

QUICK SUMMARY DOCUMENT

Assisted Vaginal Birth

This summary document is a resource for all clinicians working in healthcare in Ireland who are involved in the care of women undergoing an Assisted Vaginal Birth (AVB).

Following a comprehensive literature review a number of evidence-based recommendations for the care of pregnant women who experience assisted vaginal birth were agreed upon.

Key Recommendations

Documentation and Risk Management

1. A standard classification system should be used for AVB based on position and station of the fetal head. *Best practice*
2. A standard proforma should be used to record the technical aspects of the procedure with additional documentation on indication, timings, outcomes, and complications. *Best practice*
3. Paired cord blood samples should be processed and documented where possible following all attempts at AVB. *Best Practice*
4. Adverse maternal and perinatal outcomes require an incident report as part of risk management procedures. *Best Practice*
5. A standard classification and reporting approach should be part of clinical training. *Best practice*
6. AVB is indicated for maternal or fetal reasons, and these often co-exist. No indication is absolute and clinical judgment is required in all situations. *Best practice*
7. AVB is only indicated where the safety criteria are confirmed following a full assessment of the clinical situation, and where consent is given following clear communication with the woman. *Best practice*
8. Ultrasound assessment of the fetal head position prior to AVB is recommended where uncertainty exists following clinical examination. *Grade 1A*
9. Potential restrictions and contraindications to AVB should be documented in advance. Forceps assisted birth may be indicated where vacuum is not. *Best practice*
10. Vacuum assisted birth should be avoided below 32 weeks of gestation and used only by experienced clinicians between 32⁺⁰ and 36⁺⁰ weeks of gestation. *Grade 1C*
11. Women should be informed routinely about AVB in the antenatal period, especially in their first pregnancy. If specific preferences or restrictions are expressed, then these should be explored with experienced health professionals and documented in the woman's records. *Best practice*
12. When mid or rotational AVB is being considered, women should be advised of the risks and benefits of AVB compared with the alternatives of continued pushing or second stage caesarean birth. *Grade 1C*
13. Verbal consent should be obtained prior to AVB in a labour room, with written consent if feasible. Written consent should be obtained for a trial of AVB in an operating theatre. *Best practice*

Procedural Aspects of Assisted Vaginal Birth

14. AVB should be performed and/or supervised by a clinician who has the knowledge, skills and experience necessary to assess the woman, complete the procedure and manage any complications that arise. *Grade 2C*

