

# **RIOTT Economic Evaluation Results**

Sarah Byford Professor of Health Economics, King's College London

# Background

- Evidence to suggest injectable opioid treatment more effective than oral methadone
- But injectable treatments considerably more expensive:
  - More expensive medications
  - Additional dispensing and supervision resources
- Value for money not only influenced by treatment costs but also:
  - Treatment outcomes
  - Cost-savings elsewhere in the health and wider systems

# **Methods**

#### Aim

- To compare cost and cost-effectiveness at 26-week follow-up of:
  - Supervised injectable heroin and optimised oral methadone (SIH vs OOM)
  - Supervised injectable methadone and optimised oral methadone (SIM vs OOM)

#### **Effects**

- Cost-effectiveness explored in relation to:
  - Responders (proportion –'ve for street heroin in >50% of random urine tests)
  - QALYs (quality adjusted life years)

#### Costs

- Economic perspective:
  - Cost of all health and social care services
  - Cost of crimes committed and other criminal justice sector resources

# **Results: Cost per participant**



# **Cost per participant**



# **Cost per participant**



# **Effectiveness – Responders**



## **Effectiveness – QALYs**



# **Cost-effectiveness – SIH versus 00M**

• SIH more effective and less expensive than OOM – DOMINANT



# **Cost-effectiveness – SIM versus 00M**

• SIM more effective and less expensive than OOM – DOMINANT



# **Cost-effectiveness – SIH versus SIM**

• SIH more effective (additional QALYs=0.08) but more costly (additional cost=£2,931) – TRADE OFF



# Effect of variation in the cost of medical heroin

Increased demand for pharmaceuticals will often reduce the supply cost

### @ £12.50 per 500mg (cost in the RIOTT trial)

> 38% probability SIH more cost-effective @ £30k per QALY

### @ 10.00 per 500mg (feasible current supply)

> 45% probability SIH more cost-effective @ £30k per QALY

### @ £7.50 per 500mg (feasible future supply)

> 52% probability SIH more cost-effective @ £30k per QALY

# Conclusions

- Injectable treatments cost-effective compared to oral methadone
- Cost-effectiveness driven by savings in the criminal justice sector, not the health sector
- Some compensation may be needed to support clinics in the provision of these more cost-effective treatments
- Choice between injectable heroin and injectable methadone will depend on the supply price of injectable heroin