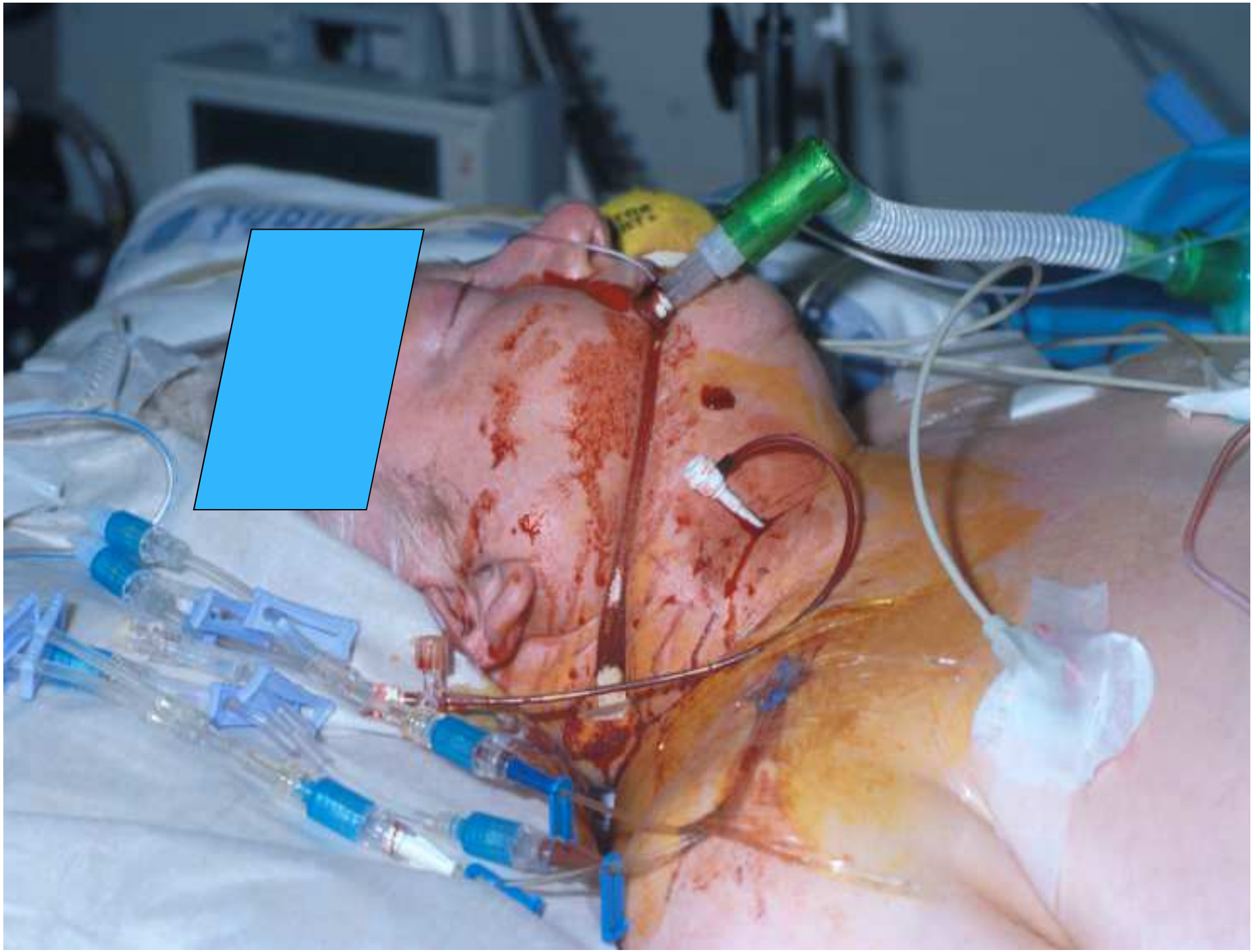
Management of Variceal Bleeding

Risks factors for bleeding:

