

Supplementary Material for

Spontaneous Preterm Labour and Birth (Including Preterm Pre-labour Rupture of Membranes)

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Comparison of selected International and National guidelines (WHO, UK, US) for preterm labor and PPROM in a singleton pregnancy.

	WHO ^{2, 3, 4}	NICE/RCOG/NHSE ^{1, 5, 6, 7}	ACOG ^{8, 9, 10, 11}
Screening for preterm birth risk (asymptomatic)	NS	<p>High risk women (previous preterm birth/PPROM/loss 16-34 weeks; known uterine variant; history of trachelectomy or known intrauterine adhesions) should be offered serial transvaginal scanning every 2-4 weeks between 16-24 weeks of gestation. Additional use of quantitative fetal fibronectin may be considered.</p> <p>Women at intermediate risk (previous full dilation caesarean section/significant vaginal surgery) should have as a minimum one transvaginal cervical length measurement 18-22 weeks.</p>	<p>Serial endovaginal ultrasound measurement of cervical length beginning at 16 0/7 weeks of gestation and repeated until 24 0/7 weeks of gestation for individuals with a singleton pregnancy and a prior spontaneous preterm birth is recommended.</p> <p>In all women, the cervix should be visualised at the routine anatomy ultrasound 18-22 weeks and if short, transvaginal ultrasound should be requested to accurately measure length of the cervix.</p>
Prophylaxis of preterm birth	NS	<p>Offer choice of vaginal progesterone or cerclage to women with a history of preterm birth or late miscarriage AND a cervical length of 25mm or less</p> <p>Consider vaginal progesterone for women with a history or preterm birth/late miscarriage OR a cervical length of 25mm or less</p> <p>Consider a cervical cerclage for women with a cervix of 25mm or less and a history of PPROM OR cervical trauma.</p>	<p>Vaginal progesterone is recommended for asymptomatic individuals without a history of preterm birth with a singleton pregnancy and a short cervix (cerclage possibly of benefit if cervical length is <10mm)</p> <p>Patients with a singleton pregnancy and a prior spontaneous preterm birth should be offered progesterone supplementation (either vaginal or intra- muscular), or cervical cerclage.</p> <p>Patients with a singleton gestation, prior spontaneous</p>

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		Consider pre-pregnancy or early pregnancy (<14 weeks) abdominal cerclage for women with a previous failed cervical stitch.	preterm birth, and a short second-trimester cervix who are already on progesterone supplementation may be offered cerclage in addition to continuation of progesterone.
Emergency cervical cerclage with bulging membranes	NS	Do not offer if signs of infection, active bleeding or uterine contractions. Consider between 16 ⁺⁰ and 27 ⁺⁶ if fetal membranes exposed, taking into account gestational age and the extent of cervical dilation	Consider emergency cerclage if dilation/membranes exposed on examination in appropriately selected candidates.
Diagnosis of PPROM	NS	If, on speculum examination, no amniotic fluid is observed, clinicians should consider performing an IGFBP-1 or PAMG-1 test of vaginal fluid to guide further management.	Diagnosis based on pooling of amniotic fluid, pH test and/or ferning of dried vaginal fluid under the microscope. Commercially available tests for PPROM could be considered in the absence of standard methods of diagnosis (high false positive rates).
Diagnosis of preterm labor with intact membranes	NS	Clinical history and speculum examination Consider transvaginal ultrasound scan if 30 weeks of gestation or more to determine likelihood of birth within 48 hours. Consider fetal fibronectin testing to determine likelihood of birth within 48 hours	A cervical length of <25mm between 16- and 24-weeks' gestation demonstrates increased preterm birth risk. The absence of fetal fibronectin is useful to demonstrate low risk for patients symptomatic of preterm labor

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Antenatal corticosteroids	<p>Recommended between 24 and 34 weeks if preterm birth considered imminent <7 days</p> <p>Single repeat course recommended if no delivery <7 days, and risk of imminent preterm birth <7 days remains high.</p> <p>Antenatal corticosteroid therapy <i>is not</i> recommended for women with chorioamnionitis who are likely to give birth preterm.</p>	<p>Should be offered to women between 24⁺⁰- and 34⁺⁶-weeks' gestation in whom imminent preterm birth is anticipated (either due to established preterm labor, preterm prelabor rupture of membranes [PPROM] or planned preterm birth)</p> <p>Consider the balance of risks and benefits in women between 35⁺⁰ and 36⁻⁶ weeks of gestation.</p> <p>Obstetric and neonatal team should discuss administration to women 22-23⁺⁶ weeks gestation in the context of individual circumstances and preferences.</p> <p>Consider a single repeat course if <34 weeks of gestation, received a course of steroids >7 days ago, and chance of preterm delivery remain high (limited evidence to recommend but may reduce need for respiratory support).</p>	<p>A single course of corticosteroids is recommended for pregnant women between 24⁺⁰ weeks and 33⁺⁶ weeks of gestation who are at risk of preterm delivery within 7 days, including for those with ruptured membranes and multiple gestations.</p> <p>Consider from 23 weeks based on a family's decision regarding resuscitation.</p> <p>A single course is recommended for pregnant women between 34⁺⁰ weeks and 36⁺⁶ weeks of gestation at risk of preterm birth within 7 days, and who have not received a previous course of antenatal corticosteroids.</p> <p>A single repeat course should be considered in women who are less than 34⁺⁰ weeks of gestation who are at risk of preterm delivery within 7 days, and whose prior course was administered more than 14 days previously.</p>

