



Intradermal Sterile Water Injections (SWI) for Lower Back Pain in Labour Policy

1. Background

Almost one in three women suffer from severe lower back pain in labour, which often does not resolve between contractions and is associated with fetal malposition, particularly occipito-posterior positions.

Intradermal sterile water injections (SWI) are midwifery led and known to be a simple, safe, effective, non-pharmacological technique for relieving severe back during labour. The technique has been found to be effective in resolving back pain for 85% of women.

This technique is widely used in other jurisdictions of Australia and has no known side-effects. The technique can decrease the need for pharmacological methods of pain relief and can be used alongside any other form of pain relief. This technique is only effective at relieving back pain and not contraction pain.

Pregnant women are to be provided with antenatal information on the use of SWI for back pain in labour during parent education classes and/or using the WACHS [Sterile Water Skin Injections for Relieving Back Pain in Labour - Consumer Information Sheet](#).

2. Policy Statement

2.1 Advantages

- Low cost and simple.
- Immediate effect (one to three minutes).
- Duration of effect between one and three hours.
- Reduces likelihood of need for pharmacological pain relief (and the known side effects).
- No side effects on baby.
- No side effects for mother.
- Does not limit mobility.
- No adverse effect on labour progress.
- Can be repeated every 30 minutes as required.

2.2 Informed consent

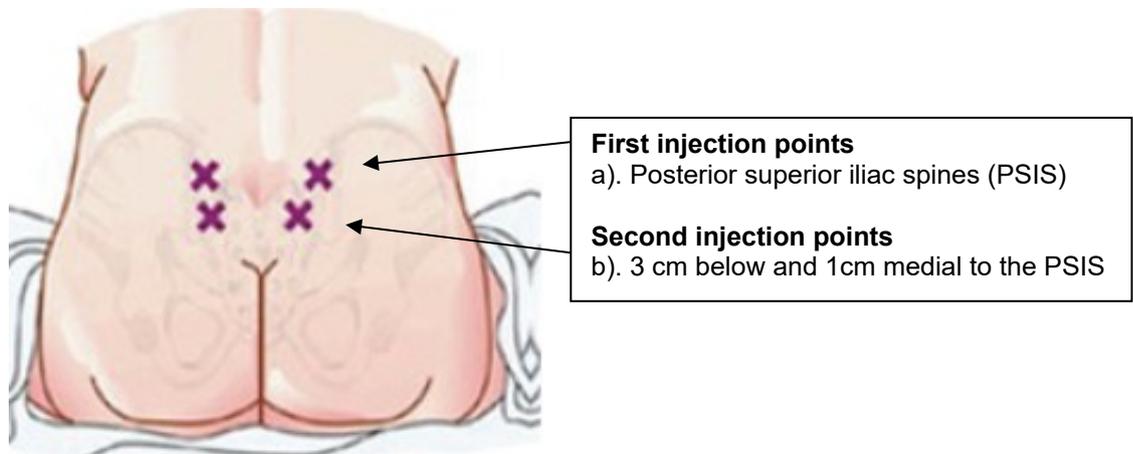
- Informal verbal consent is to be obtained.
- Women are to be advised they will experience a wasp like stinging sensation at the injection site for 20-30 seconds.
- Women are to be advised this stinging sensation can be minimised by injecting during a contraction and, where possible, by two midwives injecting simultaneously.

2.3 Equipment

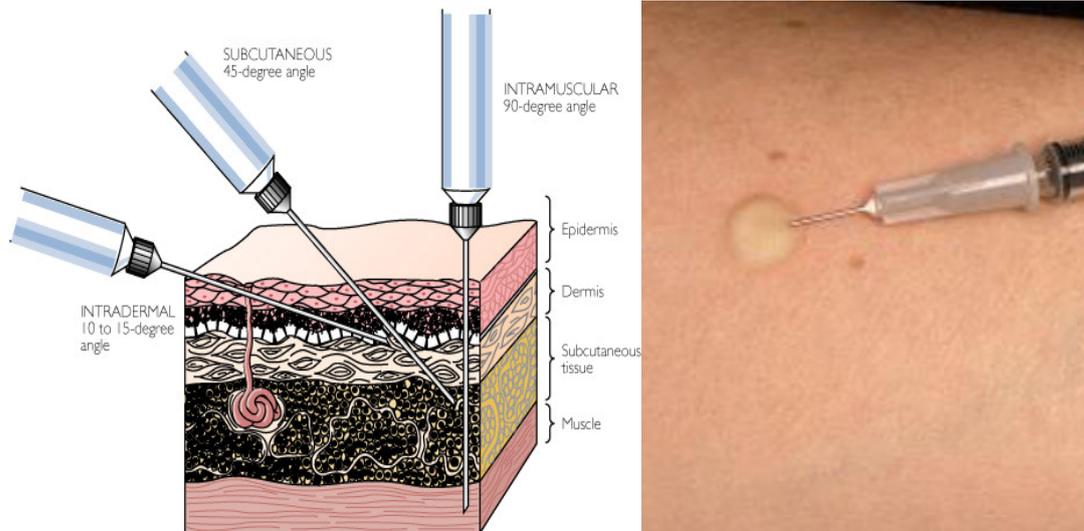
- Four x 1mL syringes and four x 25g needles.
- Vial of Sterile Water for injection.
- Gloves.
- Alcohol swabs.
- Sharps container.
- Nitrous oxide (can help during injection and post injection sting).