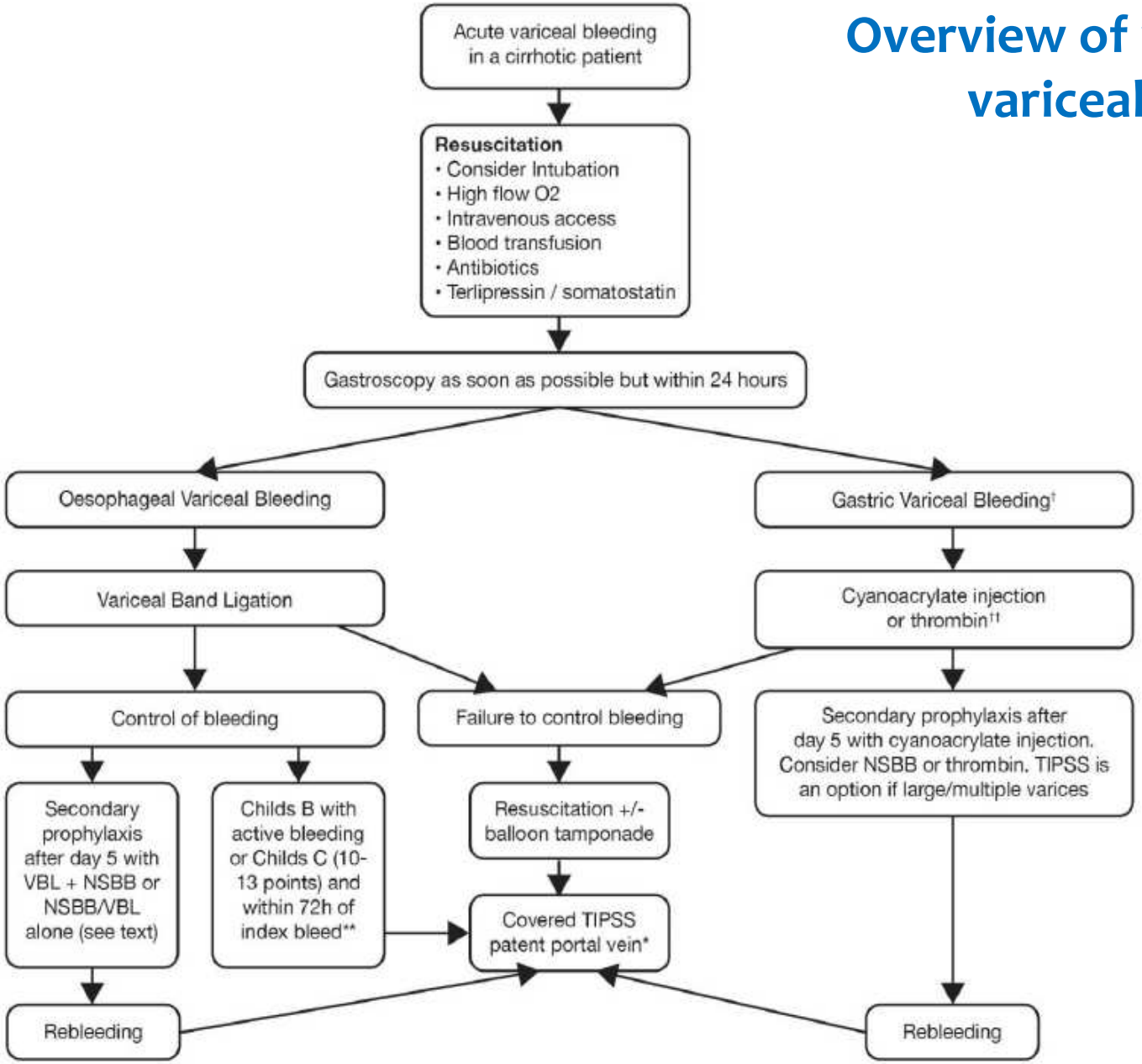
* Endoscopic appearances (size, red signs, active bleeding)
* Wall tension
* Portal pressure (HVPG 12, 20)
* Alcohol
* HCC
* MELD/SOFA/APACHE
* (Tripathi, 2015)

Treatment:

* Volume expansion – aim to preserve tissue perfusion
* Consider co-morbidities, age, haemodynamic status, ongoing bleeding
* Must correct hypovolaemia and promote tissue oxygenation
* Restrict transfusion?
* Antibiotics before endoscopy –proven to reduce mortality,
* Endoscopy when stable (consider intubation if cont bleeding).
* Give terlipressin 2mg IV
* Banding if oesophageal varices or glue if gastric



Overview of managing a variceal bleed



** Depending on local resources or consider referral to specialist centre.
* Consider shunt surgery in well compensated patients or if TIPSS not feasible. In segmental portal hypertension consider splenectomy or splenic artery embolization
† GOV-2 and IGV. GOV-1 to be treated as oesophageal varices.
†† TIPSS can be considered depending on local resources and clinical judgement.

