LESSON FIVE
Class Revision

YOUR NAME _________________________________________

YOUR EMAIL _________________________________________

7 HOURS | ONLINE TUTORIAL COURSE

The Fundamentals of Safe Vacuum Delivery
With video tutorials by Aldo Vacca

Official Academy Education
LESSON OUTLINE

Now it’s time to review what you’ve learned and prepare for your certificate assessment. This week, we recap your classes and review safety measures before, during and after VAD. We will also revise the key principles of VAD and their implications for clinical practice.

CONCEPTS

Concepts: • Contraindications • Safety before, during and after VAD • Procedural limits • Prevention of SGH • Principles & implications to practice • Correct procedure
LESSON FIVE

VIDEO

GO TO
WWW.VACCAACADEMY.COM

WATCH THE LESSON VIDEO AND FOLLOW ALONG WITH THIS WORKBOOK.

WHEN YOU SEE THIS ICON, PAUSE THE VIDEO.

Draw and label each diagram.
In Lesson One we learned about Dr Aldo Vacca, the man who came up with the Vacca 5-Steps Technique. Dr Vacca identified and refined the five steps common to all vacuum deliveries.

**KEY CONCEPTS YOU SHOULD REVISE FROM LESSON ONE:**

- Vacuum delivery as first-line method for assisted birth
- What vacuum-assisted delivery is
- The aim of vacuum-assisted delivery
ACTIVITY: RECAP LESSON ONE

WHY IS VACUUM DELIVERY CONSIDERED THE FIRST-LINE METHOD FOR ASSISTED BIRTH?

* Cochrane Review, Choice of instruments for assisted vaginal delivery (2010)

WHAT IS VACUUM DELIVERY? EXPLAIN THE AIMS OF THE PROCEDURE.

* PULL ONLY DURING A UTERINE CONTRACTION AND WHILE THE MOTHER IS PUSHING. NEVER PULL IF THE MOTHER IS NOT PUSHING!
In this lesson we established the fundamental principles of the vacuum procedure. We introduced you to important concepts such as locating the flexion point and ideal cup placement.

KEY CONCEPTS YOU SHOULD REVISE FROM LESSON TWO:

- The three fundamentals
- The flexion point
- Correct cup placement
- The midpoint of the head
- The midline and the axis of the pelvis (axis traction)
ACTIVITY: RECAP LESSON TWO

EXPLAIN THE IMPORTANCE OF THE FLEXION POINT IN CLINICAL PRACTICE.

NOTES

DESCRIBE THE MIDPOINT OF THE HEAD AND EXPLAIN ITS IMPLICATIONS FOR CLINICAL PRACTICE.

NOTES

EXPLAIN THE MIDLINE AND ITS IMPLICATION FOR CLINICAL PRACTICE.

NOTES
In this lesson, you were introduced to the Vacca 5-Steps Technique. You learned what the five steps are, how to select the right cup for a procedure, and how to prevent cup detachment.

**KEY CONCEPTS YOU SHOULD REVISE FROM LESSON THREE:**

- The Vacca 5-Steps Technique
- Locating the flexion point and calculating cup insertion distance
- Manoeuvrability of cups and choice of vacuum cup
- The descent & pelvic floor phase
- Preventing cup detachment
- Method of traction
ACTIVITY: RECAP LESSON THREE

Dr Aldo Vacca defined the five simple steps common to all vacuum procedures.

DESCRIBE THE FIVE PROCEDURAL STEPS COMMON TO ALL TYPES OF VACUUM DELIVERY.

* IT IS IMPORTANT TO FOLLOW THE SAME FIVE PROCEDURAL STEPS FOR ALL PROCEDURES, AND NOT TO COMPLICATE MEASURES BY CHANGING TECHNIQUE BETWEEN BIRTHS.
ACTIVITY: RECAP LESSON THREE

HOW CAN ONE DETERMINE THAT CUP APPLICATION IS CORRECT?

NOTES

The majority of cup detachments occur when the cup is visible at or passing through the vaginal introitus.

EXPLAIN THE NEED TO BE PATIENT DURING THE PELVIC FLOOR PHASE.

