POLICY:

- The decision to pursue a water delivery must be a collaborative one between the physician and the patient.
- The patient's health history must be reviewed in detail to determine if the patient is a candidate for a water delivery. The patient must be low-risk and meet the eligibility criteria for waterbirth.
- Potential risk factors and benefits must be discussed with the patient/family and the physician must document in the patient's record that the patient has been informed of these and that she has chosen to proceed with this method of delivery.
- Mercy Medical Center (MMC) does not have the equipment required for waterbirth in-house at this time. The patient must assume the responsibility and the cost of renting the additional equipment required.
- All equipment supplied by the patient must be obtained prior to the anticipated delivery date. Mercy Medical Center will perform a routine safety check on these items but MMC is not responsible for the workmanship or safety of any rented equipment.
- The patient's obstetrical consent will include the patient's desire and consent to participate in a water delivery.
- The physician and patient must review MMC's Water Birth Guidelines. The patient must agree to follow these guidelines and if asked by their health care provider to leave the tub due to any medical risk or complications, agree to do so as asked.
- The physician must agree to be on call 24/7 for their patient's planned water delivery unless there are other physicians in the group that are comfortable performing a waterbirth and are in agreement on how to care for the patient. The patient must be made aware that if for some reason her physician is not available for her labor and delivery that she may be asked to leave the tub for the delivery.
- The delivering physician must remain present on the unit during the second stage of labor, since delivery may occur rapidly. Consideration should be given to having the chosen pediatrician be present on the unit during the delivery to be available as needed.
- A laboring mother must never be left unattended in the pool. Reliable family members or staff must attend her at all times.

DRAFT

- The woman may enter the water at any point in labor; however, if patient is not yet in active labor with progressive dilatation of the cervix, entering the water may decrease the frequency of contractions. Bathing in the tub may be used as a method of "therapeutic rest". Ambulating is recommended until the cervix is 4-5 cm dilated and uterine contractions are well established.
- The woman may adopt any desired position in the water.
- If IV is necessary, patient may remain in the pool with IV site covered with plastic.
- Physician and patient or doula must make arrangements with Clinical Director of department for waterbirth in order to make sure that staffing and education requirements have been met.

ELIGIBILITY CRITERIA:

1. 37 Weeks or greater gestation.
2. Cephalic presentation.
3. 20-30 minute reassuring FHR tracing prior to tub entry.
4. No significant antenatal or intrapartum risk factors.
5. Documentation of risks/benefits has been reviewed by the CNM/physician
6. Patients with documented thin meconium may labor in the tub, but are excluded from delivery in the tub.
7. Pitocin induction/augmentation patients may labor and deliver in the tub, but must be monitored per high risk standards (every 15 minutes during 1st stage, every 5 minutes during second stage).

EXCLUSION CRITERIA:

1. Breech presentation
2. Multiple gestation
3. Preterm Labor
4. Anticipated SGA
5. Regional anesthesia
6. Magnesium Sulfate infusion
7. Excessive bleeding
8. Thick meconium stained fluid
9. Nonreassuring FHR tracing
10. HIV
11. Active Genital Herpes

DRAFT

12. Active Hepatitis
13. Hepatitis C positive.

EQUIPMENT:

1. Portable pool (rented and provided by patient). Kit includes drain pump, hose, and faucet adapter for portable for portable pool filling; tropical fish net, inflatable pillow.
2. Waterproof Doppler (or Fetoscope).
3. Thermometer (may be floating).
4. Shoulder length gloves (Veterinary).
5. Fluid-resistant gown for delivering practitioner.
6. Splash guard eyewear.
7. Extra towels, bath blankets.
8. All delivery equipment and supplies per normal vaginal delivery and resuscitation should be immediately available.

PROCEDURE:

PROCEDURE	KEY POINTS
Assemble tub and have safety checked by Facilities Engineering prior to patient use of pool.	
Obtain physician order for warm water immersion in labor and and intermittent auscultation of FHT's have patient sign consent. Physician or CNM may also order oral hydration with clear liquids to help prevent dehydration.	
Water temperature for immersion during labor may vary somewhat but should never exceed 101 degrees Fahrenheit.	Temperatures higher than 101 degrees can cause dehydration of the mother, overheating, and lead to fetal tachycardia.
Water temperature for immersion during birth should not vary more than 95 to 100.9 degrees Fahrenheit.	***IMPORTANT!! Check water temperature HOURLY and document.***
Document maternal VS prior to warm water immersion in pool.	
Obtain baseline EFM tracing.	***IMPORTANT!! Must have reactive NST prior to warm water immersion to document fetal well-being.***

