DEFINING ACTIVE LABOUR

GRADE TABLE 1: ACOG guidelines on first and second stage labour management VS usual care

Bibliography: Wood S, Skiffington J, Brant R, Crawford S, Hicks M, Mohammad K, et al. The REDUCED trial: a cluster randomized trial for REDucing the utilization of CEsarean delivery for dystocia. Am J Obstet Gynecol. 2023 May;228(5S):S1095–103.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With usual care	With ACOG guidelines		Risk with usual care	Risk difference with ACOG guidelines
Spontaneous vaginal birth											
44695 (1 RCT)	serious[a]	not serious	not serious	not serious	none	⨁⨁⨁◯ Moderate	12238/22538 (54.3%)	12587/22157 (56.8%)	**aOR 1.09** (1.01 to 1.18)	543 per 1,000	**21 more per 1,000** (from 2 more to 41 more)
Caesarean birth											
44695 (1 RCT)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low	5457/22538 (24.2%)	5361/22157 (24.2%)	**aOR 0.94** (0.85 to 1.05)	242 per 1,000	**11 fewer per 1,000** (from 29 fewer to 9 more)
Operative vaginal birth											
44695 (1 RCT)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low	4847/22538 (21.5%)	4216/22157 (19.0%)	**aOR 0.96** (0.84 to 1.09)	215 per 1,000	**7 fewer per 1,000** (from 28 fewer to 15 more)

PPH

Certainty assessment							Summary of findings				
44695 (1 RCT)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low	1307/22538 (5.8%)	1151/22157 (5.2%)	**aOR 0.94** (0.82 to 1.08)	58 per 1,000	**3 fewer per 1,000** (from 10 fewer to 4 more)

NICU admission

44695 (1 RCT)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low	1703/22538 (7.6%)	1847/22157 (8.3%)	**aOR 1.04** (0.85 to 1.28)	76 per 1,000	**3 more per 1,000** (from 11 fewer to 19 more)

CI: confidence interval; **OR:** odds ratio

Explanations

a. Risk of bias was rated serious due to deviations from the intended intervention. The compliance with the ACOG guidelines at the intervention sites was low, at 31%.

b. Imprecision was rated serious as the confidence interval crosses the null.

GRADE TABLE 2: ACOG guidelines on first and second stage labour management VS usual care (observational data)

Bibliography: Bell AD, Joy S, Gullo S, Higgins R, Stevenson E. Implementing a Systematic Approach to Reduce Cesarean Birth Rates in Nulliparous Women. Obstetrics and gynecology. 2017 Nov;130(5):1082–9; **Wilson-Leedy JG**, DiSilvestro AJ, Repke JT, Pauli JM. Reduction in the Cesarean Delivery Rate After Obstetric Care Consensus Guideline Implementation. Obstetrics and gynecology. 2016 Jul;128(1):145–5; **Rosenbloom JI**, Stout MJ, Tuuli MG, Woolfolk CL, López JD, Macones GA, et al. New labor management guidelines and changes in cesarean delivery patterns. Am J Obstet Gynecol. 2017 Dec;217(6):689.e1-689.e8; **Thuillier C**, Roy S, Peyronnet V, Quibel T, Nlandu A, Rozenberg P. Impact of recommended changes in labor management for prevention of the primary cesarean delivery. Am J Obstet Gynecol [Internet]. 2018;218(3):341.e1-341.e9; **Main EKMD**, Chang SC, Cape V, Sakowski C, Smith H, Vasher J, et al. Safety Assessment of a Large-Scale Improvement Collaborative to Reduce Nulliparous Cesarean Delivery Rates. 2019 Apr;133(4):613–23.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With no ACOG	With ACOG guidelines		Risk with no ACOG	Risk difference with ACOG guidelines
Caesarean birth											
91808 (5 non-randomised studies)	very serious[a]	serious[b]	not serious	not serious	none	⨁◯◯◯ Very low	13462/47320 (28.4%)	10781/44488 (24.2%)	**OR 0.78** (0.65 to 0.94)	284 per 1,000	**48 fewer per 1,000** (from 79 fewer to 12 fewer)
PPH											
7753 (3 non-randomised studies)	very serious[c]	serious[d]	not serious	serious[e]	none	⨁◯◯◯ Very low	270/3992 (6.8%)	263/3761 (7.0%)	**OR 1.00** (0.83 to 1.20)	68 per 1,000	**0 fewer per 1,000** (from 11 fewer to 12 more)
Chorioamnionitis											
85330 (2 non-randomised studies)	very serious[c]	not serious	not serious	serious[e]	none	⨁◯◯◯ Very low	2745/43869 (6.3%)	2712/41461 (6.5%)	**OR 1.05** (0.99 to 1.11)	63 per 1,000	**3 more per 1,000** (from 1 fewer to 6 more)
NICU admission											

Certainty assessment							Summary of findings				
7186 (2 non-randomised studies)	very serious[f]	not serious	not serious	serious[g]	none	⨁◯◯◯ Very low	60/3717 (1.6%)	58/3469 (1.7%)	**OR 1.04** (0.72 to 1.49)	16 per 1,000	**1 more per 1,000** (from 4 fewer to 8 more)

5-min apgar score less than 5

85169 (2 non-randomised studies)	very serious[c]	not serious	not serious	serious[g]	none	⨁◯◯◯ Very low	135/43796 (0.3%)	137/41373 (0.3%)	**OR 1.06** (0.84 to 1.35)	3 per 1,000	**0 fewer per 1,000** (from 0 fewer to 1 more)

CI: confidence interval; **OR:** odds ratio

Explanations

a. Risk of bias was rated very serious as the studies did not control for potential confounding variables. Also, two of the studies implemented increased nursing support alongside the ACOG guidelines, which introduces additional confounding. (Assessed using ROBINS-I).
b. The results from these studies are inconsistent; $I^2 = 76\%$
c. Risk of bias was rated very serious as the studies did not control for potential confounding variables. Also, one of the studies implemented increased nursing support alongside the ACOG guidelines, which introduces additional confounding. (Assessed using ROBINS-I).
d. The results from these studies are inconsistent; $I^2 = 70\%$
e. Imprecision was rated serious because the confidence interval crosses the null.
f. Risk of bias was rated very serious as the studies did not control for potential confounding variables. (Assessed using ROBINS-I)
g. Imprecision was rated serious due to the low event numbers and confidence interval that crossed the null.

