Safety Learning System (SLS)

Topic Guide Maternal and Neonatal Care



Definition of an Incident

Any event or circumstance which could have (near miss) or did lead to unintended and / or unnecessary psychological or physical harm to a person and/or to a complaint, loss or damage (SA Health Incident Management Policy).

Changes to classification of maternal incidents

Work undertaken in 2014-15 by Australian Commission Safety and Quality in HealthCare (ACSQHC) and endorsed by Australian Health Ministers has resulted in :

- Severe Acute Maternal Morbidity (SAMM) indicator set (18 indicators)
- New definition of the Sentinel Event Maternal Death associated with pregnancy, birth and the puerperium. It is now defined as:

Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. (WHO)

The Safety and Quality Unit has reviewed the SLS 'Labour and Delivery' classification to incorporate these changes, in consultation with SA expert groups.

- Neonatal and Maternal incidents have been separated at Level 1 and re-named.
- There are associated changes to other classifications Challenging behaviour, and Implementation of care.

This table summarises the new classifications, and definitions are provided in following pages:

Level 1 (L1)	Level 2 (L2)
Maternal	Anaesthetic problem connected with labour or delivery
(SAMM 1 to 16)	Maternal death (Sentinel Event)
	Obstetric haemorrhage
	Acute maternal trauma
	Acute maternal medical morbidity
	Perineal status after vaginal birth
	Other acute maternal morbidity
Neonatal	Incident relating to birth
	Incident relating to neonatal care
Challenging Behaviour	Maternal mental health (SAMM-MMH - 17)
	L3 Maternal suicide
	 L3 Maternal attempted suicide
	 L3 Maternal self harm
Implementation of Care	MH Care assessment, review, admission, transfer
	Maternal unplanned acute admission to a mental health unit (SAMM-18)

Please note that incidents should be classified by their type, not the location in which they occur, for example:

- incidents involving medication errors in a birthing unit should be recorded under the Medication classification
- incidents involving a fall in a hospital nursery should be recorded under patient Falls and other injuries.

Definitions of new classifications

The following is a list of Level 1, 2 and their Level 3 classifications, with national definitions *in italics* where available.

SLS will include 'pop-ups' to provide brief explanations for staff recording an incident.

Level 1 Maternal

L 2 Maternal Death

• L3 Maternal death (this is a sentinel event)

L2 Obstetric haemorrhage

- L3 Massive obstetric haemorrhage (SAMM1)

 Bleeding originating from the genital tract during pregnancy or postpartum (excluding the 24 hours after birth) associated with one or more of the following:
 - transfusion of five or more units of red blood cells within 24 hours
 - greater than or equal to 2500mL blood loss
 - where 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.

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).

- L3 Massive non-obstetric haemorrhage (SAMM-2)

 Bleeding NOT originating from the genital tract during pregnancy or postpartum associated with one or more of the following:
 - transfusion of five or more units of red blood cells within 24 hours
 - greater than or equal to 2500mL blood loss
 - where 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

- L3 Massive post partum haemorrhage (SAMM-3)
 Bleeding originating from the genital tract within 24 hours after birth associated with one or more of the following:
 - transfusion of five or more units of red blood cells within 24 hours
 - greater than or equal to 2500mL blood loss
 - where 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

L2 Acute maternal trauma

- L3 Unplanned peripartum hysterectomy (SAMM-4)
 Unplanned peripartum hysterectomy is defined as life-saving emergency surgery to remove the uterus after the birth and up to 42 days postpartum.

 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.
- L3 Uterine rupture (excluding uterine dehiscence, including maternal or fetal sequelae) **(SAMM-5)**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.

Exclusion: This excludes women who experience extensions of uterine incisions.

L2 Perineal Status after vaginal birth (required by Report on Government Services [ROGS])

L3 Fourth degree tear

L2 Acute maternal medical morbidity (SAMM)

- L3 Acute renal failure (Acute kidney injury) **(SAMM-6)**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.
- L3 Pre-eclampsia requiring management in ICU (SAMM-7)
 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:
 - 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 ≥110mmHg
 - difficulty in controlling blood pressure and deteriorating clinical condition including HELLP syndrome, impending eclampsia, worsening thrombocytopenia or worsening foetal growth restriction.
- L3 Eclampsia (Eclamptic seizure) (SAMM-8)
 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.
- L3 Peripartum cardiomyopathy (newly diagnosed) requiring admission to ICU or CCU (SAMM-9) 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.
- L3 Severe pulmonary oedema requiring ventilation and/or admission to ICU (SAMM-10)

 The ventilation of, and/or management in an Intensive Care Unit, of a woman diagnosed with severe pulmonary oedema.
- L3 Amniotic fluid embolus requiring transfusion and/or admission to ICU (SAMM-11)

 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:
 - acute hypotension
 - cardiac arrest
 - acute hypoxia
 - coagulopathy
 - severe haemorrhage
- L3 Severe sepsis (SAMM-12)

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.

