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?

- Stribild – new combination but advantages unclear – NHS England Sept 2013.
- 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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