TIMING OF ADMISSION TO HOSPITAL OR CONTINUOUS CLINICAL CARE

GRADE TABLE 1: Admission to hospital at <4 cm VS ≥4 cm

Bibliography: Anjum N, Memon Z, Sheikh S, Naz U. Relationship Between Cervical Dilatation At Which Women Present In Labor And Subsequent Rate Of Caesarian Section. J Ayub Med Coll Abbottabad [Internet]. 2020;32(1):58–63; **Balcik Colak M**, Ozturk Can H. Effects of the time of pregnant women's admission to the labor ward on the labor process and interventions. 2021 Apr;42(4–6):563–79; **Chuma C**, Kihunrwa A, Matovelo D, Mahendeka M. Labour management and Obstetric outcomes among pregnant women admitted in latent phase compared to active phase of labour at Bugando Medical Centre in Tanzania. BMC Pregnancy Childbirth [Internet]. 2014;14:68; **Holmes** P, Oppenheimer LW, Wen SW. The relationship between cervical dilatation at initial presentation in labour and subsequent intervention. BJOG [Internet]. 2001;108(11):1120–4; **Gjærum R**, Johansen IH, Øian P, Bernitz S, Dalbye R. Associations between cervical dilatation on admission and mode of delivery, a cohort study of Norwegian nulliparous women. Sexual & Reproductive HealthCare [Internet]. 2022 Mar;31:N.PAG-N.PAG; **Miller YD**, Armanasco AA, McCosker L, Thompson R. Variations in outcomes for women admitted to hospital in early versus active labour: an observational study. 2020 Aug 17;20(1); **Seravalli V**, Strambi N, Castellana E, Salamina MA, Bettini C, Di Tommaso M. Hospital Admission in the Latent versus the Active Phase of Labor: Comparison of Perinatal Outcomes. Children [Internet]. 2022 Jun;9(6):924-N.PAG**; Kauffman E**, Souter VL, Katon JG**,** Sitcov K. Cervical Dilation on Admission in Term Spontaneous Labor and Maternal and Newborn Outcomes. 2016 Mar;127(3):481–8.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With ≥4	With <4 cm		Risk with ≥4	Risk difference with <4 cm
Caesarean section											
23933 (8 non-randomised studies)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	818/13781 (5.9%)	1178/10152 (11.6%)	**OR 2.85** (2.17 to 3.74)	59 per 1,000	**93 more per 1,000** (from 61 more to 132 more)
Caesarean section (Nulliparas)											
6614 (3 non-randomised studies)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	471/3542 (13.3%)	533/3072 (17.4%)	**OR 1.76** (1.33 to 2.32)	133 per 1,000	**80 more per 1,000** (from 36 more to 129 more)
Caesarean section (Multiparas)											
8919 (3 non-randomised studies)	very serious[a]	serious[b]	not serious	serious[c]	none	⨁◯◯◯ Very low	114/6410 (1.8%)	105/2509 (4.2%)	**OR 2.66** (1.29 to 5.48)	18 per 1,000	**28 more per 1,000** (from 5 more to 72 more)
Oxytocin augmentation											

23492 (7 non-randomised studies)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	3535/13560 (26.1%)	4421/9932 (44.5%)	**OR 2.45** (1.87 to 3.21)	261 per 1,000	**203 more per 1,000** (from 137 more to 270 more)
Epidural											
22801 (5 non-randomised studies)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	6607/13242 (49.9%)	6207/9559 (64.9%)	**OR 2.83** (2.34 to 3.42)	499 per 1,000	**239 more per 1,000** (from 201 more to 274 more)
PPH											
8149 (4 non-randomised studies)	very serious[a]	serious[d]	not serious	serious[e]	none	⨁◯◯◯ Very low	568/3761 (15.1%)	701/4388 (16.0%)	**OR 0.79** (0.43 to 1.43)	151 per 1,000	**28 fewer per 1,000** (from 80 fewer to 52 more)
NICU admission											
20522 (6 non-randomised studies)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	424/12176 (3.5%)	359/8346 (4.3%)	**OR 1.29** (1.11 to 1.51)	35 per 1,000	**10 more per 1,000** (from 4 more to 17 more)

CI: confidence interval; **OR:** odds ratio

Explanations

a. Risk of bias was rated serious as the studies did not identify or control for potential confounding variables.(Assessed using ROBINS-I).
b. The results from these studies are inconsistent; I^2= 70%
c. Imprecision was rated serious due to the low number of events.
d. The results from these studies are inconsistent; I^2= 84%
e. Imprecision was rated serious because the confidence interval crosses the null.

GRADE TABLE 2: Admission to hospital at <5 cm VS ≥5 cm

Bibliography: Davey MA, McLachlan HL, Forster D, Flood M. Influence of timing of admission in labour and management of labour on method of birth: results from a randomised controlled trial of caseload midwifery (COSMOS trial). Midwifery [Internet]. 2013;29(12):1297–302.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With >5	With <5		Risk with >5	Risk difference with <5
Caesarean section											
579 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	23/230 (10.0%)	74/349 (21.2%)	**aOR 2.38** (1.40 to 4.00)	100 per 1,000	**109 more per 1,000** (from 35 more to 208 more)

CI: confidence interval; **OR:** odds ratio

Explanations

a. This study adjusted for randomization group, birthing parent age and BMI. Risk of bias was rated very serious as the authors did not control for all potential confounding variables and there is the risk of residual confounding. (Assessed using ROBINS-I)
b. Imprecision was rated as serious due to the low number of events and small sample size.

GRADE TABLE 3: Admission to hospital at <6 cm VS ≥6 cm

Bibliography: Wood AM, Frey HA, Tuuli MG, Caughey AB, Odibo AO, Macones GA, et al. Optimal Admission Cervical Dilation in Spontaneously Laboring Women. Am J Perinatol [Internet]. 2016;33(2):188–94.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With ≥6	With <6		Risk with ≥6	Risk difference with <6
Caesarean section											
2033 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	9/254 (3.5%)	235/1779 (13.2%)	**RR 3.73** (1.94 to 7.16)	35 per 1,000	**97 more per 1,000** (from 33 more to 218 more)
Caesarean section (Nulliparas)											
735 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[c]	none	⨁◯◯◯ Very low	4/56 (7.1%)	114/679 (16.8%)	**RR 2.35** (0.90 to 6.13)	71 per 1,000	**96 more per 1,000** (from 7 fewer to 366 more)
Caesarean section (Multiparas)											
1298 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	5/198 (2.5%)	121/1100 (11.0%)	**RR 4.36** (1.80 to 10.52)	25 per 1,000	**85 more per 1,000** (from 20 more to 240 more)

CI: confidence interval; **RR:** risk ratio

Explanations

a. Risk of bias was rated serious as the authors did not identify or control for potential confounding variables. (Assessed using ROBINS-I)
b. Imprecision was rated serious due to the low number of events.
c. Imprecision was rated serious due to the low number of events and confidence interval that crosses the null.