15. Obstetric trainees should receive appropriate training in vacuum and forceps assisted birth, including theoretical knowledge, simulation training, and clinical training under direct supervision. Competency should be assessed before conducting unsupervised AVBs. *Grade 2C*
16. Complex AVBs (mid or rotational) should only be performed by experienced clinicians or under the direct supervision of an experienced clinician. *Grade 2C*
17. AVBs that have a low probability of failure can be conducted in a labour room. *Grade 2C*
18. AVBs that have a higher risk of failure should be considered a 'trial' and be conducted in an operating theatre. *Grade 1C*
19. Where there is urgency due to suspected fetal compromise, decision-making should take account of the time to perform an AVB, the time to transfer a woman to an operating theatre, and the likelihood of a safely completed procedure. *Grade 2C*
20. The clinician should choose the instrument most appropriate to the clinical circumstances and their level of skill. *Best practice*
21. Clinicians should consider that forceps and vacuum extraction are associated with different benefits and risks; failure to complete the birth with a single instrument is more likely with vacuum, and obstetric anal sphincter injury (OASI) is more likely with forceps. *Grade 1A*
22. Rotational AVBs should be performed by experienced clinicians. Effective approaches include rotational vacuum, manual rotation followed by direct traction forceps or vacuum, and Kielland's rotational forceps. *Grade 1C*
23. Where possible, occipito-posterior (OP) position should be rotated to occipito-anterior (OA), which presents smaller dimensions and results in less severe perineal trauma. *Grade 2C*
24. Top-up of epidural analgesia pudendal nerve block, and infiltration of local anaesthetic to the perineum are all suitable for low or lift-out procedures. *Best practice*
25. Neuraxial anaesthesia (epidural or spinal) is required for most mid or rotational procedures. *Best practice*
26. For trial of AVB in an operating theatre, effective neuraxial anaesthesia should be provided that allows immediate recourse to caesarean section if AVB is discontinued. *Grade 2C*
27. In most cases vacuum-assisted birth should be completed within three pulls [defined as three contractions, even if there are multiple maternal 'pushes' within each contraction] to bring the fetal head onto the perineum and up to three additional gentle pulls to ease the head over the perineum. *Grade 1C*
28. If there is minimal descent with the first one or two pulls of a vacuum, the clinician should consider whether the application is suboptimal, the fetal position has been incorrectly diagnosed or there is cephalopelvic disproportion. Less experienced clinicians should stop and seek a second opinion. Experienced clinicians should re-evaluate the clinical findings and either change approach or discontinue the procedure. *Best practice*
29. Vacuum-assisted birth should be discontinued if there have been two 'pop-offs' of the instrument. *Grade 2C*
30. The use of sequential instruments should be avoided, however, if the fetal head is on the pelvic floor following failed vacuum, the clinician needs to balance the risks of a caesarean birth with the risks of forceps and recommend the best approach for the circumstances. *Grade 1C*
31. Forceps assisted birth should be discontinued if the forceps cannot be applied easily or the handles do not approximate easily. *Best practice*
32. Rotational forceps should be discontinued if rotation cannot be achieved easily with gentle pressure. *Best practice*
33. In most cases forceps assisted birth should be completed within three pulls [defined as three contractions, even if there are multiple maternal 'pushes' within each contraction] of a correctly applied instrument by an experienced clinician. *Grade 2C*

