

## Economic evidence profiles for review question 1.1 For adults with depression, what are the relative benefits and harms associated with different models for the coordination and delivery of services?

### Collaborative care

**Table 47: Economic evidence profile for simple collaborative care alone or in addition to standard care versus standard care**

Simple collaborative care alone or in addition to standard care versus standard care for adults with depression							
Study and country	Limitations	Applicability	Other comments	Incremental cost (£) <sup>1</sup>	Incremental effect	ICER (£/effect) <sup>1</sup>	Uncertainty <sup>1</sup>
Bosanquet 2017 UK	Potentially serious limitations <sup>2</sup>	Directly applicable <sup>3</sup>	Older adults Outcome: QALY	£531	0.019	£28,765	Probability of intervention being cost-effective: 0.39 and 0.55 at WTP £20,000 and £30,000/QALY, respectively. Including only participants who engaged with 5 or more sessions in the analysis, ICER fell at £10,922/QALY
Green 2014 UK	Minor limitations <sup>4</sup>	Directly applicable <sup>5</sup>	Outcome: QALY	£311	0.019	£16,361	Probability of intervention being cost-effective: 0.58 and 0.65 at WTP £20,000 and £30,000/QALY, respectively Results robust to multiple imputation of missing data, use of SF-6D utility values, use of alternative intervention costs
Lewis 2017 UK	Potentially serious limitations <sup>6</sup>	Directly applicable <sup>7</sup>	Older adults Outcome: QALY	£465	0.044	£10,653	Probability of intervention being cost-effective: 0.92 and 0.97 at WTP £20,000 and £30,000/QALY, respectively. Accounting for the true observed intervention contact rate (rather than the expected that was used in the base-case analysis), ICER fell at £3,681/QALY

ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life years; WTP: willingness to pay  
1. Costs uplifted to 2020 UK pounds using the NHS cost inflation index (Curtis 2020).  
2. Time horizon 18 months; analysis conducted alongside RCT (N=485; at 18 months n=344; cost data available for n=447); national unit costs used; statistical analyses conducted; CEACs presented; consideration of intervention and primary care costs only  
3. UK study; NHS & PSS perspective; QALY estimates based on SF-6D (UK tariff)

**Simple collaborative care alone or in addition to standard care versus standard care for adults with depression**

4. Time horizon 12 months; analysis conducted alongside RCT (N=581; data available for cost analysis n=447); national unit costs used; statistical analyses conducted; CEACs presented.
5. UK study; NHS & PSS perspective; QALY estimates based on EQ-5D (UK tariff)
6. Time horizon 12 months; analysis conducted alongside RCT (N=705; complete data used in base-case economic analysis n=448); national unit costs used; statistical analyses conducted; CEACs presented; high attrition that was markedly greater in the collaborative care arm; consideration of intervention and primary care costs only
7. UK study; NHS & PSS perspective; QALY estimates based on EQ-5D (UK tariff)

**Table 48: Economic evidence profile for simple collaborative care for relapse prevention versus standard care**

**Simple collaborative care for relapse prevention versus standard care**

Study and country	Limitations	Applicability	Other comments	Incremental cost (£) <sup>1</sup>	Incremental effect	ICER (£/effect) <sup>1</sup>	Uncertainty <sup>1</sup>
Simon 2002 US	Potentially serious limitations <sup>2</sup>	Partially applicable <sup>3</sup>	Adults with recurrent depression Outcome: number of depression-free days (days with a Hopkins Symptoms Checklist (HSCL) depression score ≤ 0.5; days with a HSCL score above 0.5 but < 2 considered 50% depression free)	£15	13.9	£1	ICER 95% CI: -£155 to £399

ICER: incremental cost-effectiveness ratio

1. Costs converted and uplifted to 2020 UK pounds using purchasing power parity (PPP) exchange rates and the NHS cost inflation index (Curtis 2020).

2. Time horizon 12 months; analysis conducted alongside RCT (N=386, n=377 used for cost analysis and n=315 used for clinical analysis); local prices used; statistical analyses conducted, including bootstrapping; analyses of clinical data included only those completing all blinded follow-up assessments; cost analyses included only those remaining enrolled throughout the follow-up period; participation in follow-up interviews was significantly greater in the intervention group than in usual care, introducing a possibility of bias.

