

**Table 1. High risk conditions proposed for additions/~~deletions~~/modifications disposition**

The HERC received many public comments on the list of proposed “High risk conditions necessitating consultation or transfer.” It was deemed more suitable that high risk conditions should be divided into separate lists; one encompassing conditions that would indicate planned hospital birth (or transfer), the other noting those conditions where consultation would be appropriate to assure the appropriateness of planned out of hospital birth.

In the table below, conditions that were raised as concerns in public comments are listed to the left. Disposition of these items to a list indicating consultation or transfer/planned hospital birth is noted, and sources cited.

	<b>Pregnancy Complication (Comment)</b>	<b>Consultation required for coverage</b>	<b>Planned hospital delivery/transfer to hospital required for coverage</b>	<b>Source(s)</b>	<b>Recommendation/ Rationale</b>
1	Gestational age of 36 weeks (proposed <b>modification</b> to minimum low-risk criteria)		X (preterm, GA <37w0d)	NICE guideline	Low-risk criteria were clarified. Intention is 36 <b>completed</b> weeks of pregnancy (i.e. 37 weeks + 0 days) as recommended by NICE is required to be considered low-risk; therefore any point during 36 <sup>th</sup> week requires transfer.
2	Pregnancy past 41 weeks (proposed <b>modification</b> to minimum low-risk criteria)		X (postdates, GA >41w6d)	NICE guideline recommends 41 completed weeks. Oregon Birth Center risk criteria place the upper limit at 43 weeks, or 42 weeks with abnormal non-stress test.	Low-risk criteria were clarified. Intention is to be consistent with NICE guidance on <b>completed</b> weeks of pregnancy. Box language was modified to indicate upper limit is 41 weeks + 6 days.
3	Prior Cesarean section (proposed <b>addition</b> to minimum low-risk criteria)		X	NICE guideline, Table 6	EbGS agrees that patients with prior Cesarean section are not low-risk for out-of-hospital birth, it is considered an exclusion criteria for OOH birth coverage recommendation. See comment F15, commenter cites two studies.

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4 Ultrasound between 12-30 weeks (proposed <a href="#">addition</a> to minimum low-risk criteria)			HERC Coverage Guidance on Ultrasound in Pregnancy	Not added to low-risk criteria based on previous evidence review finding no change in management of pregnancy based on routine ultrasound.
5 Diabetes, pre-existing or gestational (proposed <a href="#">addition</a> )	X <a href="#">(Gestational, diet- and exercise-controlled only)</a>	X <a href="#">(Type I, Type II, uncontrolled gestational, or gestational controlled with medication)</a>	<p><a href="#">Oregon LDM low-risk criteria and birth center</a> absolute risk criteria exclude existing diabetes, uncontrolled GDM or GDM controlled with medication.</p> <p><a href="#">NICE</a> guideline lists diabetes as an indication for hospital birth.</p> <p><a href="#">Ontario</a> suggests transfer of care for insulin-requiring diabetics and consultation for those unresponsive to dietary treatment.</p> <p><a href="#">Netherlands</a> guidance lists diabetes as indicating secondary-level obstetric care.</p>	Previously was incorporated into nonspecific language about maternal disease. EbGS added gestational diet- and exercise -controlled diabetes mellitus to consultation and all other types as indications for planned hospital birth.
6 Having had an IUD (proposed <a href="#">addition</a> )			Netherlands lists “Status following removal of the IUD” as category A (midwife/GP)	Not added to list based on absence of evidence of risk.

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7 Extremes of maternal age (proposed <a href="#">addition</a> ; prior box language said age <14)			NICE recommends consultation for maternal age >35 but does not put a lower age limit on home birth. Guidelines from British Columbia specify age less than 17 or over 40 as indication for discussion, and age less than 14 as indication for consultation.	Commenters suggest <17 should be an indication for hospital birth, sources only recommend consultation for age less than 14. EbGS decided to strike these recommended criteria for consultation based on lack of evidence that age in of itself is a criterion necessitating consultation in the absence of other factors.
8 Prior third-degree laceration (proposed <a href="#">addition</a> in E2) Prior fourth-degree laceration (proposed <a href="#">deletion</a> in F9)	X		NICE lists “Extensive vaginal, cervical, or third- or fourth-degree perineal trauma” as a consultation indication; Netherlands guidance recommends midwife/GP care if function was restored (category A) and secondary obstetrical care if it was not (category C).	EbGS decided to require consultation for third - or fourth degree lacerations, and to require planned hospital birth where function has not been restored after a prior fourth-degree laceration.