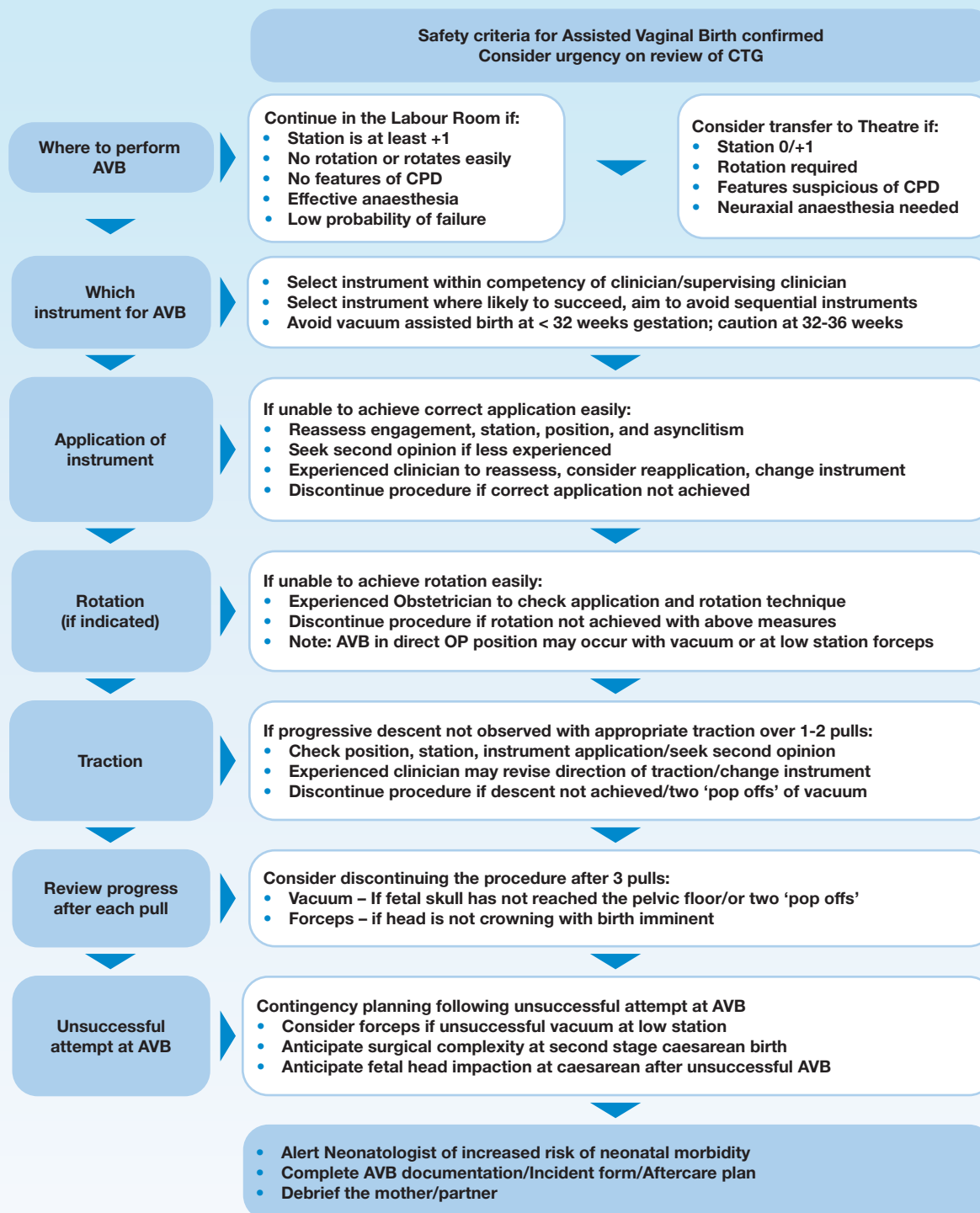
34. Clinicians should be aware of the increased risk of fetal head impaction at caesarean birth following an unsuccessful attempt at AVB and should disimpact the fetal head using recognised manoeuvres. *Grade 1C*
35. Clinicians should be aware of the increased risk of serious neonatal morbidity following unsuccessful AVB and/or sequential use of instruments. The neonatologist should be alerted to ensure appropriate care of the baby. *Grade 1C*
36. Episiotomy should be discussed with the woman as part of the preparation for AVB. The decision to perform an episiotomy should be individualised according to the clinical circumstances and maternal preferences. *Best practice*
37. The evidence to support routine use of medio-lateral or lateral episiotomy at AVB in terms of preventing obstetric anal sphincter injury (OASI) is stronger for nulliparous women and for forceps assisted birth. *Grade 1B*
38. When performing a mediolateral episiotomy, the cut should be at a 60° angle initiated when the head is distending the perineum. *Grade 2C*

