South Australian Perinatal Practice Guideline

Anaphylaxis (maternal)

Note:

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

SA Health does not accept responsibility for the quality or accuracy of material on websites linked from this site and does not sponsor, approve or endorse materials on such links.

Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

Explanation of the aboriginal artwork:
The aboriginal artwork used symbolises the connection to country and the circle shape shows the strong relationships amongst families and the aboriginal culture. The horse shoe shape design shown in front of the generic statement symbolises a woman and those enclosing a smaller horse shoe shape depicts a pregnant women. The smaller horse shoe shape in this instance represents the unborn child. The artwork shown before the specific statements within the document symbolises a footprint and demonstrates the need to move forward together in unison.

Australian Aboriginal Culture is the oldest living culture in the world yet Aboriginal people continue to experience the poorest health outcomes when compared to non-Aboriginal Australians. In South Australia, Aboriginal women are 2-5 times more likely to die in childbirth and their babies are 2-3 times more likely to be of low birth weight. The accumulative effects of stress, low socio economic status, exposure to violence, historical trauma, culturally unsafe and discriminatory health services and health systems are all major contributors to the disparities in Aboriginal maternal and birthing outcomes. Despite these unacceptable statistics the birth of an Aboriginal baby is a celebration of life and an important cultural event bringing family together in celebration, obligation and responsibility. The diversity between Aboriginal cultures, language and practices differ greatly and so it is imperative that perinatal services prepare to respectfully manage Aboriginal protocol and provide a culturally positive health care experience for Aboriginal people to ensure the best maternal, neonatal and child health outcomes.

Purpose and Scope of Perinatal Practice Guideline (PPG)

This guideline provides information for medical practitioners, midwives and nurses providing first responder emergency care for acute management of maternal anaphylaxis.

Government of South Australia

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Summary of Practice Recommendations

The prompt administration of adrenaline (epinephrine) is first line treatment for anaphylaxis.

IM adrenaline should be administered into the mid-outer thigh (the dose can be repeated every 5 minutes):

- Women ≥ 50 kg give 0.5 mg (500 micrograms)
- Women < 50 kg give 0.01 mg / kg (10 micrograms / kg)

Pregnant women should be in left lateral position.

Refer to an Anaphylaxis Rapid Review Clinic for follow-up (FMC, RAH).

Use the ASCIA guideline for *Acute Management of Anaphylaxis in Pregnancy* (see below).[1]

Abbreviations

ASCIA	Australasian Society of Clinical Immunology and Allergy
FMC	Flinders Medical Centre
GP	General Practitioner
IM	Intramuscular
kg	Kilograms
mg	milligrams
RAH	Royal Adelaide Hospital
SAAS	South Australian Ambulance Service
+/-	Plus or minus
>	Greater than
≥	Greater than or equal to
≤	Less than or equal to

Definition

Anaphylaxis	Any acute onset illness with typical skin features (urticarial rash or erythema/flushing, and/or angioedema), PLUS involvement of respiratory and/or cardiovascular and/or persistent severe gastrointestinal symptoms; or Any acute onset of hypotension or bronchospasm or upper airway obstruction where anaphylaxis is considered possible, even if typical skin features are not present.[2(p1)]

Introduction

The Australasian Society of Clinical Immunology and Allergy (ASCIA) guidelines for the *Acute Management of Anaphylaxis in Pregnancy*[1] *and Acute Management of Anaphylaxis*[2] are intended for medical practitioners, midwives and nurses providing first responder emergency care. The appendix includes additional information for advanced acute management of anaphylaxis.

The guidelines are relevant for the management of maternal anaphylaxis in South Australia and have therefore been endorsed as the SA Health Perinatal Practice Guideline for Maternal Anaphylaxis.

Please access the ASCIA guidelines using the following links:

- **Acute Management of Anaphylaxis in Pregnancy (2020)**[1]: https://www.allergy.org.au/images/stories/pospapers/ASCIA_Guidelines_Anaphylaxis_Pregnancy_Acute_Management_2020.pdf
- **Acute Management of Anaphylaxis (2019)**[2]: https://www.allergy.org.au/images/stories/pospapers/ASCIA_Guidelines_Acute_Management_Anaphylaxis_2019.pdf

Note:[1(p2)]

- Management for anaphylaxis in pregnant women is the same as for non-pregnant women, with modifications to positioning, and multidisciplinary team consideration of emergent birth of the baby.
- Pregnant women should be in left lateral position.
- If in hospital setting, activate local emergency procedures in the presence of maternal anaphylaxis.
- IM adrenaline should be administered into the mid-outer thigh:
    - Women ≥ 50 kg give 0.5 mg (500 micrograms)
    - Women < 50 kg give 0.01 mg / kg (10 micrograms / kg)

  The dose can be repeated every 5 minutes.
- If adrenaline autoinjector is available, initial dosing of 0.3 mg (300 micrograms) is a reasonable option, particularly in the community or non-hospital setting to reduce risk of dosing errors or potential delay in administration of adrenaline. This can be followed by repeat dosing every 5 minutes as required.
- If woman is in cardiac arrest and there is no response to cardiopulmonary resuscitation within 4 minutes, perform perimortem caesarean section (see *Collapse (maternal)* PPG available at www.sahealth.sa.gov.au/perinatal)

It is important for staff to read the headings in the appendix of the ASCIA guideline for *Acute Management of Anaphylaxis*[2] carefully as it describes two (2) different dilutions for adrenaline infusion based on location:

- "pre-hospital setting" – for use by SAAS or GP clinics where infusion pumps may not be available
- "emergency departments and tertiary hospitals" – a more concentrated dilution for use with infusion pumps

Additional Information

Admission criteria

- Severe reaction with hypotension or hypoxia or need for adrenaline infusion
- Bronchospasm in context of poorly controlled asthma
- Systemic clinical features unresolved after 8 hours
- Women with a past history of protracted / biphasic anaphylaxis

Emergency Caesarean Section

Birth via emergency caesarean section should be considered early in cases of persistent maternal hemodynamic instability despite resuscitation.

Since a stable maternal hemodynamic status during anaphylaxis does not guarantee appropriate placental perfusion and fetal oxygenation, normal fetal heart rate variability provides reassurance about fetal status. Persistent signs of fetal compromise, despite aggressive medical management are an indication for emergency birth.

Discharge

- Consider consulting Allergy Clinical Team (Allergy Clinical Nurse available at Flinders Medical Centre and the Royal Adelaide Hospital in-hours)
- Refer to an Anaphylaxis Rapid Review Clinic for follow-up (FMC, RAH)
- Provide individualised allergen avoidance advice
- Anaphylaxis action plan +/- EpiPen including patient education and demonstration in usage
- If there is ongoing angioedema or urticaria consider oral prednisolone 25 to 50 mg daily for 2 days
- Ensure case note alert is present in the woman's medical records

References

1. Australasian Society of Clinical Immunology and Allergy (ASCIA). Acute Management of Anaphylaxis in Pregnancy guideline, April 2020. Available from URL: https://www.allergy.org.au/images/stories/pospapers/ASCIA_Guidelines_Anaphylaxis_Pregnancy_Acute_Management_2020.pdf
2. Australasian Society of Clinical Immunology and Allergy (ASCIA). Acute Management of Anaphylaxis guideline, August 2019. Available from URL: https://www.allergy.org.au/images/stories/pospapers/ASCIA_Guidelines_Acute_Management_Anaphylaxis_2019.pdf

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