

Maternal and Neonate Incidents

Safety Learning System

Topic Guide

Introduction

The aim of this Topic Guide is to provide guidance for clinical staff about the accurate reporting of maternal and neonate incidents into the Safety Learning System (SLS). Staff who work in health services that provide maternal and neonatal care must be aware of this topic guide and enter incidents that relate to maternity or neonate patients in the SLS.

Refer to [SA Health How to notify a patient incident SLS Guide](#) for general information on how to notify clinical incidents into the SLS. The [SA Health Clinical Incident Management Policy](#) outlines the reporting, investigation and response to all clinical incidents. Notifiers and managers have joint responsibility for accurate reporting, review and quality improvement.

Incident description

Maternal incidents are clinical incidents that relate to women who are pregnant, in labour, giving birth or up to 3 months after giving birth.

- Maternal incident example: At the 32-week check, the mother was not screened for pre-eclampsia. Later that day she presented to the emergency department in early labour with pre-eclampsia.

If an event takes place that fits the description of a [SAMM indicator](#) staff should consider if a variation in care may have occurred and enter an incident if concerned.

Neonate incidents are those that meet the SA Health definition of a clinical incident and relates to a baby who is aged 0 to 12 weeks.

- Neonate incident example: Moderate to severe hypoxic ischaemic encephalopathy (HIE) in neonate with an abnormal MRI scan

Incident Classification

There are 7 maternal (figure 1) and 2 neonate (figure 2) level 2 classification criteria specific to care that involves pregnancy, delivery and neonates. If the incident fits the description of these criteria, the incident should be entered using these classifications.

If an incident doesn't fit the maternal or neonate level 1 criteria, enter that incident using the relevant SLS classification (i.e. not level 1 maternal or neonate classification).

- Non maternal or neonate classification example: During labour the patient was given double the dose of fentanyl that resulted in decreased consciousness. This incident should be entered using the level 1 classification – medication.

Figure 1 Classification Options for Level 1 Maternal Incidents

Level 1 – Maternal						
Level 2						
Acute maternal medical morbidity	Acute maternal trauma	Maternal Death (SE)	Maternal mental health	Obstetric haemorrhage	Other acute maternal morbidity conditions	Perineal status after vaginal birth
Level 3						
Acute renal failure (Acute kidney injury)	Unplanned peripartum hysterectomy	Maternal Death (SE)	Maternal attempted suicide	Massive non-obstetric haemorrhage	Any spontaneous artery rupture	Fourth-degree tear
Amniotic fluid embolus requiring transfusion and/or admission to ICU			Maternal self harm	Massive obstetric haemorrhage	Severe de novo cerebral event	Third-degree tear
Eclampsia (Eclamptic seizure)			Maternal Suicide	Massive post partum haemorrhage	Unplanned admission to CCU	
Peripartum cardiomyopathy (newly diagnosed) requiring admission to ICU or CCU				Uterine rupture (excluding uterine dehiscence, including maternal or fetal sequelae)	Unplanned admission to ICU	
Pre-eclampsia requiring management in ICU						
Severe pulmonary oedema requiring ventilation and/or admission to ICU						
Severe sepsis						

Figure 2 Classifications Options for Level 1 Neonate Incidents

Level 1 – Neonate	
Level 2	
Incident related to birth	Incident related to neonatal care
Level 3	
APGARS <7 @ 5 minutes	Acute bilirubin encephalopathy
Birth related fractures	Aspiration due to misplaced oro-/naso-gastric tube
Brachial plexus injury	Delay/failure to act on neonatal complication of treatment or management
Cord pH<7	Delay/failure to diagnose neonatal complication of treatment or management
HIE stage 2 or 3	Early onset sepsis (bacterial, viral, fungal)

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Significant skin laceration related to delivery	Gut perforation due to misplaced naso-/oro-gastric or trans-pyloric tube
Subgaleal haemorrhage	Incorrect administration of expressed breast milk
	Scarring or deformity from skin or soft tissue injury
	Significant blood loss from intravascular catheter (requiring blood or volume replacement)
	Significant extravasation injury
	Tracheostomy resulting from acquired airway injury

When entering the incident, select the level 1 criteria as either maternal or neonate:

Incident Classification	
★ Level 1	<input type="text"/>
★ Level 2	Maternal
★ Level 3	Medical device/equipment
Additional Information	
	Medication
	Neonate

Then select one of the level 2 criteria, see two examples below:

Maternal

Incident Classification	
★ Level 1	Maternal
★ Level 2	<input type="text"/>
★ Level 3	Acute maternal medical morbidity
Additional Information	
★ Was anybody else involved?	Acute maternal trauma
This may include witness to the event	Maternal Death (SE)
Notifier Details	
	Maternal mental health
	Obstetric haemorrhage
	Other acute maternal morbidity conditions
	Perineal status after vaginal birth

Neonate

Incident Classification	
★ Level 1	Neonate
★ Level 2	<input type="text"/>
★ Level 3	Incident related to birth
Additional Information	
	Incident related to neonatal care

National Maternal Indicators

The severe acute maternal morbidity (SAMM) indicators were developed by the Australian Commission for Safety and Quality in Healthcare to support the local capture and review of SAMM events and to allow hospitals to monitor and implement safety and quality improvement strategies relating to severe maternal incidents.

SAMM indicators are reported nationally, and your Local Health Network reports on these indicators using coding data from medical records. Where a clinical incident occurs that relates to a SAMM indicator, this should be reported in the SLS. Health units should have monitoring and reporting processes for SAMM indicators, and initiate quality improvement activities to improve care where indicated. Refer to Table 1 for definitions of all SAMM indicators. Further information about SAMM indicators can be found at the [Australian Commission on Safety and Quality in Health Care](#).

SAMM Indicator	Definition
Massive obstetric haemorrhage (SAMM-1)	<ul style="list-style-type: none">Bleeding originating from the genital tract during pregnancy or postpartum (excluding the 24 hours after birth) associated with one or more of the following:<ul style="list-style-type: none">transfusion of five or more units of red blood cells within 24 hoursgreater than or equal to 2500mL blood losswhere an Hb has been measured in the previous 7 days and the results are readily available, an Hb decrease of greater than or equal to 5g/dL <p><i>Note: Massive blood loss emanating from the genital tract or caesarean section site occurring within 24 hours after birth is excluded, as is classified as a severe postpartum haemorrhage (see below Definition: Massive postpartum haemorrhage).</i></p>
Massive non-obstetric haemorrhage (SAMM-2)	<ul style="list-style-type: none">Bleeding <u>NOT</u> originating from the genital tract during pregnancy or postpartum associated with one or more of the following:<ul style="list-style-type: none">transfusion of five or more units of red blood cells within 24 hoursgreater than or equal to 2500mL blood losswhere an Hb has been measured in the previous seven days and the results are readily available, an Hb decrease of greater than or equal to 5g/dL.Example: splenic artery rupture; rupture spleen or liver - result of car accident
Massive post-partum haemorrhage (SAMM-3)	<ul style="list-style-type: none">Bleeding originating from the genital tract within 24 hours after birth of infant but before placenta associated with one or more of the following:<ul style="list-style-type: none">transfusion of five or more units of red blood cells within 24 hoursgreater than or equal to 2500mL blood losswhere an Hb has been measured in the previous 7 days and the results are readily available, an Hb decrease of greater than or equal to 5g/dL
Peripartum hysterectomy (SAMM-4)	<ul style="list-style-type: none">Unplanned peripartum hysterectomy is defined as life-saving emergency surgery to remove the uterus after the birth and up to 42 days postpartum. <p><i>Exclusion: This excludes women who undergo a hysterectomy for non-obstetric reasons, for example, in the instance of cancer of the cervix or for fertility control.</i></p>