Aftercare following Assisted Vaginal Birth

39. A single prophylactic dose of intravenous amoxicillin and clavulanic acid (or similar broad spectrum antibiotic) should be recommended following AVB as it significantly reduces superficial or deep perineal wound infection. *Grade 1A*
40. In the absence of contraindications, women should be offered regular nonsteroidal anti-inflammatory drugs (diclofenac or ibuprofen) and paracetamol routinely for analgesia. *Grade 1A*
41. Women should be assessed after AVB for venous thromboembolism risk factors and the need for thromboprophylaxis. *Grade 2C*
42. Women should be advised at the earliest opportunity about the risk of urinary retention so that they are aware of the importance of bladder emptying in the postpartum period. *Best practice*
43. The timing and volume of the first void urine should be monitored and documented and a post-void residual should be measured if urinary retention is suspected. *Grade 2C*
44. Women who have received neuraxial anaesthesia for a trial of AVB in theatre should be advised to have an indwelling catheter for 6-12 hours after the birth to prevent covert urinary retention. This should be removed according to the local protocol. *Best practice*
45. Women should be advised that transient urinary incontinence is common following AVB. They should be offered physiotherapy-directed strategies to reduce the risk of persistent urinary incontinence and long-term pelvic floor dysfunction. *Grade 1C*
46. Women should be reviewed before hospital discharge to discuss the indication for AVB, the conduct of the procedure, management of any complications and advice for future births. Best practice is for the woman to be reviewed by the Obstetrician who performed the procedure. *Grade 2C*
47. Advice and support through a "Birth Reflections" service or similar postnatal review service, should be offered to women who wish to talk about their experience. The effect on the birth partner should also be considered. *Best practice*
48. Women with suspected post-traumatic stress disorder (PTSD) symptoms at 6 weeks should be referred to specialist services such as the local perinatal mental health team. *Grade 2C*
49. Documentation following AVB should include detailed information on the indication, conduct of the procedure, and any complications, that allows sufficient information for counselling in relation to subsequent pregnancies and births. *Best practice*
50. Women should be informed that there is a high probability (78-91%) of a spontaneous vaginal birth in a subsequent labour following an uncomplicated AVB. *Grade 1C*
51. Care for women who have sustained an obstetric anal sphincter injury (OASI), who have ongoing pelvic floor dysfunction, or who have experienced psychological trauma should be individualised, including the offer of a caesarean birth in a future pregnancy. *Grade 1C*

Algorithm

Decision-making for Assisted Vaginal Birth (AVB)



Auditable standards

Audit using the key recommendations as indicators should be undertaken to identify where improvements are required and to enable changes as necessary, and to provide evidence of quality improvement initiatives.

Auditable standards for this guideline include:

1. Number of women who experience a failed attempt at AVB
2. Number of women who experience sequential use of instruments
3. Number of caesarean births complicated by fetal head impaction
4. Incidence of significant neonatal traumatic injuries following attempted AVB
5. Incidence of OASI following attempted AVB

Recommended reading:

1. HSE nomenclature/glossary for audit www.hse.ie/eng/about/who/nqpsd/ncca/nomenclature-a-glossary-of-terms-for-clinical-audit.pdf
2. HSE National Framework for developing Policies, Procedures, Protocols and Guidelines [How_to_Develop_HSE_National_Policies_Procedures_Protocols_and_Guidelines_gQBQ4os.pdf](#)
3. Murphy DJ, Strachan BK, Bahl R, Royal College of Obstetricians and Gynaecologists. Assisted vaginal birth: green-top guideline no. 26. BJOG. 2020;127(9):e70-112. DOI: [10.1111/1471-0528.16092](https://doi.org/10.1111/1471-0528.16092)
4. Verma GL, Spalding JJ, Wilkinson MD, Hofmeyr GJ, Vannevel V, O'Mahony F. Instruments for assisted vaginal birth. Cochrane Database of Systematic Reviews. 2021 (9). DOI: [10.1002/14651858.CD005455.pub3](https://doi.org/10.1002/14651858.CD005455.pub3)
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6. Thierens S, van Binsbergen A, Nolens B, van den Akker T, Bloemenkamp K, Rijken MJ. Vacuum extraction or caesarean section in the second stage of labour: a systematic review. BJOG. 2023;130(6):586-98. DOI: [10.1111/1471-0528.17394](https://doi.org/10.1111/1471-0528.17394)
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9. Bahl R, Murphy DJ, Strachan B. Non-technical skills for obstetricians conducting forceps and vacuum deliveries: qualitative analysis by interviews and video recordings. Eur J Obstet Gynecol Reprod Biol. 2010;150:147-51. DOI: [10.1016/j.ejogrb.2010.03.004](https://doi.org/10.1016/j.ejogrb.2010.03.004)

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<https://www.hse.ie/eng/about/who/acute-hospitals-division/woman-infants/clinical-guidelines/>

<https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and-gynaecology/>