DRAFT

Maternal and fetal vital signs are monitored intermittently per ACOG, AWHONN, and departmental standards.	
With SROM, check FHR and rhythm and check for cord prolapse.	If meconium staining is observed, establish fetal well-being using EFM prior to returning to pool.
Vaginal exams may be done in the water or mother may be asked to leave pool or raise her buttocks out of the water and sit on the edge of the pool for SVE.	
Observe for dehydration and obtain physician or CNM order for management if S/S of dehydration are observed.	Dehydration is evidenced by maternal and fetal tachycardia and increased maternal temperature. Physician or CNM may choose to force clear liquids by mouth or start IV of Lactated Ringers solution.
If fetal tachycardia is observed, assess mother for dehydration and temperature elevation and measure tub temperature.	Hydrate mother as needed and decrease water temperature to appropriate level. Reassess fetal heart rate within 15 minutes. If fetal tachycardia persists, assist mother out of the pool to cool down and monitor FHR by EFM. Mother may return to the tub with return of reassuring FHR pattern.
Maternal VS should be obtained hourly or as needed if FHR increases.	If mother experiences dizziness, check BP, pulse, temperature, fluid intake, and cool her down as needed. Encourage controlled breathing.
Small amounts of debris or feces may be removed from water using fishnet. If excessive feces or debris accumulates during labor, patient may need to exit pool and have water changed.	Nothing needs to be added to the water to sanitize.
DELIVERY:	
Mother may adopt any position that feels safe and is comfortable for her and her birth attendant.	
Birth of head is facilitated by gentle pushing by the mother. The practitioner attending the birth wears shoulder length gloves.	Perineal support and gentle pressure may still be used if indicated. The mother may control the birth of the head with her own hands.
Manipulation of the head is usually not necessary to facilitate delivery of the shoulders.	Waiting until the next contraction is recommended before manipulation of the fetal head; in this event, fetal heart tones should be assessed after every pushing effort. If restitution and delivery of the shoulders does not happen after 2-3 contractions, mother is advised to stand or get out of the pool to finish the delivery. Have a birthing bed immediately available to assist mother for emergency needs.
Once the complete body of the infant is birthed, the baby is lifted out of the water in a smooth motion within the first 10-20 seconds.	***IMPORTANT!! Be careful in lifting infant out of the water to be aware of the length of the umbilical cord.***

DRAFT

APGAR score assessment should be done after baby is lifted onto mother's chest.	***IMPORTANT!! Water born babies may not begin to breathe right away, but start slowly within the first minute as cord pulsations cease and temperature changes stimulate respirations. Delay start of APGAR scoring from time baby is born to time baby's face emerges from water to better reflect when the baby is physically and chemically stimulated to initiate respiration.***
Suctioning of the oropharynx and nares may be done while infant is on mother's chest as needed.	
Infant may be kept warm either by submersion of everything but the head in the warm water, or warm blankets or towels may be placed over the body while still on mother's chest.	
Umbilical cord should not be cut right away, allowing cord to continue to pulsate.	
Encourage mother to breastfeed immediately to assist in the contraction of uterus and the expulsion of the placenta.	
THIRD STAGE—DELIVERY OF PLACENTA	
Delivery of placenta in the water:	
A lightweight container should be used to facilitate floating the placenta if the cord has not been cut prior to placental delivery.	
Parents are given the opportunity to cut the cord, per instruction of delivering provider.	
Cord may be cut after the placenta has been expelled.	
Estimated blood loss is assessed according to a change in the color of the water. The darker the water, the more blood loss is estimated.	
Delivery of placenta out of the water:	
Umbilical cord is clamped and cut.	
Baby is dried, wrapped in dry blankets, and handed to father, parent, friend, or nurse.	
Mother is assisted out of the tub, either into the bed, squatting beside the tub, or sitting on the side of the pool.	
Mother is dried and wrapped in a warm bath blanket.	
Placenta is delivered in the usual method.	

DRAFT

EVALUATION OF NEWBORN AFTER BIRTH:	
Mother in pool, infant on chest:	
APGAR assessment is made according to standard guidelines, with the understanding that babies born in water take up to 60 seconds to breathe after they are brought out of the water (see above).	
If tachycardia is present, the water temperature should be assessed, cooled if >101F, or mother and baby should be assisted out of pool by the five minute APGAR.	
Baby may be suctioned or a DeLee trap may be used as indicated.	
Keep baby's body warm by keeping body lowered into the warm water with head out or body covered with warm blankets or towels.	
Standard protocol for newborn care is followed.	

REVIEWED/APPROVED:
Original approval by Dept of WC: Feb 2001
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