COLLABORATIVE PRIMARY CARE FOR OLDER ADULTS: THE CASPER STUDY

Prof Simon Gilbody on behalf of team-CASPER
Is it cost effective to prevent depression?

- An interesting trial in a high risk population
- A primer on health economics and cost-effectiveness
- Some robust (trial based) cost effectiveness data
The nature of the problem

- **Sub threshold depression in older populations**
  - Associated with significant decrements in QoL & function
  - Risk factor for case-level depression
  - Antidepressants don’t work
  - ‘Distressed high utilisers’
  - Primary Care Physicians screen, but don’t know what to do…

- Pim has already told us that this is an attractive strategy
- ‘High risk’ approach to population mental health, with the potential to be good VFM
CASPER

- Care for
- Screen
- Positive
- Elders
Who took part?

- 705 participants
- Mean age 77 (range 65 – 99 yrs)
- DSM-IV Subthreshold depression
- Very few exclusions
  - Recently bereaved
  - Alcohol dependence
  - Terminal illness
  - Cognitive impairment
- Co-morbidity – 80% or more had 2+ long term conditions
Collaborative care & behavioural activation for depression

- Case management
  - Brief psychological intervention – Behavioural Activation (BA)
    - Manualised and over the phone
    - Case managers trained and supervised
- Primary Care liaison
- Scheduled follow up
- Session by session symptom profiles
Outcomes @ 4 and 12 months

PHQ9 – continuous measure
Case level depression in the follow up period

SF12
GAD7
PHQ15
RISC2
Does collaborative care prevent the onset of depression?
Did collaborative care prevent case level depression?

Odds of case level depression were halved at 12 months

OR = 1.98 (1.21 to 3.25)
Did collaborative care prevent case level depression?

Odds of case level depression were halved at 12 months: $OR = 1.98$ (1.21 to 3.25).

![Graph showing the percentage of patients with moderate to severe PHQ-9 depression across different time points and treatment groups.](image)
Did collaborative care prevent case level depression?

Prevention of Case-level depression at 12 months

**OR = 1.98 (1.21 to 3.25)**
Value for money?.....
Some basic axioms of health economics

- Resources are finite; decisions and priorities need to be set
- Ensure the ‘greatest good for the greatest number of people’
- ‘Bang for your buck’
- Economic study only as good as the clinical data
- Trial-based economic evaluations – top level evidence, but few and far between
CASPER trial-based cost effectiveness analysis

- **Costs**
  - Primary care and hospital costs for participants over 12 months (from patient records)
    - Visits, drugs, admissions
    - Apply unit costs
  - Costs of employing, training case managers and delivering the intervention

- **Benefits**
  - Quality Adjusted Life Years (QALYs)
  - Derived from the EuroQol over 12 months

- **A number of scenarios**

\[
\text{ICER} = \frac{\Delta C}{\Delta E} = \frac{\bar{C}_I - \bar{C}_C}{\bar{E}_I - \bar{E}_C}
\]
The cost effectiveness plane
The cost effectiveness plane

- More costly
- Less costly
- More effective
- Less effective

COSTS (£ $ €)

EFFECTS (QALYs)
The cost effectiveness plane

- Costs (€, £)
- Effects (QALYs)

- More costly
- More effective
- Less costly
- Less effective
The cost effectiveness plane

- More costly
- Less costly
- More effective
- Less effective

Diagram shows:
- Quadrant 1: More costly, More effective
- Quadrant 2: More costly, Less effective
- Quadrant 3: Less costly, More effective
- Quadrant 4: Less costly, Less effective
The cost effectiveness plane

- More costly
- Less costly
- More effective
- Less effective

COSTS (£ $ €)

EFFECTS (QALYs)
Was it cost effective?

- ITT costs of CC/BA = £494
- As delivered costs = £292
- Some evidence of cost offset - £55
- Worst case cost/QALY £9,633
- CC/BA as delivered cost/QALY £3328
Would a decision maker be willing to pay for a preventative strategy?

- Willingness to pay (WTP)
- Decision making bodies £20,000 to £30,000 per QALY
- ‘Revealed preferences’
- Compares very favourably with other things that society or healthcare systems pay for
- Smoking cessation, treatments for acute depression, cancer treatments
Summary of findings

- Prevented the onset of case level depression
- Cost effective
- Largest UK trial of collaborative care/BA to date
- Largest ever trial of CC/BA for subthreshold depression
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@SimonGilbody
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