Supplementary material 5 - Extracted costs for antenatal care

Activity	Economic evaluations	Review articles	Primary research studies			
costed	for National guidelines		Unit costs reported	Range	Mean (SD)	Comments
Estimated	Not costed	£27.34 / 20 minute	£76.03 / appointment [4],	£27.34 - £146.25	£70.82 (£45.92)	Only 'per appointment' estimates
cost for		appointment [1],	£146.25 / appointment [5],			used
standard		£224.99 / pregnancy for	£60.49 / appointment [6]			
midwife		community care [2],				
antenatal		£264.56 / pregnancy for				
appointment		midwife-led hospital care				
		[2],				
		£131.94 / hour [3]				
Estimated	Not costed	£114.14 / follow-up	£43.36 [7],	£43.36 - £312.29	£152.42	Only 'per appointment' estimates
cost for a		appointment [1],	£166.68 / appointment [4],		(£89.36)	used
standard		£515.55 / pregnancy[2]	£312.29 / appointment [8],			
obstetric			£153.94 / appointment [5],			
antenatal			£124.12 / appointment [6]			
appointment						

Activity	Economic evaluations	Review articles	Primary research studies			
costed	for National guidelines		Unit costs reported	Range	Mean (SD)	Comments
Estimated	£95.75 / appointment	Not costed	£115.62 / appointment [10],	£95.75 - £115.62	£104.88	Only 'per appointment' estimates
cost for any	[9]		£103.28 / appointment [11]		(£10.03)	used
antenatal						
appointment						
Estimated	£23.73[9]	£24.26 [3]	£26.16 [12],	£13.03 - £26.16	£21.80 (£5.94)	
cost for a			£13.03 [11]			
glucose						
tolerance test						
Estimated	Not costed	Not costed	£150.37 / visit [13],	£6.56 - £415.65	£147.02	
cost for			£415.65 / visit [8],		(£190.79)	
attendance			£6.56 for nurse-led or £15.49 for			
to maternity			doctor-led triage review [14]			
day						
unit/triage						

Economic evaluations	Review articles	Primary research studies			
for National guidelines		Unit costs reported	Range	Mean (SD)	Comments
Not costed	Not costed	£330.84 on antenatal ward or	£298.47 -	£524.11	Only 'per day' estimates used
		£1115.87 on labour ward [15],	£1,115.87	(£239.07)	
		£366.00 / day [16],			
		£1403.55 / admission [17],			
		£298.47 / day [13],			
		£758.18 / day for first three days			
		and £448.01 / day after this [10],			
		£466.91 / day [18],			
		£457.75 / day [4],			
		£867.59/day for first five days and			
		£414.55 / day after this [8],			
		£414.55 / day [5],			
		£447.12 / day [19],			
		£1658.89 for standard antenatal			
		stay, £304.45 for additional bed			
		days [14]			
	for National guidelines	for National guidelines	Not costed Not costed £330.84 on antenatal ward or £1115.87 on labour ward [15], £366.00 / day [16], £1403.55 / admission [17], £298.47 / day [13], £758.18 / day for first three days and £448.01 / day after this [10], £466.91 / day [18], £457.75 / day [4], £867.59/day for first five days and £414.55 / day after this [8], £414.55 / day [5], £447.12 / day [19], £1658.89 for standard antenatal stay, £304.45 for additional bed	Not costed Not costed £330.84 on antenatal ward or £298.47 - £1115.87 on labour ward [15], £1,115.87 £366.00 / day [16], £1403.55 / admission [17], £298.47 / day [13], £758.18 / day for first three days and £448.01 / day after this [10], £466.91 / day [18], £457.75 / day [4], £867.59/day for first five days and £414.55 / day after this [8], £414.55 / day [5], £447.12 / day [19], £1658.89 for standard antenatal stay, £304.45 for additional bed	Not costed Not costed £330.84 on antenatal ward or £298.47 £524.11

Activity	Economic evaluations	Review articles	Primary research studies				
costed	for National guidelines		Unit costs reported	Range	Mean (SD)	Comments	
Estimated	£139.85 [9]	£74.90 / first scan and	£57.66 / scan [22],	£42.24 - £139.85	£86.86 (£36.13)	Only 'per scan' estimates used	
cost for an		£61.83 / subsequent scans	£121.87 / scan [4],				
ultrasound		[1],	£120.49 / scan [11],				
scan		£56.07 / scan [20],	£120.72 / scan [6],				
(sonographer		£42.24 / scan [21],	£112.21 / scan [23]				
)		£142.95 / 3 scans [3]					
Estimated	Not costed	Not costed	£77.82/ scan [18],	£77.82 - £143.65	£116.34 (£34.32)	Only 'per scan' estimates used	
cost for an			£127.55 / scan [8],				
ultrasound			£143.65 / scan [6]				
scan							
(specialist)							

References

- 1. Mistry, H., et al., A structured review and exploration of the healthcare costs associated with stillbirth and a subsequent pregnancy in England and Wales. BMC Pregnancy Childbirth, 2013. 13: p. 236.
- 2. Thomas, C.M. and S. Cameron, *Can we reduce costs and prevent more unintended pregnancies? A cost of illness and cost-effectiveness study comparing two methods of EHC*. BMJ Open, 2013. **3**(12): p. e003815.
- 3. Farrar, D., et al., *The identification and treatment of women with hyperglycaemia in pregnancy: an analysis of individual participant data, systematic reviews, meta-analyses and an economic evaluation.* Health Technol Assess, 2016. **20**(86): p. 1-348.
- 4. Campbell, H.E., et al., *Healthcare and wider societal implications of stillbirth: a population-based cost-of-illness study.* BJOG, 2018. **125**(2): p. 108-117.