2.4 Procedure

- Ideally two midwives (or one midwife with a SWI competent registered nurse) should simultaneously inject two sites at a time to minimise duration of injection 'stings'.
- It is best to make the first two injections on opposite sides, as these two injections alone may provide satisfactory results.
- Advise the woman to avoid sudden movements during injection.
- Position the woman sitting or leaning on the bed with the clinician able to reach comfortably without bending.
- Identify the four anatomical landmarks on the woman's lower back:
 - a) Over each posterior iliac spine (PSIS).
 - b) 3 cm below and 1cm medial to the PSIS.



- The exact anatomical position is not critical to success of the pain relief.
- Perform hand hygiene and don gloves.
- Clean the injection sites with alcohol swabs and allow to dry.
- During a contraction, hold the skin taught while placing the needle at a 15 degree angle to the skin with the bevel facing upwards and insert the needle a few millimetres into the skin.



- Inject rapidly 0.1 – 0.3 mL of sterile water for injection intra-dermally until a visible ‘bleb’ is raised under the skin (approximately 0.5 cm in diameter).
- Repeat for the remaining injection sites during the next contraction.
- Do not rub or massage the injection sites as this may reduce the efficacy and increase the sting. Avoid heat packs to the injection sites.
- The technique can be repeated every 30 minutes if required.

2.5 Documentation

- Record the following information in the inpatient progress notes:
 - Informed consent.
 - Pre-procedure back pain score.
 - Time of the procedure and volume injected.
 - Time of onset of analgesia.
 - Duration of analgesic effect.
 - Post-procedure pain scores at five (5) and 10 minutes then as clinically indicated.
- Record use of the SWI technique in the woman’s Stork record under labour analgesia.

2.6 Professional Development

- Midwives wishing to offer the SWI technique to women in labour are first required to complete the WACHS SWI Education package available via the Learning Management System, or complete the process for recognised prior learning
- Registered nurses interested in being the second SWI injector, with a midwife as first injector, must also complete the education package.

3. Definitions

PSIS	Posterior Superior Iliac Spine
RN	Registered Nurse
SWI	Sterile Water Injections

4. Roles and Responsibilities

Midwifery managers are to ensure midwives are aware of this policy and option for pain relief in labour.

Midwifery managers are to ensure interested midwives and RNs complete the SWI learning package prior to undertaking the technique

Midwifery managers at sites offering SWI are to ensure pregnant women booked to their site have access to the WACHS [Sterile Water Skin Injections for Relieving Back Pain in Labour - Consumer Information Sheet](#) and have the option of SWI included in parent education classes

Midwives and RNs undertaking the SWI technique must complete the WACHS Learning package and follow the guidance in this policy.

5. Compliance

Failure to comply with this policy may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Integrity Policy Framework](#) issued pursuant to section 26 of the [Health Services Act 2016](#) (WA) and is binding on all WACHS staff which for this purpose includes trainees, students, volunteers, researchers, contractors for service (including all visiting health professionals and agency staff) and persons delivering training or education within WACHS.

WACHS staff are reminded that compliance with all policies is mandatory.

6. Records Management

All WACHS clinical records must be managed in accordance with Health Record Management Policy.

7. Evaluation

Evaluation of the efficacy of the SWI technique on back pain in labour is to be assessed by the site Maternity manager and reported to the Midwifery Advisory Forum:

- using pre and post procedure pain scores for all women undergoing SWI
- requirements for subsequent analgesia after SWI
- birth type.

Bi-monthly auto-reports can be generated from Stork to identify those women who have had the SWI technique in labour.

8. Standards

[National Safety and Quality Health Service Standards](#) - 3.9, 4.1

9. Legislation

[Health Services Act 2016](#) (WA)

10. References

1. Fogerty, V. (2008). Intradermal sterile water injections for the relief of low back pain in labour – a systematic review of the literature. *Women and Birth*, 21(4), 157-163.
2. Hutton, E.K., Kasperink, M., Rutten, M., Reitsma, A., Wainman, B., (2009). Sterile water injection for labour pain: a systematic review and meta-analysis of randomised controlled trials. *BJOG: An International Journal of Obstetrics & Gynaecology* 116 (9), 1158–1166.
3. Lee N, Webster J, Beckmann M, Gibbons K, BinfoTech, Smith T, Stapleton H & Kildea S. (2013) Comparison of a single vs a four intradermal sterile water injection for relief of lower back pain for women in labour: A randomised controlled trial. *Midwifery*, 29, 585-591
4. Rossignol, M., Chaillet, N., Boughrassa, F., & Moutquin, J. (2014). Interrelations between four antepartum obstetric interventions and caesarean delivery in women at low risk: A systematic review and modelling of the cascade of interventions. *Birth*, 41(1), 70-78.
5. Lee N, Martensson LB, Kildea S. Cross sectional study of Australian midwives knowledge and use of sterile water injections for pain relief in labour. *Women and birth*. 2012 Dec 1;25(4):e74-9.
6. Lee N, Kildea S, Stapleton H. “No pain, no gain”: The experience of women using sterile water injections. *Women and Birth*. 2017 Apr 1;30(2):153-8.

11. Related Forms

Nil

12. Related Policy Documents

WACHS [Sterile Water Skin Injections for Relieving Back Pain in Labour - Consumer Information Sheet](#)

WACHS [Intradermal Sterile Water Skin Injections - Skills Assessment Checklist](#)

13. Related WA Health System Policies

Nil

14. Policy Framework

[Clinical Services Planning and Programs](#)

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