The economic consequences of depression and diabetes when co-morbid

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Outline

A. Why economics?
B. Costs
C. Cost-offset (budget impact)
D. Cost-effectiveness
E. Moving forward

A. Why economics?
The underlying problem is ...

Scarcity

There are not enough resources to meet all of society’s needs or wants

→ So society has to choose how to use them (i.e. to ration/allocate)

→ Economics looks for ways to make those choices efficiently and fairly

When decision-makers make choices ...
... they need to know ...
- what people need and what they want
- what treatments/services can meet those needs
- what staff and other inputs must be employed to deliver those services
- what are the costs of employing them
- what outcomes will be achieved

Accountants look at costs
Economists look at costs and outcomes

Example: Treatments for depression ...

Interventions
- Antidepressant medication
- CBT
- Primary care counselling
- Interpersonal psychotherapy
- Couple therapy

... lead to better outcomes ...

Interventions
- Antidepressant medication
- CBT
- Primary care counselling
- Interpersonal psychotherapy
- Couple therapy

Outcomes
- Symptom alleviation
- Interpersonal functioning
- Social functioning
- Employment
- Quality of life
... and lower long-term costs

Cost savings

Interventions
Antidepressant medication  
CBT  
Primary care counselling  
Interpersonal psychotherapy  
Couple therapy  

Outcomes
Symptom alleviation  
Interpersonal functioning  
Social functioning  
Employment  
Quality of life  

Cost savings
Lower use of health and social care services  
Fewer out-of-pocket expenses  
Greater economic productivity  
Higher income

B. Economic questions: costs

Interventions
Antidepressant medication  
CBT  
Primary care counselling  
Interpersonal psychotherapy  
Couple therapy  

Outcomes
Symptom alleviation  
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Social functioning  
Employment  
Quality of life

Cost savings
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Costs of co-morbid depression and diabetes are wide-ranging

- Depression treatment
- Diabetes treatment
- Other health care and other services
- Lost productivity – unemployment, absenteeism, presenteeism ...
- ... hence lower earnings / income
- Premature mortality
- Carer health and treatment
- Carer productivity

Costs of depression (adults) in England, 2000

Total cost = £9 billion

Excluding ‘morbidity’ costs

Mortality 61%

Out-patient 2%
In-patient 3%
Primary care medication 33%
General practitioners 1%

Excluding ‘morbidity’ costs

Mortality 6%

Productivity 90%
Service cost 4%

Total cost = £9 billion

Only measures unemployment and absenteeism; ‘presenteeism’ could double this cost
Costs of health service use, by depression status

Simon et al, Gen Hosp Psychiatry, 2005

Costs of health service use, by diabetes complications

Simon et al, Gen Hosp Psychiatry, 2005

C. Cost-offsets

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- Higher income

Cost-offsets?

Pathways depression intervention: costs over 5 years

Katon et al, Diabetes Care, 2008

Compared usual primary care and a nurse depression intervention (12 months - education, behaviour activation, choice between medication and problem-solving therapy)

D. Cost-effectiveness

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Cost-effectiveness?

Cost-offsets?

If the core clinical question is:
→ → Does this treatment work?
Then the core economic question is:
→ → Is it worth it?
And the ‘Is it worth it?’ question applies especially when an intervention:

- is more effective
- but also more expensive

Do the better outcomes justify the higher costs? (Relative to the other ways in which those resources might be spent)

Cost-effectiveness evidence

There is some, but still not a lot, and not much outside the US:

- Screening diabetes patients for depression
- Nurse-led collaborative care model (Katon et al, Diabetes Care 2006)
- Systematic stepped-care model (Simon et al, Arch Gen Psych 2008)
- Other studies are underway currently

Moving forward – we need

- to be better at recognising the economic consequences of co-morbidity
- to be better at coordinating treatments and services
- to help decision-makers find affordable options
- but also to remind them that better outcomes are often worth paying for – in comparison with other ways of spending available resources