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| **OB Emergencies ~ Prolapsed Cord - Foley Protocol** | | |
|  | American College  of  Community Midwives  **A professional organization**  **for Community Midwives**  **General Content** |  |
| **Evidence-based Protocols for Umbilical Cord Prolapse or**  **if the cord is in front of the baby's head in an intact B.O.Ws** | | |
| Background Information                                 [**Short Cut to technique**](#gjdgxs)  **A prolapsed cord occurs when a loop of umbilical protrudes from the vaginal opening while the baby is still in utero or in the birth canal.**  This rare but serious cord accident is not caused by, nor is it the result of midwifery care or a planned home birth (PHB). It can occur spontaneously anytime during pregnancy or early hours of  labor, before most women would have been admitted to a hospital, had they been planning a hospital delivery. It can occur in labor before or after the arrival of the midwife.  Cord prolapse is statistically associated with other conditions such as premature labor, breech or a multiple gestation. It is also associated with medical interventions that midwives normally do not do, such as artificially breaking the water early in labor when the baby�s head is not yet engaged in the pelvis and therefore not well applied to the cervix. It is this loose fit between the presenting part and the cervix that permits the cord to slip by the baby�s head and become pinched between the bones of the baby�s head and the bones of the mother�s pelvis. This interferes with or cuts off the blood flow between the baby and the the placenta, depriving the baby of oxygen. **It is a true obstetrical emergency.**  A more frequent form of prolapse is an **occult** (non-visible) prolapse, which is discovered during a labor at home because the midwife was providing good maternal-fetal surveillance. This early detected allows the problem to be promptly addressed by appropriate emergency response.  Whether this emergency happens at home or in a community hospital, its discovery is crucial, as usually there are no outward signs of the problem -- the only warning is abnormalities in the fetal heart rate. The time factor is also a problem in non-tertiary institutions (small and medium-sized hospitals) as the obstetrician, anesthesiologist, neonatalogist, and surgical scrub team must all be contacted at home and must drive in to the hospital. Typically it takes 30 minutes to do emergency surgery when the staff is not already in-house.  Driving distance for the OR staff is the same whether the mother is an in-house labor patient or an emergency transport from a PHB.  This new protocol is already the �standard of care� in France and other European countries, but it is less well known in the United States. The technique is taught in midwifery textbooks and continuing education courses for L&D nurses and midwives. I meet a labor room nurse from a small hospital in Montana that used this method to stabilize the situation during the 40 minutes it took for the doctor and anesthesiologist to arrive. It is also used by community midwives in California (although it is not yet considered to be the standard of care).  **The Foley catheter method** is described in Varney's Pocket Midwife andtaught by the Professional Education Center (out of Chico, CA). I have emails from an OB in France assuring American OBs that this has been the standard of care in Europe for several years. It consists of immediately placing an indwelling urinary catheter in the mother�s bladder. Then 500 cc of sterile water is rapidly instilled into the bladder and the catheter clamped off so as to keep the bladder distended.  Since the bladder and the uterus share a membrane and move together, distending the bladder naturally pushes the uterus up out of the pelvis. This raises the baby�s head off the cord so that circulation can return (or is preserved) and the fetal heart tones return to relative normal. This addresses the immediate emergency and permits the mother to be transferred to the hospital in a normal position (lying down on the stretcher). This vastly improved situation means that Cesarean, as a rescue operation, can be accomplished as urgent surgery but not as a �crash� emergency. One L&D nurse reported a successful vaginal birth after treating a cord prolapse with this technique (don't ask me how, doesn't make sense to me either!).  **The Technique  (excerpted in part from "Varney's Pocket Midwife")**  **Frank Umbilical Cord Prolapse**  **~ After contacting paramedics and while awaiting emergency transport:**  1. Method to be used with an unengaged head or the breech or even a transverse lie:  Insert a #16 Foley catheter into the mother�s bladder and immediately fill the retention balloon with 30 cc sterile water, using the syringe and other supplies in the Foley kit. It will be easier to instill solution in the catheter if you tape it to mother�s leg so it remains stable and easy to see. Then rapidly instill of 500 cc sterile water or saline using an asepto bulb syringe or a 50 cc syringe. Have a second person clamp catheter while your hand is in the vagina displacing the fetal head/breech off the umbilical cord. If no one else is present just clamp the catheter and then do a vag exam to push the presenting part up as high as it will go. The full bladder than displaces the presenting part and alleviates cord compression.   2. Method to be used if the presenting part is engaged in a multipara:  It will be necessary to displace the presenting part out of the pelvis with your hand before filling the bladder. Pressure on the presenting part should be evenly distributed during this maneuver. Once the bladder is filled you should again check the woman vaginally to determine that the presenting part is indeed displaced. The fetal heart should be continually monitored. If bradycardia recurs, reinsert your hand into the vagina to assure that the fetal head is off the cord.  **If not, manual displacement with your hand may continue to be necessary.**  Once the bladder is filled and the catheter clamped securely, check the fetal heart rate. If the fatal heart tones are relatively normal or improving, the situation has stabilized. If FHTs have returned to normal and remain WNR, mother may remain in a supine position (instead of knee-chest position) on the stretcher while being transported by EMTs to the hospital.  **Rationale:** Since the bladder and uterus share a membranous attachment, a full bladder mechanically elevates the baby up out of the pelvis. This relieves the pressure on the cord that was trapped between the baby�s head and the mother�s pubic bone so that the fetal blood circulation can resume. | | |
