

## Appendix 1. Coding of All Adverse Maternal and Newborn Outcomes

Adverse Outcome	Source	Variables	Coding
<b>Preeclampsia</b>			
Superimposed preeclampsia	ICD-10	Pre-existing hypertensive disorder with superimposed proteinuria	O11.001- O11.004, O11.009
Preeclampsia	ICD-10	Gestational (pregnancy-induced) hypertension without significant proteinuria (includes gHTN and mild preeclampsia)	O13.001- O13.004, O13.009
		Gestational (pregnancy-induced) hypertension with significant proteinuria	O14.001- O14.004, O14.009
	ICD-10	Unspecified maternal hypertension	O16.001- O16.004, O16.009
	ICD-10	Eclampsia in pregnancy, labour, puerperium, unspecified time	O15.001- O15.909
<b>Gestational diabetes mellitus</b>			
Gestational diabetes	ICD-10	Diabetes mellitus arising in pregnancy (gestational)	O24.801- O24.804, O24.809
Gestational diabetes	BCPDR	Insulin-dependent or non-insulin dependent diabetes mellitus in pregnancy	
<b>Spontaneous preterm birth &lt;32 weeks</b>			
Gestational age <32 weeks	BCPDR	Final estimate of gestational age per BCPDR algorithm	
Induction of labor	BCPDR	Labour initiation	No
PROM	ICD-10	Premature rupture of membranes	O42.011- O42.909
<b>Indicated preterm birth &lt;37 weeks</b>			

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Gestational age <37 weeks	BCPDR	Final estimate of gestational age per BCPDR algorithm	
Induction of labor	BCPDR	Labour initiation	
Mode of delivery	BCPDR	Cesarean	
Labor type	BCPDR	No labor	
<b>Macrosomia</b>			
Birth weight >4500 grams	BCPDR		
<b>Shoulder dystocia</b>			
Other obstructed labour	ICD-10	Obstructed labour due to shoulder dystocia Includes: impacted shoulders	O66.001, O66.003, O66.009
	ICD-10	Obstructed labour due to unusually large fetus	O66.201, O66.203, O66.209
	CCI		5MD.46.LP
<b>Birth injuries</b>			
Birth injury to peripheral nervous system	ICD-10	Erb's paralysis due to birth injury	P14.0
	ICD-10	Klumpke's paralysis due to birth injury	P14.1
	ICD-10	Other brachial plexus birth injuries	P14.3
Other interventions to deliver fetus	CCI	Fracture of humerus or clavicle	5MD.45.QB, 5MD.45.QC
<b>Cesarean delivery</b>			
Mode of delivery	BCPDR		
<b>Postpartum hemorrhage requiring intervention to control bleeding</b>			
Blood transfusion given	BCPDR		
Postpartum hemorrhage	ICD-10	Postpartum hemorrhage	O72
Postpartum hemorrhage for atony (for sensitivity analysis)	ICD-10	Other immediate postpartum hemorrhage	O72.1
Hysterectomy	CCI	Excision partial, uterus and surrounding	1.RM.87.LA-GX

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	CCI	structures Excision total, uterus and surrounding structures	1.RM.89
Other Procedures to control hemorrhage	CCI	Emobolization of vessels, ligation of vessels, dilation and currettage, aspiration and currettage, uterine (and vaginal) packing, suturing of uterus	(1.RM.13, 1.KT.51, 5.PC.91.GA, 5.PC.91.GC, 5.PC.91.HT, 5.PC.91.LA)
<b>Anesthesia complications</b>			
Complications of anaesthesia during labour and delivery	ICD-10	Aspiration pneumonitis due to anaesthesia during labour and delivery	O74.0
	ICD-10	Other pulmonary complications of anaesthesia during labour and delivery	O74.1
	ICD-10	Cardiac complications of anaesthesia during labour and delivery	O74.2
	ICD-10	Central nervous system complications of anaesthesia during labour and delivery	O74.3
	ICD-10	Failed or difficult intubation during labour and delivery	O74.7
<b>Maternal mortality/severe maternal morbidity</b>			
Venous complications in pregnancy	ICD-10	Cerebral venous thrombosis in pregnancy	O22.5
	ICD-10	Cerebral venous thrombosis in the peurperium	O87.3
Premature separation of placenta	ICD-10	Placental abruption with coagulation defect	O45.0
Antepartum hemorrhage NEC	ICD-10	Antepartum hemorrhage with coagulation defect	O46
Other complications of labour and delivery NEC	ICD-10	Shock during or following labour and delivery	O75.1, R57, T80.5, T88.6