GRADE TABLE 4: Regularity of contractions on admission to hospital

Bibliography: Kjerulff KH, Attanasio LB, Vanderlaan J, Sznajder KK. Timing of hospital admission at first childbirth: A prospective cohort study. PLoS One. 2023;18(2):e0281707.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With regular contractions	With irregular contractions		Risk with regular contractions	Risk difference with irregular contractions
Caesarean section											
1656 (1 non-randomised study)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	170/1082 (15.7%)	138/574 (24.0%)	**OR 1.70** (1.32 to 2.18)	157 per 1,000	**84 more per 1,000** (from 40 more to 132 more)
Oxytocin augmentation											
1656 (1 non-randomised study)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	452/1082 (41.8%)	364/574 (63.4%)	**OR 2.42** (1.96 to 2.98)	418 per 1,000	**217 more per 1,000** (from 167 more to 264 more)
Epidural											
1656 (1 non-randomised study)	very serious[a]	not serious	not serious	not serious	none	⨁⨁◯◯ Low	882/1082 (81.5%)	515/574 (89.7%)	**OR 1.98** (1.45 to 2.70)	815 per 1,000	**82 more per 1,000** (from 50 more to 107 more)

CI: confidence interval; **OR:** odds ratio

Explanations

a. Risk of bias was rated very serious due to concerns about confounding and recall bias. Our analysis did not adjust for confounding variables. Additionally, there are concerns about recall bias as the participants in this study were asked about their labour experience one month postpartum. (Assessed using ROBINS-I).

b. Imprecision was rated serious due to the low number of events and confidence interval that crosses the null.

GRADE TABLE 5: Early labour assessment VS direct admission to hospital

Bibliography: McNiven PS, Williams JI, Hodnett E, Kaufman K, Hannah ME. An early labor assessment program: a randomized, controlled trial. 1998 Mar;25(1):5–10.

Certainty assessment							Summary of findings				
							Study event rates (%)			Anticipated absolute effects	
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	With direct admission	With early labour assessment	Relative effect (95% CI)	Risk with direct admission	Risk difference with early labour assessment
Caesarean section											
209 (1 RCT)	serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	11/104 (10.6%)	8/105 (7.6%)	**OR 0.70** (0.27 to 1.81)	106 per 1,000	**29 fewer per 1,000** (from 75 fewer to 71 more)
Oxytocin augmentation											
209 (1 RCT)	serious[a]	not serious	not serious	serious[c]	none	⨁⨁◯◯ Low	42/104 (40.4%)	24/105 (22.9%)	**OR 0.44** (0.24 to 0.80)	404 per 1,000	**174 fewer per 1,000** (from 264 fewer to 52 fewer)
Epidural											
209 (1 RCT)	serious[b]	not serious	not serious	serious[c]	none	⨁⨁◯◯ Low	94/104 (90.4%)	83/105 (79.0%)	**OR 0.40** (0.18 to 0.90)	904 per 1,000	**114 fewer per 1,000** (from 275 fewer to 10 fewer)
Length of second stage (in minutes)											
209 (1 RCT)	serious[b]	not serious	not serious	serious[c]	none	⨁⨁◯◯ Low	104	105	-	The mean length of second stage was **95** minutes	MD **18.2 minutes lower** (35.88 lower to 0.52 lower)

CI: confidence interval; **MD:** mean difference; **OR:** odds ratio

Explanations

a. Risk of bias was rated serious due to deviations from the intended intervention. 16% of participants in the direct admission group received some form of assessment and were send home from the labour and delivery unit. Additionally, there were concerns about confounding, as the study does not describe if

those in the direct assessment group were in active labour upon admission. We do not know if those in the control group were already in active labour when they arrived at the hospital. (Assessed using ROBINS-I).
b. Imprecision was rated very serious due to the low number of events, small sample size and confidence interval that crosses the null.
c. Imprecision was rated very serious due to the low number of events and small sample size.

STRATEGIES TO SUPPORT THE DELAY OF CLINICAL CARE UNTIL THE ONSET OF ACTIVE LABOUR

GRADE TABLE 1: Prenatal education program VS standard care

Bibliography: Maimburg RD, Vaeth M, Dürr J, Hvidman L, Olsen J, Durr J, et al. Randomised trial of structured antenatal training sessions to improve the birth process. 2010 Jul;117(8):921–8.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With no prenatal education	With prenatal education		Risk with no prenatal education	Risk difference with prenatal education
Arrival at hospital at >3 cm cervical dilation											
1162 (1 RCT)	serious[a]	not serious	not serious	not serious	none	⨁⨁⨁◯ Moderate	207/575 (36.0%)	307/587 (52.3%)	**RR 1.45** (1.27 to 1.65)	360 per 1,000	**162 more per 1,000** (from 97 more to 234 more)

CI: confidence interval; **RR:** risk ratio

Explanations

a. Risk of bias was downgraded due to deviations from the intended intervention. The compliance rate in the intervention group was good, with 72% of participants receiving the full intervention. 85% attended the delivery session, 80% attended the newborn session and 79% attended the parenthood session. However, in the intervention group 4% also attended other kinds of antenatal training sessions. In the control group, 45% attended other antenatal training, mainly through relaxation therapists.

GRADE TABLE 2: Antenatal education on identifying active labour VS standard care

Bibliography: Bonovich L. Recognizing the onset of labor. J Obstet Gynecol Neonatal Nurs. 1990;19(2):141–5.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard education	With education for detection of active phase		Risk with standard education	Risk difference with education for detection of active phase
Number of visits to the labour suite before onset of active labour											
208 (1 RCT)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low[a,b]	59/104 (56.7%)	30/104 (28.8%)	**RR 0.51** (0.36 to 0.72)	59/104 (56.7%)	**278 fewer per 1,000** (from 363 fewer to 159 fewer)

CI: confidence interval; **MD:** mean difference; **RR:** risk ratio

Explanations

a. Risk of bias was rated serious because the methods used to randomize the participants was unclear, and 15% of the sample was lost to follow up.
b. Imprecision was rated serious due to the small sample size

GRADE TABLE 3: Caseload midwifery VS standard care

Bibliography: Davey MA, McLachlan HL, Forster D, Flood M. Influence of timing of admission in labour and management of labour on method of birth: results from a randomised controlled trial of caseload midwifery (COSMOS trial). Midwifery. 2013;29(12):1297–302. doi:https://dx.doi.org/10.1016/j.midw.2013.05.014

Certainty assessment							Summary of findings				
							Study event rates (%)			Anticipated absolute effects	
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	With standard care	With caseload midwifery	Relative effect (95% CI)	Risk with standard care	Risk difference with caseload midwifery
Time Between Admission and Birth (hours)											
914 (1 RCT)	not serious	not serious	not serious	not serious	none	⨁⨁⨁⨁ High					The median time from admission to birth was 9.1 hours (IQR 4.2 to 13.6) among those receiving caseload midwifery. The median time from admission to birth was 10.2 hours (IQR 5.7 to 15.3) among those receiving standard care.

