HEV pLT
HIV

• Global burden of ~ 37 million 2014 (WHO)
• Success of HAART is now chronic disease
• Major opportunistic infections and AIDS defining diseases are now less common than liver disease as cause of hospitalisation and death (not Africa)
• On Rx >50% deaths NOT related to AIDs, liver in top 3.
HIV and the liver

Liver disease leading cause of morbidity and mortality in HIV infected individuals (around 10-18% in Western countries) Soriano AIDS reviews 2013

HAART has decreased death due to opportunistic infections

High prevalence of viral hepatitis in HIV population: HBV @10% and HCV @25%

Less clear role for HDV and HEV but implicated
Which liver disease in HIV?

- Deaths due to end-stage cirrhosis or hepatocellular carcinoma *Puoti Sem Liv Dis 2012*
  - 66% HCV, 17% HBV, also HDV and co-infections
- 3% related to treatment agents
- Hypertension & Diabetes risk factor for NAFLD; IVDU also risk factor for alcohol
- Chronic cholangiopathy few cases in 80s, less common
- Non-cirrhotic portal hypertension <1% but rising
HIV & HCV

â Variable rates of co-infection; Europe with IVDU 66%, sexual 10%, less in Africa
â HIV carriers less likely to clear acute infection; more rapid progression to fibrosis; less likely to respond to treatment
â Greater risk of HAART toxicity in HCV
â Caution with new direct acting antivirals: interactions, drug resistance, poor adherence & cost
HIV HBV HCV raised ALT
Fatty liver disease & HIV

- Alcohol, shared life style risk factors
- NAFLD; HIV carriers often lower BMI and high physical activity levels than typical NAFLD
- Some studies show no differences in risk factors
- Others implicate lipodystrophy, HIV itself, and anti-retroviral agents; mitochondrial dysfunction
- Accounts for 50% of abnormal LFTs without viral hepatitis.
DRUGS

Å? Which drugs are commonly used in UK as ImmunoSuppressant agents
Solid organ transplantation

- Azathioprine
- Prednisolone
- Ciclosporin
- Tacrolimus
- Mycophenolate Mofetil
- Mycophenolate Sodium
- Sirolimus
- and Rejection Rx
Other drugs

• E.g. Autoimmune hepatitis: prednisolone, followed by azathioprine or 6-mercaptopurine, mycophenolate
• Refractory disease: tacrolimus, sirolimus, rituximab
• Thioguanine, Methotrexate
• Biological agents
Drugs effects

- May be a very difficult diagnosis
- Polypharmacy
- Multiple uses of known potential hepatotoxins
- New agents may not be recognised
- Other reasons for abnormal LFTs (e.g., development of NAFLD in AIH, or an acute viral infection)
- May be subtle changes in vascular abnormalities
- Always bear in mind
Vascular changes

- Peliosis
- Venous Outflow Obstruction (SOO) in BMT, less with chemotherapy
- Veno-Occlusive Disease (azathioprine)
- Nodular Regenerative Hyperplasia
Sinusoidal Outflow Syndrome

- Predominantly seen with high dose chemotherapy +/- radiotherapy in conditioning for bone marrow transplant; occurs early and often
- Long term lower dose - azothioprine, 6-thioguanine
- Chemotherapy for colorectal cancer seen in ~ 50% of resected livers Rubbia-Brandt
- Disturbance of the sinusoids with hepatic vein involved in more severe cases.
- Chronic scarring and VOO, pBMT, more common than thought, Ma Histopathology 2016