Unexpected sudden infant death and severe apparent life-threatening events in the early postnatal period

Please complete the following sections for the case identified above.
Strict confidentiality of information will be assured.

CASE DEFINITION FOR UNEXPECTED SUDDEN INFANT DEATH AND SEVERE APPARENT LIFE-THREATENING EVENTS IN THE EARLY POSTNATAL PERIOD
Report any infant meeting all of the following criteria:
• ≥35 weeks of gestation;
• Apgar score ≥8 at 5 minutes (if known);
• acute and unexpected cardiorespiratory arrest within the first seven days of life (where day 1 is the day of birth);
• died or received hospitalized mechanical respiratory support for ≥12 hours.

Month first seen: ______________________

SECTION 1 – DEMOGRAPHIC INFORMATION

Newborn
1.1 Date of birth: _____ / _____ / _____ Time: ____________
DD MM YYYY 24-hr clock
1.2 Gestation: _____ weeks _____ days 1.3 Sex: Male___ Female___
1.4 Birth weight: ________ g
1.5 Multiple gestation: Yes____ No___ Unknown
If yes, Twins___ Triplets___ Other________________________

Mother
1.6 Place of residence (province/territory): ____________________________
1.7 Occupation: __________________________________________________
1.8 Age at delivery: _____ years
1.9 Number of pregnancies (including this one): _____ Live births:_____
1.10 Height: _____cm Pre-pregnancy weight: _____kg

SECTION 2 – MATERNAL MEDICAL HISTORY

Yes No Unknown
2.1 Did the mother receive regular prenatal care? ____________
2.2 Was the mother a smoker during pregnancy? ____________
2.3 Was the mother taking any medications during the pregnancy?
If yes, specify________________________________________________
2.4 Was the mother taking any illicit drugs during the pregnancy?
If yes, specify________________________________________________
2.5 Was there illicit drug use in the 12 hours prior to collapse?
If yes, specify________________________________________________
**SECTION 2 – MATERNAL MEDICAL HISTORY (cont’d)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6 Did the mother drink alcohol during the pregnancy?</td>
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<tr>
<td>If yes, quantity</td>
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<td>2.7 Concerns or illnesses during pregnancy (e.g., gestational diabetes, PIH, twins, IUGR, followed by high-risk team):</td>
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<tr>
<td>2.8 Family history of note (e.g., consanguinity, previous neonatal or infant deaths, genetic conditions)</td>
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</table>

**SECTION 3 – LABOUR, DELIVERY, AND POSTNATAL CARE**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
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<tbody>
<tr>
<td>3.1 Place of birth: Labour ward___ Operating room___ Birthing centre___ Home___</td>
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<tr>
<td>Other</td>
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<tr>
<td>3.2 Was the onset of labour: Spontaneous___ No labour___ Induced___</td>
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<tr>
<td>3.3 Mode of delivery: Vaginal___ Vaginal-assisted (vacuum/forceps)___ C-Section___</td>
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<td>Duration of second stage: _____ hours</td>
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<tr>
<td>3.4 Was there any evidence of fetal distress?</td>
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<tr>
<td>If yes, specify</td>
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<tr>
<td>3.5 Meconium staining of liquor?</td>
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<tr>
<td>3.6 Apgar score: ____@ 1 min ____@ 5 min</td>
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<tr>
<td>3.7 Cord pH (arterial) __________ Base excess (BE) ________________</td>
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<tr>
<td>3.8 Were any of the following required at birth?</td>
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<tr>
<td>If yes, check all that apply: Oxygen___ PPV by bag and mask___</td>
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<tr>
<td>PPV by ETT___ Chest compressions___ Epinephrine___</td>
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<tr>
<td>3.9 Did the infant have any congenital anomalies?</td>
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<tr>
<td>If yes, specify</td>
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<tr>
<td>3.10 Method of feeding: Breast___ Bottle___ Combination___</td>
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</table>

**SECTION 4 – PRESENTATION**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Date of collapse: ____ / ____ / ____ Time: ____________</td>
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<tr>
<td>DD MM YYYY 24-hr clock</td>
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<tr>
<td>4.2 Did the mother receive any analgesia or sedation in the previous eight hours?</td>
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<tr>
<td>If yes, specify medication and time</td>
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<tr>
<td>4.3 Was infant discharged from hospital prior to collapse/death?</td>
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<tr>
<td>If yes, date of discharge: ____ / ____ / ____</td>
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<tr>
<td>DD MM YYYY</td>
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<tr>
<td>4.4 In the 24 hours prior to the collapse, were any of the following noted?</td>
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<tr>
<td>(Check all that apply) Fever___ Vomiting___ Cyanosis___ Poor feeding___</td>
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<td>Difficulty breathing___ Hypoglycemia___ Lethargy___ Apnea___</td>
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<tr>
<td>Other, specify</td>
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<tr>
<td>4.5 Where did the collapse occur? Delivery suite___ Postnatal ward___ NICU___ Home___</td>
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<tr>
<td>Other, specify</td>
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<tr>
<td>4.6 When was the infant last noted to be well prior to the collapse? __________ hrs / minutes before collapse</td>
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<tr>
<td>4.7 By whom was the infant last noted to be well?</td>
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<tr>
<td>4.8 Who was present in the room when infant collapsed? (Check all that apply)</td>
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<tr>
<td>Mother___ Father___ Nurse___ Midwife___ Physician___ Other, specify</td>
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</table>
SECTION 4 – PRESENTATION (cont’d)

