Anaphylaxis (Maternal)

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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.

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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.

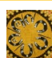
If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

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

Note: The words woman/women/mother/she/her have been used throughout this guideline as most pregnant and birthing people identify with their birth sex. However, for the purpose of this guideline, these terms include people who do not identify as women or mothers, including those with a non-binary identity. All clinicians should ask the pregnant person what their preferred term is and ensure this is communicated to the healthcare team.

"**Aboriginal and Torres Strait Islander recognition statement:** We use the term 'Aboriginal' to refer to people who identify as Aboriginal, Torres Strait Islander, or both Aboriginal and Torres Strait Islander. We do this because the people indigenous to South Australia are Aboriginal and we respect that many Aboriginal people prefer the term 'Aboriginal'. We also acknowledge and respect that many Aboriginal South Australians prefer to be known by their specific language group(s)."



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.

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 horseshoe shape design shown in front of the generic statement symbolises a woman and those enclosing a smaller horseshoe shape depicts a pregnant woman. The smaller horseshoe 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.

Aim and Scope of PPG

This guideline provides information for health practitioners providing first responder emergency care for acute management of maternal anaphylaxis.

Government of South Australia

SA Health

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Summary of Practice Recommendations

Anaphylaxis in pregnancy should be managed as per ASCIA guideline for *Acute Management of Anaphylaxis in Pregnancy*.[1]

Anaphylaxis is a medical emergency: Call for help immediately.

Pregnant women should be positioned left lateral.

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

> Intramuscular (IM) adrenaline should be administered into the mid-outer thigh (dose can be repeated every 5 minutes).
>
> Women ≥ 50 kg give 0.5 mg (500 microgs/kg)
>
> Women < 50 kg give 0.01 mg/kg (10 microgs/kg)

Refer to an Anaphylaxis Rapid Review Clinic for follow-up (i.e., Flinders Medical Centre (FMC) and Royal Adelaide Hospital (RAH)).

Abbreviations

>	Greater than
≥	Equal to or greater than
<	Less than
≤	Equal to or less than
ASCIA	Australasian Society of Clinical Immunology and Allergy
FMC	Flinders Medical Centre
g	Gram(s)
GP	General Practitioner
IM	Intramuscular
IV	Intravenous
mg	Milligram(s)
mL	Millilitre(s)
Microg	Microgram(s)
RAH	Royal Adelaide Hospital
SAAS	South Australian Ambulance Service

Respectful Maternity Care and Shared Decision-Making Statement

The South Australian Perinatal Practice Guidelines (SAPPG) are committed to **safe, respectful** and **culturally responsive** maternity care for all women and newborns.

Women have the **right to dignity**, **informed choice** and **autonomy**. Clinicians support decision-making with clear, unbiased information and compassionate, non-coercive care. Care is provided in partnership with women and families, honouring their values, cultural needs, and preferences across the maternity journey.

Clinicians are encouraged to use Safer Care Victoria's RESPECT principles to guide clinical practice, see Respectful Maternity and Newborn Care Framework | Safer Care Victoria.

R E S P E C T

Recognise the woman's right to decide
Enlist appropriate interpreters when needed
Share balanced information
Provide time and space
Enable questions
Check understanding
Trust and document

Introduction

Anaphylaxis is a rapid-onset, potentially life-threatening systemic reaction that requires prompt recognition and management. It should be suspected when a person presents with an acute illness involving typical skin manifestations, such as urticaria, erythema or flushing, and/or angioedema, accompanied by respiratory and/or cardiovascular compromise, or by persistent, severe gastrointestinal symptoms.

Importantly, anaphylaxis may also occur in the absence of skin features.[2] Any sudden onset of hypotension, bronchospasm, or upper airway obstruction should prompt consideration of anaphylaxis, even when cutaneous signs are not present. Early identification based on these clinical features is critical to ensuring timely and appropriate treatment.

