Intensified Case Finding: Defining the Research Agenda II

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wellcome trust

contributing to health worldwide
Estimated HIV prevalence in new TB cases, 2005

- Gray: No estimate
- Green: 0-4
- Yellow: 5-19
- Orange: 20-49
- Red: 50 or more

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

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TB Within ART Services

Sub-saharan Africa

• Lawn et al *AIDS* 2005
• Seyler et al *AJRCCM* 2005
• Lawn et al *AIDS* 2006
• Bonnet et al *AIDS* 2006
• Moore et al *AIDS* 2007
TB Screening

SYMPTOMS

• Cough 2/52
• Fever / sweats
• Unexplained weight loss

SIGNS

• Febrile
• Wasted
• Unwell

Investigations:
including sputum
AFB and MGIT
culture
• >50% have previous history of treated TB

• >25% on TB Rx or active TB at enrolment

Lawn et al. AIDS 2006: 20: 1605-12
Incident TB During ART

Lawn et al. AIDS 2006: 20: 1605-12
High TB Burden

- Morbidity
- High early mortality
- Nosocomial transmission
- Risk of ‘unmasking’ form of immune reconstitution disease
Hypothesis: high rates of sub-clinical TB at baseline

‘Sub-Clinical’ TB in HIV+ in Africa

- **Mtei et al. Clin Infect Dis 2004** (Tanzania)
- **Day et al. Int J Tuberc Lung Dis 2006** (S. Africa)
- **Wood et al. AJRCCM 2007** (S. Africa)
- **Corbett et al. PLoS Med 2007** (Zimbabwe)
- **Lucas et al. AIDS 1991** (Cote D’Ivoire)
Pilot Study

Screening for TB

- New adult referrals
- All ART-naïve
- Not currently receiving TB Rx
- Symptoms documented
- All investigated for TB
- 2 x sputum (induced + non-induced)
  - Fluorescence microscopy
  - Liquid culture (MGIT, Beckton Dickinson)
- CXR
Preliminary Results

- 31% culture-proven TB
- ~80% smear negative
- >25% no suggestive symptoms

- CXRs
- IPT / HAART trial in Khayelitsha

- The harder you look for it, the more you find!!
Many More Questions

• Who to investigate….some or all?
• How to investigate? - specimens? – diagnostics?
• Benefits of screening on outcomes?
• Adverse effects of screening….workload / cost / delays in ART initiation?
• ART as a practical ‘diagnostic’ in asymptomatic patients?
• Empiric TB treatment in sub-groups with highest-risk?
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