## Supplementary material 3 - Characteristics of included studies

			Original cost	
1	Article	Perspective	year	Methodology
Economic evaluations for National guidelines	NICE - Hypertension in Pregnancy <sup>1</sup>	National Health Service	2010	Used NHS reference costs and costs published as parts of other trials.
	NICE - Intrapartum Care <sup>2</sup>	National Health Service	2014	Uses the bottom-up costing calculations from a primary research study (Schroeder E, 2012) and revised the cost calculations by consensus with an expert committee.
	NICE - Diabetes in Pregnancy	National Health Service	2015	Used a combination of NHS reference costs and a bottom-up costing exercise
Review articles	Mistry, H (2013) <sup>4</sup>	National Health Service National	2009- 10	Health Technology Assessment Uses NHS costs and costs from a literature review of primary research studies.
	Deshpande, SN (2013) <sup>5</sup>	Health Service	2011	Weighted averages from NHS reference costs.
	Thomas, CM (2013) <sup>6</sup>	National Health Service	2011	NHS reference costs applied to a cost-effectiveness model derived through published data sources on resource use.
	O'Donnell, A (2016) <sup>7</sup>	National Health Service	2012- 13	Health Technology Assessment uses NHS reference costs and calculations from the Personal Social Services Research Unit.
	Alfirevic, Z (2016) <sup>8</sup>	National Health Service	2012- 13	Health Technology Assessment using a de novo decision model and NHS reference/manufacturer costs inputs
	Farrar, D (2016) <sup>9</sup>	National Health Service	2013- 14	Review article for Health Technology Assessment. Uses cost from NHS reference costs, NICE guidelines and the Personal Social Services Research Unit.
	Gallos, I (2019) <sup>10</sup>	National Health Service	2016	Health Technology Assessment using NHS reference costs and drug costs from the British National Formulary
Primary research studies	Petrou, S (2011) <sup>11</sup>	National Health Service	2008	Primary bottom-up methodology
	Eddama, O (2010) <sup>12</sup>	Hospital	2008	Bottom-up costing exercise
	Jit, M (2010) <sup>13</sup>	National Health Service	2008	NHS reference costs applied to a decision tree model developed through consultation of national hospital admission data
	Round, JA (2011) <sup>14</sup>	National Health Service	2009	Bottom-up methodology

Schroeder, E (2012) <sup>15</sup>	Hospital	2009- 10	Costing exercise involved interviews with staff to describe resource use, costs from hospital finance departments and reference lists
	National	2009-	
Essex, HN (2015) 16	Health Service	10	NHS reference costs applied to resource use determined through a randomised controlled trial.
	National	2011-	Health Technology Assessment. Uses NHS reference costs to attribute cost estimates to calculated
Coomarasamy, A (2016) 17	Health Service	12	resource use from a randomised controlled trial.
	National	2011-	
Carolan-Rees, G (2015) 18	Health Service	12	Applied NHS reference costs to resource use.
	National	2012	
Lain, SJ (2017) <sup>19</sup>	Health Service	2012	NHS reference costs applied to resource use in a randomised controlled trial.
	Central London		
Parisaei, M (2016) 20	Hospital	2012	Bottom-up methodology
( /	National	2012-	······································
Ussher, M (2015) 21	Health Service	13	National Reference costs applied to resource use in a randomised controlled trial
	National		
	Health Service		
Walker, KF (2017) 22	and personal social services	2012- 13	Cost-utility analysis of a randomised controlled trial using National reference and manufacturer costs
Walker, Ki (2017)	Social Services	13	Cost-utility alialysis of a failutilised controlled that using National reference and manufacturer costs
	National	2012-	
van der Nelson, H (2017) <sup>23</sup>	Health Service	13	Costs taken from NHS Reference costs and the British National Formulary
	National	2013-	Health Technology Assessment of a randomised controlled trial cost-effectiveness study using
Bick, D (2017) <sup>24</sup>	Health Service	14	National reference costs and those from other primary research studies
	Societal	2013-	
Campbell, HE (2018) <sup>25</sup>	Perspective	14	Assessed the prevalence in a UK cohort and applied costs assessed from secondary sources.
		2013-	Decision analytic model developed using data from an observational cohort study and National
Duckworth, S (2016) <sup>26</sup>	Commissioner	14	reference costs were applied
	National	2013-	Applied NHS reference costs to resource use derived from a population study using national Hospital
Orlovic, M (2017) <sup>27</sup>	Health Service	14	Episode Statistics data
	National	2013-	
Vatish, M (2016) <sup>28</sup>	National Health Service	2013- 14	Applied NHS reference costs to an economic model derived from an observational cohort study.
			Applies and teles sous to an economic model derived from an observational contribution.