3. US study; 3rd party payer perspective; no QALYs estimated

**Table 49: Economic evidence profile for complex collaborative care alone or in addition to standard care versus standard care**

**Complex collaborative care alone or in addition to standard care versus standard care**

Study and country	Limitations	Applicability	Other comments	Incremental cost (£) <sup>1</sup>	Incremental effect	ICER (£/effect) <sup>1</sup>	Uncertainty <sup>1</sup>
Morriss 2016 UK	Minor limitations <sup>2</sup>	Directly applicable <sup>3</sup>	Adults with persistent depression Outcome: QALY	£3,770	0.079	£47,690	Controlling for baseline differences and cluster effects: probability of complex collaborative care being

Complex collaborative care alone or in addition to standard care versus standard care							
							cost-effective exceeds 0.50 at WTP of £45,500/QALY
Goorden 2015 The Netherlands	Potentially serious limitations <sup>4</sup>	Partially applicable <sup>5</sup>	Primary care setting Outcome: QALY	£1,181	0.02	£54,087	Probability of CCC being cost-effective: 0.20 and 0.70 at WTP £20,100 and £80,500/QALY, respectively.
Grochtdreis 2019 Germany	Minor limitations <sup>6</sup>	Partially applicable <sup>7</sup>	Older adults with late-life depression Primary care setting Outcome: Number of depression-free days (DFDs) and QALY	£561	21.4 DFDs 0.01 QALYs	£26/DFD £56,184/QALY	Probability of CCC being cost-effective: 0.95 for WTP of £204/DFD; 0.45 for WTP of £50,400/QALY
<p>ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life years; WTP: willingness to pay</p> <p>1. Costs converted and uplifted to 2020 UK pounds using purchasing power parity (PPP) exchange rates and the NHS cost inflation index (Curtis 2020).</p> <p>2. Time horizon 18 months; analysis conducted alongside RCT (N=187; 84% completed at 6 months, 72% at 12 months and 59% at 18 months); national unit costs used; statistical analyses conducted; CEACs presented.</p> <p>3. UK study; NHS &amp; PSS perspective; QALY estimates based on EQ-5D (UK tariff)</p> <p>4. Time horizon 12 months; analysis conducted alongside RCT (N=150; 93 identified by screening and 47 by GP referral; economic analysis based only on n=93 identified by screening); national unit costs used; CEACs presented</p> <p>5. Dutch study; healthcare system perspective; QALY based on EQ-5D ratings but Dutch tariff</p> <p>6. Time horizon 12 months; analysis conducted alongside RCT (N=246); national unit costs used; CEACs presented</p> <p>7. German study; healthcare system perspective; QALY based on EQ-5D ratings and UK tariff</p>							

## Stepped care

**Table 50: Economic evidence profile for stepped care (± TAU) versus TAU**

Stepped care (± TAU) versus TAU							
Study and country	Limitations	Applicability	Other comments	Incremental cost (£) <sup>1</sup>	Incremental effect	ICER (£/effect) <sup>1</sup>	Uncertainty <sup>1</sup>
Mukuria 2013 UK	Potentially serious limitations <sup>2</sup>	Directly applicable <sup>3</sup>	IAPT setting Outcomes: <ul style="list-style-type: none"> <li>proportion with reliable and clinically significant improvement on PHQ-9</li> <li>QALY - SF-6D (UK tariff)</li> </ul>	£281	0.025 0.008 0.014	£11,234/ improved participant £35,106/QALY (SF-6D)	Probability of IAPT being cost-effective using SF-6D QALYs: <0.40 at WTP £30,000/QALY; using EQ-5D QALYs: 0.38 and 0.53 at WTP £20,000 and £30,000/QALY, respectively.