- 5. Vatish, M., et al., sFlt-1/PIGF ratio test for pre-eclampsia: an economic assessment for the UK. Ultrasound Obstet Gynecol, 2016. 48(6): p. 765-771.
- 6. Jones, M., et al., A dynamic, modifiable model for estimating cost-effectiveness of smoking cessation interventions in pregnancy: application to an RCT of self-help delivered by text message. Addiction, 2019. **114**(2): p. 353-365.
- 7. Walker, K.F., et al., Labour induction near term for women aged 35 or over: an economic evaluation. BJOG, 2017. 124(6): p. 929-934.
- 8. Duckworth, S., et al., *Placental Growth Factor (PIGF) in Women with Suspected Pre-Eclampsia Prior to 35 Weeks' Gestation: A Budget Impact Analysis.* PLoS One, 2016. **11**(10): p. e0164276.
- 9. National Institute for Health and Care Excellence, Diabetes in pregnancy: management from preconception to the postnatal period. 2015.
- 10. Lain, S.J., et al., An economic evaluation of planned immediate versus delayed birth for preterm prelabour rupture of membranes: findings from the PPROMT randomised controlled trial. BJOG, 2017. **124**(4): p. 623-630.
- 11. Jacklin, P.B., et al., A cost-effectiveness comparison of the NICE 2015 and WHO 2013 diagnostic criteria for women with gestational diabetes with and without risk factors. BMJ Open, 2017. **7**(8): p. e016621.
- 12. Round, J.A., et al., *Screening for gestational diabetes mellitus: cost-utility of different screening strategies based on a woman's individual risk of disease.* Diabetologia, 2011. **54**(2): p. 256-63.
- 13. Coomarasamy, A., et al., *PROMISE: first-trimester progesterone therapy in women with a history of unexplained recurrent miscarriages a randomised, double-blind, placebo-controlled, international multicentre trial and economic evaluation.* Health Technol Assess, 2016. **20**(41): p. 1-92.
- 14. Xydopoulos, G., et al., *Home blood-pressure monitoring in a hypertensive pregnant population: cost-minimization study.* Ultrasound Obstet Gynecol, 2019. **53**(4): p. 496-502.
- 15. Petrou, S., et al., Cost-effectiveness analysis of prostaglandin E2 gel for the induction of labour at term. BJOG, 2011. **118**(6): p. 726-34.
- 16. Eddama, O., et al., Study of progesterone for the prevention of preterm birth in twins (STOPPIT): findings from a trial-based cost-effectiveness analysis. Int J Technol Assess Health Care, 2010. **26**(2): p. 141-8.
- 17. Essex, H.N., et al., *Cost-Effectiveness of Nicotine Patches for Smoking Cessation in Pregnancy: A Placebo Randomized Controlled Trial (SNAP).*Nicotine Tob Res, 2015. **17**(6): p. 636-42.
- 18. Parisaei, M., et al., *Implementation of foetal fibronectin testing: Admissions, maternal interventions and costs at 1 year.* J Obstet Gynaecol, 2016. **36**(7): p. 888-892.
- 19. Waugh, J., et al., Spot protein-creatinine ratio and spot albumin-creatinine ratio in the assessment of pre-eclampsia: a diagnostic accuracy study with decision-analytic model-based economic evaluation and acceptability analysis. Health Technol Assess, 2017. **21**(61): p. 1-90.
- 20. Deshpande, S.N., et al., *Rapid fetal fibronectin testing to predict preterm birth in women with symptoms of premature labour: a systematic review and cost analysis.* Health Technol Assess, 2013. **17**(40): p. 1-138.
- 21. O'Donnell, A., et al., *Treatments for hyperemesis gravidarum and nausea and vomiting in pregnancy: a systematic review and economic assessment.*Health Technol Assess, 2016. **20**(74): p. 1-268.
- 22. Carolan-Rees, G. and A.F. Ray, *The ScanTrainer obstetrics and gynaecology ultrasound virtual reality training simulator: A cost model to determine the cost viability of replacing clinical training with simulation training.* Ultrasound, 2015. **23**(2): p. 110-5.

23. Wastlund, D., et al., *The cost-effectiveness of universal late-pregnancy screening for macrosomia in nulliparous women: a decision-analysis.* BJOG, 2019.