Assessment of Maternity Patients for Ambulation with Epidural Analgesia

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Summary of document:
The purpose of this guideline is to support safe ambulation when caring for maternity patients receiving Epidural Analgesia.

Scope:
This guideline is for use with all maternity patients undergoing Epidural Analgesia in the hospital setting. These guidelines must be used by competent registered midwives and doctors.

To be read in conjunction with:
268 – Medicines Policy
258 - Controlled drugs: Standards of Practice Policy
273 – Manual Handling Policy
337 – Epidural Analgesia Guideline

Patient information:
Include links to Patient Information Library

Owning group:
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Executive Director job title:
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Reviews and updates:
1.0 – New Guideline

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Ambulation, Epidural Analgesia, Mobile Epidural

Glossary of terms
HBUHB – Hywel Dda University Health Board
EA – Epidural Analgesia
CTG - Cardiotocograph

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Scope

This guideline is for use with all maternity patients undergoing epidural analgesia for labour in the hospital setting. These guidelines must be used by competent registered midwives and doctors.

Aim

The aim of this document is to:

- Provide safety guidance to midwives caring for women that have or are considering epidural analgesia for labour and birth and wish to ambulate.
- Provide recommendations for maternal positioning during labour and birth to optimise physiology, promote normal birth and reduce damage to pressure areas in patients with epidural analgesia.

Objectives

The aim of this document will be achieved by the following objectives:

- Detailing the contra-indications
- Providing a troubleshooting guide should there be any deviation from routine care.
- Providing guidance to midwives on how to complete a thorough and accurate assessment of women wishing to ambulate with epidural analgesia for labour
- Listing recommended mobile birthing positions that can be used alongside epidural analgesia and can be modified in the event of leg weakness.

Contra-indications

- Patient declines
- Clinician determines that ambulation is unsafe
- Patient is clinically unwell
- Symptomatic hypotension
- Leg weakness
- Ineffective epidural analgesia and patient is requiring additional epidural top up boluses
- Ineffective fetal heart rate monitoring or concerns over fetal wellbeing
- Less than 2 individuals present to support ambulation

Patient selection and preparation

- The benefits of mobilising should be discussed and encouraged with women to improve the chance of having a spontaneous vaginal birth.
- 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 chance of assisted birth (Brocklehurst, 2017).
- A summary of this discussion should be documented in the patient's notes

Designated clinical areas and responsibilities

Maternity patients receiving epidural analgesia are to remain on the labour ward.

Initiating ambulation and ongoing monitoring

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

- Request obstetric review if there are any abnormalities.

Use the Stage 1 Initial assessment tool to determine if it is safe for the patient to mobilise.

- Following 2 full epidural boluses complete a full assessment using the Modified Bromage Score (Figure 1) and the assessment guide located on the epidural analgesia monitoring chart.
- If the Modified Bromage Score is equal to 0, ask the patient to gently place her feet on the floor. If she feels that her feet feel heavy then this usually indicates that it is unsafe for her to walk.
- Standing and first steps should be attempted with a midwife and a support person until the patient is confident that her legs will support her weight.
- Ask the patient to perform a deep knee bend while standing (femur to approximately 45 degrees to vertical) under supervision (support person and midwife by the patient's side).
- Maternal blood pressure should be monitored as per the epidural analgesia monitoring chart.
- Stage 2 Ongoing assessment must be continued for the duration of labour until discontinuation of epidural analgesia.
- Care should be taken when adopting a kneeling position to ensure the woman can safely bear her weight, bed side rails should also be used where possible.
- Care should be taken to avoid overstretching of ligaments, if movement of lower limbs is limited due to a heavy epidural block; caution should be exercised when using the peanut ball.

Troubleshooting

- If the woman has been sitting/laying down for a period of more than 60 minutes, recommence **Stage 1 Initial Assessment** tool at **Step 1** before ambulation.
- Patient controlled boluses may be administered while the individual is mobilising providing **Stage 2 Ongoing Assessment** remains satisfactory however, if the individual requires an additional bolus dose to be given by an anaesthetist, you should wait at least 20 minutes before recommencing **Stage 1 Initial Assessment** tool beginning at **Step 1.**
- If the patient has a block of T6 or higher and/or the epidural has been discontinued due to concerns over symptomatic hypotension, the individual should not mobilise. **Stage 1 Initial Assessment** may be re-visited 60 minutes following the decreased dose.
- Where the assessment has been carried out and the patient is found to have a Modified Bromage Score of more than or equal to 1, **OR** it is deemed unsafe for the patient to ambulate, alternatives should be recommended including the 'rollover sequence' or use of the peanut ball.
- If there are concerns over the fetal heart, change position immediately.