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] (found at www.allergy.org.au), are intended for medical practitioners, midwives and nurses providing first responder emergency care. These guidelines have been endorsed for use in South Australia to support the management of maternal anaphylaxis.

Signs and Symptoms of Anaphylaxis

The signs and symptoms of anaphylaxis in pregnant women are the same as for non-pregnant women, though several additional features are possible. Additional signs and symptoms include:

- persistent hypotension (may be the predominant feature)
- intense vulvar and vaginal itching (particularly if allergic reaction/IgE-mediated reaction to latex)
- low back pain
- uterine cramps
- fetal distress.

Common precipitants for anaphylaxis include antibiotics, anaesthetic medication e.g., neuromuscular blocking agents. Anaphylaxis to chlorhexidine, foods and insect venom should also be considered.

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.

Management of Anaphylaxis in Pregnancy

Adrenaline (epinephrine) is the **first line treatment** for anaphylaxis in pregnancy, prompt administration is essential.

1. Call for Help

Anaphylaxis is a medical emergency

Call for help immediately

- Activate medical emergency team (Code Blue or MET call), or senior medical support, including anaesthetics as per LHN protocol.
- Stop, and or, remove suspected triggers including all intravenous/epidural infusions of medications.
  Note: *plain crystalloid infusions should be maintained as part of fluid resuscitation*

2. Position

- All pregnant women should be **positioned** on the left lateral.
  - If left lateral position not possible and uterus at or above umbilicus perform manual displacement of the uterus.
  - Elevate the legs if hypotensive.
  - If dyspnoeic or vomiting, place in a seated position of comfort.

3. Basic Life Support and CPR

- If in cardiac arrest commence BLS/ALS/CPR.
  - If there is no response to cardiopulmonary resuscitation (CPR) within 4 minutes, perform peri-mortem caesarean section.
    - See *Collapse (Maternal) PPG* found in the A-to-Z index at www.sahealth.sa.gov.au/perinatal.

4. Adrenaline

- Administer **adrenaline injection** into the mid-outer thigh.
  - If maternal weight ≥ 50 kg give **0.5 mg (500 micrograms).**
  - If maternal weight < 50 kg give 0.01 mg/kg (10 micrograms/kg).

  Note: *Dose can be repeated every 5 minutes.*
- Use **adrenaline autoinjector** where available (particularly useful in the community or non-hospital setting to minimise risk of dosing error).
  - Initial dose via autoinjector = 0.3 mg (300 micrograms).
  - Repeat dose every 5 minutes as needed.
- For refractory **anaphylaxis** or anaphylaxis occurring under anaesthesia (e.g., during caesarean section), consider administering small intravenous (IV) boluses of adrenaline or commencing an adrenaline infusion.
  - This should only be undertaken where enhanced monitoring and appropriately skilled critical care, or anaesthetic personnel are available.

For more information on **adrenaline dilutions based on clinical setting** see Appendix A (p.10) of the ASCIA's Acute Management of Anaphylaxis guideline:

- where infusion pump **not** available (e.g., SAAS, GP clinics) follow:
  - Additional measures: IV adrenaline infusion for pre-hospital settings
- where infusion pump **is** available (e.g., emergency department, tertiary hospital) follow:
  - Additional measures: IV adrenaline infusion for emergency departments/tertiary hospitals only

Note: *Select the correct protocol for your setting to prevent dosing error as each protocol uses different adrenaline concentration and dilution.*

5. Oxygen

- Administer high flow oxygen.
  - Note oxygenation is more important than intubation.

6. Circulation

- Obtain intravenous (IV) access, if possible
- If the woman remains hypotensive after adrenaline administration, rapidly administer IV fluids (i.e., 0.9% Sodium Chloride, maximum of 50 mL/kg in the first 30 minutes), aiming for a systolic blood pressure greater than 90 mmHg.

7. Monitor

- Check maternal:
  - Heart rate (HR)
  - Blood oxygen saturation (SpO2) via pulse oximeter
  - Blood pressure (BP)
  - Respiratory rate (RR)

- Fetal wellbeing:
  - continuous CTG monitoring (if available) depending on gestation
  - If CTG not available, check fetal heart rate every 5 minutes.