Stepped care (± TAU) versus TAU							
			<ul style="list-style-type: none"> <li>• QALY - predicted EQ-5D (UK tariff), estimated from SF-6D using empirical mapping</li> </ul>			£20,059/QALY (predicted EQ-5D)	Using national unit costs instead of IAPT financial data: £4,522/improved participant; £14,132/QALY using SF-6D
Meeuwis n 2019 The Netherlands	Minor limitations <sup>4</sup>	Partially applicable <sup>5</sup>	<p>Outcome: QALY</p> <p>Separate analysis for mild depression and for moderate/severe depression</p>	Mild: -£37 Moderate/severe: £47	Mild: 0.014 Moderate/severe: 0.015	Mild: dominant Moderate/severe: £3,159	<p>Probability of intervention being dominant: Mild: 0.67; Moderate/severe: 0.33</p> <p>Probability of intervention being cost-effective at £20,000/QALY: &gt;0.95 for both Mild and Moderate/severe</p>
Van Der Wee 2012 The Netherlands	Potentially serious limitations <sup>6</sup>	Partially applicable <sup>7</sup>	<p>Outcome: QALY</p> <p>Separate analysis for people aged 75-79 years on those ≥80 years</p>	75-79 years: £2,133 ≥80 years: -£378	75-79 years: -0.025 ≥80 years: 0.047	75-79 years: SC dominated ≥80 years: SC dominant	No statistically significant differences in costs or outcomes
Health Quality Ontario 2019	Minor limitations <sup>8</sup>	Partially applicable <sup>9</sup>	<p>Analysis A: adults with mild-to-moderate depression</p> <p>Interventions: SC1 comprising cCBT with support followed by individual CBT; SC2 comprising cCBT with support followed by group CBT; TAU</p> <p>Analysis B: adults with mild-to-moderate depression likely to drop out of treatment</p> <p>Interventions: SC comprising cCBT without support followed by cCBT with support;</p>	<p>Analysis A: Vs TAU: SC1: -£1,868; SC2: -£1,892</p> <p>Analysis B: Vs TAU: SC: £183; group CBT: £769; individual CBT: £1,346</p>	<p>Analysis A: SC1: 18.33; SC2: 18.30; TAU: 18.09</p> <p>Analysis B: SC 0.80; group CBT 0.82; individual CBT 0.83; TAU 0.79</p>	<p>Analysis A: SC dominant over TAU; ICER of SC1 vs SC2: £659/QALY.</p> <p>Analysis B ICERs: Indiv CBT vs group CBT: £60,157/QALY Group CBT vs SC: £40,275/QALY SC vs TAU: £11,666/QALY</p>	<p>Analysis A: Results robust to change in efficacy, dropout rates, utilities, medication costs, time horizon. Probability of SC1 being cost-effective at £30,000/QALY: 0.60</p> <p>Analysis B: Probability of SC being cost-effective at £30,000/QALY: 0.48</p>

### Stepped care (± TAU) versus TAU

			individual CBT; group CBT; TAU				
<p><i>cCBT: computerised Cognitive Behavioural therapy; CBT: cognitive behavioural therapy; ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life years; SC: stepped care; TAU: treatment as usual; WTP: willingness to pay</i></p> <ol style="list-style-type: none"> <li>1. Costs converted and uplifted to 2020 UK pounds using PPP exchange rates and the NHS cost inflation index (Curtis 2020).</li> <li>2. Time horizon 8 months; prospective cohort study with matched sites (N=403); low response rate at recruitment (403/3,391, 11.9%); IAPT service was assessed over the first 2 years of establishment, therefore costs associated with learning effects were likely; IAPT financial data used – results sensitive to the use of national unit costs; CEACs presented.</li> <li>3. UK; NHS and social service perspective; QALY based on SF-6D (UK tariff); QALYs based on predicted EQ-5D ratings (UK tariff), estimated from SF-6D using an empirical mapping function, used in sensitivity analysis</li> <li>4. Time horizon 5 years; modelling study; efficacy data from a guideline literature review; all relevant costs considered; CEAC presented; likely national unit costs used</li> <li>5. Dutch study; healthcare perspective; QALYs estimated from translating effect size into utility increment</li> <li>6. Time horizon 12 months; analysis based on cluster RCT (N=239); national unit costs used; statistical analyses conducted around differences in outcomes and costs; results not synthesised in ICERs therefore uncertainty in ICER not reported and not possible to estimate</li> <li>7. Dutch study; healthcare perspective; QALYs based on EQ-5D (UK tariff) and SF-6D</li> <li>8. Time horizon (A) lifetime and (B) 1 year; modelling study; efficacy data from a systematic literature review; all relevant costs considered; CEAC presented; national unit costs used</li> <li>9. Canadian study; healthcare and long term care perspective; QALYs estimated using utility values from literature review – various scales used for rating of health-related quality of life</li> </ol>							

