#### 0 - Introduction

Got It!

#### 0-介绍

Explain to trainees that vacuum can be performed safely and effectively using 5 simple steps taught by world-renowned vacuum expert Dr. Aldo Vacca. 向被培训者说明,由世界知名的真空助产专家 Aldo Vacca 博士发明并教授的简明五步操作法可以安全、有效地用于临床助产手术。

Before placing head in Lucy's Mum, show how to find the flexion point by placing your finger on the posterior fontanelle and coming forward 3 cm along the sagittal suture. Allow trainee to feel fontanelles and flexion point.

在把胎头模型放入 Lucy's Mum 母体模型前,体外演示如何用手指找到俯屈点(flexion point)——后囟前沿着矢状缝 3cm。请被培训者感受囟门和俯屈

点。 Have trainee measure finger distance from tip of finger to first and second knuckles (can use cup itself, Kiwi brochure, sound dilator or ruler). Show 6 cm

and 11 cm marks on the stem so they can begin relating their finger

measurements to the marks on the stem.

请被培训者测量手指中指指尖到第一和第二关节的长度(可以使用 Kiwi 样品、 Kiwi 手册、合理扩张器、测量尺)。指示 Kiwi 导管上 6cm 和 11cm 的标示,这 样可以对比手指测量长度和导管长度标示的关系。

Explain that you will now place the head, and you would like them to confirm position and station.

说明你将要放置胎头模型到母体模型,并确认胎方位和胎先露程度。

## 1 - Locate Flexion Point, Calculate Cup Insertion Distance

Got It!

## 1-确定俯屈点,计算吸杯插入距离

Have the trainee conduct their vaginal exam, inserting their middle and index fingers to find the flexion point. Explain that occiput posterior distances will be greater than occiput anterior distances.

被培训者进行阴道检查,插入阴道中指和食指找到俯屈点。说明枕后位插入距离大于枕前位。

Once the flexion point is found, have the trainee maintain their middle finger on the flexion point. Ensure the trainee turns their hand palm up and gently rests their hand down upon the introitus/posterior forchette/perineum.

找到俯屈点后, 使被培训者的测量手保持中指指尖在俯屈点。然后翻转手指到 堂心向上, 指背接触到阴道后联合。

Ensure the trainee places a finger on the opposite hand where the perineum contacts the back side of their middle examining finger. Keeping the finger on the opposite hand on that location, have the trainee remove their fingers and look where the finger on the opposite hand is touching the examining finger marking the distance.

Have the trainee state the distance the cup needs to be inserted. 被培训者说出需要插入的距离。

### 2 - Hold & Insert the Cup

Got It!

## 2-保持并插入吸杯

Have the trainee take the cup with their dominant hand, with their thumb on the back of the cup and their index and middle fingers on the inside lip of the cup. Best practice: "Put your thumb over the tube in the groove. Fingers on the foam."

被培训者使用操作手拿住吸杯,拇指在吸杯背部,食指和中指在吸杯另一侧, 最好的操作:保持拇指在吸杯背部凹槽上,其他手指缓冲垫上。

Have the trainee use two fingers of their opposite hand to gently press down the perineum, making room to insert the cup.

被培训者使用自由手轻压阴道口下方,产生更大的空间利于吸杯插入。

Have the trainee insert the cup vertically, and then twist their wrist (or raise elbow) to ensure the inside of the cup flat up against the baby's head. Best practice: Put the groove at 12 o'clock to illustrate rotation of the fetal head. 被培训者垂直插入吸杯,调整手腕保证吸杯内侧(缓冲垫)面向胎头。最好的操作:保持吸杯背面凹槽在 12 点钟方向用以指示胎头的旋转。

Instruct the trainee to take their hands out and that the device will stay in place so that it will rest on its own.

指示被操作者拿出操作手,此时吸杯在阴道内。

Note together with the trainee the distance the cup is already inserted, and remind them of the flexion point distance they previously calculated. 被培训者说明此时已经插入吸杯的距离,对比之前测量应插入的距离。

#### 3 - Maneuver Cup Toward and Over Flexion Point

Got It!