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<p>9 Intrapartum third- or fourth- degree laceration (proposed <b>deletion</b> in F24)</p>		X	<p>British Columbia and Ontario list third and fourth degree lacerations as indicating consultation. Netherlands lists fourth-degree laceration as an indication for transfer to secondary obstetrical care.</p>	<p>Laceration requiring hospital repair (e.g., extensive vaginal, cervical or third/fourth degree trauma), is included in box language on the list of intrapartum complications requiring transfer. Coverage guidance could be further amended to include third- or fourth-degree laceration not requiring hospital repair as an indication for consultation without transfer 4<sup>th</sup> degree and 3<sup>rd</sup> degree requiring hospital repair requires transfer to hospital. 3<sup>rd</sup> degree not requiring hospital repair requires consultation.</p>
<p>10 Prior fractured clavicle and shoulder dystocia (proposed <b>addition</b>)</p>	X		<p>NICE guideline: NICE lists shoulder dystocia as an indication for planned hospital birth. Fetal clavicular fracture would presumably be secondary to dystocia so we have added clarification.</p>	<p>EbGS discussed that definition is challenging and ultimately determined that consultation should be obtained to elicit specific circumstances &amp; severity, and determine likelihood of recurrence.</p>
<p>11 Maternal Jehovah's Witness status (proposed <b>addition</b>)</p>			<p>No evidence sources</p>	<p>No evidence was discovered or provided to support inclusion of maternal objection to transfusion as a high-risk condition. EbGS discussed that the reason for transfer would be to obtain blood products, which would be refused by the patient, so this was not added.</p>

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12 Maternal seizure disorder/epilepsy (proposed <a href="#">addition</a> )	X <a href="#">Maternal seizure disorder (excluding eclampsia)</a>		Netherlands B if medicated NICE guideline indicates transfer regardless of medication status	Core sources differ. Medication use may not be a good proxy for risk level, and labor seldom triggers an underlying seizure disorder. EbGS discussed and ultimately decided to require consultation in this condition.
13 Prior infant > 9 lbs (proposed <a href="#">addition</a> )	X <a href="#">(History of baby &gt;4.5kg or 9lb14oz)</a>		NICE guideline	NICE recommends history of previous baby >4.5kg as an indication for consultation.
14 Suspected macrosomia (proposed <a href="#">addition</a> )	X <a href="#">(Suspected fetal macrosomia EFW &gt;4.5kg or 9 lbs 14 oz)</a>		NICE guideline	Suspicion of macrosomia in the <u>current</u> pregnancy is also an indication for consultation and was therefore also added.
15 Incomplete prenatal testing e.g. strep, STI, GDM (see comment G12) (proposed <a href="#">addition</a> )	X <a href="#">(inadequate prenatal care (defined as less than 5 prenatal visits or care began in the third trimester)</a>	X <a href="#">Unknown HIV or Hepatitis B status</a>	USPSTF recommends the following screening tests & preventive services for pregnant women: EtOH misuse screening; bacteriuria screening; breastfeeding counseling; CT & GC; GDM screening; HIV; iron-deficient anemia screening; syphilis screening; tobacco use counseling NICE recommends screening if mother is willing on booking.	Women with inadequate prenatal care face increased risk regardless of birth setting, so this by itself should not exclude home birth as an option. EbGS decided that unknown HIV or HBV status should warrant a planned hospital birth, as early interventions could make a difference to the newborn.
16 Severe mental health issues not well-controlled (proposed <a href="#">addition</a> )	X <a href="#">(Maternal mental illness under outpatient</a>	X <a href="#">(Maternal mental illness requiring inpatient care)</a>	NICE lists “psychiatric disorder requiring current inpatient care” as an indication for hospital birth, and “Under current outpatient	Follow more specific NICE guideline.

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	<a href="#">psychiatric care</a> )		psychiatric care” as an indication for consultation. Under the Netherlands guidance, psychiatric illness is category B (consultation situation), noting severity and extent of the disorder will determine the best course.	
17 Intrapartum or postpartum complications (proposed <b>deletion</b> )				EbGS feels it is important to note intrapartum and postpartum complications of mother and infant that would necessitate transfer to a higher level of care. This does not imply that the services provided by an out of hospital provider who was compliant with the guidance prior to development of a complication, who then transferred the patient(s) appropriately, would not be covered.
18 History of preterm birth (proposed <b>deletion</b> )	X		NICE does not list a history of preterm birth as a high-risk indication. A history of preterm birth is listed by Netherlands guidance as category B (consultation situation). Ontario guidance recommends consultation for “History of more than one preterm birth, or preterm birth less than 34 weeks 0 days in most recent pregnancy.”	Continue to include certain prior preterm births as requiring consultation to be consistent with Netherlands and Ontario guidance.