CI: confidence interval; **OR:** odds ratio

GRADE TABLE 4: Home assessment VS telephone assessment

Bibliography: Kobayashi S, Hanada N, Matsuzaki M, Takehara K, Ota E, Sasaki H, et al. Assessment and support during early labour for improving birth outcomes. Cochrane Database Syst Rev. 2017;4:CD011516.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With telephone assessment	With home assessment		Risk with telephone assessment	Risk difference with home assessment
Caesarean section											
5170 (3 RCTs)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	557/2588 (21.5%)	585/2582 (22.7%)	**RR 1.05** (0.95 to 1.17)	215 per 1,000	**11 more per 1,000** (from 11 fewer to 37 more)
Instrumental vaginal birth											
4930 (2 RCTs)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	576/2465 (23.4%)	558/2465 (22.6%)	**RR 0.95** (0.79 to 1.15)	234 per 1,000	**12 fewer per 1,000** (from 49 fewer to 35 more)
Augmentation											
1694 (2 RCTs)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	471/851 (55.3%)	448/843 (53.1%)	**RR 0.96** (0.88 to 1.04)	553 per 1,000	**22 fewer per 1,000** (from 66 fewer to 22 more)
Use of epidural/any regional anaesthesia											
5168 (3 RCTs)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	1307/2588 (50.5%)	1269/2580 (49.2%)	**RR 0.95** (0.87 to 1.05)	505 per 1,000	**25 fewer per 1,000** (from 66 fewer to 25 more)
NICU admission											
5170 (3 RCTs)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	150/2588 (5.8%)	141/2582 (5.5%)	**RR 0.84** (0.50 to 1.42)	58 per 1,000	**9 fewer per 1,000** (from 29 fewer to 24 more)
Cervical dilation <3 on admission to hospital											
1696 (2 RCTs)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	428/851 (50.3%)	347/845 (41.1%)	**RR 0.72** (0.48 to 1.09)	503 per 1,000	**141 fewer per 1,000** (from 262 fewer to 45 more)

CI: confidence interval; **RR:** risk ratio

Explanations

a. Risk of bias was downgraded due to deviations for the intended intervention. These studies had varying rates of compliance with the allocated intervention. In the B.C. pilot study, 22% of the home assessment group did not receive a home assessment due to high workloads not allowing for a nurse to leave the unit to conduct a home assessment. In the follow up B.C. study 10% of the home visit group didn't receive a home visit. The authors of this study don't provide rationale for why these participants did not receive their allocated intervention. The highest rate of non-compliance occurred in the UK study, with only 26% of the birthing parents in the home visit group receiving a home visit

b. Imprecision was downgraded because the confidence interval crosses the null.

EFFECTIVE ASSESSMENTS IN EARLY LABOUR

GRADE TABLE 1: Admission electronic fetal monitoring VS intermittent auscultation

Bibliography: Tome M, Lovers AAK, Impey L, Hirst JE, Georgieva A. Revisiting the Value of Admission Cardiotocography in Term Pregnancies: An Updated Systematic Review and Meta-Analysis. BJOG. 2026;133(3):375–90. doi: 10.1111/1471-0528.70047

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With IA	With admission EFM		Risk with IA	Risk difference with admission EFM
Continuous EFM during labour											
13786 (4 RCTs)	serious[a]	not serious	not serious	not serious	none	⨁⨁⨁◯ Moderate[a]	3340/6907 (48.4%)	4247/6879 (61.7%)	**RR 1.23** (1.05 to 1.44)	3340/6907 (48.4%)	**111 more per 1,000** (from 24 more to 213 more)
Caesarean section											
14372 (5 RCTs)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low[a,b]	337/7194 (4.7%)	353/7178 (4.9%)	**RR 1.09** (0.86 to 1.37)	337/7194 (4.7%)	**4 more per 1,000** (from 7 fewer to 17 more)
Instrumental vaginal delivery											
14372 (5 RCTs)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low[a,b]	1023/7194 (14.2%)	1085/7178 (15.1%)	**RR 1.06** (0.95 to 1.19)	1023/7194 (14.2%)	**9 more per 1,000** (from 7 fewer to 27 more)
NICU admissions											

Certainty assessment							Summary of findings				
14365 (5 RCTs)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low[a,b]	255/7188 (3.5%)	273/7177 (3.8%)	**RR 1.07** (0.91 to 1.27)	255/7188 (3.5%)	**2 more per 1,000** (from 3 fewer to 10 more)

Fetal and neonatal deaths

14373 (5 RCTs)	serious[a]	not serious	not serious	serious[c]	none	⨁⨁◯◯ Low[a,c]	5/7194 (0.1%)	5/7179 (0.1%)	**RR 1.01** (0.30 to 3.47)	5/7194 (0.1%)	**0 fewer per 1,000** (from 0 fewer to 2 more)

CI: confidence interval; **RR:** risk ratio

Explanations

a. There were concerns about risk of bias due to a lack of blinding and unclear reporting plans across the studies.
b. There were concerns about imprecision because the confidence interval crosses the null.
c. There were concerns about imprecision due to the low number of events and confidence interval

EFFECTIVE COPING MEASURES AND PAIN RELIEF AT HOME IN EARLY LABOUR

GRADE TABLE 1: Aromatherapy VS standard care

Bibliography: Liao CC, Lan SJSH, Yen YY, Hsieh YP, Lan SJSH, Lira LCS, et al. Aromatherapy intervention on anxiety and pain during first stage labour in nulliparous women: a systematic review and meta-analysis. 2021 Jan;41. **Karatopuk S**, Yarici F. Determining the effect of inhalation and lavender essential oil massage therapy on the severity of perceived labor pain in primiparous women: A randomized controlled trial. Explore (NY) [Internet]. 2023;19(1):107–14.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With aromatherapy		Risk with standard care	Risk difference with aromatherapy
Pain (VAS 0-10)[1]											
621 (6 RCTs)	not serious	serious[a]	not serious	serious[b]	none	⨁⨁◯◯ Low	-	-	-	The mean pain score was 5.41	MD **1.78 lower** (2.75 lower to 0.82 lower)
Anxiety (STAI)[2]											
372 (4 RCTs)	not serious	serious[c]	not serious	serious[b]	none	⨁⨁◯◯ Low	-	-	-	The mean anxiety score was 54.56	MD **9.29 lower** (15.88 lower to 2.69 lower)

CI: confidence interval; **MD:** mean difference

Explanations

a. The results from these studies are inconsistent; I^2 = 97%.
b. Imprecision was downgraded due to the small sample size.
c. The results from these studies are inconsistent; I^2 = 98%.

[1] Pain was assessed using a scale ranging from 0 to 10, with 0 representing no pain and 10 signifying the highest possible pain intensity.

[2] Spielberger's State-Trait Anxiety Inventory was used to determine the level of anxiety experienced by participants. On this scale scores range from 20 80 with a score of 20-39 indicating low anxiety, 40-59 indicating moderate anxiety and 60-80 indicating high anxiety.

GRADE TABLE 2: Acupressure VS standard care

Bibliography: Sehhatie-Shafaie F, Kazemzadeh R, Amani F, Heshmat R. The effect of acupressure on sanyinjiao and hugo points on labor pain in nulliparous women: a randomized clinical trial. J Caring Sci. 2013 Jun;2(2):123–9; **Gonenc IM,** Terzioglu F. Effects of Massage and Acupressure on Relieving Labor Pain, Reducing Labor Time, and Increasing Delivery Satisfaction. J Nurs Res. 2020;28(1):e68.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With acupressure		Risk with standard care	Risk difference with acupressure
Pain (VAS 0-10)[3]											
144 (2 RCTs)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	72	72	-	The mean pain score was 6.28	MD **1.55 lower** (3.13 lower to 0.03 higher)

CI: confidence interval; **MD:** mean difference

Explanations

a. Imprecision was downgraded due to the very low sample size.

