

Reference Number: UHBOBS045 Version Number: 3	Date of Next Review: 01/04/2025 Previous Trust/LHB Reference Number:
Epidural Guidance for Midwives	
Introduction and Aim <i>To provide guidance to midwives caring for women that or considering or have epidural analgesia for labour and birth.</i>	
Objectives <ol style="list-style-type: none"> 1. Clear guidance for roles and responsibilities. 2. Understanding of procedure and equipment required. 3. Guidance on required care from when the woman is considering an epidural to removal of epidural catheter. 4. Highlight the change from intermittent manual top ups to Programmed Intermittent Auto epidural Bolus (PIAB)/Patient Controlled Epidural Analgesia (PCEA). 	
Scope This policy applies to all healthcare professionals working with maternity, including those with honorary contracts	
Equality Health Impact Assessment	<i>An Equality Health Impact Assessment (EHIA) has not been completed.</i>
Documents to read alongside this Procedure	Obstetric Anaesthesia Guidance ANTT The Medicines Code Intrapartum Guidelines
Approved by	<i>Maternity Professional Forum</i>

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<p style="text-align: center;"><u>Disclaimer</u></p> <p style="text-align: center;">If the review date of this document has passed, please ensure that the version you are using is the most up to date either by contacting the document author or the Governance Directorate.</p>	

Document Title: <i>Epidural Guidance for Midwives</i>	2 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

Summary of reviews/amendments			
Version Number	Date of Review Approved	Date Published	Summary of Amendments
1	Dec 2013	<i>Dec 2013</i>	
2	MPF 15/7/19 Q&S 06/09/2019	09/09/2019	Reviewed and Amended by S Morris and A Oyler
3	MPF 22/06/2022 Q&S 06/07/2022	01/08/2022	Reviewed and Amended by R Baraz

Contents:

1. Definition
2. Indications
3. Contraindications
4. The Midwives role in facilitating informed decisions
5. The Anaesthetist role in facilitating informed consent
6. Designated clinical areas
7. Training
8. Initiating treatment and monitoring of patients whilst receiving epidural analgesia
9. Acid prophylaxis
10. Fetal monitoring prior to epidural insertion
11. Preparation prior to epidural insertion
 - Assistant
 - Positioning
 - Equipment
12. How to get the epidural local anaesthetic bag safely from the CD cupboard?
13. Skin decontamination
14. Epidural insertion
15. Establishing the block
16. Commencing pump protocol
17. Combined spinal Epidural (CSE) for labour
18. Spinal Catheter
19. Testing the height of the block
20. Prescription
21. Safety facts
22. Observations and documentation
23. Further actions/documentation
24. When should the midwife call the anaesthetist?
25. Management of complications or side-effects
26. Mobilisation of mothers receiving epidural analgesia for labour
27. Maternal position in labour
28. Bladder care

Document Title: <i>Epidural Guidance for Midwives</i>	3 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

- 29. Removal of epidural catheter
- 30. Thromboprophylaxis after delivery
- 31. Drug disposal and pump cleaning after use
- 32. References

Document Title: <i>Epidural Guidance for Midwives</i>	4 of 23	Approval Date: 06/07/2022
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

Epidural analgesia

1. Definition

A low concentration of local anaesthetic usually with an opioid, injected into the epidural space to provide labour pain relief.

2. Indications

- Woman requesting epidural analgesia in labour and/or latent phase.
- Obstetric indication e.g. multiple pregnancy (to facilitate delivery of second twin) and blood pressure control.
- Epidural should be offered to women who have experienced an intra uterine death beyond 28 weeks.
- Rarely, postoperative analgesia after caesarean section.

3. Contraindications

3.1 Absolute contraindications

- Patient's refusal.
- Abnormal coagulation
 - Platelet count $< 90 \times 10^9/L$.
 - Bleeding disorders (severe Von Willebrand disease).
 - Prophylactic low molecular weight heparin (e.g. Enoxaparin (Clexane), usually 40mg or 60mg in obese women) given within last 12 hours.
 - Therapeutic low molecular weight heparin within last 24 hours.
 - Coagulopathy: APTT ratio or INR >1.4
 - Clopidogrel given within the last 7 days
- Lumbar spinal surgery.
- Local sepsis
- Allergy to amide local anaesthetics

3.2 Relative contraindications

- Systemic sepsis
- APTT ratio or INR 1.2-1.4
- Raised intracranial pressure

Pre-eclampsia, coagulation, and regional blockade

Pre-eclampsia is associated with a coagulopathy that may range from a mild thrombocytopenia to DIC. This has implications for the use of neuraxial blockade in pre-eclamptic patients.