References

Ahmed, A., & Baig, T. (2016). Incidence of lower limb motor weakness in patients receiving postoperative epidural analgesia and factors associated with it: An observational study. *Saudi Journal of Anaesthesia, 10*(2), 149-153. DOI: 10.4103/1658-354X.168806

Brocklehurst, P. (2017). Upright versus lying down position in second stage of labour in nulliparous women with low dose epidural: BUMPES randomised controlled trial. *BMJ*; 359:j4471

Bueno-Lopez, V., Fuentelsaz-Gallego, C., Casellas-Caro, M., Falgueras-Serrano, A. M., Crespo-Berros, S., Silvano-Cocinero, A. M., Alcaine-Guisado, C., Zamoro Fuentes, M., Carreras, E., & Terré-Rull, C. (2018). Efficiency of the modified Sims maternal position in the rotation of

persistent occiput posterior position during labor: A randomized clinical trial. *Birth, 45*(4), 385-392. doi: 10.1111/birt.12347. Epub 2018 Mar 14. PMID: 29537658.

Consultant Midwives Cymru. (2017). *Your birth – We care: A survey exploring women's experience of pregnancy and birth in Wales.* Welsh Government.

Desseauve, D., Pierre, F., Fernandez, A., Panjo, H., Decatoire, A., Lacouture, P., & Fradet, L. (2019). Assessment of pelvic-lumbar-thigh biomechanics to optimise the childbirth position: An "in Vivo" innovative biomechanical study. *Scientific reports, 9*(1) Article no. 15968. DOI: 10.1038/s41598-019-52338-8

Gizzo, S., Di Gangi, S., Noventa, M., Bacile, V., Zambon, A., & Nardelli, G. B. (2014). Women's Choice of Positions during Labour: Return to the Past or a Modern Way to Give Birth? A Cohort Study in Italy. *Biomed research international, 7*, Article 638093. DOI: https://doi.org/10.1155/2014/638093

Graham, A. C., & McClure, J. H. (2008). Quantitative assessment of motor block in labouring women receiving epidural analgesia. *Anaesthesia, 56*(5), 470-476. DOI: https://doi.org/10.1046/j.1365-2044.2001.01524-6.x

Grenvik, J. M., Rosenthal, E., Saccone, G., Corte, L. D., Quist-Nelson, J., Gerkin, R. D., Gimovsky, A. C., Kwan, M., Mercier, R., & Berghella, V. (2019). Peanut ball for decreasing length of labor: A systematic review and meta-analysis of randomised controlled trials. *European Journal of Obstetric and Gynecology, and Repaoductive Biology, 242,* 159-165. DOI:https://doi.org/10.1016/j.ejogrb.2019.09.018

Huang, J., Zang, Y., Ren, L., & Li, F. (2019). A review and comparison of common maternal positionsduring the second-stage of labour. *International Journal of Nursing Sciences, 6*(4), 460-467. https://doi.org/10.1016/j.ijnss.2019.06.007

Royal College of Anaesthetists. (2022). *Guidelines for the provision of anaesthesia services for an obstetric population 2022* (Chapter 9). Royal College of Anaesthetists. https://www.rcoa.ac.uk/gpas/chapter-9