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Tocolysis	Nifedipine is recommended for acute and maintenance tocolytic therapy for women 24 to 33+6 weeks of gestation with a high likelihood of preterm birth for the purpose of improving newborn outcomes if it permits a course of antenatal corticosteroids to be administered or enables transfer to a centre where adequate care can be administered to the preterm infant	<p>Consider nifedipine for tocolysis for women between 24⁺⁰ and 25⁺⁶ weeks of pregnancy who have intact membranes and are in suspected preterm labor</p> <p>Offer nifedipine for tocolysis to women between 26⁺⁰ and 33⁺⁶ weeks of pregnancy who have intact membranes and are in suspected or diagnosed preterm labor.</p>	<p>First-line tocolytic treatment with beta-adrenergic agonist therapy, calcium channel blockers, or NSAIDs for short-term prolongation of pregnancy (up to 48 hours) to allow for the administration of antenatal steroids.</p> <p>Maintenance therapy with tocolytics is ineffective for preventing preterm birth and improving neonatal outcomes and is not recommended for this purpose.</p>
Magnesium sulphate	Recommended for women at risk of imminent preterm birth <32 weeks gestation	<p>Consider between 22⁺⁰ and 23⁺⁶ in suspected preterm labor, after discussion with women and MDT in the context of individual circumstances.</p> <p>Offer to women between 24 and 29+6 in established labor or having a planned preterm birth.</p> <p>Consider in women 30⁺⁰- and 33+6-weeks' gestation in established preterm labor.</p>	<p>Consider between 22⁺⁰ and 23⁺⁶ weeks if periviable delivery of a potentially viable infant is anticipated.</p> <p>Recommended for women when potentially viable birth is anticipated prior to 32 weeks of gestation.</p>

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Antibiotics	<p>Not recommended for preterm labor with intact membranes.</p> <p>Recommended for PPROM (erythromycin).</p>	<p>Following the diagnosis PPROM, an antibiotic (preferably erythromycin) should be given for 10 days or until the woman is in established labor (whichever is sooner).</p> <p>Offer antibiotics to all women in established preterm labor.</p>	<p>A 7-day course of antibiotics (combination of intravenous ampicillin and erythromycin followed by oral amoxicillin and erythromycin) is recommended during expectant management of women with PPROM who are at less than 34 weeks of gestation.</p> <p>Women with preterm PPROM and a viable fetus who are candidates for intrapartum GBS prophylaxis should receive intrapartum GBS prophylaxis. Antibiotics should not be used to prolong gestation or improve neonatal outcomes in women with preterm labor and intact membranes (in the absence of specific indications for antibiotics).</p>
Mode of delivery	<p>Routine caesarean section for the purpose of improving neonatal outcomes is not recommended regardless of cephalic or breech presentation</p>	<p>Discuss the general benefits and risks of cesarean birth and vaginal birth with women in suspected, diagnosed or established preterm labor and in PPROM.</p> <p>Consider cesarean section birth for women in established preterm labor.</p>	NS

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Timing of delivery in PPROM	NS	Women whose pregnancy is complicated by PPROM after 24 ⁺⁰ weeks' gestation and who have no contraindications to continuing the pregnancy should be offered expectant management until 37 ⁺⁰ weeks.	<p>In the absence of maternal or fetal indications for delivery, PPROM up to 34⁺⁰ weeks should be managed conservatively.</p> <p>Either expectant management or immediate delivery in patients with PROM between 34⁺⁰ weeks of gestation and 36⁺⁶ weeks of gestation is a reasonable option. For women with PROM at 37⁺⁰ weeks of gestation or more, if spontaneous labor does not occur near the time of presentation in those who do not have contra-indication to labor, labor induction should be recommended.</p>

NS- not specified.

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