Document Title: <i>Epidural Guidance for Midwives</i>	5 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

If the platelet count is $>150 \times 10^9/L$, experience shows that coagulation will be normal. In reality, both the platelet count and coagulation screen are usually checked.

If relying on just the platelet count before inserting an epidural/spinal in a patient with severe pre-eclampsia, the test should be within 2-3 hours.

If the platelet count is $90-150 \times 10^9/L$ and PT and APTT are within normal range, it should be safe to proceed with an epidural.

4. The Midwives role in facilitating informed decisions

The midwife should discuss the different forms of analgesia available for birth with the woman, ideally this should occur in the antenatal period, however this discussion can be revisited at any time, particularly when admitted in labour or induction of labour.

If a woman is contemplating regional analgesia, talk with her about the risks and benefits and the implications for her labour (NICE).

The midwife should give the woman unbiased information regarding the effects of epidural analgesia on labour and delivery to ensure that the woman is able to make an informed decision.

Fetal wellbeing must be assessed and documented prior to commencement of the epidural procedure (at least 15-20 minutes of CTG).

Information provided to woman about epidural analgesia, should include the following:

- It is available only in the consultant led unit.
- It provides more effective pain relief than opioids. It is not associated with long-term backache.
- It is not associated with a longer first stage of labour or an increased chance of a caesarean birth.
- It will be accompanied by a more intensive level of monitoring and intravenous access, and so mobility may be reduced. (NICE, 2014)
- It is associated with a longer second stage of labour and an increased chance of vaginal instrumental birth. (NICE, 2014) Increases the risk of instrumental delivery (65% in primigravida, Brocklehurst et al 2017)

5. The Anaesthetist role in facilitating informed consent

The anaesthetist should plan to attend the mother for an epidural within 30 minutes of request. If both trainees are busy, the CEPOD anaesthetist or the on-call consultant should be called.

Document Title: <i>Epidural Guidance for Midwives</i>	6 of 23	Approval Date: 06/07/2022
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

Before establishing epidural analgesia, the anaesthetist should explain the procedure and common complications to the patient to obtain an informed consent and this should be documented in the anaesthetic chart:

- Technical difficulty
- Accidental dural puncture & risk of severe headache
- Increases the risk of instrumental delivery (65% in primigravida)(Brocklehurst et al 2017)
- Incomplete analgesia, including need for re-siting
- Nerve damage and infection should be mentioned as rare complications.
- It will be accompanied by a more intensive level of monitoring and intravenous access, and so mobility may be restricted. (NICE, 2014)
- Still isotonic drinks or water only and plain biscuits or toast

N.B If a woman is transferred from the MLU to delivery suite for an epidural the midwife should inform the delivery suite coordinator and the senior obstetrician prior to insertion of the epidural so that a full antenatal review can be undertaken.

6. Designated clinical areas

Patients with an epidural catheter *in situ* must remain on the 2nd floor delivery suite, when labour is complete and no further intervention is required, the epidural catheter should be removed, it must be removed prior to leaving the delivery suite (see procedure for removal of epidural catheters below). All women receiving epidural analgesia must receive 1:1 care by a qualified midwife.

7. Training

The obstetric anaesthetists will provide education for midwifery staff relating to the care of patients receiving epidural analgesia. To ensure midwives are competent in looking after women with labour epidurals and familiar with the new pumps, pump protocols and all relevant pump checks and maternal observations, they need to complete the following:

1. Epidural teaching session
2. Have read and understood the “Epidural Guidance for Midwives”
3. Online pump training
4. The quiz
5. Face to face pump training and complete the Standard Obstetric User Competency Based Assessment (Appendix 1).
6. Training on how to complete the epidural section on the anaesthetic chart (appendix 2)
7. The Midwives Epidural Competencies (Appendix 3)

Document Title: <i>Epidural Guidance for Midwives</i>	7 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

Midwives who have had training in other maternity units must undergo at least a refresher session at UHW and complete the above requirements prior to providing care to a woman with labour epidural.

8. Initiating treatment and monitoring of patients whilst receiving epidural analgesia

Epidural catheters are inserted either in theatres or a delivery room. Occasionally patients may be returned to recovery with an epidural catheter in situ.

Epidural analgesia should only be initiated if the patient is in established labour or with the agreement of the obstetrician. However, there may be occasions where women may have severe pain in the latent phase of labour and epidural analgesia may be appropriate and in which case epidural analgesia should not be denied (NICE 2014).

It is the responsibility of the midwife to ensure appropriate monitoring of fetal wellbeing and the joint responsibility of midwife and anaesthetist to ensure maternal wellbeing during the procedure.