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19	History of more than three first trimester spontaneous abortions, or more than one second trimester spontaneous abortion (proposed <b>deletion</b> )	X		Ontario guidance	Retain box language including history of spontaneous abortions (i.e. miscarriage) as requiring consultation as taken from the Ontario guidance
20	Failure to progress/ failure of head to engage in active labor (proposed <b>deletion</b> )		X	Oregon birth center states this as a reason to transfer. Both the Ontario and Netherlands guidance recommend it as an indication for consultation.	EbGS discussed that consultation would result in a recommendation to transfer, so requiring transfer for failure to progress makes more sense.
21	Cervical dysplasia requiring evaluation (proposed <b>deletion</b> )	X		Netherlands guidance	Retain requirement as recommended by The Netherlands, which lists this as category B (consultation situation).
22	Hyperemesis gravidarum (proposed <b>deletion</b> )		X	Hyperemesis requires secondary level care until it is resolved (Netherlands guidance). Ontario and British Columbia also list refractory hyperemesis as an indication for consult.	Keep as a transfer criteria, but modify to “refractory hyperemesis gravidarum”
23	Family history of genetic/heritable disorders (proposed <b>deletion</b> )	X		Guidance from British Columbia lists “Family history of genetic disorders, hereditary disease or significant congenital anomalies” as an indication requiring consultation.	Retain to follow guidance from British Columbia, because some (but not all) heritable disorders require hospital care for the neonate in the immediate postpartum period.

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24	History of pre-eclampsia/HELLP syndrome (proposed <b>deletion</b> )	X  (if did not necessitate preterm birth)	X  (if necessitated preterm birth)	NICE lists history of pre-eclampsia as necessitating individual assessment; and history of pre-eclampsia requiring preterm birth as an indication for planned hospital birth. Netherlands lists prior HELLP syndrome as an indication for secondary care (category C).	Commenter requests further refinement if this is to be included (see comment F 10) Box language modified to align with NICE/Netherlands on when consultation vs transfer necessary for history of pre-eclampsia.
25	History of unexplained stillbirth/neonatal death or previous death related to intrapartum difficulty (proposed <b>deletion</b> )	X  (unexplained stillbirth/neonatal death or previous death <u>un</u> related to intrapartum difficulty)	X  (unexplained stillbirth/neonatal death or previous death related to intrapartum difficulty)	NICE guidance does include “Unexplained stillbirth/neonatal death or previous death related to intrapartum difficulty” as a condition indicating planned hospital birth. History of unexplained stillbirth is listed in multiple sources (Netherlands, Ontario, and British Columbia) as requiring consultation.	Commenter says this is a broad category best suited to careful evaluation, consultation and informed consent. Gives example of cord accident. (See comment F 11) Retain requirement of transfer to follow NICE guidance when related to intrapartum difficulty. Consult appropriate for unexplained stillbirth unrelated to intrapartum difficulty.
26	History of postpartum hemorrhage requiring additional treatment or blood transfusion (proposed <b>deletion</b> )	X	X	NICE guideline	This language is being retained as it is taken directly from NICE as an indication for planned hospital birth, however, it is unclear as to what “additional treatment” entails; e.g. is intramuscular oxytocin “additional treatment?” As there are a variety of possible scenarios, EbGS elected to make it a condition requiring consultation.

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27	History of retained placenta requiring manual removal (proposed <b>deletion</b> )	X (if manual removal was required)	X (if surgical intervention was required)	NICE guideline	Commenter says this will exclude women with histories that are not actually clinically concerning for the current pregnancy, and that ultrasound evaluation is the appropriate course of action. However, even with ultrasound evaluation, the patient is at increased risk of undetected abnormal placentation. EbGS accepted expert recommendation to require a hospital birth only if surgical removal was required, and consultation for a history of manual removal.
28	Placenta previa, vasa previa, low lying placenta (proposed <b>modification</b> )		X (Complete placenta previa or low lying placenta within 2 cm or less of the cervical os <u>at term</u> ; known vasa previa)	Oregon birth center absolute risk criteria list “Low-lying placenta within 2 cm or less of cervical os; vasa previa; complete placenta previa” as prohibiting admission to the birth center. NICE table 7 lists “Placenta praevia” as a complication of current pregnancy indicating birth at an obstetric unit.	Commenter asked that this be clarified to specify placenta previa at term. Language modified to follow the combined criteria in Oregon Birth Center ARC and NICE guideline, and address commenter’s concern.
29	Confirmed intrauterine death (proposed <b>deletion</b> )	X		NICE lists “Confirmed intrauterine death” as a complication of current pregnancy indicating birth at an obstetric unit. In addition, “Dead fetus” is Netherlands C (requiring secondary obstetric care); however, Ontario guidelines list “Intrauterine fetal demise” as an indication for	Commenter expressed that the only risk to the mother is if there are signs of infection or DIC after the passage of significant time, and suggested that families should have home birth as an option after consultation and informed consent if safe. Coverage guidance language is made to be