VBL – variceal band ligation
NSBB – non selective beta-blockers
GOV-1 – gastro-oesophageal varices type 1
GOV-2 – gastro-oesophageal varices type 2
IGV – isolated gastric varices

ripathi et al, Gut 2015

Surveillance for HCC in stable cirrhotic' s

* Important to undertake
* Patients have no complications of their cirrhosis
* Is now often nurse led
* **Aim to see patients early with cirrhosis to:**
  * screen for changes in liver functions tests (can have cirrhosis with normal LFTs) and AFP (alpha-fetoprotein),
  * ultrasound to look for hepatocellular carcinoma
  * Endoscopy – to look for oesophageal and /or gastric varices (repeat 3 yearly if no varices seen or 1 yearly if small varices seen)

Surveillance for HCC in stable cirrhotic' s

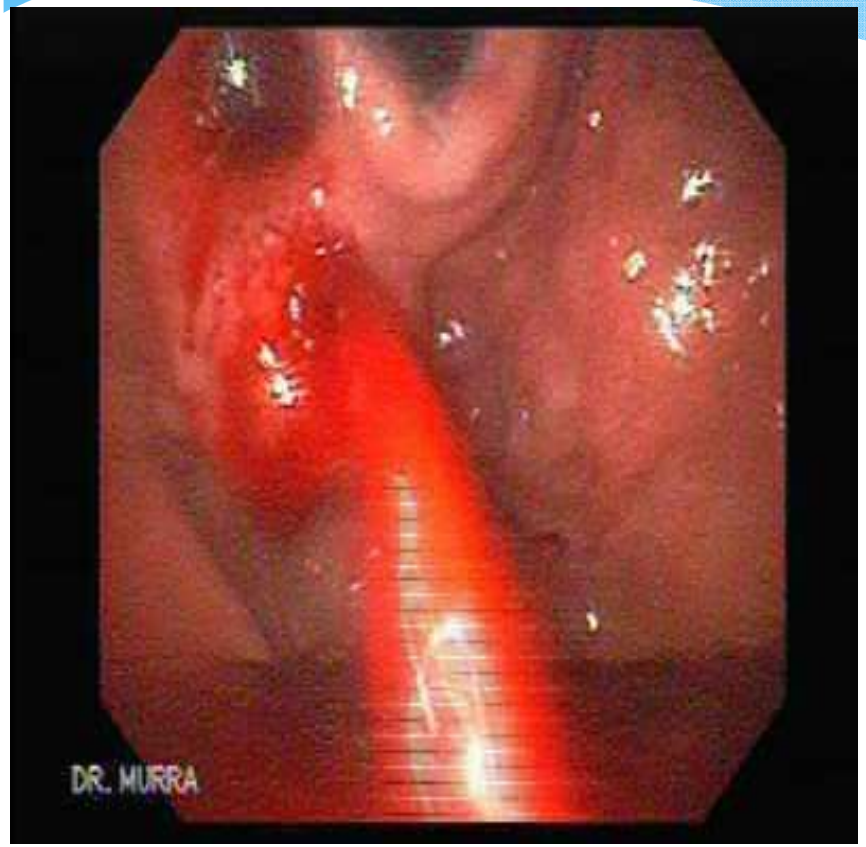
BUT:

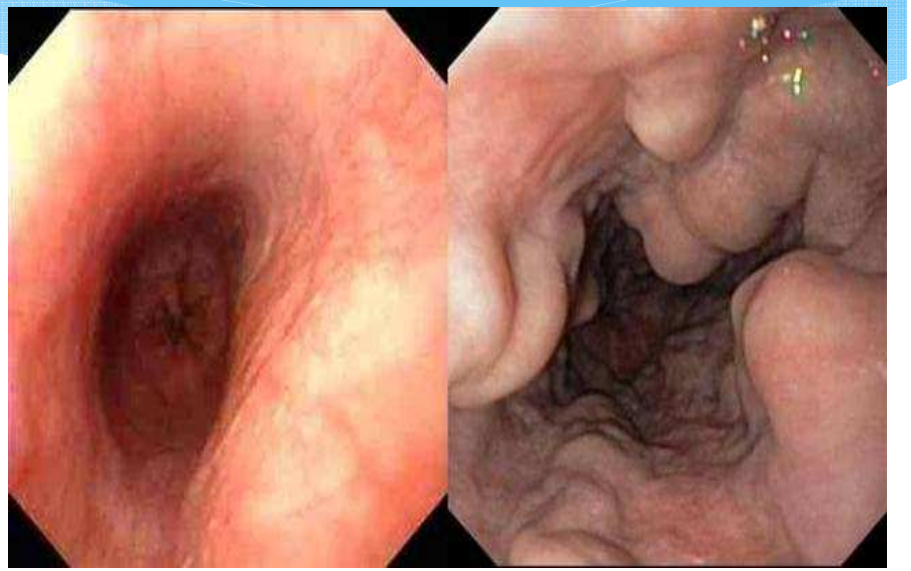
* The increasing prevalence of HCC is seen as an increasing cost to the health service.
* Poor surveillance for patients with cirrhosis at risk of HCC was noted (Williams,2015).
* Many HCV patients think and worry about **when** they will get HCC not **if**.
* A recent national audit (Cross, 2015) revealed - 63% of new cases were detected only at the **incurable stage** and there are problems accessing interventional radiology with time to treatment being longer than the recommended two week wait.

