

Table 1: Lists of variables used in measuring stages in Intrapartum and immediate postpartum quality in Northern Ethiopia study

Variables used to measure stage of quality intrapartum care:	Observed	
A. During Admission:		
Provider greets the woman and her companion (if present) in a cordial manner	Yes	No
Provider responds to mother immediate needs (thirst, hunger, cold/hot, need to urinate,	Yes	No
Provider ask mothers name	Yes	No
Provider ask her age	Yes	No
Provider ask about number of previous pregnancies/births	Yes	No
Provider ask any complications during labour and postpartum period	Yes	No
Provider ask other general medical problems	Yes	No
Provider ask use of medications	Yes	No
Provider ask about her HIV status	Yes	No
Provider estimate gestational age using last menstrual period	Yes	No
Provider ask mothers how frequently labour are occurring	Yes	No
Provider ask if her membranes ruptured: when, what color and what smell it had	Yes	No
Provider ask mothers whether she feels the baby's movements	Yes	No
Provider ask mothers when the painful regular contractions began	Yes	No
Provider ask mothers whether she has experienced vaginal bleeding, fever, severe headaches, blurred vision, convulsion, or if any other problems the client is concerned	Yes	No
Provider performs HIV test if status unknown	Yes	No
Provider records the information on clinical history chart	Yes	No
Ensures privacy with screen or curtain to separate the women from others at least during examination	Yes	No
Washes hands with running water and soap for 10-15 seconds and dries with an individual clean towel or allows hands to air dry	Yes	No
Explain each step	Yes	No
At least one encourage the woman to ask questions	Yes	No
Respond to the woman/ companion questions politely and in respectful manner	Yes	No
B. First stage of labour:		
Providers takes mother temperature	Yes	No
Provider takes mother pulse	Yes	No
Provider measures mother blood pressure	Yes	No
Provider determines mother respiratory rate	Yes	No
Provider measures mother fundal height	Yes	No
Provider determines foetal lie and presentation	Yes	No
Provider identifies degree of decent by abdominal palpation (from five to zero fingers above the pubis)	Yes	No
Provider evaluates uterine contractions (frequency and duration over a 10- minute period)	Yes	No
Provider Auscultates foetal heart rate (FHR)	Yes	No
During physical examination, providers:		
Puts sterile gloves on both hands	Yes	No
Carefully inserts two fingers of the exam hand	Yes	No
Assess cervical examination	Yes	No

Assesses molding	Yes	No
Assesses station of presenting part	Yes	No
Assesses position	Yes	No
Gloves are removed after being immersed in 0.5% chlorine solution and placed in a leak-proof container	Yes	No
Records all information on the clinical records	Yes	No
Provider start partograph to follow progress of labour	Yes	No
Infection prevention practice of providers:		
Cleanse the vulva with antiseptic solution before performing vaginal examination	Yes	No
Performs limited vaginal examination (e.g, every four hours or indicated)	Yes	No
Uses sterile gloves when performing vaginal examination or when in contact with body fluids	Yes	No
Rupture of membranes is not performed routinely	Yes	No
Provider prepares to assist the birth:		
Has the delivery pack and other essential material and ready to assist the delivery (delivery set, episiotomy set, newborn resuscitation set, glove, delivery gown, apron, mask)	Yes	No
Prior to delivery, washes hands with running water and soap for 10-15 seconds and dries an individual clean towel or allows hands to air dry	Yes	No
Puts sterile double gloves on hands	Yes	No
Provider:		
At least once encourage woman to walk around	Yes	No
At least once encourage the woman to change position according to the desire and comfort	Yes	No
At least once encourage the woman to take light food or drink fluid in labour	Yes	No
Allow the woman to have her preference companion at labour room	Yes	No
Provide emotional support to woman during labour and delivery	Yes	No
At least once encourages her to empty her bladder	Yes	No
C. Second stage of labour: provider		
Holds the baby by the trunk and places the baby on a clean dry towel on the mother's abdomen	Yes	No
Dries baby vigorously and changes wet towel for a clean dry one	Yes	No
Ties or clamps cord when pulsations stop, or by 2-3 minutes after birth (no immediately after birth)	Yes	No
Cuts/clamps the umbilical cord using sterile scissors under gauze to prevent blood spurting	Yes	No
If the baby is breathing normally, passes the baby to mother for skin-to-skin contact on breast	Yes	No
Note the time of birth and records on partograph or in other records	Yes	No
D. Third stage of labour: provider,		
Palpate the mother's abdomen to rule-out the presence of a second baby	Yes	No
Tells the woman that she will receive an injection and administers 10 IU of oxytocin IM or 600 mcg misoprostol orally within 1 minute of delivery	Yes	No
Place the other hand on the women's symphysis pubis (over the sterile towel)	Yes	No
Maintain firm traction on the cord and waits for the uterus to contract	Yes	No
Upon contraction, applies firm and sustained downward traction on the cord with counter traction above the pubis to guard the uterus, until the placenta is expelled	Yes	No
If this maneuver does not provide immediate results, stops applying traction, holding the cord and clamp until the next contraction	Yes	No
Repeats control cord traction during contraction while simultaneously applying counter	Yes	No