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Uterine rupture (excluding uterine dehiscence, including maternal or foetal sequelae) (SAMM-5)	<ul style="list-style-type: none"> Uterine rupture is a disruption of the uterine muscle extending to and involving the uterine serosa, and/or the bladder or the broad ligament. Such rupture may occur with or without extrusion of any portion of the foetal-placental unit. <p><i>Exclusion: This excludes women who experience extensions of uterine incisions.</i></p>
Acute renal failure (Acute kidney injury) (SAMM-6)	<ul style="list-style-type: none"> Acute Kidney Injury (AKI) is a sudden reduction in renal function resulting in accumulation of waste products of metabolism, retention of sodium and water and acid-base disturbances. The clear criteria for AKI in pregnancy is the need for dialysis and/or renal replacement therapy.
Pre-eclampsia requiring management in ICU (SAMM-7)	<ul style="list-style-type: none"> The management in an Intensive Care Unit of a woman diagnosed with severe pre-eclampsia. Pre-eclampsia is classified as severe when any of the following is present: <ul style="list-style-type: none"> substantial maternal organ dysfunction superimposed upon a diagnosis of pre-eclampsia severe hypertension, defined as a systolic blood pressure of ≥ 170 and/or diastolic blood pressure of ≥ 110 mmHg difficulty in controlling blood pressure and deteriorating clinical condition including HELLP syndrome, impending eclampsia, worsening thrombocytopenia or worsening foetal growth restriction.
Eclampsia (Eclamptic seizure) (SAMM-8)	<ul style="list-style-type: none"> Eclampsia is the occurrence of seizures, not caused by any coincidental neurological disease such as epilepsy, in a woman whose condition also meets the diagnostic criteria for pre-eclampsia. Seizures may occur antenatally, intrapartum or postnatally, usually within 24 hours of birth but occasionally later.
Peripartum cardiomyopathy (newly diagnosed) requiring admission to ICU or CCU (SAMM-9)	<ul style="list-style-type: none"> The management in an Intensive Care Unit or Coronary Care Unit, of a woman newly diagnosed with peripartum cardiomyopathy. Peripartum cardiomyopathy is an idiopathic cardiomyopathy presenting with heart failure secondary to left ventricular systolic dysfunction towards the end of pregnancy, or in the months following birth, where no other cause for heart failure is identified.
Severe pulmonary oedema requiring ventilation and/or admission to ICU (SAMM-10)	<ul style="list-style-type: none"> The ventilation of, and/or management in an Intensive Care Unit, of a woman diagnosed with severe pulmonary oedema.
Amniotic fluid embolus requiring transfusion and/or admission to ICU (SAMM-11)	<ul style="list-style-type: none"> Amniotic fluid embolus is defined as the presence of one or more of the following (in the absence of any other potential explanation for such signs and symptoms), during pregnancy, though usually associated with labour, or within 48 hours of birth: <ul style="list-style-type: none"> acute hypotension cardiac arrest acute hypoxia coagulopathy severe haemorrhage
Severe sepsis (SAMM-12)	<ul style="list-style-type: none"> Severe sepsis is the systematic response to an infection manifested by organ dysfunction, hypoperfusion or hypotension combined with one or more of the following: fever, tachypnoea, elevated white cell count; suffered during pregnancy, labour, birth or within 42 days following birth requiring admission to ICU/CCU and/or an extended hospital admission following the birth episode ≥ 14 days.
Any spontaneous artery rupture (SAMM-13)	<ul style="list-style-type: none"> Rupture or dissection of any artery in the body during pregnancy, labour, birth or within 42 days of birth; whether due to trauma, aneurysm, medical disorder (e.g. Marfan or Ehlers-Danlos syndrome) or any other cause.

Unplanned admission to ICU (SAMM-14)	<ul style="list-style-type: none"> The unplanned admission to an Intensive Care Unit of a woman during pregnancy, labour, birth or within 42 days following birth.
Unplanned admission to CCU (SAMM-15)	<ul style="list-style-type: none"> The unplanned admission to a Coronary Care Unit of a woman during pregnancy, labour, birth or within 42 days following birth.
Severe de novo cerebral event (SAMM-16)	<ul style="list-style-type: none"> De novo cerebral event experienced during pregnancy, labour, birth or within 42 days following birth excluding eclampsia or pre-existing conditions such as epilepsy. Cerebral events or neurological complications include conditions such as acute ischaemic stroke (AIS), intracerebral and subarachnoid haemorrhage (ICH and SAH), and cerebral venous sinus thrombosis (CVT).
Attempted suicide/Self-harm (SAMM-17)	<ul style="list-style-type: none"> The attempted suicide or self-harm by a woman during pregnancy, labour, birth or within 42 days following birth with or without an existing mental health diagnosis at the time of self-harm. The timeframe is extended to 12 months following the birth if the event is seen to be related to the childbirth episode.
Maternal unplanned acute admission to a mental health unit/ mental health care facility (SAMM-18)	<ul style="list-style-type: none"> The unplanned admission of a woman with an acute psychiatric episode to a mental health care facility during pregnancy, labour, birth or within 42 days following birth. Such admission would normally be in relation to a severe episode of: schizophrenia, acute psychosis; unipolar depression or mania (i.e. bipolar disorder); anxiety disorder; or following attempted suicide; escalating behaviours associated with personality disorder or substance misuse. The time frame is extended to 12 months following the birth if the event is seen to be related to the childbirth episode.

Related Documents

[Clinical Incident Management Policy](#)

[Clinical Incident Management Resources](#)

[SLS How to notify a patient incident](#)

[Australian Commission on Safety and Quality in Health Care Maternal Morbidity Indicators](#)

[Incident Severity Rating Matrix](#)

For more information

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