It is important that the midwife conveys any fetal or CTG concerns to the anaesthetist prior to or during the initiation of epidural analgesia so that the procedure can be paused if necessary.

For multiparous patients who are progressing quickly and requesting an epidural it may be useful to have a recent vaginal assessment to ensure that the woman will benefit from the epidural.

9. Acid prophylaxis

All women having epidural analgesia for labour should be prescribed oral omeprazole 20mg BD.

10. Fetal monitoring prior to epidural insertion

10.1 Maternal or fetal risk factors present: 15-20 mins of normal CTG analysis is required before an epidural is inserted.

10.2 No additional risk factors (e.g., transfer from MLU for epidural analgesia only):

- Assess maternal and fetal parameters (blood pressure, pulse rate, temperature, progress of labour, liquor) and confirm normality of the CTG.

Document Title: <i>Epidural Guidance for Midwives</i>	8 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

- Request obstetric review if there are any abnormalities or delay.
- If there is any delay in transfer to the CLU CTG monitoring should start on the MLU. If transfer from the MLU is facilitated without delay, commence CTG monitoring immediately upon arrival, and call the anaesthetist.
- 15-20 minutes of a normal CTG is required prior to epidural insertion but this can be done whilst the anaesthetist obtains an informed consent from the woman, inserts an intravenous cannula and takes routine bloods.
- An epidural alone is not an indication for a fetal scalp electrode, please refer to the [Fetal Surveillance Bundle](#).
- Do not routinely perform an ARM prior to epidural insertion if all aspects of fetal and maternal well-being have been ensured.
- Intermittent Doppler monitoring during epidural insertion is acceptable, provided normality of the CTG has previously been established.
- If the epidural procedure is not completed within 30 minutes of starting, CTG monitoring should be re-started until normality is confirmed and whilst awaiting more senior anaesthetic help.

11. Preparation prior to epidural insertion

11.1 Assistant:

The anaesthetist should be assisted by an ODP. In exceptional circumstances, an additional midwife should be allocated to assist if the ODP is not available.

11.2 Positioning:

The woman should be positioned on the flat portion of the bed, with her feet flat on a stool. Adjust the bed height so that the patient's knees are still higher than her hips and give her a pillow to curl over.

Wash hands thoroughly and ensure epidural trolley is clean.

Open all packs and solutions aseptically.

11.3 Equipment:

An intravenous cannula must be in situ at all times whilst the patient is receiving epidural analgesia. A bacterial filter must always be in place on the epidural catheter. Dedicated epidural pump with locked local anaesthetic bag once checked, should be labelled with the patient's addressograph.

The ODP usually bring the epidural trolley into the room and set up:

- Sterile pack
- Chlorhexidine 0.5% in 70% alcohol
- 10ml 1% lidocaine

Document Title: <i>Epidural Guidance for Midwives</i>	9 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

- 2 x10ml amps of N/Saline
- Portex epidural minipack
- “Lock-it” device to secure catheter
- Occlusive transparent epidural dressing
- Mefix tape 4 inch and 2 inches

The anaesthetist should ensure the availability of the following:

- Epidural giving set (BD BodyGuard™ MicroSet)
- Local anaesthetic bag (250ml bag of 0.1% levobupivacaine + 2mcg/mL fentanyl)
- BD BodyGuard Epidural Pump

The anaesthetist should be provided with:

Sterile gown
Sterile gloves
Hat and mask

12. How to get the epidural local anaesthetic bag safely from the CD cupboard?

- The midwife caring for the woman should inform the midwife in charge about the epidural request.
- The midwife in charge/or the anaesthetist should dispense the epidural local anaesthetic (LA) bag from the CD cupboard (250ml bag of 0.1% levobupivacaine + 2mcg/mL fentanyl) and double confirm with another registered healthcare provider sign the CD book.
- **The local anaesthetic bag must be placed inside the pump and locked with the specific key before leaving the equipment room. The pump with the locked local anaesthetic bag is then taken into the labour room.**
- The epidural book may need to be taken to the room and signed by both the midwife and the anaesthetist.

13. Skin decontamination

- Spray Chlorhexidine liberally from mid-thorax to sacrum.
- Rub in a circular motion for 30 seconds using sponge or swab in forceps, starting at the insertion point and working outwards.
- Repeat spray and leave to dry for at least 2 minutes.
- The skin must be dry before commencing the procedure.

