Urinary catheterization after prolonged and obstructed labor: Current practices and potential leadership by midwives

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Background

- Despite recommendations for urinary catheterization (UC) to prevent genital fistula following prolonged/obstructed labor (P/OL), data are limited about this and other practices related to P/OL in low- and middle-income countries (LMIC).

Project Context & Objective

- The Fistula Care *Plus* (FC+) Project is a USAID-funded initiative partnering with >30 fistula repair sites in 5 countries.
- With USAID, EngenderHealth has supported more than 37,100 fistula surgeries and trained over 26,600 health workers.
- FC+ sought to understand the current practice of UC and other aspects of care following P/OL in settings where obstetric fistula remains a problem.

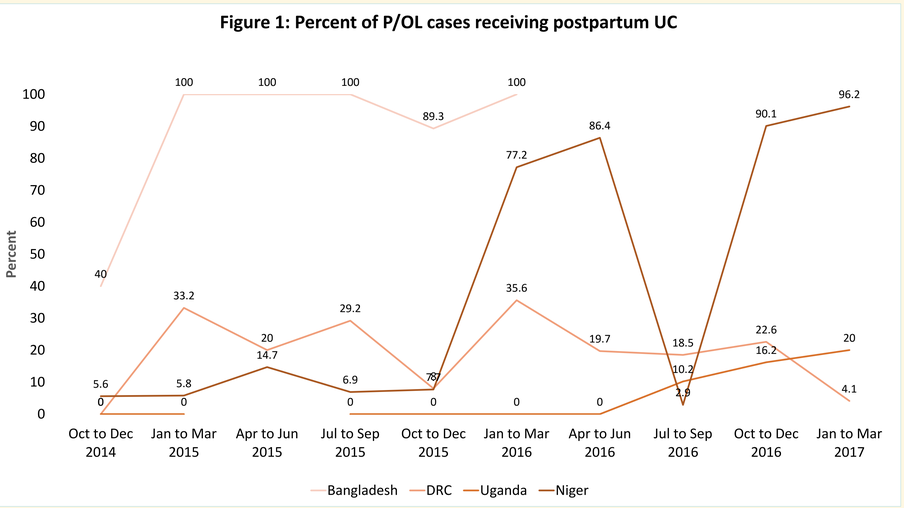
Methods

- FC+ routinely monitors P/OL incidence and postpartum UC at health facilities supported for fistula prevention and safe motherhood in Bangladesh, Democratic Republic of Congo (DRC), Niger, and Uganda.
  - FC+ monitoring data are entered into a DHIS2 database.
- FC+ is also conducting an online global survey of LMIC skilled birth attendants, particularly midwives, to understand routine bladder care practices as well as practices during and after P/OL.
  - This pilot phase of this survey was administered anonymously through Survey Monkey from May 7 to June 2, 2017.
  - Inclusion criteria: skilled birth attendants who have attended deliveries in LMIC in the past 5 years.

Results - FC+ Supported Sites

- Between October 2014 and March 2017, 31 facilities supported by FC+ reported their incidence of P/OL as well as the frequency of use of UC following P/OL.
  - Supported facilities are nearly all private/faith-based or referral/teaching hospitals, with the exception of some Health Center (HC) III/IVs in Uganda. These facilities are tasked with routine maternity care (HC III) or basic emergency obstetric care only (HC IV).
- FC+ quarterly monitoring data show a widely varying incidence of P/OL across countries, ranging from 0-0.68% in Bangladesh, 0.36%-12.6% in DRC, 0-3.7% in Uganda, and 12-22.8% in Niger.
  - This variation reflects the mix of reporting facilities as well as differing levels of SBA use in the different settings.
- Data also show wide variation in UC after P/OL within and between facilities and countries, with averages ranging from as low as 5.2% in Uganda up to 88.2% in Bangladesh. Figure 1 illustrates this variation by country and quarter.

