

Screening for preeclampsia

I welcome direct GP referrals and calls for advice.

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AT A GLANCE

- **Every woman gets a history-based risk assessment at booking.** This is the one screening step that is strongly recommended and universally available.
- Combined first-trimester screening performs considerably better and is conditionally recommended where available. **PIGF is not Medicare-rebated.**
- The point of screening is to identify who should start aspirin before 16 weeks. Screening without acting on it is wasted effort.
- The **sFlt-1/PIGF ratio** is a rule-out test in women with *suspected* preeclampsia — not a screening test in well women.

FIGURE 1 · COMBINED FIRST-TRIMESTER SCREENING, 11+0 TO 13+6 WEEKS



At a 10% screen-positive rate: about **90% detection of preeclampsia requiring delivery before 32 weeks** and about 75% of preterm preeclampsia before 37 weeks. It performs poorly for term preeclampsia, which is a different and less preventable disease.

Step 1 — history-based risk assessment

ALL WOMEN, AT BOOKING · STRONGLY RECOMMENDED

HIGH RISK — ONE IS ENOUGH

- Previous preeclampsia or other pregnancy hypertension
- Chronic hypertension
- Pre-existing diabetes
- Chronic kidney disease
- SLE, antiphospholipid syndrome or scleroderma
- Multiple pregnancy

MODERATE RISK — TWO OR MORE

- Nulliparity
- Age ≥ 40 , or BMI ≥ 35
- Preeclampsia in mother or sister
- Interpregnancy interval >10 years
- Assisted reproduction, especially donor oocyte
- Booking BP $\geq 130/80$
- Previous SGA infant, stillbirth or abruption

Free, and takes two minutes. Its limitation is sensitivity — history alone misses more than half of the women who go on to develop preterm preeclampsia. This is the same list used for aspirin (sheet 2A). For a quantitative first-trimester estimate, the [Fetal Medicine Foundation preeclampsia risk calculator](#) combines history with biomarkers.

Step 2 — blood pressure, measured properly

FIGURE 2 · A BOOKING BP IS A SCREENING TEST IN ITS OWN RIGHT — ≥ 130 SYSTOLIC OR ≥ 80 DIASTOLIC COUNTS AS A MODERATE RISK FACTOR

Seated, rested five minutes, back supported, legs uncrossed	Arm supported at heart level	Correct cuff size — a cuff too small over-reads, the commonest error at higher BMI
A device validated for use in pregnancy — many are not	Korotkoff V for diastolic	Repeat an abnormal reading after a few minutes before acting on it

Step 3 — practicalities in Victoria

- The ultrasound component must be requested — mean uterine artery PI is not part of a standard nuchal translucency scan everywhere. **Say so on the referral.**
- **PIGF attracts an out-of-pocket fee;** Medicare does not rebate it. Tell the patient before she books.
- Some laboratories issue a combined risk report only after the ultrasound measurements are sent through, which adds several days. Order early in the 11–13+6 window so the result lands in time to start aspirin.
- SOMANZ recommends this conditionally, "based on local availability" — a normal history-based assessment plus a discussion is entirely defensible where combined screening isn't accessible.

What a high-risk result means. Start aspirin 150 mg nocte, arrange growth surveillance, and set the antenatal schedule accordingly. It is a probability, not a diagnosis — many screen-positive women have entirely normal pregnancies.

Step 4 — ongoing surveillance

THIS IS NOT OPTIONAL — SCREENING AT 12 WEEKS DOES NOT END THE JOB

Baseline bloods in higher-risk women — FBE, UEC, LFT, urine PCR — so later results can be read against a known starting point

Symptom education, repeated. Most women who present with preeclampsia present because they knew what to look for

Blood pressure and urinalysis at **every** antenatal visit

Uterine artery Dopplers at the 20-week morphology scan where indicated

Serial growth scans in women at risk

FIGURE 3 · WHAT HAPPENS WHEN

BOOKING	11–13+6	BEFORE 16	20 WEEKS	28+ WEEKS	EVERY VISIT
History, BP, baseline bloods	Combined screen	Aspirin started	Morphology ± uterine artery Doppler	Growth surveillance	BP and urine

The sFlt-1/PIGF ratio

Use: a woman with *suspected* preeclampsia, where the diagnosis is genuinely uncertain, to help decide whether she can be safely reviewed as an outpatient. A ratio ≤ 38 makes preeclampsia within the next 1–4 weeks unlikely.

Do not use it to diagnose preeclampsia, to grade severity, to time delivery, or to screen asymptomatic women. Availability varies between Victorian laboratories and services.

RED FLAGS — SAME-DAY ASSESSMENT

- BP $\geq 140/90$ on two readings, or any reading $\geq 160/110$
- New proteinuria
- Severe or persistent headache, visual disturbance, epigastric or right upper quadrant pain, sudden oedema, vomiting after 20 weeks
- Reduced fetal movements, or fundal height falling away from expected

REFER TO / DISCUSS WITH THE OBSTETRICIAN

- Previous early-onset preeclampsia, HELLP, eclampsia or preeclampsia needing preterm birth
- Any screen-positive first-trimester result
- Uncertainty about interpreting a screening result
- Chronic hypertension, renal disease, SLE or APLS — ideally pre-conception or at booking
- New hypertension or proteinuria at any gestation

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Sources: SOMANZ Hypertension in Pregnancy Guideline 2023; Safer Care Victoria Hypertension in Pregnancy clinical guidance, October 2024; Fetal Medicine Foundation competing-risks screening model; Australian pathology provider information on first-trimester preeclampsia screening.