	National		Used data from the Scottish Nursing and Midwifery Workload and Workforce planning project to
Bowers, J (2016) <sup>29</sup>	Health Service	2014	develop a financial model
	South West		
	England	2014-	
Luni, Y (2017) 30	Hospital	15	Bottom-up costing exercise
	National	2014-	
Khan, KS (2018) 31	Health Service	15	Bottom-up costing attached to data on resource use.
	National	2014-	Cost-effectiveness analysis conducted by NHS reference and manufacturer costs to estimated
Waugh, J (2017) 32	Health Service	15	resource use taken from the NICE hypertension guideline.
	National	2014-	
Jones, M (2019) <sup>33</sup>	Health Service	15	Costs derived from NHS reference costs and the expert opinion of an NHS midwife.
	National		
Jacklin, PB (2017) 34	Health Service	2015	Applied costs taken from published UK sources to UK and Australian cohorts
			Cost inputs derived from a series of costing templates based on NICE guidelines and NHS practice
	National		reports as well as other relevant scientific literature. NHS hospital tariffs could not be extrapolated to
Xydopoulos, G (2019)35	Health Service	2015	these costs.
, , , ,			Values were identified from relevant literature by two authors, systematic reviews using UK data were
	National	2016-	prioritised where possible. Where multiple sources where available, those which provided ranges
Wastlund, D (2019 - BJOG) <sup>36</sup>	Health Service	17	were preferred and if not, a decision was made by consensus or arbitration by the senior author.
Wastlund, D (2019 - PLOS	National		Costs were determined using a combination of expert opinion, relevant scientific literature and NHS
Med) <sup>37</sup>	Health Service	2017	reference costs.
ivieuj-	пеани зегисе	2017	Tereferice costs.

## References

- 1. National Institute for Health and Care Excellence. Hypertension in pregnancy: diagnosis and management. 2011:1-51.
- 2. National Institute for Health and Care Excellence. Intrapartum Care for healthy women and babies. Clinical Guideline CG 190., 2014.
- 3. National Institute for Health and Care Excellence. Diabetes in pregnancy: management from preconception to the postnatal period, 2015.
- 4. Mistry H, Heazell AE, Vincent O, 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;13:236. doi: 10.1186/1471-2393-13-236 [published Online First: 2013/12/18]
- 5. Deshpande SN, van Asselt AD, Tomini F, 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):1-138. doi: 10.3310/hta17400 [published Online First: 2013/09/26]

- 6. Thomas CM, Cameron S. 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):e003815. doi: 10.1136/bmjopen-2013-003815 [published Online First: 2013/12/20]
- 7. O'Donnell A, McParlin C, Robson SC, et al. Treatments for hyperemesis gravidarum and nausea and vomiting in pregnancy: a systematic review and economic assessment. *Health Technol Assess* 2016;20(74):1-268. doi: 10.3310/hta20740 [published Online First: 2016/10/13]
- 8. Alfirevic Z, Keeney E, Dowswell T, et al. Which method is best for the induction of labour? A systematic review, network meta-analysis and cost-effectiveness analysis. *Health Technol Assess* 2016;20(65):1-584. doi: 10.3310/hta20650 [published Online First: 2016/09/03]
- 9. Farrar D, Simmonds M, Griffin S, 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):1-348. doi: 10.3310/hta20860 [published Online First: 2016/12/06]
- 10. Gallos I, Williams H, Price M, et al. Uterotonic drugs to prevent postpartum haemorrhage: a network meta-analysis. *Health Technol Assess* 2019;23(9):1-356. doi: 10.3310/hta23090 [published Online First: 2019/03/02]
- 11. Petrou S, Taher S, Abangma G, et al. Cost-effectiveness analysis of prostaglandin E2 gel for the induction of labour at term. *BJOG* 2011;118(6):726-34. doi: 10.1111/j.1471-0528.2011.02902.x [published Online First: 2011/02/22]
- 12. Eddama O, Petrou S, Regier D, 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):141-8. doi: 10.1017/S0266462310000036 [published Online First: 2010/04/16]
- 13. Jit M, Cromer D, Baguelin M, et al. The cost-effectiveness of vaccinating pregnant women against seasonal influenza in England and Wales. *Vaccine* 2010;29(1):115-22. doi: 10.1016/j.vaccine.2010.08.078 [published Online First: 2010/11/09]
- 14. Round JA, Jacklin P, Fraser RB, 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):256-63. doi: 10.1007/s00125-010-1881-y [published Online First: 2010/09/03]
- 15. Schroeder E, Petrou S, Patel N, et al. Cost effectiveness of alternative planned places of birth in woman at low risk of complications: evidence from the Birthplace in England national prospective cohort study. *BMJ* 2012;344:e2292. doi: 10.1136/bmj.e2292 [published Online First: 2012/04/21]
- 16. Essex HN, Parrott S, Wu Q, et al. Cost-Effectiveness of Nicotine Patches for Smoking Cessation in Pregnancy: A Placebo Randomized Controlled Trial (SNAP). *Nicotine Tob Res* 2015;17(6):636-42. doi: 10.1093/ntr/ntu258 [published Online First: 2014/12/08]
- 17. Coomarasamy A, Williams H, Truchanowicz E, 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):1-92. doi: 10.3310/hta20410 [published Online First: 2016/05/27]
- 18. Carolan-Rees G, Ray AF. 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):110-5. doi: 10.1177/1742271X14567498 [published Online First: 2015/05/01]
- 19. Lain SJ, Roberts CL, Bond DM, 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):623-30. doi: 10.1111/1471-0528.14302 [published Online First: 2016/10/23]