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30 Body mass index at first prenatal visit of greater than 35 kg/m <sup>2</sup> (proposed <b>deletion</b> )	X		consultation only. NICE criteria list “BMI at booking > 35 kg/m <sup>2</sup> ” as a complication of current pregnancy indicating birth at an obstetric unit.	consistent with Ontario recommendation.  Commenter expressed that many larger women are excellent candidates for home birth if other risk factors are absent and recommended allowing home birth after consultation.  EbGS decided to make it a requirement for consultation as risks are higher for some women and not for others, such as those that have had a number of uncomplicated prior births
31 Small for gestational age fetus (proposed <b>modification</b> )	X Prior pregnancy with unresolved IUGR or small for gestational age (defined as fetal or birth weight less than fifth percentile using ethnically-appropriate growth tables)	X Intrauterine growth restriction (IUGR) (defined as fetal weight less than fifth percentile using ethnically-appropriate growth tables, or concerning reduced growth velocity on ultrasound)	NICE guideline	As noted by commenter, NICE specifies < 5 <sup>th</sup> percentile or reduced growth velocity on ultrasound as indicating planned hospital birth. Coverage guidance was edited to clarify this, with additional language to specify ethnically-appropriate growth tables.
32 Fetal growth retardation (proposed <b>modification</b> )	X (also see SGA/IUGR above)	X (also see SGA/IUGR above)		Has been changed as requested to “Intrauterine growth restriction (IUGR)” for consistency. This is an indication for consultation in a prior pregnancy and planned hospital birth in current pregnancy, and is defined as <5 <sup>th</sup> ile using

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33 Prelabor rupture of membranes > 24 hours (proposed <b>deletion</b> )	X	NICE recommends transfer to obstetric care after “rupture of membranes more than 24 hours before the onset of established labour.” Netherlands guidance also recommends secondary obstetric care after 24 hours (category C).		appropriate growth tables.  Language retained to follow NICE/Netherlands guidance that rupture of membranes >24 hours is indicated for hospital birth.  Commenter F said that risk of infection is small after 24 hours especially in home birth setting with minimal vaginal exams and recommends it be included in informed consent. Commenter G suggested > 18 hours as increasing chance for sepsis and necessitating other treatment.
34 Genital herpes (proposed <b>modification</b> )	X	(current active infection)	NICE guideline	Conflicting public comments (any history of genital herpes vs. active.)  Guidance language changed to “Current active infection (outbreak) of genital herpes at the time of labor. “  “Current active infection of varicella at the time of labor” in accordance with NICE and to address one commenter’s concern.  Rubella infection anytime during pregnancy.
35 Thick meconium staining of amniotic fluid (proposed <b>deletion</b> )	X	Possibly add language about imminent birth. Leave out language	Under Oregon birth center ARC, transfer is required for “Thick meconium-stained amniotic fluid without reassuring Doppler heart tones and birth is not imminent.”	Commenter said this should be considered individually and expressed concern about imminent deliveries.  Revise language to include “Thick

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		about reassuring tones.	Thick meconium is Netherlands C (secondary obstetric care) and is an indication for planned hospital birth.	meconium staining of amniotic fluid.” As an indication for transfer. Together with the indication about fetal heart rhythm, this matches the Oregon Birth Center ARC. Language about imminent deliveries was added, but not specifically to this indication.
36 Retained placenta (proposed deletion)		X	NICE recommends urgent transfer if uterine exploration is necessary. Ontario lists it as a consultation indication. Netherlands category C (secondary care)	Commenter says the provider will need to determine safest course based on clinical picture, and this is covered in rule and practice standards. Retained placenta is an indication for transfer to a hospital, whether or not management by an out-of-hospital provider is initiated before or during transfer.
37 Retained placenta >1 hour (proposed modification)		X (after 60 minutes)	Oregon birth center criteria list a 3-hour cutoff. NICE, Netherlands, Ontario, and British Columbia guidances do not define a time cutoff for retained placenta. NICE defines retained placenta as no delivery within 30 minutes of the birth with active management or within 60 minutes of the birth with physiological management.	Original box language recommended transfer for retained placenta without a defined time cutoff. A 60 minute cutoff has been added to coverage guidance to be consistent with birth center criteria.