## Medication management

**Table 51: Economic evidence profile for medication management in addition to standard care versus standard care**

Medication management in addition to standard care versus standard care							
Study and country	Limitations	Applicability	Other comments	Incremental cost (£) <sup>1</sup>	Incremental effect	ICER (£/effect) <sup>1</sup>	Uncertainty <sup>1</sup>
Rubio-Valera 2013 Spain	Potentially serious limitations <sup>2</sup>	Partially applicable <sup>3</sup>	Outcomes: Adherence; Remission; QALY	£45	0.04 -0.01 0.01	£935/extra adherence Dominated using remission as an outcome £3,495/QALY	Probability of intervention being cost-effective 0.71 and 0.76 for WTP £5,800 /adherent service user and £29,000/QALY, respectively. Using remission, maximum probability of intervention being cost-effective was 0.46
<p><i>ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life years; WTP: willingness to pay</i></p> <ol style="list-style-type: none"> <li>1. Costs converted and uplifted to 2020 UK pounds using PPP exchange rates and the NHS cost inflation index (Curtis 2020).</li> <li>2. Time horizon 6 months; analysis conducted alongside RCT (N=179; 71% completed at 6 months; n=151 received intervention as allocated); regional unit costs used; CEACs presented; contradictory results depending on the outcome measure used</li> <li>3. Spanish study; healthcare perspective; QALYs based on EQ-5D ratings, Spanish tariff</li> </ol>							

**Integrated (shared) care**

**Table 52: Economic evidence profile for integrated (shared) care versus primary care with referral system to specialist care**

Integrated (shared) care versus primary care with referral system to specialist care							
Study and country	Limitations	Applicability	Other comments	Incremental cost (£) <sup>1</sup>	Incremental effect	ICER (£/effect) <sup>1</sup>	Uncertainty <sup>1</sup>
Wiley-Exley 2009 US	Potentially serious limitations <sup>2</sup>	Partially applicable <sup>3</sup>	Separate analyses for: <ul style="list-style-type: none"> <li>• Full (major and minor depression) VA sample</li> <li>• Full non-VA sample</li> <li>• Major depression VA sample</li> <li>• Major depression non-VA sample</li> </ul> Outcomes used: CES-D score; number of depression-free days derived from CES-D; QALYs estimated based on depression-free days, using utility weights of health=1, depression=0.59; QALYs estimated based on SF-36, using preferences for matched vignettes created following cluster analysis of SF-12 mental and physical component scores, elicited by US service users with depression using SG. Only results for the latter presented here.	-£629 £44 £847 -£367	0.007 0.0004 0.015 -0.005	Dominant £91,674/QALY £56,799/QALY £76,861/QALY (less effective, less costly)	Probability of IC being cost-effective: <ul style="list-style-type: none"> <li>&gt;0.70 for any WTP/QALY</li> <li>&lt;0.40 for any WTP/QALY</li> <li>&lt;0.50 for WTP of £38,500/QALY and above</li> <li>&gt;0.50 for WTP £48,200/QALY and above</li> </ul>

*ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life years; WTP: willingness to pay*  
 1. Costs converted and uplifted to 2020 UK pounds using PPP exchange rates and the NHS cost inflation index (Curtis 2020).  
 2. Time horizon 6 months; analysis conducted alongside multi-site pragmatic RCT (N=840 with major or minor depression, assessed within and outside the Veteran Affairs (VA) system.; within VA n=365, outside VA n=475; individuals with major depression within VA n=214, outside VA n=302); national unit costs; bootstrapping conducted, CEACs presented  
 3. US study; health care provider perspective including service users' time and mileage; QALYs based on SF-36, using preferences for matched vignettes created following cluster analysis of SF-12 mental and physical component scores, elicited by US service users with depression using SG.