[3] Pain was assessed using a scale ranging from 0 to 10, with 0 representing no pain and 10 signifying the highest possible pain intensity.

GRADE TABLE 3: SP6 acupressure VS standard care

Bibliography: Yesilcicek Calik K, Komurcu N. Effects of SP6 Acupuncture Point Stimulation on Labor Pain and Duration of Labor. Iran Red Crescent Med J. 2014 Oct;16(10):e16461

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With control	With acupressure		Risk with control	Risk difference with acupressure
Pain (VAS 0-10)[4]											
100 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	The median pain score among those who received acupressure in the latent phase (2-3cm) was 3 and the median pain score among those in the control group was 4.				

CI: confidence interval

Explanations

a. Imprecision was downgraded due to the very low sample size.

[4] Pain was assessed using a scale ranging from 0 to 10, with 0 representing no pain and 10 signifying the highest possible pain intensity.

GRADE TABLE 4: 30-minute massage VS standard care

Bibliography: Chang MY, Wang SY, Chen CH. Effects of massage on pain and anxiety during labour: a randomized controlled trial in Taiwan. 2002 Apr;38(1):68–73.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With massage		Risk with standard care	Risk difference with massage
Pain (VAS 0-10)[5]											
60 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	30	30	-	The mean pain score was 1.30	MD **0.57 lower** (0.84 lower to 0.3 lower)
Anxiety (STAI)[6]											
60 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	30	30	-	The mean anxiety score was 53.47	MD **16.27 lower** (27.03 lower to 5.51 lower)

CI: confidence interval; **MD:** mean difference

Explanations

a. Imprecision was downgraded due to the very small sample size.

[5] Pain was assessed using a scale ranging from 0 to 10, with 0 representing no pain and 10 signifying the highest possible pain intensity.

[6] Spielberger's State-Trait Anxiety Inventory was used to determine the level of anxiety experienced by participants. On this scale scores range from 20 80 with a score of 20-39 indicating low anxiety, 40-59 indicating moderate anxiety and 60-80 indicating high anxiety.

GRADE TABLE 5: Swedish massage VS standard care

Bibliography: Janssen P, Shroff F, Jaspar P. Massage therapy and labor outcomes: a randomized controlled trial. Int J Ther Massage Bodywork. 2012;5(4):15–20.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With massage		Risk with standard care	Risk difference with massage
Pain (McGill Short Form Pain Questionnaire)[7]											
77 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	40	37	-	The mean pain score was 16.9	MD **3.6 lower** (6.95 lower to 0.25 lower)

CI: confidence interval; **MD:** mean difference

Explanations

a. Imprecision was downgraded due to the very small sample size.

[7] The intensity of pain was measured using the Short Form McGill Pain Questionnaire. On this scale, higher scores indicate higher levels of pain. Scores range from 0 (no pain) to 78 (severe pain).

GRADE TABLE 6: Foot reflexology VS standard care

Bibliography: Yılar Erkek Z, Aktas S. The Effect of Foot Reflexology on the Anxiety Levels of Women in Labor. Journal of Alternative & Complementary Medicine. 2018 Apr;24(4):352–60.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With massage		Risk with standard care	Risk difference with massage
Anxiety (STAI)[8]											
154 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	77	77	-	The mean anxiety score was **51.72**	MD **3.95 lower** (7.01 lower to 0.89 lower)

CI: confidence interval; **MD:** mean difference

Explanations

a. Imprecision was downgraded due to the very small sample size.

[8] Spielberger's State-Trait Anxiety Inventory was used to determine the level of anxiety experienced by participants. On this scale scores range from 20 80 with a score of 20-39 indicating low anxiety, 40-59 indicating moderate anxiety and 60-80 indicating high anxiety.

GRADE TABLE 7: Low back massage VS standard care

Bibliography: Akkoz Cevik S, Karaduman S. The effect of sacral massage on labor pain and anxiety: A randomized controlled trial. Jpn J Nurs Sci. 2020;17(1):e12272**; Unalmis Erdogan S,** Yanikkerem E, Goker A. Effects of low back massage on perceived birth pain and satisfaction. Complement Ther Clin Pract. 2017;28:169–75 **Norhapifah H**, Isa MR, Abdullah B, Mohamed S. The Impact of Shiatsu Massage on Labour Pain and Anxiety: A Randomized Controlled Trial. Int J Community Based Nurs Midwifery. 2024;12(4):243–53. doi: 10.30476/ijcbnm.2024.101509.2432

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With massage		Risk with standard care	Risk difference with massage
Pain (VAS score)[9]											
202 (3 RCTs)	serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	101	101	-	The mean pain (VAS score) was **6.82**	MD **1.77 lower** (2.26 lower to 1.28 lower)

CI: confidence interval; **MD:** mean difference

Explanations

a. Risk of bias was downgraded due to concerns about randomization.
b. Imprecision was downgraded due to the very small sample size.

[9] Pain was assessed using a scale ranging from 0 to 10, with 0 representing no pain and 10 signifying the highest possible pain intensity.

GRADE TABLE 8: Massage and instructions on breathing techniques VS standard care

Bibliography: Yildirim G, Sahin NH. The effect of breathing and skin stimulation techniques on labour pain perception of Turkish women. Pain Res Manag. 2004;9(4):183–7.

Certainty assessment							Summary of findings				
							Study event rates (%)			Anticipated absolute effects	
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	With standard care	With massage + breathing techniques	Relative effect (95% CI)	Risk with standard care	Risk difference with massage + breathing techniques
Pain (VAS 0-10)[10]											
40 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	-	-	-	The mean pain score was **3.00**	MD **1.25 lower** (1.97 lower to 0.53 lower)

CI: confidence interval; **MD:** mean difference

Explanations

a. Risk of bias was downgraded due to concerns about the selection of participants into the study and group allocation. Participants were selected from volunteers by non-random sampling. It was not clear how participants were assigned to the experimental and control groups. We assessed risk of bias using the ROBINS-I tool.
b. Imprecision was downgraded due to the very small sample size.

[10] Pain was assessed using a scale ranging from 0 to 10, with 0 representing no pain and 10 signifying the highest possible pain intensity.

GRADE TABLE 9: TENS VS placebo

Bibliography: Thomas IL, Tyle V, Webster J, Neilson A. An evaluation of transcutaneous electrical nerve stimulation for pain relief in labour. Aust N Z J Obstet Gynaecol. 1988 Aug;28(3):182–9.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With placebo	With TENS		Risk with placebo	Risk difference with TENS
Low back pain[11]											
275 (1 RCT)	serious[a]	not serious	serious[b]	serious[c]	none	⨁◯◯◯ Very low	-	-	-	The mean low back pain at <7 cm cervical dilation was 35	MD **2 lower** (9.69 lower to 5.69 higher)
Abdominal pain[11]											
275 (1 RCT)	serious[a]	not serious	serious[b]	serious[c]	none	⨁◯◯◯ Very low	-	-	-	The mean abdominal pain at <7 cm cervical dilation was 56	MD **1 higher** (5.4 lower to 7.4 higher)

CI: confidence interval; **MD:** mean difference; **OR:** odds ratio

Explanations

a. Risk of bias assessments from the Cochrane review "Transcutaneous electrical nerve stimulation (TENS) for pain management in labour" (2009) have been used. In these assessments, concerns about allocation concealment, blinding, and incomplete outcome data were identified.
b. This study included participants who were induced.
c. Imprecision was downgraded due to the low sample size and confidence interval that crosses the null.