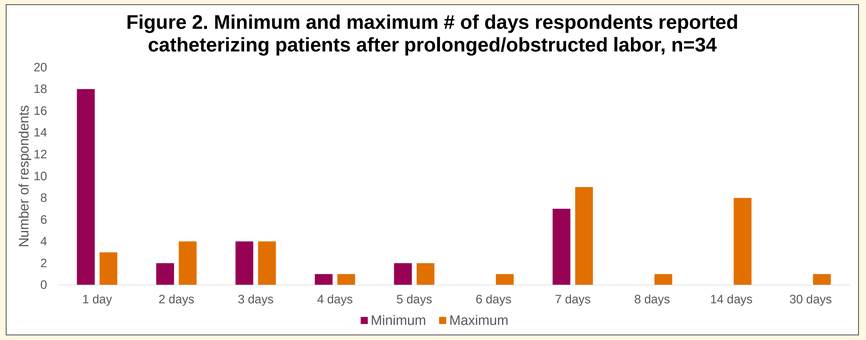
Figure 1: Percent of P/OL cases receiving postpartum UC



Results: SBA Survey Pilot Phase

- During the first four weeks the SBA survey was available on Survey Monkey, 111 SBAs initiated the survey and 59 completed enough questions to be included in the analytic sample.
- Respondent profile:
  - 71% work in sub-Saharan Africa and 15% in South/Southeast Asia.
  - 85% are midwives or nurse-midwives, 5% are nurses, and 5% are obstetricians.
  - All have at least two years of professional experience, with 37% reporting 10 or more years.
  - Nearly half (46%) work in a national or academic hospital and one-third (32%) work in a district or sub-district hospital.
  - Most work in urban/peri-urban settings (82%) and public facilities (78%).
  - Nearly two-thirds (61%) work in comprehensive emergency obstetric and newborn care (CEmONC) facilities and most others (27%) work in basic EmONC (BEmONC) or "BEmONC-1" facilities.
- 67% of respondents report that they always provide UC after P/OL, with no difference between midwives and other cadres.
- Respondents report a wide range of minimum/maximum UC duration, with maximums clustering at 7 and 14 days.

Figure 2. Minimum and maximum # of days respondents reported catheterizing patients after prolonged/obstructed labor, n=34



- Of midwives identifying specific benefits of UC (n=22), 6 listed fistula prevention, 4 listed preventing bladder injury, and 3 listed monitoring urine output. Other benefits were identified by only 1-2 respondents.
- Table 2 summarizes reported adherence to other recommended UC-related practices.

Table 1. Provision of postpartum urinary catheterization for patients who experience prolonged/obstructed labor, n=32

	%		
	Always	Sometimes	Never
While catheter is in situ, monitor for the following every four hours for 24 hours postnatally and then daily for 14 days: haematuria, cloudy or purulent urine, and urine output.	75%	22%	3%
Prior to catheter removal, retain catheter if there is clinical suspicion of fistula and refer to facility with fistula expertise.	56%	28%	16%
Prior to catheter removal, retain catheter if there is clinical suspicion of fistula and refer to facility with fistula expertise.	84%	13%	3%
Prior to discharge, counsel patient to return immediately to the facility in case of urine leakage/incontinence.	84%	16%	0%

- Infection is the most frequently identified risk or challenge related to UC noted by midwife respondents. Other challenges identified include: bladder injury during insertion, inadequate monitoring, and increased hospital stay.
- Only 42% of respondents report that their facility has a protocol for catheterization after P/OL.
- 47% of respondents report that catheterization supplies are always/generally available. Table 2 details availability by item.

Table 2. Reported availability of supplies for urinary catheterization at facilities, n=34

	%		
	Always	Sometimes	Never
Unused sterile new catheters	79%	18%	3%
Sterile lubricant for catheter insertion	68%	18%	15%
Attachable collection bags	71%	26%	3%
Urine collection containers	71%	24%	6%

- *Limitations*: Survey discontinuation may limit validity of findings if there are meaningful differences between those who complete and those who initiate but do not complete the survey.
- *Implications:* The findings show strong support among midwives for UC after P/OL. However, additional training and supply chain support is required to increase correct and consistent practice.