Surveillance for HCC in stable cirrhotic's

* Fits in well with a nurse led service
* Adds consistency to patients care
* More likely to get ultrasound scans done in a timely way
* Can be seen in a ratio of 2/3 visits to the nurse and 1 to the consultant
* Able to develop relationship with patient and address other areas of possible concerns such as:
  * Excess alcohol intake
  * Management of drugs such as methadone etc.
  * Tight control of diabetes
  * Weight loss if ? NAFLD also suspected
  * Family screening – if appropriate

Screening for varices can prevent this





Common sites for varices

- Oesophagus (90%)
- Gastric (8%)
- Other (2%)

Royal Free London NHS
NHS Foundation Trust

Management HCC

* May present if patient in surveillance programme **or** with decompensation with ascites and/or a variceal bleed
* CT scan and MRI to confirm.
* Referral to HCC MDT for plan
* Be seen in joint, oncology, surgical and hepatology clinic
* Need more specialist centres across the UK to deal with increasing demand

Treatments

* New chemotherapy trials
* Possible resection if Pugh's score A and HWPG less than 6mmhg
* Trans arterial Chemo-Embolisation (TACE) /Embolisation
* New and novel treatment -Sorfenib
* **Consider liver transplantation** but in the HCV patient consider:
  * Compliance with treatments
  * Stopped alcohol
  * Can be on Methadone but need to be stable
  * HIV not a contraindication

End of life care in patients with cirrhosis

* End of life care has been recognised as an essential part of the liver patient's journey with agreement that new guidelines and identification of the dying liver patient is key to providing quality end of life care that involves the patient and their family in the planning of choices.
* Many patients present with complications and may die on their first presentation and many may never have seen a GP about their liver disease
* Nurses are in a key role to identify the end of life journey and be their key advocate to ensure timely referrals to palliative care

Summary

* With Early Access Programme its possible to dream of eradication of HCV infection in the UK by 2030.
* More needs to be done to find those with HCV/Co-infection in the higher risk populations such as South Asians and those who may have IVDU and complex social issues, those in prison or the homeless.
* With increased access to treatment the risks of developing cirrhosis and its complications especially HCC will dramatically decrease.
* But the timeline for continued screening is not known in the cirrhotic treated group and **nurses** have a key role to continue to play in this population.

References

1. www.hcvaction.org.uk September 2013

2. Williams R, Aspinall R, Bellis M et al (2015) Implementation of the *Lancet* Standing Commission on Liver Disease in the UK. *Lancet* **386** (10008) **:** 2098–2111.

3. Cross TJS, Villanueva A, Shetty s, et al. A national survey of the provision of ultrasound surveillance for the detection of hepatocellular carcinoma. *Frontline Gastroenterol* (in press).

4. Webb GJ, Wright KV, Harrod EC, Gorard DA, Collier JD, Evans AK,. Surveillance for hepatocellular carcinoma in a mixed-aetiology UK cohort with cirrhosis: does α-fetoprotein still have a role? *Clin Med* 2015: **15**: 139-44.

5. Ahmed A, Mustafa ZNM. HCC diagnosed on surveillance programme: impact on stage and outcome. *GUT* 2013; **62** (suppl 1): A83.

References

6. Dooley (ed) *Sherlock's Diseases of the Liver and Biliary System* (12th ed) © 2011 by Blackwell Publishing LTD.

7. EASL Recommendations on Treatment of Hepatitis C 2015. *Journal of Hepatology* Vol 63: 199-236.

8. EASL Guidelines Hepatic Encephalopathy in Chronic Liver Disease:2014. EASL / AASLD. *Journal of Hepatology*.

9. EASL clinical practice guidelines on the management of ascites, spontaneous bacterial peritonitis and hepatoreanl syndrome in cirrhosis 2010. *J Hepatol* Sep, 53(3) 397-417.

10. Uk guidelines on the management of variceal haemorrhage in cirrhotic patients. Tripathi et al, *Gut* 2015; **64**: 1680-1704

Thank you

lynda.greenslade@nhs.net