[11] Pain was rated on a scale of 0-100, with 0 meaning no pain at all and 100 meaning the pain could not be worse.

GRADE TABLE 10: Music VS standard care

Bibliography: Smith CA, Levett KM, Collins CT, Armour M, Dahlen HG, Suganuma M. Relaxation techniques for pain management in labour. Cochrane Database Syst Rev. 2018 Mar 28;3(3):CD009514.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With music		Risk with standard care	Risk difference with music
Pain (VAS 0-10)[12]											
192 (2 RCTs)	serious[a]	not serious	not serious	serious[b]	none	⨁⨁◯◯ Low	-	-	-	The mean pain score was 5.54	MD **0.73 lower** (1.01 lower to 0.45 lower)
Anxiety (VAS 0-10)[13]											
192 (2 RCTs)	serious[a]	serious[c]	not serious	very serious[d]	none	⨁◯◯◯ Very low	-	-	-	The mean anxiety score was 5.13	MD **0.08 higher** (1.86 lower to 2.02 higher)

CI: confidence interval; **MD:** mean difference

Explanations

a. Risk of bias assessments from the Cochrane review "Relaxation techniques for pain management in labour" (2018) have been used. In these assessments, concerns about blinding, incomplete outcome data and selective reporting were identified.
b. Imprecision was downgraded due to the small sample size.
c. The results from these studies are inconsistent; $I^2 = 88\%$.
d. Imprecision was downgraded due to the small sample size and wide confidence interval that crosses the null.

[12] Pain was rated on a scale from 0-10, with 0 meaning no pain 10 meaning the worst possible pain.

[13] Anxiety was rated on a scale from 0-10, with 0 meaning no anxiety and 10 meaning the worst possible anxiety.

GRADE TABLE 11: Breathing techniques VS placebo

Bibliography: Cicek S, Basar F. The effects of breathing techniques training on the duration of labor and anxiety levels of pregnant women. 2017 Nov;29:213–9.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With breathing + massage		Risk with standard care	Risk difference with breathing + massage
Anxiety (STAI)[14]											
70 (1 RCT)	serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	35	35	-	The mean anxiety score was 38.22	MD **0.22 lower** (1.77 lower to 1.33 higher)

CI: confidence interval; **MD:** mean difference

Explanations

a. Risk of bias was downgraded due to concerns about the sampling and randomization methods.
b. Imprecision was downgraded due to the very small sample size.

[14] Spielberger's State-Trait Anxiety Inventory was used to determine the level of anxiety experienced by participants. On this scale scores range from 20 80 with a score of 20-39 indicating low anxiety, 40-59 indicating moderate anxiety and 60-80 indicating high anxiety.

GRADE TABLE 12: Before birth ball exercises VS after birth ball exercises

Bibliography: Leung RWC, Li JFP, Leung MKM, Fung BKY, Fung LCW, Tai SM, et al. Efficacy of birth ball exercises on labour pain management. Hong Kong Med J. 2013;19(5):393–9. doi: 10.12809/hkmj133921

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							Before birth ball	After birth ball		Risk before birth ball	Risk difference after birth ball
Pain[15]											
181 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	-	-	-	The mean pain score was **5.3**	MD **1 lower** (0.8 higher to 1.3 higher)
Anxiety[16]											
181 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	-	-	-	The mean anxiety score was **3.7**	**1.5 lower** (1.3 higher to 1.8 higher)

CI: confidence interval; **MD:** mean difference

Explanations

a. Risk of bias was rated very serious due to concerns about selection bias and confounding. (Assessed using ROBINS-I).
b. Imprecision was downgraded due to the small sample size.

[15] Pain was rated on a scale from 0-10, with 0 meaning no pain 10 meaning the worst possible pain.
[16] Anxiety was rated on a scale from 0-10, with 0 meaning no anxiety and 10 meaning the worst possible anxiety.

GRADE TABLE 13: Birth ball and education video on how to use it VS standard care

Bibliography: Mylod DCM, Hundley V, Way S, Clark C. Using a birth ball to reduce pain perception in the latent phase of labour: a randomised controlled trial. Women Birth. 2024;37(2):379–86. doi: 10.1016/j.wombi.2023.11.008

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With birth ball		Risk with placebo	Risk difference with birth ball
Pain (VAS)[17]											
144 (1 RCT)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	-	-	-	The mean pain score (VAS) was **6.3**	MD **0.2 higher** (0.44 lower to 0.84 higher)

CI: confidence interval; **MD:** mean difference

Explanations

a. Risk of bias was downgraded due to deviations from the intended intervention and high rates of loss to follow up.
b. Imprecision was downgraded due to the small sample size and wide confidence intervals.

[17] Pain was rated on a scale from 0-10, with 0 meaning no pain 10 meaning the worst possible pain.

GRADE TABLE 14: Early VS later water immersion

Bibliography: Cluett ER, Burns E, Cuthbert A. Immersion in water during labour and birth. Cochrane Database Syst Rev. 2018;5:CD000111.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With water immersion		Risk with standard care	Risk difference with water immersion
Use of pharmacological analgesia											
200 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	19/100 (19.0%)	42/100 (42.0%)	**RR 2.21** (1.39 to 3.52)	19/100 (19.0%)	**230 more per 1,000** (from 74 more to 479 more)
Oxytocin											
200 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	30/100 (30.0%)	57/100 (57.0%)	**RR 1.90** (1.35 to 2.68)	30/100 (30.0%)	**270 more per 1,000** (from 105 more to 504 more)

CI: confidence interval; **RR:** risk ratio

Explanations

a. Imprecision was downgraded due to the very low event rates and small sample size.

GRADE TABLE 15: Shower VS standard care

Bibliography: Lee SL, Liu CY, Lu YY, Gau ML. Efficacy of warm showers on labor pain and birth experiences during the first labor stage. J Obstet Gynecol Neonatal Nurs. 2013;42(1):19–28**.; Taşkın A**, Ergin A. Effect of hot shower application on pain anxiety and comfort in the first stage of labor: A randomized controlled study. Health Care Women Int. 2022 May;43(5):431–47.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With standard care	With shower		Risk with standard care	Risk difference with shower
Pain (VAS 0-10)[18]											
184 (2 RCTs)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	-	-	-	The mean pain score was 5.6	MD **0.83 lower** (1.32 lower to 0.34 lower)
Anxiety (STAI)[19]											
104 (1 RCT)	not serious	not serious	not serious	very serious[a]	none	⨁⨁◯◯ Low	-	-	-	The mean anxiety score was 50.69	MD **17.85 lower** (19.19 lower to 16.51 lower)

CI: confidence interval; **MD:** mean difference

Explanations

a. Imprecision was downgraded due to the very small sample size.

