Nursing care during labor

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Today, many “traditional” procedures which were once thought to be necessary for safe childbirth are being examined and discarded as unnecessary or even harmful.

Childbirth is usually a joyous family event. It is the culmination of months of dreams and hopes and the beginning of life for a new family member. For the nurse, the first priority remains maternal and infant safety, through continuous assessment of mother and fetus for any signs of deviations from the norm in order to provide prompt intervention. But today, another equally important role is that of ensuring a satisfying experience for the birthing family.

The first stage of labor

1. Routine “preps.” Until recently, the laboring nurse was greeted by the admissions nurse with an enema in one hand, “high, hot and a hell of a lot,” and a razor in the other. These procedures generally went unquestioned as necessary methods to ensure a sterile field for birth. However, as early as 1922, studies showed that infection rates were in fact lower in patients who did not receive a perineal shave. It is difficult to perform an adequate shave without multiple small abrasions and a high percentage of women receiving a perineal shave complain of discomfort, burning and itching afterwards. At St. Joseph’s Hospital, London, Ontario, routine shave preps for vaginal and abdominal deliveries were discontinued about seven years ago without any rise in the infection rate. If a woman does make perineal repair difficult after birth, it may be clipped. There also was much concern that passage of stool during the second stage of labor might contaminate the area and cause embarrassment for the woman. However, soap sud enemas have been reported to cause rectal irritation and allergic reactions. Furthermore, studies have shown that the incidence of fecal contamination at delivery is not influenced by giving an enema. Of still more interest is a recent British study which revealed that fecal contamination does not increase the infection rate. Mahan and McKay state that “continued routine use of enemas cannot be justified except when circumstances clearly indicate a need.” Today, the admission nurse is better occupied obtaining a thorough patient history and data base and orienting the patient and her coach to their new surroundings.

2. Support persons. At the time of the admission, assessment of the goals of the laboring mother and her spouse is important for the formulation of an individualized plan of care. Fathers are encouraged to stay throughout the birth, to provide the mother with comfort and support. No longer are fathers requested to leave while “procedures” are carried out. Instead, they are recognized as playing a very necessary supportive role in the labor/delivery process. Unfortunately, when fathers or “significant others” elect to stay with the mother during labor, the nurse often feels she is free to do other things, forgetting that the couple may need professional support and encouragement through the event. By staying with them during the first stage, the nurse can develop the rapport and trusting relationship which is so valuable through transition and the second stage of labor. The nurse is there to provide comfort, to teach, to praise and to assess the progress of labor.

3. Position. During labor the supine recumbent position should be strongly discouraged as it allows the gravid uterus to compress the abdominal aorta and inferior vena cava possibly causing maternal supine hypotension and fetal distress. We recommend encouraging the woman to assume any other position of comfort for labor. Rupture of the membranes during labor does not automatically mean bed rest if the vertex is presenting, is engaged and well applied to the cervix. Some women find that backache is relieved by being on “all fours” especially when the fetus is in an “occipito posterior” position.

Solid foods are best avoided as gastrointestinal motility slows during parturition. Oral intake for the low-risk patient should be limited to fluids (juices, clear soups) and hard candies. Obviously, if there is a likelihood that the woman will require a general anesthetic, she will be given parenteral rather than oral fluids.

4. Maternal and fetal well-being (table one). The nurse must continually assess the maternal and fetal response to
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labor. She must be able to swiftly identify any deviations from the normal and initiate prompt intervention.

Take maternal temperature every four hours throughout labor. A slight elevation is often attributed to dehydration, but if it persists beyond two hours, regard it as a sign of infection and report it. Check the pulse hourly and between contractions. It should not exceed 100 bpm. 

The fetal heart rate should be assessed every 30 minutes during the latent phase of labor and every 15 minutes in the active phase. Count the rate between contractions and at the same time assess the maternal pulse as it may be mistaken for the fetal heart rate. The normal fetal heart rate is 120 to 160 bpm. Fetal tachycardia may be a sign of infection and/or fetal distress and should be reported immediately as should fetal bradycardia. A slight deceleration in the fetal heart rate may occur with a contraction but it should return quickly to a normal baseline as the contraction finishes. Persistence of fetal bradycardia for more than 20 seconds after the contraction has ceased is an important sign of fetal distress and must be reported.