Document Title: <i>Epidural Guidance for Midwives</i>	10 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

14. Epidural insertion

- Placement of an epidural catheter should be completed within approximately 20 minutes after starting, or after 3 attempts. If a trainee is having difficulty and taking longer than this, they should stop and seek senior assistance. If the midwife feels they have persisted long enough and are having difficulty, it is appropriate for them to suggest seeking assistance or to escalate as appropriate.
- If there are any concerns regarding fetal wellbeing during the procedure, this must be conveyed to the anaesthetist so that the procedure can be paused if necessary to take appropriate action which may include change of position.

15. Establishing the block

- Once the LA bag is in the labour room, the anaesthetist will unlock the pump container and withdraw 20 ml out of the bag.
- The anaesthetist will give **10 ml of the standard mix** as “**1st Test Dose**”. Following this test dose, the midwife should check maternal pulse and blood pressure every 5 minutes for 15 minutes.
- After 5-7 minutes, the anaesthetist should confirm the absence of signs of intrathecal placement (motor block and rapid drop of pain scores) before giving the **2nd test dose** (the remaining 10 ml)
- Following the 2nd test dose, the midwife should check maternal pulse and blood pressure every 5 minutes for 15 minutes.
- **15 min after 2nd test dose, the anaesthetist should assess the epidural block fully (SLR and pain scores and tested with ice)** and:
 - If adequate block and the woman is comfortable, then the anaesthetist will proceed with pump set up and hand the PCEA button to the woman to use for breakthrough pain.
 - If still uncomfortable, another top up can be given by the anaesthetist through the pump.
- **The woman should be comfortable within 40 minutes from epidural insertion or after a total of 30 ml of the standard epidural mix.**

16. Commencing pump protocol

While establishing the block, the anaesthetist should attach the epidural giving set (BD BodyGuard™ MicroSet) to the LA bag (250ml bag of 0.1%

Document Title: <i>Epidural Guidance for Midwives</i>	11 of 23	Approval Date: 06/07/2022
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

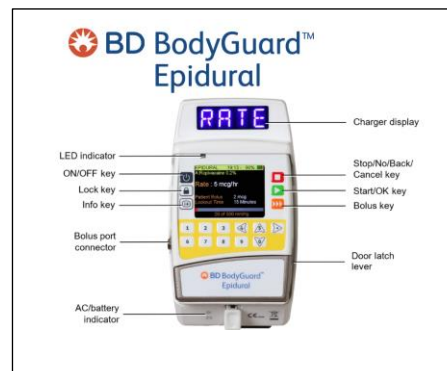
levobupivacaine + 2mcg/mL fentanyl), prime the set, programme the pump and attach to the epidural filter (prime responsibility of the anaesthetist).

There are three protocols:

Protocol A – Standard

This protocol should be used as a default

- Bag volume 220 ml
- Patient's bolus 5 ml (lock out 20 min)
- Auto bolus 10 ml (interval 60 min)
- Patient's bolus to Auto bolus lockout 30 min
- Auto bolus to patient's bolus 20 min
- Maximum clinician bolus 20 ml.
- No background infusion.



Protocol B – Reduced

This protocol should be used for women with extreme short stature (<1.48 m) or those who develop a block higher than T6 with protocol A

- Bag volume 220 ml
- Patient's bolus 5 ml (lock out 30 min)
- Auto bolus 7 ml (interval 60 min)
- Patient's bolus to Auto bolus lockout 30 min
- Auto bolus to patient's bolus 30 min
- Maximum clinician bolus 20 ml.
- No background infusion.

Protocol C – Intrathecal Catheter

Use/switch to this protocol for intrathecal catheters (anaesthetists top ups only)

- Bag volume 220 ml
- No auto-bolus
- No patient's bolus.
- No background infusion.
- Maximum clinician bolus 3 ml

The bag containing the epidural solution (250ml bag of 0.1% levobupivacaine + 2mcg/mL fentanyl) must be kept locked inside the pump at all times to mitigate against the risk of accidental IV connection and administration

17. Combined spinal Epidural (CSE) for labour

Document Title: <i>Epidural Guidance for Midwives</i>	12 of 23	Approval Date: 06/07/2022
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

Sometimes the anaesthetist will use a combined spinal and epidural technique (CSE) if the woman is distressed and unable to sit still long enough for an epidural to be sited safely. If this is performed as two separate injections – a spinal injection, then followed by an epidural insertion once the spinal is effective – it is important to monitor the blood pressure (see below under “Top-up procedure”) as soon as the spinal is completed.