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Complications predominantly related to the puerperium	ICD-10	Sepsis during labour	O75.3
	ICD-10	Puerperal sepsis	O85
Complications of the puerperium NEC	ICD-10	Obstetric embolism	O88
	ICD-10	Cardiomyopathy in the puerperium	O90.3, I42, I43
	ICD-10	(Postpartum) acute renal failure	O90.4, N17, N19, N99.0
	ICD-10	Obstetric death of unspecified cause	O95
	ICD-10	Death from any obstetric cause occurring > 42 days, but <1 year after delivery	O96
	ICD-10	Death from sequelae of direct obstetric causes	O97
	ICD-10	Sudden death, death from unspecified cause	R96-R99
	ICD-10	Cardiac arrest, cardiac failure, myocardial infarction, or pulmonary edema	I21-I22, I46, I50, J81
	ICD-10	Cerebrovascular diseases: subarachnoid and intracranial hemorrhage, cerebral infarction, stroke	I50, J81, I60-I64
ICD-10	Adult respiratory distress syndrome	J80	
CCI	Repair of bladder, urethra, or intestine	5.PC.80.JR, 1.NK.80^^, 1.NM.80^^	

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<b>Stillbirth</b>			
Stillbirth	BCPDR	Stillbirth, occurred antenatally, intrapartum, or unknown	

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<b>NICU stay ≥48 hours</b>			
Neonatal Intensive Care Unit Level 2/3 days	BCPDR		

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<b>In-hospital newborn mortality</b>			
Baby discharged to 'death'	BCPDR		

ICD-10: Canadian Institute for Health Information, 2009. International Statistical Classification of Diseases and Related

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Health Problems, Tenth Revision.

CCI: Canadian Institute for Health Information, 2009. Canadian Classification of Health Interventions

BCPDR: British Columbia Perinatal Data Registry

For a complete list of variables available in the BCPDR, please refer to the Data Access Request form found on the Perinatal Services BC website: <http://www.perinatalervicesbc.ca/NR/rdonlyres/4353788B-2344-4E0D-83EB-6B57FC0D8D64/0/DataAccessRequestForm.pdf>

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**Appendix 2. Comparing Characteristics of Pregnancies With Available Compared With Missing Body Mass Index Data (Prepregnancy Weight or Height)**

<b>Characteristic</b>	<b>Available BMI Data (n=229,387)</b>	<b>Missing BMI Data (n=105,474)</b>	<b>P-</b>
Maternal age	30.1 ± 5.5	29.6±5.9	<0.001
Nulliparous	112,619 (49.1)	42,892 (40.7)	<0.001
Smoking in pregnancy	20,990 (9.2)	11,432 (10.8)	<0.001
Gestational age	38.7±2.0	38.6±2.3	<0.001
Birth weight	3425±553	3393±597	<0.001
Induction of labor	49,580 (21.7)	19,193 (18.3)	<0.001
Preeclampsia	11,288 (4.9)	4,717 (4.5)	<0.001
Gestational diabetes	18,4234 (8.0)	7,142 (6.8)	<0.001
Spontaneous preterm delivery <32 weeks	1,457 (0.6)	1,007 (1.0)	<0.001
Indicated preterm delivery <37 weeks	4,519 (2.0)	2,229 (2.1)	0.006
Birth weight ≥4500 grams	4,508 (2.0)	2,121 (2.0)	0.378

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Shoulder dystocia	8,331 (3.6)	3,813 (3.6)	0.810
Cesarean delivery	67,969 (29.6)	31,510 (29.9)	0.151
Postpartum hemorrhage requiring intervention	1,663 (0.7)	837 (0.8)	0.032
Maternal mortality/severe morbidity	1,385 (0.6)	685 (0.7)	0.117
Stillbirth	700 (0.3)	778 (0.7)	<0.001
NICU stay $\geq$ 48 hours	9,701 (4.2)	4,402 (4.2)	0.457
In-hospital newborn mortality	965 (0.4)	1,039 (1.0)	<0.001

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