NOTES

* THE MAJORITY OF CUP DETACHMENTS OCCUR WHEN THE CUP IS VISIBLE AT OR PASSING THROUGH THE VAGINAL INTROITUS. AT THIS STAGE OF THE PROCEDURE, THE WIDEST DIAMETERS OF THE FETAL HEAD, FOLLOWING SOME SIX CENTIMETRES BEHIND THE CUP, ARE AT THE LEVEL OF THE MOTHER’S RESISTANT PELVIC FLOOR AND STRONG TRACTION MAY CAUSE THE CUP TO DETACH. THEREFORE IT IS IMPORTANT TO ALLOW SUFFICIENT TIME FOR THE RESISTANT PERINEUM TO STRETCH OVER THE ADVANCING FETAL HEAD.
ACTIVITY TEN

STUDY THE IMAGE AND LABEL THE KEY CONCEPTS REGARDING METHOD OF TRACTION.

DESCRIBE THE KEY CONCEPTS REGARDING METHOD OF TRACTION

NOTES
ACTIVITY: RECAP LESSON THREE

Correct application of the cup and traction directed along the axis of the pelvis should prevent the majority of the detachments. Complete detachment may be prevented by exerting counter-pressure on the cup with the finger-thumb technique during traction and by ceasing to pull when the contraction passes and the mother stops pushing.

WHAT ARE THE WAYS TO HELP PREVENT CUP DETACHMENT?
In Lesson Four, you gained an appreciation of the obstetric circumstances in which the vacuum extractor may or may not be used safely. You learnt that the operator is a major determinant in the success or failure of vacuum delivery. Procedural limits were covered and we discussed case reviews.

**KEY CONCEPTS YOU SHOULD REVISE FROM LESSON FOUR:**

- Pre-requisites for safe vacuum delivery
- Safety before, during and after vacuum delivery
- Procedural limits
- Prevention of subgaleal haemorrhage
- Infant morbidity in vacuum extraction and forceps delivery
- Operator training
- Classifications of indications
ACTIVITY: RECAP LESSON FOUR

Pre-requisites for safe vacuum delivery

NAME THE PRE-REQUISITES FOR SAFE VACUUM DELIVERY.

NOTES

Safety during vacuum delivery

LIST THE SAFETY CONSIDERATIONS DURING A VACUUM DELIVERY PROCEDURE.

NOTES

* AS WITH ANY PROCEDURE VACUUM ASSISTED DELIVERY IS NOT WITHOUT RISK. IT IS IMPORTANT TO BE AWARE OF THE RISKS, UNDERSTAND PROCEDURAL LIMITS AS WELL AS YOUR OWN ABILITIES.
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Safety after a vacuum delivery

WHAT STEPS ARE TAKEN AFTER A VACUUM DELIVERY?

NOTES

PROCEDURAL LIMITS
Serious injury to the baby associated with vacuum delivery can usually be avoided or reduced to a minimum if careful attention is paid to a number of safety measures that should always be strictly adhered to and enforced. Identify the following procedural limits that should always be strictly adhered to and enforced.

WHAT ARE THE SAFE LEVELS OF TRACTION APPLIED DURING OPERATIVE VAGINAL DELIVERY?

NOTES

* DIFFICULT (TRIAL VACUUM DELIVERIES) SHOULD BE UNDERTAKEN IN AN OPERATING ROOM PREPARED FOR CAESAREAN DELIVERY.
ACTIVITY: RECAP LESSON FOUR

WHAT ARE THE RECOMMENDED NUMBER OF PULLS FOR THE DESCENT PHASE?

NOTES

WHAT ARE THE RECOMMENDED NUMBER OF PULLS FOR THE PELVIC FLOOR AND PERINEAL PHASE?

NOTES

* THE NUMBER OF PULLS SHOULD BE DEFINED AS THE NUMBER OF CONTRACTIONS DURING WHICH EXPULSIVE EFFORT AND TRACTION OCCUR. IF THE MOTHER PREFERENCES TO PUSH TWO OR MORE TIMES DURING ONE CONTRACTION, THIS SHOULD BE COUNTED AS ONE PULL.

