Antiretroviral therapy for children

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Antiretroviral therapy

- Need to formulate optimal local strategy for treating children
- With medical aid cover and with drug price reductions, more children are receiving treatment
- MTCT implemented on a wide scale, less children will be infected, may be cost effective for state to sponsor therapy

Private vs public

- Minimum treatment regimen should be applicable to both
- Initial regimen should be optimised
  - Options for changing therapy limited by paeds formulations and expense

Problems in paediatric treatment

- Require responsible adult to administer medication
- Caregivers change (parents demise)
- Disclosure to children
- Limited paediatric formulations
- Palatability
- Price increases with growth

Education/counseling

- Treatment should be commenced only when family ready
- Family requires intensive counseling
  - Consequences of poor adherence
  - Lifelong commitment
  - Side effects
  - Financial readiness
  - Problems with getting drugs into children (e.g.taste of drugs)

monitoring

- Baseline:
  - VL, CD4,FBC,chemistry(LFT/amylase)
- 2 weeks
  - Check for administration problems/adherence (phone call)
- 1 month
  - Toxicity bloods, clinical exam, adherence
- 3 monthly
  - CD4, VL toxicity (1st 6 months), clinical exam, adherence
  - clinical exam alone thereafter, adherence issues
- 6 monthly
  - CD4, VL, toxicity

When to start

- Europeans less aggressive than Americans
- Infants (<1 y):
  - Start early and hard (seroconversion phase usually 3-6 months) may lower viral set point
  - Europeans not as aggressive in well infants with low VL
- Older children:
  - Approach generally more aggressive than adults
  - American: recommend treatment for all but non-progressors
  - European: may hold off treatment in less severely ill children (categoryN/A) except if significantly high VL >100 000, CD4 <15%, or rapidly increasing VL and CD4 decreasing

When to start

- Adolescents:

  According to pubertal stage

  - Recently infected post-pubertal-treat as adult
  - Pre/early pubertal- treat as older children

- Research still needed-may be prudent to follow European guidelines locally

Where should treatment occur

- Public/academic hospitals should provide model of care
- Primary care workers/ nurse practtioners trained at these centres
- Initial therapy can be started at clinics
- Referrals to centres for complicated cases, side effects and failing treatment

What drugs?

- Combination
  - 2 drugs (Zerit/Videx) if self-financed and depending on financial status of family
  - 3 drugs
    - Zerit/Videx/Stocrin > 3 years
    - Zerit/Videx/Neviripine < 3 years
    - Zerit/Videx/Ritonivir if VL>100 000
- **NB** Neviripine should not be included if used to prevent MTCT

adherence

- **NB <u>Treat parents</u>**
- Intensive counselling pre-commencement of therapy
- Counseling and monitoring of adherence every visit
- Disclosure to child
- Support groups

Side effects/adverse reactions/treatment failure

- Regular monitoring
- May not get undetectable levels in children
- Treatment failure- **check adherence**
- May need to change regimen if definitely failing/severe side effects
  - Confirm failure by repeating tests before changing
  - Consider clinical status of patient together with test results
- Alternative regimens individualised, depending on either SE or failure
- Limited, expensive options