L2 Other acute maternal morbidity conditions

- L3 Any spontaneous artery rupture (SAMM-13)

 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.
- L3 Unplanned admission to ICU (SAMM-14)

 The unplanned admission to an Intensive Care Unit of a woman during pregnancy, labour, birth or within 42 days following birth.
- L3 Unplanned admission to CCU (SAMM-15)
 The unplanned admission to a Coronary Care Unit of a woman during pregnancy, labour, birth or within 42 days following birth.

L3 Severe de novo cerebral event (SAMM-16)

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)

Level 1 Challenging Behaviour

L2 Maternal mental health (SAMM-MMH)

• L3 Maternal Suicide (SAMM-17)

The suicide 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 time frame is extended to 12 months following the birth if the event is seen to be related to the childbirth episode.

L3 Maternal attempted suicide (SAMM-17)

The attempted suicide 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 time frame is extended to 12 months following the birth if the event is seen to be related to the childbirth episode.

L3 Maternal Self harm (SAMM-17)

The 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 time frame is extended to 12 months following the birth if the event is seen to be related to the childbirth episode.

Mechanisms of intentional self-harm or attempted suicide include the following:

Intentional self-harm by:

- hanging, strangulation, suffocation
- drowning, submersion
- firearm discharge
- explosive material
- smoke, fire, flames
- steam, hot vapours, hot objects
- sharp objects
- blunt objects
- jumping from a high place, including intentional fall from one level to another
- jumping or lying before moving object
- crashing motor vehicle, including collision with motor vehicle, train or tram
- other specified means including caustic substances except poisoning, crashing of aircraft, electrocution
- unspecified means

Intentional self-poisoning by and exposure to drugs including:

- Non-opioid analgesics, antipyretics and anti-rheumatics
- antiepileptic, sedative-hypnotic, anti-parkinsonism and psychotropic drugs
- narcotics and psychodysleptics [hallucinogens]
- other drugs acting on the autonomic nervous system
- unspecified drugs, medicaments and biological substances

Intentional self-poisoning by and exposure to alcohol, including:

- NOS, butyl [1-butanol]
- ethyl [ethanol]
- isopropyl [2-propanol]
- methyl [methanol]
- propyl [1-propanol] fusel oil

Intentional self-poisoning by and exposure to:

- organic solvents and halogenated hydrocarbons and their vapours
- other gases and vapours, including carbon monoxide, lacrimogenic gas [tear gas], motor vehicle exhaust gas, nitrogen oxides, sulphur dioxide, utility gas
- pesticides
- other and unspecified chemicals and noxious substances, including corrosive aromatics, acids and caustic alkalis, glues and adhesives, metals including fumes and vapours, paints and dyes, plant foods and fertilizers, poisonous foodstuffs and poisonous plants, soaps and detergents

Level 1 Implementation of Care

L2 Mental Health (MH) Care assessment, review, admission, transfer

L3 Maternal unplanned acute admission to a mental health unit (SAMM-18)

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 (ie. 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.

Neonatal Classifications

Level 1 Neonate Classifications

L2 Incidents related to birth

- L3 HIE Stage 2 or 3
- L3 Birth related fractures
- L3 Significant skin laceration related to delivery
- L3 Brachial plexus injury not resolved at 3 months
- L3 Subgaleal haemorrhage requiring transfusion
- L3 APGARS <5 @ 5 minutes (required by Report on Government Services [ROGS])
- L3 Cord pH <7.00

L2 Incidents related to neonatal care

- L3 Early onset sepsis (bacterial, viral, fungal)
- L3 Aspiration due to misplaced oro-/naso-gastric tube
- L3 Gut perforation due to misplaced naso/oro-gastric or transpyloric tube
- L3 Significant extravasation injury
- L3 Significant blood loss from intravascular catheter (requiring blood or volume replacement)
- L3 Incorrect administration of expressed breast milk
- L3 Acute bilirubin encephalopathy
- L3 Delay/failure to act on neonatal complications of treatment or management
- L3 Delay/failure to diagnose neonatal complications of treatment or management
- L3 Tracheostomy secondary to acquired airway injury
- L3 Significant scarring or deformity secondary to tissue injury
- L3 Nerve palsy as complication to neonatal care (eg. Phrenic, recurrent laryngeal, median)

For more information

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