18. Spinal Catheter

In the event of a spinal/intrathecal catheter:

- The anaesthetist **must use protocol C** to provide small volume top-ups via the pump.
- The epidural catheter/filter must be labelled “Spinal Catheter” and Top-up by Anaesthetist only.
- Label the pump “intrathecal catheter”. See picture below.
- Inform midwife in charge and obstetric staff.
- Must be highlighted on the white board in the hand-over room.
- There is no reason to depart from the normal management of the 2nd stage.
- **Observations must be undertaken every 15 mins whilst the spinal is effective.**

Figure showing epidural pump labelled with laminated pre-printed label



19. Testing the height of the block

Use an ice cube to test for lack of cold sensation.

Start at the groin and move upwards. Record the upper level.

Important levels:

Groin L1

Umbilicus T10

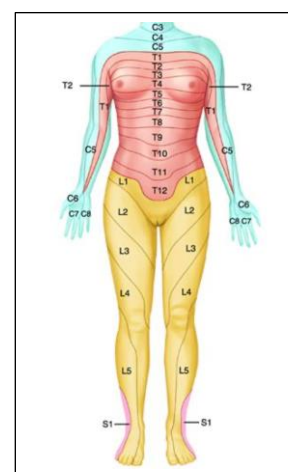
Mid-point between umbilicus and xiphoid T8

Xiphoid T6

Nipple T4

Block to the level of the umbilicus or few cm higher is ideal.

If the block is higher than T6, you should call the anaesthetist.



20. Prescription

Epidural analgesia **must** be prescribed on the patient's prescription chart as:

Drug 0.1% Bupivacaine + Fentanyl 2mcg/ml

Document Title: <i>Epidural Guidance for Midwives</i>	13 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

Route Epidural


Frequency As per protocol A & B

Prescription stickers are available on the epidural trolley.




N.B In addition to the pump protocol, the anaesthetist can administer further top ups (max 20ml) as clinician boluses.

21. Safety facts

- The auto-bolus is automatically administered by the pump every 60 minutes from commencing the pump protocol.

The red “Stop” button  will not pause the programme. It only stops the background infusion (which is zero ml/hour in all protocols) and will also stop all boluses from being completed.

- **To pause the programme, you must shut down the pump completely.**
- If anaesthetist decides to resite an epidural, the pump must be shut down completely to pause the programme, otherwise, the programme will continue to run and cause delivery of an automatic bolus prematurely once reconnected later.
- **If for any reason, you wish to withhold the next auto boluses, the pump must be switched off (completely shut down).**
- Shutting down the pump will not delete patient’s history. The protocol can be resumed once the pump is turned back on.

To restart the pump, press and hold on/off , press  key to resume previous setting, enter level one code and press the  key, review the protocol details then hit  key to confirm and press  key one more time to start infusion

- **If the clinician bolus volume is larger than 10 ml, the pump programme may have to be suspended (shut down) for a while.**
- All additional boluses should be delivered as a Clinician Bolus to avoid disconnection of the epidural pump.
- Additional boluses of solutions stronger than the premix are discouraged unless absolutely necessary. This may require pausing the PIAB/PCEA programme to avoid next Auto bolus being delivered too early.
- Shut down and disconnect the pump once epidural is no longer required.

To shut down the pump, press  key then press and hold on/off 

Document Title: <i>Epidural Guidance for Midwives</i>	14 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

22. Observations and documentation

Once epidural analgesia has been established it should be continued throughout labour and delivery until completion of perineal repair.

22.1 The midwife should:

1. Perform continuous cardiotocography for at least 30 minutes during establishment of regional analgesia and after administration of each further bolus. **[NICE 2007, amended 2014]**
2. Check maternal pulse rate (PR) and blood pressure (BP) every 5 mins for 15 mins after every test dose, clinician bolus and auto-bolus.
3. Check maternal PR and BP once, 5 mins after patient's bolus.
4. Sit patient forward every 2 hours and inspect site, check integrity of dressing and look for fluid under dressing.
5. Check pressure areas every 2 hours
6. Check pain scores every hour.
7. Perform straight leg raise (SLR) every hour.
8. Test the upper end of the block with ice every two hours. Start from the groin area going upwards. Inform the anaesthetist if above T6..
9. Record all auto-boluses and patient's boluses.
10. Record total volume given hourly.

Record 1-5 in the notes and 6-10 in the anaesthetic chart

22.2 The anaesthetist should:

- Document the name of the protocol.
- Record all test doses and clinician boluses.
- Record pain score and perform SLR before and after the test doses.
- Assess the epidural block 15-20 minutes after establishing pain relief (pain scores, sensory level and SLR).
- Assess the block (pain scores, sensory level and SLR) at every shift change or at the request of the midwife.