  Note: *Restoration of normal maternal BP does not ensure adequate placental perfusion. Fetal monitoring is essential to guide decision regarding timing of birth.*

8. Expedited Birth

- Consider emergency caesarean section if:
  - there are signs of fetal distress in a viable pregnancy, or
  - anaphylaxis is refractory to management (e.g., persistent hypotension).

9. Other Considerations/Second Line Management

- Additional second line management may include:
  - inhaled salbutamol
  - oral prednisolone 1 mg/kg (maximum of 50 mg) and/or IV hydrocortisone 5 mg/kg (maximum dose of 200 mg)
    - See p.7 ASICA Acute Management of Anaphylaxis guideline for additional measures if IV adrenaline infusion is ineffective (e.g., use of nebulised adrenaline for upper airway obstruction).

Admission and/or Transfer

- Hospital admission is usually required post anaphylaxis as relapse protracted and/or biphasic reactions can occur. Overnight observations are strongly recommended if any of the following present:[2]
  - severe or protracted anaphylaxis, repeated adrenaline doses or intravenous (IV) resuscitation
  - history of severe or protracted anaphylaxis
  - accompanying illness (e.g., severe asthma, history of arrythmia, systemic mastocytosis)
  - woman lives alone or remote from medical access late in the day presentation (e.g., after hours)
    - For regional/remote/community locations consider transfer to a tertiary hospital. See *Perinatal Advice and Emergency Transport PPG* found in the A-to-Z index at www.sahealth.sa.gov.au/perinatal
    - For tertiary sites consider HDU/ICU admission for ongoing management.

Special Circumstances

Intraoperative Anaphylaxis

Recognition and management of anaphylaxis during anaesthesia present unique challenges due to concurrent sedation, airway manipulation and limited visibility of early clinical signs. When anaphylaxis is suspected intraoperatively, the anaesthetist should follow the Australian and New Zealand Anaesthetic Allergy Group (ANZAAAG) Perioperative Anaphylaxis guideline,[3] which provides evidence-based recommendations for diagnosis, acute management and post-event care in the operative setting.

To support safe and effective management, operating theatres should ideally maintain immediate access to the following ANZAAAG emergency management cards:

- Adult Immediate Management card
- Adult Refractory Management card
- Differential Diagnosis card
- Post-Crisis Management card

Follow Up

- **All** women who present with anaphylaxis should be referred to a **clinical immunology/allergy specialist** for assessment and ongoing management.
- **Refer** to an **Anaphylaxis Rapid Review Clinic** for follow-up:

  Flinders Medical Centre:

  - **Allergy and Immunology: (08) 8204 7201**
  - Southern Adelaide LHN Specialist and Outpatient clinics | SA Health
  - Referral form

  Royal Adelaide Hospital:

  - **Clinical Immunology and Allergy: (08) 7117 3099**
  - eReferrals: Statewide eReferrals | SA Health
  - email: HealthRAHOPDReferrals@sa.gov.au

- **Develop** anaphylaxis action plan +/- EpiPen, including demonstration on usage.
- Where required, ongoing treatment should be determined by the multi-disciplinary team based on individual condition.
- **Ensure** an alert is documented in the woman's medical records.

