

BACKGROUND

- Male circumcision is highly protective against urinary tract infections, inflammatory conditions of the penis, sexually transmitted infections, and urogenital cancers.
- Male circumcision has been found to reduce the susceptibility to heterosexually-acquired HIV infection by over 60%.
- The CDC and the AAP concluded that the health benefits of newborn male circumcision outweigh the risks.
- Port-au-Prince, Haiti has a considerable burden of preventable urogenital infections, sexually transmitted infections, and low circumcision rate.
- We aimed to re-introduce newborn male circumcision through the creation of a training program in Port-au-Prince, Haiti and to evaluate the outcomes of a rapid newborn male circumcision training program.

METHODS

- The training was performed at the GHESKIO Health Centers in Port-au-Prince, Haiti, a large, non-governmental clinic offering comprehensive pediatric and adult health services.

Data collection

- Doctors and nurses completed surveys in English and French. Nurses conducted short interviews of the parents in either French or Creole. The surveys assessed satisfaction of the parent of the patient, complications, and how well the various steps of the newborn male circumcision technique were followed.

Ethics statement

- The collection and analysis of the programmatic health services data were approved by the GHESKIO Ethics Committee.

The Pollock Technique

- For this low-resource setting, the Pollock Technique of newborn male circumcision, a procedure that utilizes the Mogen clamp, was selected due to its expediency and association with minimal bleeding and pain.



RESULTS

Figure 1. Newborn male circumcision inclusion, exclusion criteria and contra-indications, GHESKIO Health Centers, Haiti, 2014-2015

Inclusion criteria
Male infant born within the last 60 days
Parents able to provide informed consent
Exclusion criteria
HIV-positive newborn
Abnormal clotting or bleeding tests
Contra-indications
Urogenital abnormalities

- Upon training completion, one of two obstetricians achieved procedural competence.
- The obstetricians and nurses reported that they were very satisfied with the training program.
- The team circumcised 92 newborns.
- Among the parents, 100% reported they would recommend newborn male circumcision to their friends and 100% reported that they were satisfied with the cosmetic result.
- The nurse-collected survey indicated that 100% of the procedures followed the Pollock Technique protocol, with no moderate or severe complications.
- Since the rapid newborn circumcision training program concluded, the GHESKIO Health Centers have dedicated two days a week to perform newborn male circumcisions, averaging 14 patients per week.

Table 1: Outcomes of newborn male circumcision procedures, GHESKIO Health Centers, Haiti, 2014-2015

Question	Percent	Observations
Adherence to protocol		
Sterilization protocol confirmed for all surgical instruments	100%	92/92
Injected anesthesia used	100%	92/92
Sugar-soaked cotton ball given to the baby	100%	92/92
The infant's penis and surrounding skin cleaned using aseptic technique prior to the procedure	100%	92/92
The infant checked for active bleeding after the procedure and prior to leaving the facility	100%	92/92
No complications from the circumcision procedure	100%	92/92
Entire glans visible	100%	92/92
Complications^a		
Evidence of injury to the shaft and/or glans (laceration, amputation, and etc.) and/or to the urethra	0.0%	0/92
Other potential findings suggesting a complication resulting from the circumcision	0.0%	0/92
Evidence of bleeding	1.1%	1/92
Evidence of an infection	0.0%	0/92
Evidence of wound disruption	0.0%	0/92
Suturing required	0.0%	0/92
Problem with the appearance	0.0%	0/92
Evidence of an injury to the glans	0.0%	0/92
Evidence of a structural issue	0.0%	0/92
Problem with appearance of penis	0.0%	0/92

a. Complication criteria based off the Male Circumcision Services Quality Assessment Toolkit guidelines provided by the World Health Organization.

Table 2: Physician, nurse, and parent satisfaction, GHESKIO Health Centers, Haiti, 2014-2015

Obstetrician response (N=2)	
Overall satisfaction with the training program	Very Satisfied (100%)
Confidence to perform the procedure	Very Satisfied (100%)
Number of procedures obstetricians feel comfortable to perform per day	11-20
Number of procedures obstetricians feel the facility can handle per day	31-40
Nurse response (N=5)	
Overall satisfaction with the training program	Very Satisfied (92%)
Confidence to assist with the procedure	Very Satisfied (96%)
Number of procedures nurses feel comfortable to assist with per day	27-36
Number of procedures nurses feel the facility can handle per day	23-32
Parent (or guardian) response (N=92)	
Overall satisfaction with the procedure	Very Satisfied (94%)
Percent of parents (or guardians) of newborns that would recommend newborn male circumcision to a friend	Yes (100%)
Percent of parents (or guardians) of newborns agreeing that the procedure gave a satisfactory cosmetic result	Yes (100%)

DISCUSSION

- Introduction of a newborn male circumcision training program was feasible, achieving an acceptable rate of procedural competency and high quality services.
- The success of the training project was largely based on community support, the experience of the trainers and a dedicated and capacitated local non-governmental health organization. Prior models for teaching newborn male circumcision procedures exist, but often long-term, international training programs are not feasible due to difficulties obtaining travel visas, identifying patients and finding suitable mentors. The greatest challenges in enacting our training program were (1) transferring equipment, materials and supplies, (2) coordinating physician-trainers' schedules with those of local staff and (3) ensuring an adequate number of eligible newborns were available for the procedure during the training period.
- Permanent resources now exist in Haiti to train additional providers to perform newborn male circumcisions.

Plate 1. A physician-trainer demonstrating proper circumcision technique to a Haitian doctor, GHESKIO Health Centers, Haiti, 2014-2015



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