Operational definitions of major direct obstetric complications and ICD-11 codes

Complication	Operational definition	ICD-11 codes[1]
Antepartum hemorrhage	Severe bleeding after 22 weeks gestation, before and during labour: placenta praevia, abruptio placentae.[2]	JA41 (unspecified APH); JA8B.1 (placenta praevia w/hem); JA8C (maternal care related to premature separation of placenta); JA41.Z (Unspecified APH); JA41Y (Other APH); JA41.0 (Unspecified APH with coagulation defect)
Postpartum hemorrhage	Blood loss of 500 ml or more within 24 hours after birth.[3]	JA43 (postpartum haemorrhage); JA43.Z (unspecified postpartum haemorrhage)
Severe pre-eclampsia	Two consecutive readings taken four hours or more apart after 20 weeks of gestation or postpartum: systolic blood pressure is 160 mmHg or higher and/or diastolic blood pressure is 110 mmHg or higher AND the presence of proteinuria (diagnostic criteria for proteinuria include: two urine dipstick measurements of at least 2+ (30 mg per dL) taken six hours apart; at least 300 mg of protein in a 24-hour urine sample; or a urinary protein/creatinine ratio of 0.3 or greater). Symptoms may include: headache (unrelieved by analgesics), vision changes, oliguria, upper abdominal pain, difficulty breathing, nausea and vomiting, hyperreflexia or clonus.[2]	JA24.1 (severe pre-eclampsia)
Eclampsia	If after 20 weeks of gestation or postpartum: Convulsions plus hypertension in pregnancy: systolic blood pressure is 140 mmHg or higher and/or diastolic blood pressure is 90 mmHg or higher AND presence of proteinuria: urine dipstick measurement of at least 2+ (30 mg per dL).[2]	JA25 (eclampsia)
Ruptured uterus	An injury characterised by rupture of the myometrial wall of the uterus during labour. This injury is caused by or subsequent to the process of (or any intervention related to) pregnancy, or labour and delivery.[1] This injury presents with abdominal pain, haemorrhage, or hypovolemic shock in the mother, or late decelerations, reduced variability, tachycardia, or bradycardia in the fetus.[2]	JBOA.1 (rupture of uterus during labour)
Prolonged labor / obstructed labour	Cephalopelvic disproportion: secondary arrest of cervical dilation and descent of presenting part in presence of good contractions. Cephalopelvic disproportion occurs because the fetus is too large or the maternal pelvis is too small. If labour persists with cephalopelvic disproportion, it may become arrested or obstructed.[2] Obstruction: Secondary arrest of cervical dilatation and descent of presenting part with large caput, third degree moulding, cervix poorly applied to presenting part, oedematous cervix, ballooning of lower uterine segment, formation of retraction band, or maternal and fetal distress.[2] Malpresentation or malposition: presentation other than vertex with occiput anterior (transverse, brow or face presentation).[2] Prolonged first stage of labour: where cervical dilation progresses less than 1 centimetre per hour for a minimum of 4 hours. Protracted	JBO4 (obstructed labour due to malposition or malpresentation of fetus); JBO5 (obstructed labour due to maternal pelvic abnormality); JB06 (obstructed labour due to other causes) JB03 (long labour)

Complication	Operational definition	ICD-11 codes[1]
	descent is less than 1 centimetre per hour for nulliparas and less than 2 centimetre per hour for multiparas.[1] Prolonged second stage of labour: fetus has not been delivered after the cervix has become fully dilated within 2 hours for a primipara, or 1 hour for a multipara; presence of regional anaesthesia will add 1 hour.[1]	
Ectopic pregnancy	An ectopic pregnancy is one in which implantation occurs outside the uterine cavity. The fallopian tube is the most common site of ectopic implantation (greater than 90%). Symptoms and signs are extremely variable, depending on whether or not the pregnancy has ruptured (Table S-7, page S-16). Symptoms of ruptured ectopic pregnancy: collapse and weakness, fast, weak pulse (110 beats per minute or more), hypotension, hypovolaemia, acute abdominal and pelvic pain, abdominal distension, rebound tenderness, pallor.[2]	JA01 (ectopic pregnancy); JA01.Z (unspecified ectopic pregnancy)
Sepsis / maternal peripartum infection	Maternal peripartum infection is defined as bacterial infection of the genital tract or its surrounding tissues occurring at any time between the onset of rupture of membranes or labour and the 42nd day postpartum in which two or more of the following are present: pelvic pain, fever, abnormal vaginal discharge, abnormal smell/foul odour discharge or delay in uterine involution. This definition builds on an existing definition but with additional considerations for infections related to childbirth procedures or conditions (e.g. caesarean section, episiotomy and perineal tears).[4] Maternal sepsis is a life-threatening condition defined as organ dysfunction resulting from infection during pregnancy, childbirth, post-abortion, or postpartum period.[5]	JB40 (puerperal sepsis); IG40 (sepsis without septic shock); 1G41 (sepsis with septic shock)
Complications of abortion	Complications of abortion (spontaneous or induced): haemorrhage due to abortion which requires resuscitation with intravenous fluids, blood transfusion or uterotonics; sepsis due to abortion (including perforation and pelvic abscess) which may result from infection if organisms rise from the lower genital tract following either spontaneous or unsafe abortion. Sepsis is more likely to occur if there are retained products of conception and evacuation has been delayed.[2,6]	JA00 (abortion); JA00.00 (spontaneous abortion, incomplete, complicated by genital tract or pelvic infection); JA00.01 (spontaneous abortion, incomplete, complicated by delayed or excessive haemorrhage); JA00.03 (Spontaneous abortion, incomplete, with other or unspecified complications); etc. (there are more codes); JA00.1 (induced abortion); JA00.10 (Induced abortion, incomplete, complicated by genital tract or pelvic infection); JA00.11 (Induced abortion, incomplete, complicated by delayed or excessive haemorrhage); JA00.13 (Induced abortion, incomplete, with other or unspecified complications); etc.

References

[1] WHO. International Classification of Diseases, Eleventh Revision (ICD-11). Geneva: World Health Organization; 2022. License: CC BY-ND 3.0 IGO.

[2] WHO, UNFPA, UNICEF. Managing complications in pregnancy and childbirth: a EmONC guide for midwives and doctors – 2nd ed. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO. (IMPAC 2017)

[3] WHO. A Roadmap to combat postpartum haemorrhage between 2023 and 2030. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO.

[4] WHO. WHO recommendations for prevention and treatment of maternal peripartum infections. Geneva: World Health Organization, 2015.

[5] WHO. Statement of Maternal Sepsis. Geneva: World Health Organization, 2017.

[6] WHO, UNFPA, UNICEF, AMDD. Monitoring emergency obstetric care – A handbook. Geneva: World Health Organization, 2009.