traction above pubis to guard uterus		
With both hands, assists in the expulsion of the placenta by turning it over in the hands without applying traction twisting the membranes	Yes	No
Massage the uterus with one hand one sterile cloth over the abdomen until it contracts firmly	Yes	No
Checks to see whether the placenta is complete (maternal and foetal sides, plus membranes, lobs)	Yes	No
E. Immediate postpartum periods: provider,		
Make sure that the woman is comfortable (clean, hydrated and warmly covered)	Yes	No
Ensures that the baby is well covered	Yes	No
Administer vitamin K to newborn	Yes	No
Provides tetracycline eye ointment 1% prophylaxis to newborn	Yes	No
Observe breast feeding initiated within the first hour after birth	Yes	No
Weight the baby	Yes	No
Discards the placenta in a leak-proof container with a plastic liner	Yes	No
Disposes of medical waste (gauze, etc) in a plastic container with a plastic liner	Yes	No
Puts the soiled linen in a leak-proof container	Yes	No
Places all reusable instruments in a 0.5% chlorine solution for 10 minutes	Yes	No
Disposes needle and siring in a puncture-resistance container, without removing, recapping or breaking the needle	Yes	No
Gloves are removed after being immersed in 0.5% chlorine solution and placed in a leak-proof container	Yes	No
Washes hands with running water and soap for 10-15seconds and dries with an individual clean towel or allows hands to air dry	Yes	No
Provider monitors the mother and newborn after birth:		
Baby's breathing condition and breastfeeding	Yes	No
Vaginal bleeding	Yes	No
Bladder distension	Yes	No
Blood pressure	Yes	No
Uterine contraction	Yes	No
Pulse	Yes	No
Consciousness	Yes	No
Assists the woman with breastfeeding	Yes	No
Asks the woman if she has urinated and encourages her to do so whenever she wishes	Yes	No
Records the information on the women's clinical record and reports any abnormalities	Yes	No

Table 2: Lists of variables used in measuring quality newborn care during immediate postpartum quality in Northern Ethiopia study

Qno	Observe whether skilled birth attendant do the following after birth for the newborns	Response (observed)	Remark
	Skilled personnel:		
1	Dries newborn baby vigorously and change wet towel immediately after birth	1. Yes 2. No	
2	Evaluate breathing of newborn	1. Yes 2. No	
3	Tie or clamp cord after 2-3 minute of birth	1. Yes 2. No	
4	Ensure the baby is covered	1. Yes 2. No	
5	Ensure the baby is in skin to skin contact with mother	1. Yes 2. No	
6	keep newborn in the same room with mother	1. Yes 2. No	
7	Ensure baby is start breastfeeding within 1 hour	1. Yes 2. No	
8	Administered TTC eye ointment	1. Yes 2. No	
9	Administered vitamin K	1. Yes 2. No	
10	Weight the newborn baby	1. Yes 2. No	
11	Check newborn breathing and breast feeding status every 15 minutes	1. Yes 2. No	

Table 3: Lists of variables used in measuring friendly mother and newborn care in Northern Ethiopia study

Qno	Observe whether skilled birth attendant do the following after birth to mother and newborns	Response (observed)	Remark
1	Ensure privacy during labour	1. Yes 2. No	
2	No physical emotionally and verbally abused		
3	Evidence based practice (eg. Limited vaginal examination and no rupture of member routinely)	1. Yes 2. No	
4	Adopt preferred position to mother during labour		
5	Allow fluid or light food during labour	1. Yes 2. No	
6	Allow preferred birthing partner	1. Yes 2. No	
7	Skin to skin mother baby care	1. Yes 2. No	
8	Early breast feeding with in 1 hr	1. Yes 2. No	
9	Affordable or free maternity care	1. Yes 2. No	