[18] Pain was rated on a scale from 0-10, with 0 meaning no pain 10 meaning the worst possible pain.

[19] Spielberger's State-Trait Anxiety Inventory was used to determine the level of anxiety experienced by participants. On this scale scores range from 20 80 with a score of 20-39 indicating low anxiety, 40-59 indicating moderate anxiety and 60-80 indicating high anxiety.

ADDRESSING PAIN AND/OR FATIGUE IN EARLY LABOUR

GRADE TABLE 1: Therapeutic rest VS no treatment

Bibliography: Maykin MM, Ukoha EP, Tilp V, Gaw SL, Lewkowitz AK. Impact of therapeutic rest in early labor on perinatal outcomes: a prospective study. Am J Obstet Gynecol MFM. 2021;3(3):100325.

Certainty assessment							Summary of findings				
							Study event rates (%)			Anticipated absolute effects	
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	With no therapeutic rest	With therapeutic rest	Relative effect (95% CI)	Risk with no therapeutic rest	Risk difference with therapeutic rest
Admission to hospital in active labour (>6cm)											
82 (1 non-randomised study)	very serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	2/16 (12.5%)	17/66 (25.8%)	**aRR 1.87** (0.44 to 7.89)	2/16 (12.5%)	**109 more per 1,000** (from 70 fewer to 861 more)
Induction of labour											
82 (1 non-randomised study)	very serious[a]	not serious	not serious	very serious[c]	none	⨁◯◯◯ Very low	4/16 (25.0%)	3/66 (4.5%)	**aRR 0.15** (0.04 to 0.54)	4/16 (25.0%)	**213 fewer per 1,000** (from 240 fewer to 115 fewer)
Labour augmentation											
82 (1 non-randomised study)	very serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	13/16 (81.3%)	47/66 (71.2%)	**aRR 0.89** (0.67 to 1.17)	13/16 (81.3%)	**89 fewer per 1,000** (from 268 fewer to 138 more)
Neuraxial anesthesia											
82 (1 non-randomised study)	very serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	14/16 (87.5%)	60/66 (90.9%)	**aRR 1.01** (0.84 to 1.23)	14/16 (87.5%)	**9 more per 1,000** (from 140 fewer to 201 more)
Caesarean section											

82 (1 non-randomised study)	very serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	2/16 (12.5%)	14/66 (21.2%)	**aRR 1.45** (0.33 to 5.43)	2/16 (12.5%)	**56 more per 1,000** (from 84 fewer to 554 more)

CI: confidence interval; **RR:** risk ratio

Explanations

a. Risk of bias was downgraded due to concerns about confounding. Though the authors controlled for some variables there may be additional residual confounding that was not controlled for. Though there was no difference in cervical dilation between the two groups, birthing parents who chose to receive therapeutic rest reported significantly longer duration of contractions before being offered the therapy. This difference between the two groups may have had an impact on the results. (Assessed using ROBINS-I).

b. Imprecision was downgraded due to the low event rates, very small sample size and wide confidence interval that crosses the null.

c. Imprecision was downgraded due to the low event rate and very small sample size.

GRADE TABLE 2: Therapeutic rest Vs no therapeutic rest

Bibliography: Bagger NT, Milidou I, Boie S, Glavind J. Perinatal outcomes after therapeutic rest in the latent phase of labor: A cohort study. Acta Obstet Gynecol Scand. 2023;102(9):1210–8.

Certainty assessment							Summary of findings				
							Study event rates (%)			Anticipated absolute effects	
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	With control	With therapeutic rest	Relative effect (95% CI)	Risk with control	Risk difference with therapeutic rest
Admission to NICU											
800 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	25/386 (6.5%)	38/414 (9.2%)	**aOR 1.2** (0.4 to 3.1)	25/386 (6.5%)	**12 more per 1,000** (from 38 fewer to 112 more)
Neonatal resuscitation											
800 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	12/386 (3.1%)	10/414 (2.4%)	**aOR 0.70** (0.31 to 4.00)	12/386 (3.1%)	**9 fewer per 1,000** (from 21 fewer to 83 more)
Oxytocin augmentation											
800 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[c]	none	⨁◯◯◯ Very low	118/386 (30.6%)	200/414 (48.3%)	**aOR 0.8** (0.4 to 1.5)	118/386 (30.6%)	**45 fewer per 1,000** (from 156 fewer to 92 more)
Epidural											
800 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[c]	none	⨁◯◯◯ Very low	149/386 (38.6%)	230/414 (55.6%)	**aOR 0.9** (0.5 to 1.6)	149/386 (38.6%)	**25 fewer per 1,000** (from 147 fewer to 115 more)
Caesarean section											
800 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	29/386 (7.5%)	63/414 (15.2%)	**aOR 1.2** (0.5 to 2.9)	29/386 (7.5%)	**14 more per 1,000** (from 36

											fewer to 116 more)

CI: confidence interval; **OR:** odds ratio

Explanations

a. Risk of bias was downgraded due to concerns about confound. Though the authors controlled for some variables, there may be additional unknown or residual confounding. (Assessed using ROBINS-I).
b. Imprecision was rated serious due to the low number of events and the wide confidence interval that crosses the null.
c. Imprecision was rated serious due to the wide confidence interval that crosses the null.

GRADE TABLE 3: Early VS late initiation of epidural

Bibliography: Sng BL, Leong WL, Zeng Y, Siddiqui FJ, Assam PN, Lim Y, et al. Early versus late initiation of epidural analgesia for labour. Cochrane Database of Systematic Reviews [Internet]. 2014;(10). Available from: http://dx.doi.org/10.1002/14651858.CD007238.pub2

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With late epidural	With early epidural		Risk with late epidural	Risk difference with early epidural
Caesarean section											
15499 (9 RCTs)	not serious	not serious	very serious[a]	serious[b]	none	⨁◯◯◯ Very low[a,b]	1727/7746 (22.3%)	1761/7753 (22.7%)	**RR 1.02** (0.96 to 1.08)	1727/7746 (22.3%)	**4 more per 1,000** (from 9 fewer to 18 more)
Oxytocin augmentation											
15319 (7 RCTs)	not serious	not serious	very serious[a]	serious[b]	none	⨁◯◯◯ Very low[a,b]	1812/7656 (23.7%)	1789/7663 (23.3%)	**RR 0.99** (0.93 to 1.05)	1812/7656 (23.7%)	**2 fewer per 1,000** (from 17 fewer to 12 more)
Latent phase duration											
12793 (1 RCT)	not serious	not serious	serious[c]	not serious	none	⨁⨁⨁◯ Moderate	-	-	-	The mean latent phase duration was 485 minutes	MD **6 minutes lower** (7.91 lower to 4.09 lower)

CI: confidence interval; **MD:** mean difference; **RR:** risk ratio

Explanations

a. We downgraded for indirectness due to concerns about the composition of the groups. Six out of the nine studies did not have clear divisions between the early and late epidural groups. Additionally, in many of these studies participants in the late epidural group received opioids before receiving epidural. In only two studies did the late epidural group receive no pain management before epidural. This additional pain management confounds the results.

b. Imprecision was downgraded because the confidence interval crosses the null.

c. We downgraded for indirectness because the authors did not clearly state their definition the onset of labour and it was unclear how the length of the latent phase was measured.