Document all above in the anaesthetic chart

Document Title: <i>Epidural Guidance for Midwives</i>	15 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

23. Further actions/documentation:

- Test doses, clinician boluses, patient boluses and auto-boluses must be documented on the anaesthetic chart.
- If analgesia is inadequate after 30ml of standard mix over 40 minutes, i.e., Pain scores remaining > 30-40, consider early re-siting of the epidural.
- Maternal hypotension (fall >20% systolic or < 100 mmHg) may make the mother dizzy and nauseated and cause fetal heart rate trace abnormalities.
 - Ensure that aorto-caval compression is absent by placing the mother in the full left lateral position.
 - Give 25-50 mcg of phenylephrine or 3-6 mg ephedrine IV every 1-2 minutes until blood pressure is satisfactory.
 - 200 ml fluid bolus may also be required.
- Failure to establish an adequate block must be reported and discussed early with Obs2 or consultant. Always think: “could I top this epidural up for a trial/CS?”
- Any doubts concerning the suitability for epidural analgesia or the inability to achieve an effective block should be discussed with the Obs2 or consultant.
- Any complications must be discussed with the Obs2 or consultant.

Auto-bolus of 10 ml in the standard protocol and 7 ml in the reduced protocol is programmed to be administered automatically every 60 min once the protocol is commenced. The midwife is expected to be in the room at that time to perform

24. When should the midwife call the anaesthetist?

The midwife should call the anaesthetist if:

- The woman is uncomfortable (inadequate block, unilateral block and sacral sparing).
- The woman has demanded more than one PCEA bolus after an auto-bolus.
- High block (ice level is higher than T6).
- The woman is unable to perform straight leg raise (SLR).
- Maternal hypotension.
- If epidural block has been established with no record of the ice test in the anaesthetic chart.
- Pump re-start is required (resuming the protocol).
- LA bag needs changing.

Document Title: <i>Epidural Guidance for Midwives</i>	16 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

- Has any other concern.

25. Management of complications or side-effects

Problem	Action
Inadequate analgesia	Call the anaesthetist
Hypotension	Open IVI, turn patient into left lateral position, consider oxygen if conscious level decreased, call anaesthetist. If systolic BP <90, pull the buzzer and manage as above
Excessive motor block	Check SLR hourly. Sudden development of motor block may indicate an accidental spinal injection. Action as for 'hypotension' above
Catheter disconnection	<ul style="list-style-type: none"> • If the disconnection is witnessed, wrap the end of the epidural catheter in a sterile swab and call anaesthetist immediately. The end can be cut and re-sterilised. • If you are unsure when the disconnection occurred, the catheter will have to be removed
Respiratory rate <10/minute	Do not allow further boluses. Remain with the patient. Call anaesthetist, locate Naloxone.

26. Mobilisation of mothers receiving epidural analgesia for labour

Epidural analgesia need not prevent the patient from getting out of bed, walking around, sitting in a chair and using the toilet. However, it is important that the extent of local anaesthetic blockade is such that the patient has sufficient strength in her legs and does not suffer postural hypotension.

Which Patients?

Any patient with an epidural unless there is an obstetric indication for remaining in bed.

Continuous CTG is not an indication for remaining in bed as the patient can stand by the bed or sit in a chair.

When assessing effect of the block prior to the woman mobilising with the epidural the following must be considered:

Adequate pain relief

Strong sustained ability to straight leg rise

Patient feels that her legs will support her weight.

Document Title: <i>Epidural Guidance for Midwives</i>	17 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

- Ask the patient to gently place her feet on the floor. If she feels that her feet feel “like cotton wool” then this usually indicates that it is unsafe for her to walk.
- Standing and first steps should be attempted initially with the anaesthetist and midwife until the patient is confident that her legs will support her weight. The patient should do a deep knee bend (femur to approximately 45 degrees to vertical) under supervision (anaesthetist and midwife by the patient’s side).
- Maternal BP should be monitored every 30 min unless required more frequently.
- Epidural analgesia should be maintained.

This can be administered with the patient on the bed or sitting in a chair. Epidural analgesia alone is not an indication for continuous fetal heart rate monitoring throughout labour, but a CTG should be commenced with each top-up for a minimum of 10 min.

27. Maternal position in labour

Patients may sit or lie on their sides, but should not lie flat on their backs. If a patient needs to lie on her back for vaginal examination, ensure the uterus is displaced to the left avoid aortocaval compression. Encourage regular position changes to minimise risk pressure area damage particularly heels and ischial spines. The pressure area risk assessment tool must be undertaken and skin bundle completed as per intrapartum care guideline (2hourly).