4.9 Was the mother or father asleep prior to finding the infant collapsed? Yes___ No___ Unknown___

4.10 Who identified that infant had collapsed?
Mother___ Father___ Nurse___ Midwife___ Physician___ Other, specify__________________________

4.11 Any additional observations relevant to the event? ____________________________________________

4.12 Place found and position of infant at discovery: Unknown

4.12.1 Held in arms___ held on chest/abdomen___ at breast___
Sleeping in bed with another person___ In own cot___ Other, specify___________________________

4.12.2 Position of infant’s body: Prone___ Supine___ On right side___ On left side___

4.12.3 Face position: Down___ Up___ Right___ Left___

4.13 The infant was thought to be: (Check all that apply)
Actively feeding___ by breast___ by bottle___
Awake, not feeding___ Asleep___ Within 1 hour of completing a feed___

4.14 How many layers of clothing was the infant wearing? ____________________________

4.15 How many blankets were covering the infant? ____________________________

4.16 Items near infant’s face: (Check all that apply)
None___ stuffed toys___ bumper pads___ positional supports___ pillow___

4.17 Condition at discovery: (Check all that apply)
Breathing: Absent___ Distressed___ Normal___
Heart rate: Absent___ <100 ___ >100___
O₂ sat: <60 ___ 60-80 ___ >80___

4.18 Resuscitation details: (Check all that apply)
PPV___ Intubation___ Chest compressions___ Epinephrine___
Time to heart rate >100 _________ min Time to first respirations _________ min

4.19 Resuscitation successful?
Yes, transferred to NICU___ No, infant died before or at resuscitation___

SECTION 5 – INVESTIGATION MANAGEMENT

5.1 First blood gas after resuscitation: Date _____ / _____ / _______ Time: __________
DD MM YYYY 24-hr clock
arterial___ venous___ capillary___ unknown___
pH_______ pCO₂_______ BE_____ Bicarb_____ Lactate________

5.2 Cause of collapse: (Check all that apply)
___ No cause identified
___ Apparent accidental suffocation during breastfeeding or skin-to-skin
___ Infection, specify organism __________________________________________________________
    site of infection (e.g., blood, CSF, lung, urine, skin) ________________________________
___ Cardiac abnormality, specify ______________________________________________________
___ Metabolic disorder, specify ______________________________________________________
___ Surgical condition, specify ______________________________________________________
___ Cerebral hemorrhage/infarction, specify __________________________________________
___ Other, specify _________________________________________________________________

5.3 Total length of time on ventilator: ________ hours
SECTION 5 – INVESTIGATION MANAGEMENT (cont’d)

5.4 Inotropic support – If yes, specify duration: ________________________________ Yes No Unknown

5.5 Induced hypothermia – If yes, specify: ________________________________ Yes No Unknown

SECTION 6 – OUTCOME

6.1 Multiorgan involvement following collapse: (Check all that apply)

___ Respiratory, specify ________________________________________________

___ Renal, specify _____________________________________________________

___ Cardiovascular, specify _____________________________________________

___ Hypoxic ischemic encephalopathy, specify: Sarnat grade: 1___ 2___ 3___

___ Seizures

___ Gastrointestinal, specify _____________________________________________

___ Hematological, specify _____________________________________________

6.2 Number of days in NICU (including date of admission and discharge/death): _____ days

6.3 Outcome:

6.3.1 Death – Age at death: _______ hours

Was the Coroner/Medical Examiner informed? Yes No Unknown

Was an autopsy performed? Yes No Unknown

If yes, summary results: ______________________________________________________

6.3.2 Survived but remains in hospital

6.3.3 Survived _____ Date discharged: ____ / ____ / ____ Time: __________

DD MM YYYY 24-hr clock

6.4 Neurological status: (Check all that apply)

Normal at last examination___ Hypertonic___ Hypotonic___ Unknown ___

Needing anticonvulsants___ Suctioning___ Tube feeding ___

Other, specify __________________________________________________________

6.5 Any additional information: ____________________________________________

I agree to be contacted by the research team for further information.

I do not wish to be contacted by the research team for further information.

SECTION 7 – REPORTING PHYSICIAN

First name_________________________ Surname______________________________

Address____________________________

City_________________________ Province_________________________ Postal code____________

Telephone number__________________ Fax number__________________

E-mail_____________________________ Date completed____________________

Thank you for completing this form.