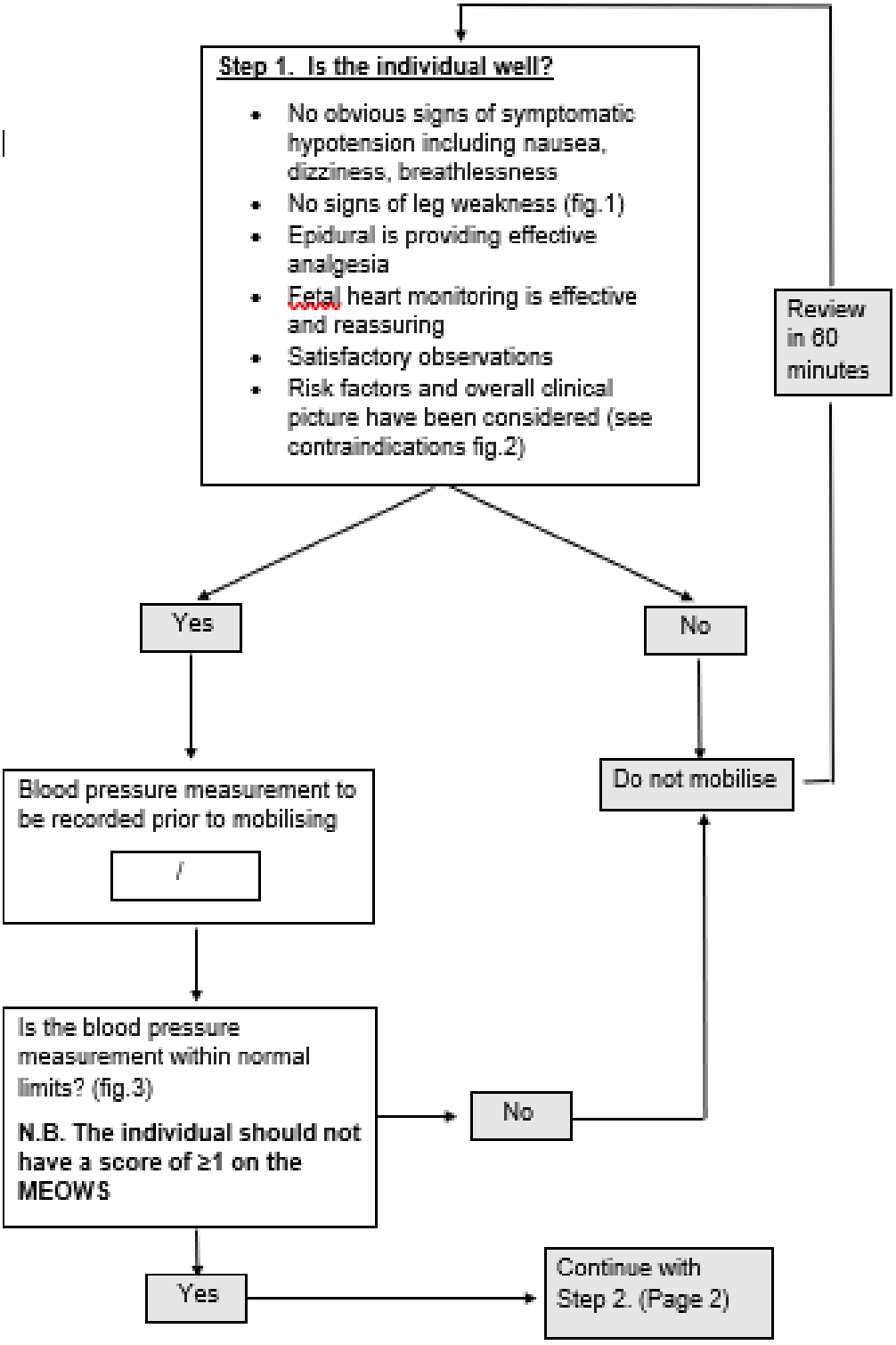
Simkin, P., Hanson, L., & Ancheta, R. (2017). *The labor progress handbook: Early interventions to prevent and treat distocia.* Wiley Blackwell.

The Royal College of Midwives. (2018). *Midwifery care in labour guidance for all women in all settings.* RCM Midwifery Blue Top Guidance Number 1. RCM.