METHODS TO PROMOTE PROGRESS IN EARLY LABOUR

GRADE TABLE 1: Nipple stimulation VS control

Bibliography: Mousavi S, Rouhollahi B, Zakariya NA, Bastani Alamdari P, Nikniaz L. Evaluating the effect of nipple stimulation during labour on labour progression in term pregnant women. J Obstet Gynaecol [Internet]. 2022;42(5):994–8.

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With control	With nipple stimulation		Risk with control	Risk difference with nipple stimulation
Oxytocin augmentation											
220 (1 RCT)	serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	42/110 (38.2%)	29/110 (26.4%)	**OR 0.58** (0.33 to 1.03)	42/110 (38.2%)	**118 fewer per 1,000** (from 213 fewer to 7 more)
Duration of latent phase											
220 (1 RCT)	serious[a]	not serious	not serious	very serious[c]	none	⨁◯◯◯ Very low	The median duration of the latent phase in those who received nipple stimulation was 3.2 hours and the median in the control group was 4.8 hours.				

CI: confidence interval; **MD:** mean difference; **OR:** odds ratio

Explanations

a. Risk of bias was downgraded as it was not clear how many participants continued nipple stimulation until delivery, and how many discontinued before delivery. Additionally, some of the data reported in this study was unclear.
b. Imprecision was rated serious due to the low number of events, small sample size and confidence intervals that cross the null.
c. Imprecision was downgraded due to the small sample size.

GRADE TABLE 2: Induction VS expectant management among clients with early labour greater than 18 hours

Bibliography: Brane E, Olsson A, Andolf E. A randomized controlled trial on early induction compared to expectant management of nulliparous women with prolonged latent phases. Acta Obstet Gynecol Scand [Internet]. 2014;93(10):1042–9

Certainty assessment							Summary of findings				
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
							With expectant management	With induction		Risk with expectant management	Risk difference with induction
Caesarean section											
129 (1 RCT)	serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	24/64 (37.5%)	15/65 (23.1%)	**OR 0.50** (0.23 to 1.08)	24/64 (37.5%)	**144 fewer per 1,000** (from 254 fewer to 18 more)
Epidural											
129 (1 RCT)	serious[a]	not serious	not serious	very serious[b]	none	⨁◯◯◯ Very low	58/64 (90.6%)	59/65 (90.8%)	**OR 1.02** (0.31 to 3.34)	58/64 (90.6%)	**2 more per 1,000** (from 156 fewer to 64 more)

CI: confidence interval; **MD:** mean difference; **OR:** odds ratio

Explanations

a. Risk of bias was downgraded due to concerns about deviations from the intended intervention.
b. Imprecision was downgraded due to the low event rates, very small sample size, and wide confidence interval that crosses the null.
c. Imprecision was downgraded due to the very small sample size.

GRADE TABLE 3: Induction VS expectant management among clients with early labour greater than eight hours

Bibliography: Sargunam PN, Bak LLM, Tan PC, Vallikkannu N, Noor Azmi MA, Zaidi SN, et al. Induction of labor compared to expectant management in term nulliparas with a latent phase of labor of more than 8 hours: a randomized trial. 2019 Dec 11;19(1)

Certainty assessment							Summary of findings				
							Study event rates (%)		Relative effect (95% CI)	Anticipated absolute effects	
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	With expectant management	With induction		Risk with expectant management	Risk difference with induction
Caesarean section											
308 (1 RCT)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	37/159 (23.3%)	36/149 (24.2%)	**RR 1.04** (0.70 to 1.55)	37/159 (23.3%)	**9 more per 1,000** (from 70 fewer to 128 more)
Epidural											
308 (1 RCT)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	20/159 (12.6%)	20/149 (13.4%)	**RR 1.07** (0.60 to 1.90)	20/159 (12.6%)	**9 more per 1,000** (from 50 fewer to 113 more)
Admission to neonatal unit											
308 (1 RCT)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	9/159 (5.7%)	6/149 (4.0%)	**RR 0.71** (0.26 to 1.95)	9/159 (5.7%)	**16 fewer per 1,000** (from 42 fewer to 54 more)

CI: confidence interval; **MD:** mean difference; **RR:** risk ratio

Explanations

a. Risk of bias was downgraded due to concerns about deviations from the intended intervention. It was unclear how many participants randomized to expectant management went on to receive induction.
b. Imprecision was downgraded due to the low event rates, small sample size, and confidence interval that crosses the null.
c. Imprecision was downgraded due to the small sample size.

GRADE TABLE 4: Oxytocin augmentation at ≤5 cm VS oxytocin augmentation 6-10 cm

Bibliography: Bruggemann C, Carlhall S, Grundstrom H, Blomberg M. Labor dystocia and oxytocin augmentation before or after six centimeters cervical dilatation, in nulliparous women with spontaneous labor, in relation to mode of birth. BMC Pregnancy Childbirth [Internet]. 2022;22(1):408.

Certainty assessment							Summary of findings				
							Study event rates (%)			Anticipated absolute effects	
Participants (studies) Follow-up	Risk of bias	Inconsistency	Indirectness	Imprecision	Publication bias	Overall certainty of evidence	With oxytocin augmentation 6-10	With oxytocin augmentation ≤ 5	Relative effect (95% CI)	Risk with oxytocin augmentation 6-10	Risk difference with oxytocin augmentation ≤5
Operative delivery (Caesarean section or instrumental birth)											
386 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	39/183 (21.3%)	54/203 (26.6%)	**OR 1.28** (0.78 to 2.08)	39/183 (21.3%)	**44 more per 1,000** (from 39 fewer to 147 more)
Epidural											
386 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[b]	none	⨁◯◯◯ Very low	162/183 (88.5%)	178/203 (87.7%)	**OR 0.91** (0.48 to 1.73)	162/183 (88.5%)	**10 fewer per 1,000** (from 98 fewer to 45 more)
Negative birth experience											
386 (1 non-randomised study)	very serious[a]	not serious	not serious	serious[c]	none	⨁◯◯◯ Very low	33/183 (18.0%)	53/203 (26.1%)	**OR 1.76** (1.05 to 2.95)	33/183 (18.0%)	**99 more per 1,000** (from 7 more to 213 more)

CI: confidence interval; **OR:** odds ratio

Explanations

a. Risk of bias was downgraded due to concerns about confounding., Though some variables were controlled for, there may be additional residual confounding. We cannot know if the differences in rates of operative delivery or negative experiences are due to receiving oxytocin early, or if the birthing parents who need oxytocin early have inherently more challenging births that lead to these outcomes.

b. Imprecision was downgraded due to the low number of events, small sample size and confidence interval that crosses the null.

c. Imprecision was downgraded due to the low number of events and small sample size.