

## Cost-Effectiveness of Chemoprophylaxis

Professor Cairns Smith

Section of Population Health  
School of Medicine & Dentistry, Polwarth Building, Foresterhill

## Lessons from Tuberculosis

- Criteria for cost-effectiveness analysis
  - Drummond Checklist for assessing economic evaluation
  - Methods for the economic evaluation of health care programme (2005)
- Examples from tuberculosis literature
  - 7 high quality studies

### Criteria for assessing economic evaluations

1. Was a well defined question posed in an answerable form?
2. Was a comprehensive description of the competing alternatives?
3. Was the effectiveness of the programme established?
4. Were all the important and relevant costs and consequences included for each alternative?
5. Were all the costs and consequences measured accurately in appropriate physical unit?

### Continued

6. Were costs and consequences valued credibly?
7. Were the costs and consequences adjusted for differential timings?
8. Was an incremental analysis of costs and consequences of alternative performed?
9. Was allowance made for uncertainty in the estimates of costs and consequences?
10. Did the presentation and discussion of the study results include all issues of concern to users?

### Tuberculosis – preventive treatment

- Latent tuberculosis based on tuberculin testing
- Comparisons of different treatment regimens
- Comparisons of different durations of treatment
- Comparison between different target populations
  - age
  - level of risk

### Examples

- Rifampicin and pyrazinamide for 2 months versus 9 months isoniazid (Jasmer, 2004)
  - equally effective, isoniazid less cost
- Isoniazid versus control in older age groups (Salpeter, 1997)
  - small individual benefit but wider benefit in prevention of secondary spread
- 4 regimens of different duration and different drugs (Holland, 2009)
  - cost effectiveness varies according to level of risk

## Leprosy Research Needs

- Well designed studies
- High quality evaluations
- Asking the right questions
- Appropriate regimens alternatives
- BCG and chemoprphylaxis
- Test equivalent of tuberculin