| **~ PDF printer-friendly Versions for ~**  **1)** [**Stand Alone Instructions for the**](http://docs.google.com/Foley_Protocol_stand_alone_06.pdf) [**Foley Technique**](http://docs.google.com/Foley_Protocol_stand_alone_06.pdf)  **2) CCM** [**First Responder Emergency Care & Emergency Transport**](http://docs.google.com/CCM_Individual_Standards_PDFs_06/ER_transfer_Oct2004_EEE.pdf) | | |
| **Tips for dealing with EMT-Paramedic**  If the Foley protocol worked as we all hoped, you will **not** need to transport the mother in knee-chest position. But if it didn't or you couldn't use, you'll need to assure that the mother is transported in a knee-chest, no doubt with your hand holding the head off the cord.  **What to do if the EMTs insist (usually citing safety protocols) that they must lay the mother down so she can have the safety straps placed tightly across her chest and knees.** Start with briefly explaining the mechanical need to keep the baby's head from cutting off the flow of blood, which is what provides its oxygen. Pinching off the cord is like someone  **standing on the air hose** of a deep sea diver (an example that most people get). If this fails, simply state (in a clam, low and hysterical tone of voice!), in the presence of other EMTs and one hopes, at least one family member, that the baby will die before they get to the hospital unless the mother stays in the knee-chest position and you continue to hold the baby's head up off the cord.  **What if they tell you that you can't ride in the ambulance** **-- that they know how to manage this situation and your 'help' will not be necessary?**  Say to the senior EMT/paramedic:  "Am I to understand that you know more about providing care to women in labor than I do?  Are you or the other EMT/paramedics also licensed as an obstetrician or  professional midwife?"  Obviously they will have to say 'no' to the latter part of that question.  Then say: "In that case, I am the person here with the most training and experience in this field and I am required, as a midwife professionally licensed in the state of California , to continue to provide necessary emergency care until I am relieved by a licensed physician."  And that's the truth.  While this topic is not covered directly in LM statute or regulation, it is in the CNM regulations, which indirectly define LM scope of practice (the principle of "equivalent but not identical"). These regs say that in an emergency the professional obligation of a CNM can only be ceded to a someone with equal or greater medical training -- in this case, a physician. Even at the hospital, you have an obligation to maintain your emergency intervention until the physician arrives and displaces your services with someone of his choice on the hospital staff.  **Proactive is Best**  There are two ways that you can be 'proactive' -- one personal and the other as a group effort.  First, **what you can do yourself ahead of time to help yourself and your client**. Your interactions with emergency personnel under these very stressful and difficult circumstances will be more satisfactory if your status as a professional is obviously visible via either a picture ID and/or a white lab or doctors' coat with your name embroidered on it or on a name tag) Virtually all companies, business, hospitals, places like airports and even the White House require picture IDs like this. So an ID is one of the easiest way for others to get the message -- you are a 21st century health care professional.  In combination with your respectful attitude towards them, your ability to influence the course of events will be greatly enhanced if they instantly recognize your status as a specialist in managing normal childbirth. Most EMTs will readily admit that anything to do with childbirth or a newborn baby that freaks them out more than *any other emergency*. I've had EMTs tell me they'd rather go to a horrible car accident if they had a choice. So when they see you as someone with expertise *that can help them*  as emergency responders, it helps to lowers their own anxiety. This means the mother is more likely to get appropriate and timely emergency interventions.  The simplest ways to create a useful ID is to use your expired MBC license. Use double-sided tape to affix a small passport-type photo to the lower right hand corner. This is where the expiration date is printed, but that doesn't matter as your name, your status as licentiate of the Medical Board and your license number are all easily visible.         **EXAMPLE**  Then purchase one of those plastic name badge holders (or use the one from your last MANA or CAM conference!). Either clip the picture ID to your collar or clip it on a special cord or ribbon that hangs around your neck. These name badge holders and cords are sold at office supply stores.  **Second, develop a proactive relationship with your county EMT service**. In California, each and every county is in charge of its own emergency medical services. Your local peer-view group or CAM regional meeting should develop an informational/educational plan. Then can contact the chief of EMS in your county via a formal letter or phone call. Schedule a meeting with him/her to discuss ways to improve the interface between the community midwives and the EMS in circumstance of emergency transport from a planned home birth. When you meet with this person (usually an MD) discuss your concerns, especially relative to their cord prolapse protocols.  Bring scientific studies and or printed protocols, either for yourself or the California College of Midwives' standards. These should establish your emergency responsibilities, including your obligation to maintain your client in a knee-chest position if the cord is actively compressed and to continue to support the presenting part during transport.  Last but not least offer to do an in-service either for the whole county or at your own closest fire station. You want EMTs to know that midwives are licensed professionals, that in an emergency we have an obligation to continue to provide emergency intervention whenever it is necessary until we are relieved by a qualified physician. Then provide the EMTs an opportunity to discuss various issues (or prejudices!) surround PHB. Be sure to bring some copies of the BMJ's PHB study.  British Medical Journal   2005;330:1416 (18 June)K. Johnson,  Betty-Anne Daviss, RM  [**Outcomes of planned home births**](http://docs.google.com/Citations%20or%20text%2002/BMJ_HmBirth_Jun05.html) **with certified professional midwives:**  **large prospective study in North America** | | |

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