Tachycardia, another important sign, may indicate dehydration, infection, or hemorrhage. The blood pressure should never decrease four or five in a ten-minute period. The uterus should relax completely between contractions. Failure to do so indicates increased resting tone and may result in fetal distress.

Observe the vaginal discharge. Bleeding other than “show” should be reported to the physician, as should the presence of meconium-stained amniotic fluid.

The second stage

Typically, the onset of the second stage is characterized by a heavier bloody show, and an overwhelming urge to push during contractions. However, the only accurate indication of second stage is complete dilatation of the cervix felt on vaginal examination.

Traditionally, once the woman had achieved full dilatation, she was propped up, instructed with each contraction to take a big breath, hold it, and “Push, push, push, push”. Not uncommonly the mother’s face was distorted and red, neck veins became distended, petechiae developed, and even small conjunctival hemorrhages appeared. We congratulated ourselves on our success with coaching the delivering woman when we saw these signs of her effort. In fact, a better position for the second stage of labor is a semi-sitting position in which the back is supported by pillows, a back rest, or with the back of the bed elevated. Wrist straps are no longer used and are to be condemned. The mother’s knees are bent and apart and her feet are best kept flat on the bed as the action of drawing her legs up to push (or placing the legs in stirrups) may put tension on the perineum, tightening the introitus.

Periodic change of position during the second stage may be helpful. Some women prefer to push in a side-lying position, others squatting. However, with the latter position, control of the actual delivery is often difficult to maintain.

Prolonged breathing while bearing down may lead to decreased cardiac output and hypotension. Although this is usually tolerated by the healthy parturient it can adversely affect the fetus by decreasing placental perfusion, leading to hypoxia and fetal distress. It is now recommended that several deep breaths be taken at the beginning of a contraction and that the breath be held no longer than seven seconds while the mother pushes. Her mouth should be open slightly and she should slowly exhale.
through the bearing-down effort. Caldeyro-Barcia suggests that the second stage will proceed more slowly with this method but that the fetus will be in better condition. The woman is encouraged to push in the direction of the vaginal orifice and to relax her face and lower extremities.

The fetal heart rate should be assessed at least every five minutes after contractions in the second stage of labor and the mother should not be left alone at any time. Today, the mother with no identifiable risk, labors and gives birth in the same room which may be equipped with a birthing bed. She is encouraged to concentrate on the work at hand and may find the atmosphere less tense than in the usual “delivery” room. The father is encouraged to remain with his partner for the birth be it normal or “high risk”, to provide support and comfort and to share in the joy of the event.

The third stage
Immediately after the birth the baby is dried quickly and given to the mother. Routine suctioning of the healthy newborn is not necessary; if done vigorously, it may be harmful by causing a reflex bradycardia. Ophthalmic prophylaxis and vitamin K, are withheld until the baby is admitted to the nursery in order not to interfere with parent-infant interaction in the sensitive time after birth. The mother is encouraged to relax and not to bear down during the third stage. Offering the baby the breast will stimulate the release of oxytocin and promote placental separation in addition to the obvious emotional benefits for the mother.

The fourth stage
The first hour after birth is commonly referred to as the fourth stage of labor. It is a time when one is observing for signs of hemorrhage. The temperature is taken once, and the pulse, blood pressure, fundus, lochia, and perineum are assessed every 15 minutes. A bedpad should be offered to encourage the woman to keep her bladder empty.

This is a very special hour for mother and baby and the family as a whole. The baby is usually alert and begins to explore the new environment. If siblings have not been present previously, they and the grandparents are welcomed in the recovery room to greet and hold the new arrival, and congratulate the new parents.

Childbirth today has again become a family-oriented event. The changes which are taking place in maternity care have less to do with wallpaper and expensive equipment, than with attitudes of medical and nursing staff who seek to provide a satisfying experience for the child-bearing couple while maintaining safety. They are welcome and a source of joy to all involved.

References
10. Ibid.
13. Ibid.