Duration of the procedure must be considered in relation to all relevant obstetrical variables, including the frequency and strength of uterine contractions and progressive descent of the head, multipara and nullipara cases.

A VACUUM DELIVERY PROCEDURE SHOULD NOT BE CONTINUED BEYOND HOW MANY MINUTES?

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INFANT MORBIDITY IN VACUUM ASSISTED DELIVERY AND FORCEPS.
Although in the past retinal haemorrhages were reportedly more common following vacuum extraction than after forceps delivery, the recent Cochrane systematic review shows no significant difference in incidence between the two delivery methods. In any case, the clinical significance is unclear as retinal haemorrhages appear to be transient lesions leaving no residual ill effects. Similarly, with regard to cephalohaematomas the systematic review shows a non-significant trend in favour of the forceps. Although the larger cephalhaematomas may take a few weeks to disappear completely, complications are rare and no specific therapy is required other than reassurance of the parents. Jaundice is not significantly more common following vacuum extraction than after forceps delivery nor is jaundice to a degree that requires phototherapy. Intracranial haemorrhage is not more common with vacuum extraction than forceps delivery and perinatal mortality and long term morbidity are the same for both methods of delivery.


EXPLAIN THE DIFFERENCES IN THE INCIDENCE OF MORBIDITY BETWEEN THE TWO OPERATIVE VAGINAL DELIVERY METHODS.
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Avoiding difficult vacuum extractions and prolonged traction are simple and effective methods of preventing subgaleal haemorrhage.

EXPLAIN THE DIFFERENCES BETWEEN CEPIALOHAEMATOMA AND SUBGALEAL HAEMORRHAGE, AND THE IMPLICATIONS IN CLINICAL PRACTICE.

NOTES

LIST THE CHARACTERISTIC PATTERN OF EVENTS THAT MAY CONTRIBUTE TO THE OCCURRENCE OF SUBGALEAL HAEMORRHAGE.

NOTES

* AS SOON AS POSSIBLE AFTER THE BIRTH EXAMINE THE INFANT’S HEAD FOR THE PRESENCE OF A SMALL FLUID COLLECTION UNDER THE SCALP AT THE CUP APPLICATION SITE. INSTRUCT NEONATAL ATTENDANTS TO INSPECT THE SCALP PERIODICALLY IF THE DELIVERY WAS DIFFICULT.
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WHEN SHOULD YOU STOP A PROCEDURE?

EXPLAIN THE RECOMMENDED GRADUATED TRAINING PROGRAM.
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QUIZ REVISION

LESSON FIVE IS ALMOST COMPLETE.

Complete Lesson FIVE with the online revision quiz

WWW.VACCAACADEMY.COM

ASSESSOR’S COMMENTS
If you have passed the Lesson Five quiz, please continue on to the class certificate assessment online.

WWW.VACCAACADEMY.COM
REFLECT ON THE TAKE HOME POINTS YOU LEARNED IN CLASS.

NOTES
CLASS LOG

LESSON ONE
LESSON TWO
LESSON THREE
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CLASS CERTIFICATE

YOUR NOTES ON THE NEXT STEPS YOU WANT TO TAKE IN YOUR VAD PRACTICE

NOTES
Individuals should learn to grade instrumental procedures according to the technical skill that is required and attempt only those vacuum deliveries that fall within their own level of expertise. Operators who are not familiar with the vacuum extractor, whatever their seniority or skill with the forceps, should begin with a program of straightforward cases such as outlet and nonrotational VADs before attempting the more complex mid pelvic and rotational procedures. Outcomes will be suboptimal and confidence in the technique will not be acquired if operators begin with the more challenging procedures prematurely.

-- Aldo Vacca
THANK YOU!

YOUR ATTENTION TO THIS CLASS, THE FUNDAMENTALS OF SAFE VACUUM DELIVERY CONTRIBUTES TO A MORE WELL-EDUCATED COMMUNITY OF PROFESSIONALS IN THE LABOUR WARD, IN TURN IMPROVING OUTCOMES FOR WOMEN AND BABIES.

FOR FURTHER TRAINING RESOURCES AND INFORMATION VISIT WWW.VACCAACADEMY.COM