



# Intradermal Sterile Water Injections 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.

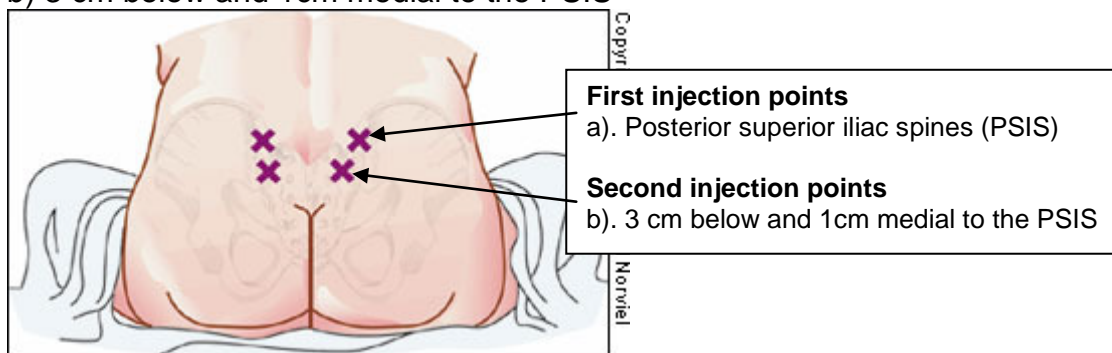
### 2.3 Equipment

- Four x 1ml syringes and four x 25g needles
- Vial of Sterile Water for injection
- Gloves

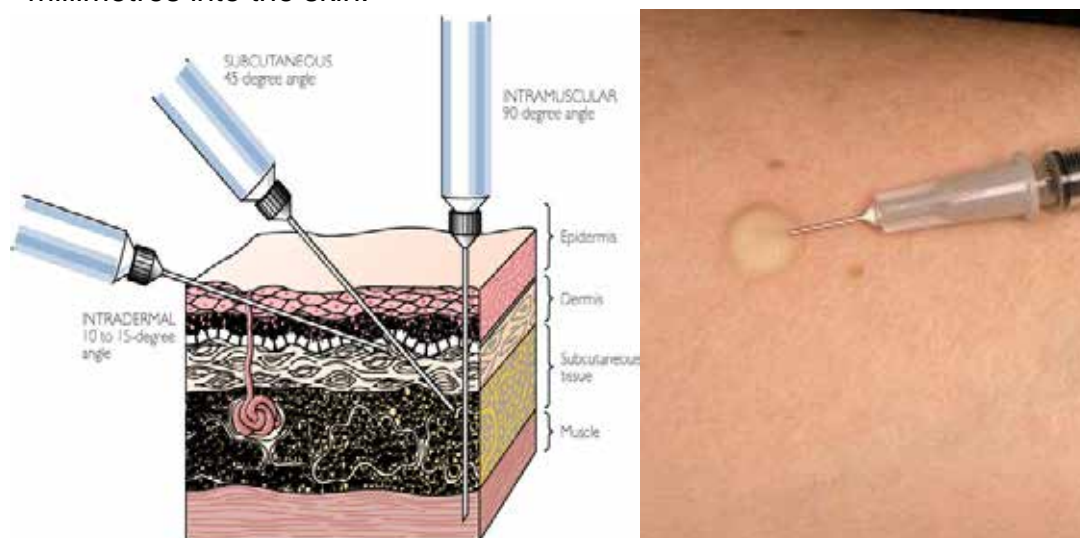
- Alcohol swabs
- Sharps container
- Nitrous oxide (can help during injection and post injection sting).

### 2.4 Procedure

- Ideally two midwives (or one midwife with a 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 taut 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

<b>PSIS</b>	Posterior Superior Iliac Spine
<b>RN</b>	Registered Nurse
<b>SWI</b>	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

It is a requirement of the WA Health Code of Conduct that employees “comply with all state government policies, standards and Australian laws and understand and comply with all WA Health business, administration and operational directives and policies”. Failure to comply may constitute suspected misconduct under the [WA Health Misconduct and Discipline Policy](#).

## 6. 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.

## 7. Standards

**Standard 1** Governance for Safety and Quality in Health Service Organisations which describes the quality framework required for health service organisations to implement safe systems.

## 8. References

- 8.1 Ader, L., Hansson, B., Wallin, G., (1990). Parturition pain treated by intracutaneous injections of sterile water. *Pain* 41 (2), 133–138.
- 8.2 Bahasadri S, Ahmadi-Abhari S, Dehghani-Nik M, Habibi GR. (2006) Subcutaneous sterile water injection for labour pain: a randomised controlled trial. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 46:102-6.
- 8.3 Duff, M. (2008). Sterile water injections for back pain in labour. *New Zealand College of Midwives Journal*, 39, 33-38.
- 8.4 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.
- 8.5 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.
- 8.6 Kushtagi P, Bhanu BT. (2009) Effectiveness of subcutaneous injection of sterile water to the lower back for pain relief in labor. *Acta Obstetrica et Gynecologica Scandinavica* ;88(2):231-3

- 8.7 Lee, N., Coxeter, P., Beckmann, M., Webster, J., Wright, V., Smith, T., et al., (2011). A randomised non-inferiority controlled trial of a single versus a four intradermal sterile water injection technique for relief of continuous lower back pain during labour. *BMC Pregnancy and Childbirth* 11 (1), 21.
- 8.8 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
- 8.9 Mårtensson, L. (2010). The patient observer: Sterile water injections for labor pain. *Birth*, 37(4), 334-336.
- 8.10 Martensson L; Stener-Victorin E; Wallin G. (2008) Acupuncture versus subcutaneous injections of sterile water as treatment for labour pain *Acta Obstetricia et Gynecologica Scandinavica*. 87(2):171-7
- 8.11 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.
- 8.12 Saxena KN, Nischal H, Batra S. (2009) Intracutaneous injections of sterile water over the sacrum for labour analgesia. *Indian Journal of Anaesthesia*;53(2):169-73
- 8.13 Trolle, B., Moller, M., Kronborg, H., Thomsen, S., (1991). The effect of sterile water blocks on low back labor pain. *American Journal of Obstetrics and Gynecology* 164 (5 Pt 1), 1277–1281.
- 8.14 Wiruchpongsonon, P., (2006). Relief of low back labor pain by using intracutaneous injections of sterile water: a randomized clinical trial. *Journal of the Medical Association of Thailand* 89 (5), 571–576.

## 9 Related Documents

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

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

## 9. WA Health Policy Framework

[Clinical Governance, Safety and Quality Policy Framework](#)

**This document can be made available in alternative formats on request for a person with a disability**

<b>Contact:</b>	WACHS Coordinator of Midwifery (K.Reynolds)		
<b>Directorate:</b>	Nursing and Midwifery Services	<b>TRIM Record #</b>	ED-CO-16-46948
<b>Version:</b>	1.00	<b>Date Published:</b>	11 October 2016

Copyright to this material is vested in the State of Western Australia unless otherwise indicated. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the provisions of the *Copyright Act 1968*, no part may be reproduced or re-used for any purposes whatsoever without written permission of the State of Western Australia.