Background

A recent adverse event involved inadvertent epidural administration of the topical antiseptic Chlorhexidine solution during an obstetric delivery resulting in neurological complications. Correct identification of medication / skin preparation solution in a sterile set-up is not ensured from the appearance of the liquid formulation alone if separated from its original container. For this reason, liquids are particularly at risk of being administered incorrectly. The following medication safety practices should be used to ensure correct selection and avoid wrong route errors.

Medication safety practices in epidural anaesthesia or analgesia

1. Prepare the patient’s skin using a skin preparation solution. This step must precede preparation of any medication for injection.

2. Remove the antiseptic solution container and associated swabs from the sterile set up.

3. Prepare medication for epidural injection using aseptic technique. The prescriber must:
   - select each medication,
   - prepare the medication for administration
   - administer the medication and subsequently
   - record its administration

Where a nurse / midwife is required to prepare a medicine dose for administration by a prescriber in a sterile set-up, the prescriber must act as the second person and check the medicine before he/she administers it to the patient (refer PD 2007_077 Medication Handling in NSW Public Hospitals)

4. Insert the epidural catheter

5. Inject the epidural medication

6. Record administration

Drugs used for epidural anaesthesia or analgesia must be handled in a manner that avoids inadvertent administration of the wrong drug (including skin preparation solutions). During the initiation of epidural anaesthesia or analgesia, the same person must select each medication, prepare the medication administration, administer the medication and record its administration. Receptacles containing skin preparation solution should be removed from the sterile setup following application of the solution to the skin. Intermediate steps in drug handling, such as decanting, local anaesthetic solutions into unlabelled containers on sterile setup, should be avoided.

Positions Statement, August 2010
Australian and New Zealand College of Anaesthetists

Actions required by Area Health Services:

1. Distribute this Safety Notice to all relevant clinical staff.
2. In consultation with Directors of Anaesthetics / Midwifery and Operating Suite Managers, undertake a review of practices relating to handling and preparation of epidural medicine doses in both Obstetrics and Operating Theatre in view of these principles.
3. Verify action taken by COB 30 August 2010 and provide a response via email to quality@doh.health.nsw.gov.au
4. Ensure staff are aware that further information is available via the CIAP website at http://www.ciap.health.nsw.gov.au or http://internal.health.nsw.gov.au