#### 3-移动吸杯并覆盖到俯屈点

Instruct trainee to insert their two fore fingers, one on top of the other, in order to maneuver to the proper distance. The dominant finger is to push the cup down over the flexion point, and the following finger is to hold the cup in place, so that it doesn't slip back up when you remove your dominant finger to check distance. Best practice: Have trainees form a "V" with their two index fingers, with the fingernails touching each other.

指示被培训者插入两根食指于阴道内,移动吸杯到正确距离。操作手手指按压 吸杯到俯屈点,自由手保持吸杯在此位置,防止操作手离开时吸杯移动。最好 的操作:使操作者两根食指保持 V 字型,指甲相互接触。

Have trainee place their dominant index finger on the "top edge" of the cup (not the top, which is often confused as the back of the cup by many), and their non-dominant index finger on top of the dominant one.

使被培训者操作手的食指在吸杯边缘侧面(并非吸杯背面,很多人混淆此概念),自由手在吸杯边缘上方。

Instruct trainee to push the cup downward, straight in the midline and not sideto-side, to the previously calculated distance of the flexion point. Ensure that they use the non-dominant index finger to keep the cup from sliding up when they remove the dominant index finger in order to visualize distance.

指示被培训者沿着中线垂直向下按压吸杯,不要左右摇摆,直到原来测定的距离为止。确保使用自由手保持吸杯位置防止吸杯向上移动。

Once distance is confirmed, continue to hold the cup in place.

距离确定后,继续保持吸杯在原有位置。

#### 4 - Create Vacuum and Exclude Maternal Tissue

Got It!

## 4-增加负压和移除阴道组织

Have the trainee continue to hold the cup in place with the non-dominant index finger, and have them grasp the PalmPump with their dominant hand. 使被培训者保持自由手食指控制吸杯位置,操作手抓住掌控泵。

Have the trainee pump the vacuum to the "top of the green zone" or to 600mmHg, and check that no maternal tissue is trapped under the cup. Note: If the trainee is having difficulty obtaining vacuum, have the trainee firmly push the cup against the head, and have the head-holder push the head gently

against the cup. You may also need more lube, or the cup is over the "exaggerated" fontanelle on the baby head. Inform them this won't happen in a real delivery.

使被培训者按压掌控泵产生负压,最高可达指示器绿色区域上部 600mmHg, 检查确保无母组织在吸杯下。注意:被培训者不能产生负压,可以用力按压吸杯到胎头,使得吸杯紧贴胎头。也可以使用适当润滑剂,或者检查吸杯是否压在囟门,需要说明在真正分娩时无需如此。

Instruct the trainee that having the vacuum gauge at the top of the green allows them to notice leaks if they start to see green appear on the gauge. 指示被培训者注意观察指示器的变化,操作过程中应保持在绿色范围内,防止负压释放。

# 5 – Using Finger Tip Traction and Finger/Thumb Technique, Pull Along Axis of the Pelvis

Got It!

### 5-使用指尖牵引/拇指技术,沿着骨盆轴牵引

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Have the trainee insert the non-dominant thumb onto the cup, and the index finger onto the fetal scalp. The thumb should gently provide active counter traction on the cup while the index finger monitors head descent and cup attachment.

被培训者把自由手插入阴道,拇指在吸杯背面,食指在胎儿头部。拇指可以提供与牵引相反作用力,食指用来感受胎头的下降和旋转。

Instruct trainee that first pulls are usually downward and to get down on a knee if necessary. Ensure two fingers on either side of the pump's mid-point or stem.

指示被培训者首次牵引向下,可以单腿下跪。确保导管两边各有两个手指。

Instruct to only pull when mom has a contraction. Monitor Traction Force Indicator (avoid pulling too hard w/ fingertip traction)

指示被培训者仅当母亲宫缩时开始牵引。拉力指示器用以避免拉力过大。

Have assistant support the perineum as head starts to crown.

当胎头开始着冠时可以请助手帮助保护会阴

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