The benefits of mobilising should be discussed and encouraged with women to improve the chance of having a spontaneous vaginal birth (see assessing effect of block and mobilising in labour)

Women should also be advised that adopting the left lateral position as opposed to sitting upright during the passive second stage of labour reduces the risk of needing an assisted delivery. (Brocklehurst, 2017)

28. Bladder care

Women should be encouraged to empty their bladder every 4 hours after epidural insertion. If spontaneous voiding is not possible, an in-out urinary catheter should be passed. Bladder distension may cause supra-pubic breakthrough pain.

Document Title: <i>Epidural Guidance for Midwives</i>	18 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

29. Removal of epidural catheter

Midwives, Nurses and ODP's are responsible for removing the epidural catheter after delivery (see "Anticoagulation, epidurals and removal of catheters" below).

- Position the patient on her side
- Remove the dressings and pull gently on the epidural catheter with a constant force.
- If there is any resistance, ask the woman to curl up and try again, if these manoeuvres fail, ask the obstetric on-call anaesthetist for assistance
- Ensure blue tip is visible after removal and documented
- If the blue tip is absent the anaesthetist must be informed.
- If the woman is on the sepsis pathway the epidural catheter tip should be sent to the lab for culture and sensitivity

30. Thromboprophylaxis after delivery

The first dose of Enoxaparin (Clexane) can be safely given 6 hours following the insertion of a spinal and 6 hours from removal of an epidural catheter. If a patient receives any form of heparin whilst an epidural catheter is still in situ, the following should be followed before removing the catheter:

- 20mg-40mg Enoxaparin: Wait 12 hours.
- > 40 mg Enoxaparin: Wait 24 hours
- Heparin infusion: Stop infusion, check APTT after 90 minutes.

31. Drug disposal and pump cleaning after use

As soon as labour epidural is no longer required, the remaining drugs must be discarded, and pump cleaned.

It is the responsibility of the midwife caring for the woman to appropriately discard the remaining amount of the local anaesthetic mix/bag and giving set in the sharps bin. The pump should then be cleaned inside/out including the handset using Clinell wipes. Once handset is cleaned, it should be placed inside pump compartment, pump taken off the drip stand then taken to the clean utility room opposite room 12.

In the event that the woman going to theatre for operative delivery etc, then it becomes the responsibility of the midwife in charge to ensure the above procedure takes place.

Document Title: <i>Epidural Guidance for Midwives</i>	19 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

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Document Title: <i>Epidural Guidance for Midwives</i>	20 of 23	Approval Date: 06/07/2022
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
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APPENDIX 1



Bwrdd Iechyd Prifysgol
Caerdydd a'r Fro
Cardiff and Vale
University Health Board



BD Epidural Pump Standard Obstetric User Competency Based Assessment

Name: Date of Birth:

Job Title:

Clinical Area/Ward: Date:

BD Epidural Pump			
The Assessor must set up the BD Epidural pump to run on protocol A prior to this assessment commencing			
Performance Criteria			✓ tick when achieved
State what safety checks and precautions should to be taken prior to using the pumps? (Please tick)			
1) Pump Suitability: Black and White 'P' Sticker	5) Electrical testing date		
2) Pump beeps when switched on (Self Check)	6) Connected to AC power		
3) Device is clean, intact and free from damage	7) Equipment B number		
4) Patient handsets are available (if required)	8) All moving parts can move freely		
Identifies all details/information on the main screen			
Demonstrate how to lock (& unlock) the pump			
State how often pump checks should be carried out and what should be checked each time			
State how often maternal observations are performed (including block assessment)			
Demonstrates how to perform a quick 2 hourly ice check			
Demonstrate how to stop and restart the pump			
Demonstrate how to switch off and restart the protocol			
State what additional checks should be carried out during handover			
Describes the correct procedure for discontinuing the infusion			
Identify the following Alarms, Warnings and Prompts stating the corrective action to be taken (please tick)			
Air / Up Occlusion	End of Infusion		
Down Occlusion	Missing Set Key		
Low Battery	Keypad Lock Status		
End Battery	Pump Paused Too Long		
Explain what to do if an incident or error occurs			

WHEN COMPLETED A COPY MUST BE SENT TO THE PRACTICE DEVELOPMENT TEAM, CLINICAL ENIGNERING VIA INTERNAL MAIL OR SCANNED AND EMAILED TO ANNA.NECREWS@WALES.NHS.UK

I confirm I have completed the study day and been assessed in the use and understanding of the BD Epidural pump , and feel competent to operate this device. I am aware there are user manuals that can be found within every clinical area and also on CAVWeb	I confirm that the above person has completed the study day for the stated device and has demonstrated competency in its operation at the time of assessment.
Name and signature of Participant:	Name and signature of Assessor:
Date:	Date:

This assessment is valid for a period of 3 years, after which further assessment WILL be required.
Staff that operate infusion devices infrequently or do not feel competent in the use of the device should seek further training and assessment.