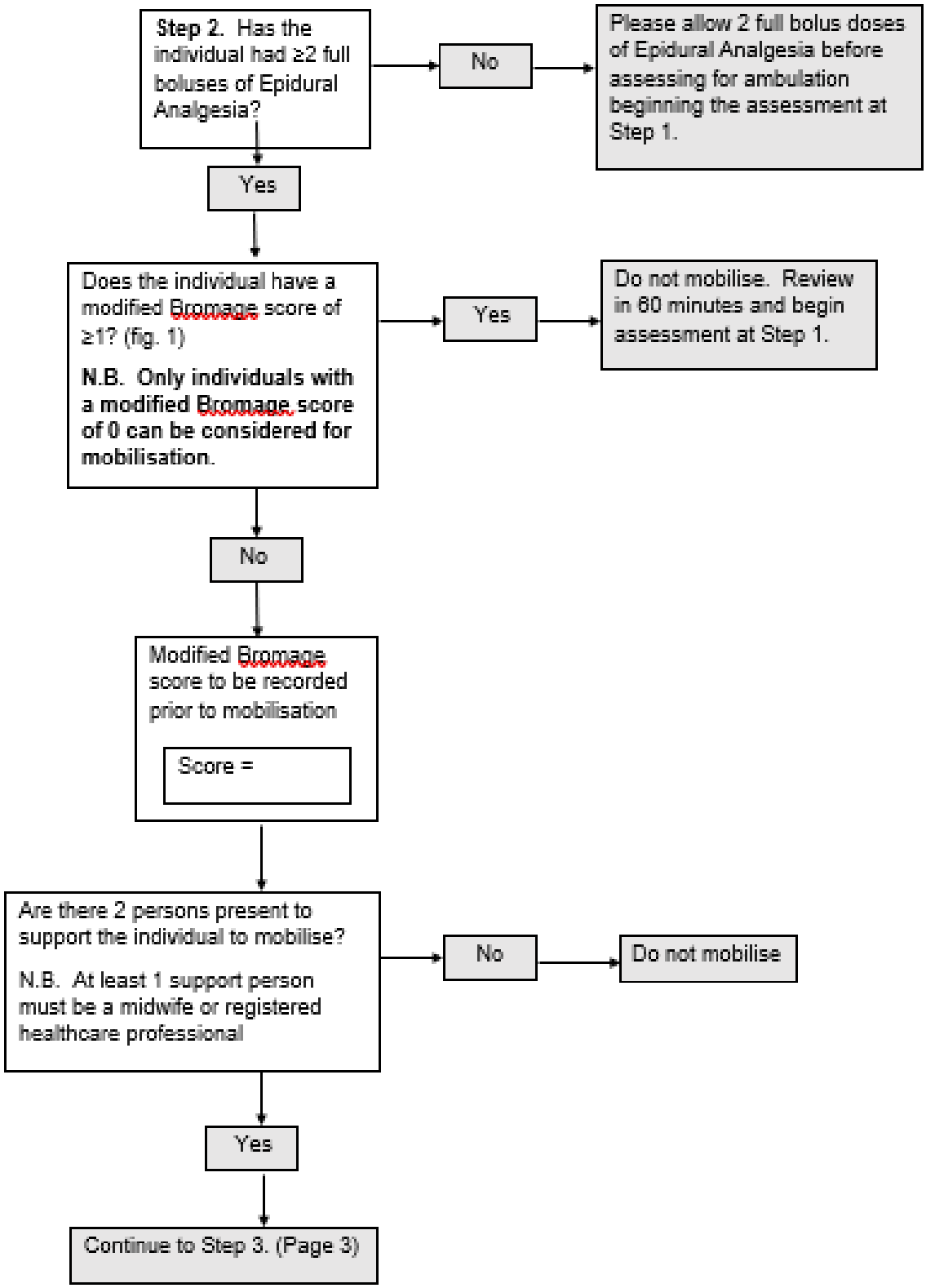
Zhang, S., Dumas, G., & Hemmerich, A. (2020). Measurement of pubic symphysis width in different birthing positions using ultrasound. *Journal of biomechanics, 113,* Article no. 110114. DOI: https://doi.org/10.1016/j.jbiomech.2020.110114

Zimmerman, A. L., Moskovich, M., Levi, E. B., Maymon, R., Tobvin, J., & Bester, M. (2018). McRoberts' maneuver increases fetal head angle of progression in second stage of labour. *Ultrasound obstet gynecol, 52*(4), 545-547. doi: 10.1002/uog.19003.