- 20. Parisaei M, Currie J, O'Gorman N, et al. Implementation of foetal fibronectin testing: Admissions, maternal interventions and costs at 1 year. *J Obstet Gynaecol* 2016;36(7):888-92. doi: 10.3109/01443615.2016.1168374 [published Online First: 2016/05/06]
- 21. Ussher M, Lewis S, Aveyard P, et al. The London Exercise And Pregnant smokers (LEAP) trial: a randomised controlled trial of physical activity for smoking cessation in pregnancy with an economic evaluation. *Health Technol Assess* 2015;19(84):vii-xxiv, 1-135. doi: 10.3310/hta19840 [published Online First: 2015/10/23]
- 22. Walker KF, Dritsaki M, Bugg G, et al. Labour induction near term for women aged 35 or over: an economic evaluation. *BJOG* 2017;124(6):929-34. doi: 10.1111/1471-0528.14557 [published Online First: 2017/01/12]
- 23. van der Nelson HA, Draycott T, Siassakos D, et al. Carbetocin versus oxytocin for prevention of post-partum haemorrhage at caesarean section in the United Kingdom: An economic impact analysis. *Eur J Obstet Gynecol Reprod Biol* 2017;210:286-91. doi: 10.1016/j.ejogrb.2017.01.004 [published Online First: 2017/01/15]
- 24. Bick D, Briley A, Brocklehurst P, et al. A multicentre, randomised controlled trial of position during the late stages of labour in nulliparous women with an epidural: clinical effectiveness and an economic evaluation (BUMPES). *Health Technol Assess* 2017;21(65):1-176. doi: 10.3310/hta21650 [published Online First: 2017/11/08]
- 25. Campbell HE, Kurinczuk JJ, Heazell A, et al. Healthcare and wider societal implications of stillbirth: a population-based cost-of-illness study. *BJOG* 2018;125(2):108-17. doi: 10.1111/1471-0528.14972 [published Online First: 2017/10/17]
- 26. Duckworth S, Chappell LC, Seed PT, 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):e0164276. doi: 10.1371/journal.pone.0164276 [published Online First: 2016/10/16]
- 27. Orlovic M, Carter AW, Marti J, et al. Estimating the incidence and the economic burden of third and fourth-degree obstetric tears in the English NHS: an observational study using propensity score matching. *Bmj Open* 2017;7(6):e015463. doi: 10.1136/bmjopen-2016-015463 [published Online First: 2017/06/14]
- 28. Vatish M, Strunz-McKendry T, Hund M, et al. sFlt-1/PIGF ratio test for pre-eclampsia: an economic assessment for the UK. *Ultrasound Obstet Gynecol* 2016;48(6):765-71. doi: 10.1002/uog.15997 [published Online First: 2016/06/15]
- 29. Bowers J, Cheyne H. Reducing the length of postnatal hospital stay: implications for cost and quality of care. *BMC Health Serv Res* 2016;16:16. doi: 10.1186/s12913-015-1214-4 [published Online First: 2016/01/17]
- 30. Luni Y, Borakati A, Matah A, et al. A prospective cohort study evaluating the cost-effectiveness of carbetocin for prevention of postpartum haemorrhage in caesarean sections. *J Obstet Gynaecol* 2017;37(5):601-04. doi: 10.1080/01443615.2017.1284188 [published Online First: 2017/03/21]
- 31. Khan KS, Moore P, Wilson M, et al. A randomised controlled trial and economic evaluation of intraoperative cell salvage during caesarean section in women at risk of haemorrhage: the SALVO (cell SALVage in Obstetrics) trial. *Health Technol Assess* 2018;22(2):1-88. doi: 10.3310/hta22020 [published Online First: 2018/01/11]
- 32. Waugh J, Hooper R, Lamb E, 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):1-90. doi: 10.3310/hta21610 [published Online First: 2017/10/25]

- 33. Jones M, Smith M, Lewis S, 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):353-65. doi: 10.1111/add.14476 [published Online First: 2018/10/23]
- 34. Jacklin PB, Maresh MJ, Patterson CC, 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):e016621. doi: 10.1136/bmjopen-2017-016621 [published Online First: 2017/08/13]
- 35. Xydopoulos G, Perry H, Sheehan E, et al. Home blood-pressure monitoring in a hypertensive pregnant population: cost-minimization study. *Ultrasound Obstet Gynecol* 2019;53(4):496-502. doi: 10.1002/uog.19041 [published Online First: 2018/03/09]
- 36. Wastlund D, Moraitis AA, Thornton JG, et al. The cost-effectiveness of universal late-pregnancy screening for macrosomia in nulliparous women: a decision-analysis. *BJOG* 2019 doi: 10.1111/1471-0528.15809 [published Online First: 2019/05/09]
- 37. Wastlund D, Moraitis AA, Dacey A, et al. Screening for breech presentation using universal late-pregnancy ultrasonography: A prospective cohort study and cost effectiveness analysis. *PLoS Med* 2019;16(4):e1002778. doi: 10.1371/journal.pmed.1002778 [published Online First: 2019/04/17]