

Pruritic Urticarial Papules and Plaques of Pregnancy (PUPPP)

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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

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 woman. 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 respectively 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)

The purpose of this guideline is to give clinicians information on the diagnosis and management of PUPPP. It includes clinical presentation and treatment options.



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Table of Contents

Purpose and Scope	1
Summary of Practice Recommendations	2
Medication may be considered if symptoms are not relieved by general measures.....	2
Abbreviations	2
Pruritic Urticarial Papules and Plaques of Pregnancy	3
Clinical features	3
Incidence.....	3
Pathogenesis	3
Diagnosis	3
Treatment.....	4
References.....	5
Acknowledgements.....	6
Document Ownership & History.....	7

Summary of Practice Recommendations

Diagnosis of PUPPP is made via clinical presentation alone.

Other causes for pruritic papules need to be excluded.

General treatment measures include the use of cool soothing baths, emollients, wet soaks, and light cotton clothing.

Medication may be considered if symptoms are not relieved by general measures.

Consider referral to a dermatologist or infectious diseases specialist if symptoms persist.

Abbreviations

DNA	Deoxyribonucleic acid
mg	Milligram(s)
%	Percent
PUPPP	Pruritic urticarial papules and plaques of pregnancy



Pruritic Urticarial Papules and Plaques of Pregnancy (PUPPP)

Pruritic Urticarial Papules and Plaques of Pregnancy

The term pruritic urticarial papules and plaques of pregnancy (PUPPP) refers to a benign dermatosis that usually arises late in the third trimester of a first pregnancy.¹ PUPPP is also known as polymorphic eruption of pregnancy, toxemic rash of pregnancy, toxemic erythema of pregnancy, or late onset prurigo of pregnancy.²

PUPPP is the most common pregnancy related dermatoses and usually resolves before or within several weeks of birth.^{1,3}

PUPPP usually occurs in the first pregnancy and recurrence in subsequent pregnancies, with menses or oral contraceptives is uncommon.²

PUPPP is poorly defined because of its variable clinical presentation, lack of pathognomonic diagnostic features and lack of laboratory abnormalities.² The main hypothesis is that rapid abdominal wall distention may cause damage to connective tissue in the striae with subsequent conversion of nonantigenic molecules to antigenic ones, thus triggering an inflammatory process.²

Clinical features

- Associated with multiple gestation (possibly due to excessive abdominal distention and higher progesterone levels)
- Lesions (pruritic papules) commonly begin in the abdominal striae with periumbilical sparing
- Erythematous urticarial papules and plaques may spread to the proximal thighs, buttocks and proximal arms
- Small vesicles may occasionally be noted
- Itching is severe in 80 % of cases
- Usually does not affect the face, palms, or soles
- Excoriations are rarely found

Incidence

- Occurs in 1 in 160 pregnancies (less common in dark skinned women)¹
- More common in multiple pregnancy^{1,4}

Pathogenesis

- No immunologic or hormonal abnormalities have been found
- One recent study reported a decrease in serum cortisol⁵
- Fetal deoxyribonucleic acid (DNA) has been identified in the skin of women with PUPPP, suggesting that microchimerism might be relevant in the pathogenesis.

Diagnosis

- There is no diagnostic test for PUPPP.
- Consider referral to dermatologist or infectious diseases consultant.



Aboriginal Women should be referred to an Aboriginal Health Professional to support their care



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Exclude the following:

- Contact dermatitis (allergic or irritant)
- Obstetric cholestasis
- Drug eruptions
- Erythema multiforme
- Herpes gestationis (immunofluorescence or viral culture)
- Insect bites
- Scabies (skin scrapings)
- Sea bather's eruption
- Urticaria (acute or chronic)

Treatment

General treatment measures include the use of cool soothing baths, emollients, wet soaks, and light cotton clothing.¹

Medication if symptoms not relieved by general measures:⁷

- Betamethasone dipropionate 0.05% cream or betamethasone valerate 0.05% - 0.1% cream applied topically twice daily.
- Oral antihistamines such as cetirizine [Zyrtec®] or cyproheptadine may be used
- Rarely, a short course of oral prednisolone 25 mg once daily may be necessary. Consultation with a dermatologist and obstetrician is recommended in this situation.



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Pruritic Urticarial Papules and Plaques of Pregnancy (PUPPP)

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