Hot topics in treatment

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Hot topics

• Access to ARVs in the new NHS: generic 3TC, nevirapine, efavirenz
• When to start and why guidelines differ…
• Treatment as Prevention
• New HIV drugs: Stribild, dolutegravir, TAF, GSK-744
• Hepatitis C and sexual transmission
• Hepatitis C: new HCV drugs (DAAs)
Access to ARVs in the new NHS

- Flat NHS budgets with no inflation
- All services – not just HIV - have to make the same funding go further
- Generic drugs are the backbone of NHS prescriptions (60-85%) – very few exceptions and HIV is not one of these
- AZT, 3TC, nevirapine are now generic with efavirenz due soon.
Are generic ARVs as good?

- Same active ingredients as brand drugs
- May have different minor ingredients (excipients) but these are all standard and widely used
- Doctors need to talk BEFORE any change
- Printed leaflet especially if the new meds have a different colour or shape
- Some generics are better: nevirapine is smaller
- Large potential savings
Which drugs?

1. **AZT** and **ddI** – but little used
2. **3TC** – 150 mg and 300 mg – same colour and shape as brand (white diamond)
3. **nevirapine** – 200 mg vs 400 mg brand: technically different formulations with different properties. Although 200 mg is a twice-daily drug it was very widely used as 2 x 200 mg once-daily (“off-label”)
4. **efavirenz** – potential to split single pill combination (Atripla) into two or more pills – so long as remains once-daily.
Patient rights?

*Do I have the right to say no or choose?*

Technically, you are unlikely to have the right to chose the formulation that you are prescribed so long as an effective treatment is being prescribed.

You can complain and/or move clinic, but other clinics are likely to adopt similar policies. Brand drug prices may also come down.
When to start ART

- **UK 2012**: CD4 350 unless need to earlier treatment – because no clinical benefit from starting earlier – **START study**.
- **USA 2013**: CD4 500 or above - but not supported by data – mainly prevention.
- **WHO 2013**: CD4 500 but data still not published – mainly prevention.

- Guidelines already include option to use ART at any CD4 count to reduce risk of transmission
Why do guidelines differ?

- Same data but different interpretation.
- Same level of expertise and wanting to do the best for patients.
- Different beliefs: risks of HIV vs treatment.
- Different experiences.
- Different social and population factors.

- Most guidelines state that treatment decisions should be individualised and made with active consent of the person taking treatment.
Will earlier treatment stop HIV?

• **Probably not** – or not for 5-10+ years
• New infections in the UK are driven by:
  1. Undiagnosed early infection – especially with many partners
  2. Undiagnosed chronic infection – especially with no HIV discussion
  3. Much lower risk from diagnosed and not on ART – because fewer people
  4. Lowest risk from people on treatment

• **Population and individual risks are different and often confused.**
Treatment as Prevention

- Treatment is safer people realise.
- The impact on infectiousness is real.
- Social and personal benefit from being less infectious – this is also real.
- Clinical benefits are tough to find.
- Low risk from waiting to 350.
- Low risk from starting earlier.

Evidence is vital for public health decisions because expert opinion is so often wrong in hindsight, especially in HIV.
START Study

http://insight.ccbr.umn.edu/

VERY EXCITING – >4000 people with CD4 counts above 500 randomised to early vs late

PARTNER Study

http://www.partnerstudy.eu/

VERY EXCITING – follows pos/neg couples for HIV transmissions when VL is undetectable
New HIV drugs: can get better?

• Dolutegravir – integrase inhibitor – low dose, once-daily, unboosted, low resistance - but 10 x price of gold.
• TAF – new version of tenofovir BUT only being produced as part of combined pills from the same company.
• GSK-744 –1-3 monthly injection as treatment or PrEP (monkey protected).
Hepatitis C: sexual transmission

• “Low” risk from monogamous heterosexual couples – but not zero, and perhaps higher in HIV+ partners of HIV- men.
• HIV+ have lower spontaneous clearance and longer time to produce antibodies.
• Recent (10 year) epidemic in HIV+ gay men.
• Highest risk remains blood to blood route.
• HCV in semen in 40% HIV+ vs 20% HIV- men but is this relevant? Generally low (200 c/mL but up to 5000 c/mL - rare).
Hepatitis C: sexual transmission

- Limited data – multiple risks not equal.
- HCV infectious for at least 16 hours.
- Rec. drugs: dilate blood vessels, reduce inhibition, longer rougher sex, anal bleeding.
- Shared lube, toys, hands, condoms with traces of blood become a risk with or without gloves or condoms.
- Group sex with above risks
- No. of partners and condom use may not be drivers even when reported in studies.
- Don’t forget injecting – highest risk.
Hepatitis C (HCV) treatment

- Over 60 direct acting agents “DAAs” in the pipeline
- Over 25 in phase 2/3 studies.
- Oral drugs, shorter treatment, higher cure rates (>80/90/95% in HIV negative), potentially avoiding interferon, fewer side effects.
- Estimated £60,000 per drug per course.
Thanks

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