Document Title: <i>Epidural Guidance for Midwives</i>	21 of 23	Approval Date: 06/07/2022
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

APPENDIX 2

Labour epidural PIAB/PCEA chart

Date: / /

Pain score VAS 0-100 (0: no pain, 100: worst pain imaginable).

Test dose 1 & 2 should be given manually. The 3rd test dose via pump if needed.

Assess sensory block using ice. Anaesthetists should check upper & lower levels. Midwives to check upper level once every 2 hours.

Pain score pre epidural

Establishing the block				Assessment of block				Pain score		SLR		Signature	
Time			Signature	Time									
	Test dose 1							Rt					
	10 ml standard bag mix							LI					
	Test dose 2							Rt					
	10 ml standard bag mix							LI					
	Auto-bolus/Clinician bolus	Yes						Rt					
	Volumeml	No						LI					

Initial protocol :

Time commenced (24h) :

Anaesthetist :

Maintenance boluses					Hourly assessment of block/problems/stronger top ups					Feet temp	Pain score	SLR	Signature
Time	Bolus (please circle)	Protocol	Total infused	Volume remaining	Signature	Time	Should be done hourly (15 min after auto bolus/clinician bolus)						
	Auto, Patient, Clinician												
	Volml bag mix		ml	ml						Rt			
										LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			
	Auto, Patient, Clinician									Rt			
	Volml bag mix		ml	ml						LI			

APPENDIX 3: Midwives Epidural Competencies

Midwife's Name:

Objective 1	Brief Description of evidence	Assessment by relevant person	Comments
To be familiar with the scope of practice and Midwives Rules and standard. Appreciate its implications for practice	Band 7 Delivery Suite midwife/Practice Facilitator Signature:	Midwife signature Band 7 Delivery Suite midwife/Practice Facilitator Signature:	
Objective 2	Brief Description of evidence	Assessment by relevant person	Comments
To undertake the procedure with due regard to all aspects of health and safety	Band 7 Delivery Suite midwife/Practice Facilitator: Signature	Midwife signature Band 7 Delivery Suite midwife/Practice Facilitator: Signature	
Objective 3	Brief Description of evidence	Assessment by relevant person	Comments
To attend relevant seminar on Labour Epidural Analgesia	Seminar/lecture includes: <ul style="list-style-type: none"> • Advantages of this method of pain relief • Anatomy of the spinal column and cord • Relevant physiology • Drugs used for epidural analgesia • Common side effects/complications and their treatment • Assessing level of block • Monitoring of women/observations • Documentation [labour epidural section on the anaesthetic chart (Appendix 2)] 	Midwife signature: Anaesthetist Signature: Date attended:	

Document Title: <i>Epidural Guidance for Midwives</i>	23 of 23	Approval Date: 06/07/202
Reference Number: UHBOBS045		Next Review Date: 01/08/2025
Version Number: 3		Date of Publication: 01/08/2022
Approved By: Maternity Professional Forum & O&G Quality & Safety		

Objective 4	Brief Description of evidence	Assessment by relevant person		Comments
<p>To demonstrate confidence in looking after a woman receiving labour epidural analgesia with a pump.</p> <p>The number of episodes of care will vary with each individual</p>	Have read and understood the “Epidural Guidance for Midwives”	Signature	Date	
		Practice facilitator:		
	Completed online pump training	Practice facilitator:		
	Completed the quiz	Practice facilitator:		
	Completed face to face pump training and complete the Standard Obstetric User Competency Based Assessment	Practice facilitator		
	During a normal shift, the midwife should demonstrate knowledge/ assessed in: Understanding the 3 different pump protocols <input type="checkbox"/> How to find out time of next auto-bolus <input type="checkbox"/> Performing appropriate maternal obs after Auto/clinician/patient bolus & documentation How to record boluses and hourly observations on the anaesthetic chart <input type="checkbox"/> Checking for motor block <input type="checkbox"/> Quick ice check to spot high block (recommended once every 2 hours) <input type="checkbox"/> <input type="checkbox"/> How to switch pump off <input type="checkbox"/> How to resume pump infusion <input type="checkbox"/> When to call for help/anaesthetist	Anaesthetist Sig: Anaesthetist Sig: Anaesthetist Sig: Anaesthetist Sig: Anaesthetist Sig: Anaesthetist Sig: Anaesthetist Sig: Anaesthetist Sig: Midwife sig:		