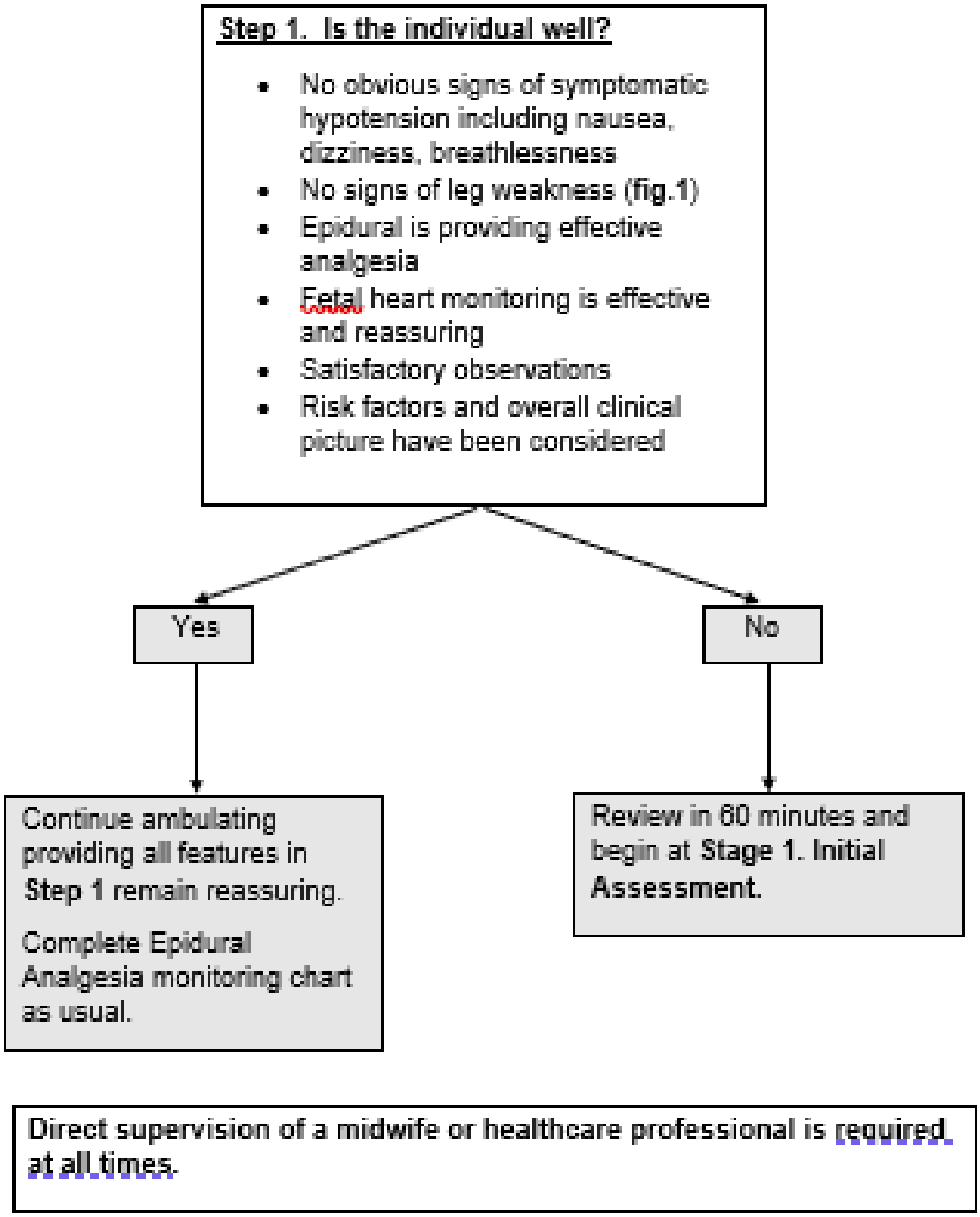
Appendix 1 – Stage 1 Assessment tool for mobilisation of pregnant women during labour with Epidural Analgesia – Initial assessment



Initial assessment continued…



Appendix 2 – Stage 2 Assessment tool for mobilisation of pregnant women during labour with Epidural Analgesia – Ongoing assessment



Ongoing assessment continued…

Troubleshooting and considerations:

If the woman has been sitting/laying down for a period of more than 60 minutes, recommence **Stage 1 Initial Assessment** tool at **Step 1** before ambulation.

Patient controlled boluses may be administered while the individual is mobilising providing **Stage 2 Ongoing Assessment** remains satisfactory however, if the individual requires an additional bolus dose to be given by an anaesthetist, you should allow at least 20 minutes before recommencing **Stage 1 Initial Assessment** tool beginning at **Step 1.**

If the patient has a block of T8 or higher and/or the Epidural Analgesia has been discontinued due to concerns over symptomatic hypotension, the individual should not mobilise. **Stage 1 Initial Assessment** may be re-visited 60 minutes following the decreased dose.

A minimum of one support person assisting with mobilisation must be a midwife or registered healthcare professional. Additional support may be provided by a health care support worker or the birthing partner providing the birthing partner is agreeable and is physically able to do so.

Appendix 3 – Modified Bromage Score

Figure 1: Modified Bromage Score

Score	Degree of motor block	
3	Complete block; unable to move feet or knees	
2	Able to move feet only	
1	Just able to flex knees; free movement of feet	
0	No block; full movement of knees and feet	

Appendix 4 – The rollover sequence

The **'rollover sequence'** may be used where the individual is not able to ambulate off the bed due to a modified Bromage score of ≥1. Care should be taken when adopting a kneeling position to ensure the woman can safely bear her weight, bed side rails should also be used where possible. Encourage the woman to spend at least 30 minutes in each position, longer if she is tired, each position should be held for a maximum time of 2 hours to avoid pressure ulcers. Support for knees and ankles should be provided with a pillow. If there are concerns over the fetal heart rate, change position immediately.



Appendix 5 – The peanut ball

Where it is not possible to adopt a kneeling position or ambulate off the bed, the woman can be supported to adopt a range of positions for labour and birth using the peanut ball. Care should be taken to avoid overstretching of ligaments, if her movement of lower limbs is limited due to a heavy epidural block; caution should be exercised. A range of positions are pictured below, there are a variety of alternatives (not pictured) however the woman should be encouraged to adopt a position that she is comfortable in, changing frequently (2 hourly as a minimum) to avoid pressure ulcers from developing.