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38 Written transfer plan needs to be in effect that the accepting OB and pediatrician agree with (proposed <a href="#">addition</a> )				A “well-defined system of transfer” is in the document but no longer in the box language. EbGS made a recommendation to HERC to share with appropriate other bodies the concerns raised on this and other related issues that are not addressed in the box coverage language, per say.
39 History of a blood clot, or bleeding disorder (proposed <a href="#">addition</a> )		X (blood clot, or other maternal bleeding disorder)	Bleeding or coagulation disorder is Netherlands Category C (secondary obstetric care) and bleeding disorder in the mother is a NICE criterion for planned hospital birth.	Alternate language added related to current maternal disorders to follow Netherlands/NICE criteria.
40 Maternal hemoglobin <11 (proposed <a href="#">modification</a> )	X (Maternal hemoglobin <10.5)	X (Maternal hemoglobin <8.5)	NICE specifies 8.5-10.5 as indication for individual assessment.	Box language will be modified to reflect 10.5 as cutoff for consultation with 8.5 retained as cutoff for transfer.
41 History of a group B Strep septic infant (proposed <a href="#">addition</a> )			NICE lists “Risk factors associated with group B streptococcus whereby antibiotics in labour would be recommended” as indicating birth in an obstetrical unit.	No change made as qualified providers in Oregon should administer group B strep prophylaxis outside the hospital setting and so this is not by itself a contraindication to out of hospital birth.
42 Pregnancy-induced hypertension, pre-existing hypertension (proposed <a href="#">modification</a> )		X (Raised diastolic blood pressure over 90 mmHg or raised systolic blood pressure	NICE guideline indicates a raised diastolic blood pressure over 90 mmHg or raised systolic blood pressure over 140 mmHg on two consecutive readings taken 30 minutes apart as an indication for	Commenter requested that blood pressure > 140/90 before or after delivery be added as a risk factor.  Box language was added to reflect NICE cutoffs for hypertension as an indication

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		over 140 mmHg on two consecutive readings taken 30 minutes apart)	planned hospital birth or transfer. Oregon birth center ARC specifies blood pressure >150/100 on at least two occasions.	for planned hospital birth.
43 Thrombopenia (proposed modification)		X (Thrombosis/thromboembolism/thrombocytopenia (platelets <100,000), or other maternal bleeding disorder)	NICE guideline Oregon Birth Center Criteria	Commenter requested maternal platelet count < 150,000 as a high-risk indication. Another requested <100,000. The word “thrombopenia” has been changed to “thrombocytopenia” and a cutoff of 100,000 is being added for consistency with NICE.
44 Chorioamnionitis or other serious infection with fever >38 C (proposed modification)		X		No change. Box language presently includes “chorioamnionitis or other serious infection.” Maternal temperature is only one piece of the diagnostic criteria for chorioamnionitis. Temperature ≥ 38.0 C is a separate transfer criteria.
45 Blood group incompatibility (proposed deletion)		X (with atypical antibodies or Rh sensitization)	NICE lists “atypical antibodies which carry a risk of haemolytic disease of the newborn” as indicating birth in an obstetrical unit. Active blood group incompatibility is Netherlands category C (secondary obstetric care).	The coverage guidance has been revised to include “Blood group incompatibility with atypical antibodies, or Rh sensitization” as an indication for hospital birth to align with NICE.
46 Substance abuse, including marijuana (proposed addition)	X (routine use of alcohol or marijuana)	X (substance misuse/abuse or	NICE Table 7 lists both “Substance misuse” and “alcohol dependency requiring assessment or treatment”	There was an extensive discussion about the appropriate language to use to delineate problematic substance use and

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		<a href="#">dependence</a> )	<p>as factors indicating planned hospital birth.</p> <p>Netherlands list “Use of hard drugs” as necessitating secondary obstetrical care.</p> <p>Ontario suggests consultation for “Significant use of drugs, alcohol, or other substances with known or suspected teratogenicity or risk of associated complications.”</p> <p>British Columbia also recommends consultation for “Significant use of drugs, alcohol, or other toxic substances.”</p>	<p>abuse. Decision made to require planned hospital birth in the case of “Drug or alcohol use with high risk for adverse effects to fetal or maternal health. “</p>
<p><b>47</b> <u>Primiparity</u> (proposed <a href="#">addition</a>)</p>			<p>Birthplace &amp; MANA studies (see memo). NICE recognizes increased risk of adverse neonatal events in primiparous women, but on balance recommends OOH birth should be offered using shared decision making with risk tables</p>	<p>No changes to guidance based on parity (see additional evidence search results in guidance document for details).</p>