Resources

Resource	Purpose	Website	Intended Audience
Allergy and Clinical Immunology Flinders Medical Centre	Multidisciplinary care of clients with allergies and immunological diseases	See 'allergy and clinical immunology services at flinders medical centre' at www.sahealth.sa.gov.au	*Consumers/ Clinicians*
Australian Charter of Healthcare Rights	Support informed consent and shared decision-making	See 'Australian Charter of Healthcare Rights' at www.safetyandquality.gov.au	*Consumers/ Clinicians*
Australian Government Pregnancy, Birth and Baby	Preconception, pregnancy and postnatal information	www.pregnancybirthbaby.org.au	*Consumers*
Australian and New Zealand Anaesthetic Allergy Group	Anaphylaxis management guidelines for clinicians	www.anzaag.com/anaphylaxis-management/management-resources	*Clinicians*
Clinical Immunology and Allergy at Royal Adelaide Hospital	Diagnosis and management of allergic and immunologic diseases	See 'clinical immunology and allergy' at www.rah.sa.gov.au/services-clinics/clinical-immunology-allergy	*Consumers/ Clinicians*
Medicines Information	Medication safety in pregnancy	See 'Medicines' at www.sahealthlibrary.sa.gov.au	*Clinicians*
Pathology Tests Explained	Understanding pathology and screening tests	www.pathologytestsexplained.org.au	*Consumers/ Clinicians*
SA Health Pregnancy	Pregnancy information for South Australia	Search 'Pregnancy' at www.sahealth.sa.gov.au	*Consumers*
SAPPGs Web-based App	Access to SAPPGs	https://extapps2.sahealth.sa.gov.au/PracticeGuidelines/	*Clinicians*

References

1. Australasian Society of Clinical Immunology and Allergy (ASCIA). ASCIA Guidelines: Acute Management of Anaphylaxis in Pregnancy 2024 [September 2025]. Available from: https://www.allergy.org.au/hp/papers/acute-management-of-anaphylaxis-in-pregnancy.
2. Australasian Society of Clinical Immunology and Allergy (ASCIA). ASCIA Guidelines - Acute Management of Anaphylaxis 2024 [September 2025]. Available from: https://www.allergy.org.au/hp/papers/acute-management-of-anaphylaxis-guidelines.
3. Australian & New Zealand Anaesthetic Allergy Group. ANZAAG/ANZCA Anaphylaxis Management Guidelines (November 2022. Available from www.anzaag.com/anaphylaxis-management/management-resources

Acknowledgements

The South Australian Perinatal Practice Guidelines gratefully acknowledge the contribution of clinicians and other stakeholders who participated throughout the guideline development process particularly:

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Suggested citation:

King R, Osborn K. Anaphylaxis (Maternal) [Internet]. Version 5. Adelaide (AU): South Australian Perinatal Practice Guideline; SA Health, Government of South Australia; 2026. Guideline No.: PPG110. Available from: http://www.sahealth.sa.gov.au/perinatal.

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Document Ownership & History

Developed by: Maternal, Neonatal and Gynaecology Strategic Executive Leadership Committee
Contact: HealthCYWHSPerinatalProtocol@sa.gov.au
Approved by: Clinical Guidelines Domain Custodian
Next review due: 13/04/2031
CGSQ reference: **PPG110**
Guideline history: Is this a new perinatal practice guideline (V1)? **N**
Does this perinatal practice guideline amend or update an existing perinatal practice guideline? **Y**
If so, which version? v4
Does this perinatal practice guideline replace another perinatal practice guideline or policy with a different title? **N**
If so, which perinatal practice guideline or policy (title)?

Approval Date	Version	Who approved New/Revised Version	Reason for Change
13/04/2026	V5.0	Clinical Guidelines Domain Custodian	Formally reviewed in line with 1–5 yearly scheduled timeline for review. Hyperlink to ASCIA guideline updated to 2024 version.
28/09/2020	V4.0	Lynne Cowan, Deputy CE, Commissioning and Performance Division, SA Department for Health and Wellbeing	Reviewed with specific ASCIA and pregnancy guideline
07/04/2020	V3.1	Chair, SA Maternal, Neonatal & Gynaecology Community of Practice	Hyperlink to ASCIA guideline updated to 2019 version. Adrenaline dose for pregnant women altered.
27/09/2018	V3.0	Safety and Quality Strategic Governance Committee	Reviewed.
17/06/2014	V2.0	Safety and Quality Strategic Governance Committee	Reviewed.
23/09/2014	V1.0	Safety and Quality Strategic Governance Committee	Original approved version.