Assisted Vaginal Deliveries

Sector: Acute Care (Maternal/Newborn)

The application of forceps or vacuum during the second stage of labour is intended to expedite spontaneous vaginal birth. Performed by skilled operators under controlled, appropriate conditions, such instruments can be safely employed to manage challenging deliveries. However, maternal and/or neonatal harm can also result from their use. Hospitals/health regions can become involved in vacuum-assisted vaginal delivery (VAVD) and forceps-assisted vaginal delivery (FAVD) malpractice claims as a function of their oversight accountabilities for physician credentialing/privileges and performance management. Hospitals/health regions may also be implicated in VAVD/FAVD malpractice claims as a result of resource challenges that emerge during the course of obstetrical emergencies.

**COMMON CLAIM THEMES**

- Assisted vaginal deliveries performed in the absence of maternal or fetal indication (i.e. practitioner convenience/call schedule).
- Misapplied forceps and vacuum.
- No contingency plan/protocol (or poorly communicated plan) in place to manage incidences of failed vacuum or forceps delivery.
- Delays abandoning ineffective assisted vaginal delivery.
- Inconsistent availability and use of language/cultural translators for informed consent discussions.
- Informed consent not obtained prior to assisted vaginal delivery (e.g. procedure explained but not the risks).
- Inconsistent definition and interpretation of a vacuum-related pop off (versus release of pressure during contraction and/or pulls) leading to record discrepancies between nurses and attending physicians.
- Lack of physician documentation of:
  - Assisted vaginal deliveries performed;
  - Informed consent;
  - Indications for VAVD and/or FAVD;
  - Fetal position and status prior to and during assisted vaginal delivery;
  - Number of attempts;
  - Management of shoulder dystocia (where applicable).
- Absence of formal second on-call or backup plan for anesthesia.
- Inconsistent practices/expectations surrounding anaesthesia, respiratory therapy and/or Code Pink (i.e. neonatal resuscitation) team attendance for assisted vaginal deliveries.
- VAVD and FAVD privileges renewed without demonstrated evidence of skill.

**CASE STUDY 1**

A G1P0 patient underwent an augmentation due to her failure to progress. A trial of vacuum extraction was attempted; however, a C-Section was ultimately required. The infant was flat at birth and long-term neurological sequelae were not ruled out. Expert review was supportive of the initial care, but raised significant concerns regarding the performance of the VAVD. The experts found that the obstetrician had conducted a trial of vacuum without an immediate backup plan for delivery, a finding that they stated fell below the expected standard of care. In addition, the experts noted that a failure to employ contingency measures contributed to a delay in the performance of the C-Section. The experts were also critical of the team’s failure to communicate effectively in order to ensure the presence of a staff anaesthesiologist, who was found to be off-site while on call, and the obstetrician’s lack of documentation regarding the fetus’ station and position at the time of the trial. The experts raised additional concerns regarding the nurses’ failure to monitor the fetal status during the 60-minute period between the failed trial and the subsequent C-Section.

**CASE STUDY 2**

A G2P0 patient underwent a trial of forceps after ineffective pushing efforts during the second hour of active labour. Ultimately, an emergency C-Section was necessitated, with a second operating room (OR) team having to be called from an off-site location. The infant sustained significant skull trauma and severe anoxia following five forceps applications over a period of 15 minutes. Given the nature of the trauma, experts felt that the application of the forceps was ‘not good’. Experts were critical of the physician’s decision to apply forceps without an obvious and compelling reason (i.e. performed near shift change for ‘physician’s convenience’) and noted that the healthcare team failed to confirm the fetal status during the trial. The experts were also critical of the physician’s decision to proceed with additional trials, following three attempts that had failed to result in significant descent of the fetus. From a systems perspective, the experts felt the hospital had exhibited a marked lack of preparedness, which had resulted in the healthcare team’s inability to respond to the aforementioned obstetrical emergency in a timely and appropriate manner and was demonstrated in the need to summon a back-up OR team from a remote site.

**Canadian Case Examples**
REFERENCES

• HIROC claim files.


• CRICO. (2014). Clinical guidelines for obstetrical services at CRICO-insured institutions.


• Salus Global Corporation. (2014). MOREOB program – Assisted vaginal birth decision tree (part 1 and 2).


Assisted Vaginal Deliveries: Maternal/Newborn

MITIGATION STRATEGIES

Note: The Mitigation Strategies are general risk management strategies, not a mandatory checklist. Please also refer to the following Risk Reference Sheets: 1) Inappropriate Credentialing, Re-Appointment and Performance Management; 2) Unnecessary/Obsolete Procedures.

Reliable Care Processes

- Ensure access to translators/interpreters for informed (including for use of forceps/vacuum) consent discussions at all times for laboring patients.

Documentation

- Adopt effective coordination and communication strategies of the delivery plan for a potential failed vacuum assisted vaginal delivery (VAVD) or forceps assisted vaginal delivery (FAVD) to labour/delivery nurses, anaesthesia, OR booking and paediatrics (where paediatrics is available).
- Encourage the timely and consistent documentation by physicians of the rationale for:
  - Not performing assisted vaginal deliveries in C-Section ready room if the vaginal birth has a higher risk of failure or considered a trial (e.g. large maternal body mass, large for gestational fetus, OP position, mid-cavity delivery);
  - Continuing the assisted vaginal delivery and/or not proceeding directly to C-Section in the presence of lack of descent with moderate traction and/or where delivery is not imminent following three contractions with correctly applied instrument (e.g. ‘rule of three’).
- Adopt a standardized VAVD and FAVD dictation aid/medical record template to promote timely and consistent physician documentation of the following:
  - Manual rotation attempts (where applicable) prior to assisted vaginal delivery;
  - Position and station of fetal head;
  - Amount of moulding and caput present;
  - Assessment of maternal pelvis and fetal status;
  - Classification;
  - Informed consent, including increased risk of trauma to the infant with sequential use of instruments and use of translators or interpreters (i.e. name and relationship to the maternal patient);
  - Instruments used;
  - Indication for use and evidence that prerequisites fulfilled;
  - Duration of traction;
  - Traction/force used;
  - Maternal and neonatal complications.

Privileges and Performance Management

- Ensure an annual re-appointment and privileging process for VAVD and FAVD, which includes evidence of clinical knowledge, experience and skill in forceps and vacuum-assisted deliveries.
- Implement formal strategies to help ensure the quality and safety of assisted vaginal deliveries performed by physicians granted VAVD and FAVD privileges (e.g. MOREob, schedule skill drills).
- Encourage physicians to document (including dates/times) their participation with assisted vaginal delivery continuing education efforts.

Monitoring and Measurement

- Track and review incidents and outcomes involving assisted vaginal deliveries and adopt standardized program and practitioner level quality indicators to monitor birth trauma, including for VAVD and FAVD (e.g. rate of successful and failed operative vaginal deliveries, including sequential instrumental delivery; rate of third/fourth tears; informed consent; when to use a sequential instrument and when to abandon; neonatal complications including admission to NICU/transfer to tertiary facility; interventions to reduce rate of assisted vaginal deliveries).