Urologists Provide Online Resource to Obstetric Hospital Multi-Specialty Staff Which Increases Agreement to Diagnose Newborns as "Suited To Circumcise"
QUALITY OR SAFETY PROBLEM

Safety for newborn circumcision done in obstetric hospital is at risk if done despite the genital physical examination showing “not suited.” About 20% of newborn boys whose families consider circumcision show “not suited”.\(^1\) Circumcision in such cases leads to adverse newborn circumcision outcomes (ANCOs). Up to 5% of the 500K boys having circumcision experience ANCO. These ANCOs cause families to experience hardships and emotional toils that could have been avoided. In addition, ANCOs occur at a cost of about $15K/occurrence and so may amount to many millions of dollars for a healthcare system. Root cause analyses implicate diverse factors, but likely a key factor is the lack of consensus within obstetric hospital providers on objective criteria to diagnose suited to circumcise.

BACKGROUND

Currently, multi-specialists as physicians and Advanced Practice providers in obstetric hospitals apply their own specialty’s empiric criteria to diagnose case suitability to proceed with in-house circumcision or make urological referral. Currently, disparate diagnostic criteria are applied which leads to disagreements between providers, creating dysfunction in circumcision care. The ideal practice to make suitability diagnoses is enabling these multi-specialists to share a single learning resource on objective criteria to make such diagnoses. In this way agreement in diagnosis would be improved and lead to improve cohesive care.\(^2\)

Personal research supports that there is no standardized or general consensus on patient selection for neonatal circumcision.\(^1\) Furthermore, Dos Santos opines that most complications can be prevented by pre-emptively utilizing a standardized approach to assess suitability for clamp circumcision.\(^3\)

I have used focus groups with pediatric urologists, pediatricians, neonatologists, and obstetricians to develop a line of work that could elucidate how to fix the problem. The conclusion was there is disparate knowledge/practice in methods for neonatal circumcision. To this end, a resource tool was created which showed satisfaction among users. Using this research as background, I now embark in launching use of e-learning to teach such skills.\(^2\)

PROJECT OBJECTIVES

It is important to our society to reduce the incidence of unnecessary ANCOs now experienced by otherwise healthy newborns who undergo circumcision.

The specific aim of this research is to acquire data validating concordance among obstetric hospital staff providers to diagnose “suited to circumcise.” In this manner, providers would be informed and consider changes to their practice.
**INTERVENTION**

We propose to provide users with an education tool, housed as online e-learning, so as to reach multi-specialty consensus on their diagnosis of “suited” to circumcise.

The resources required to complete this project of online learning tool is access to a computer/mobile device (screen shot below). Link to view learning is provided to obstetric hospital systems and their pediatric urologists at enrollment. The hospital system creates an electronic medical record checklist function that houses picture match assessments by boys’ caregivers. De-identified data would be downloaded for statistical analyses of inter-rater reliability.

Performance of newborn/neonatal circumcision is regarded societally as a controversial topic. This work does not address this controversy; it addresses optimizing outcomes for families who have chosen to have circumcision performed.

**MEASURES OF SUCCESS**

E-learning includes an embedded pre-/post-test to assess success of online learning. Case-based data downloads will show concordance/rater reliability for cases who plan circumcision. Cases referred for pediatric urology evaluation will have similar assessments made and subset analysis made.

Descriptive statistics will be adequate to make assessments of significant learning and the kappa statistic for rater reliability.

There is only one intervention proposed, and we are simply researching to determine if there could be significant consensus between newborn providers on “suited to circumcise.”

**OUTCOMES**

I expect newborn caregivers will find cohesion in pediatric care for circumcision, and so need for specialty referral or in-house circumcision will become evidence based, and so avoid routine newborn circumcision in the face of genitalia which are “not suited” to circumcise.

It may be that parents, who benefit from this hospital system education for a current newborn, may come to realize a previous, older boy, was adversely affected, and so unintended consequences could include family resentment or litigious actions.
POTENTIAL IMPACT AND SCALABILITY

I expect there will be a more logical, smoother transition in referral to specialty care, thereby improving parent satisfaction.

The Index online learning is scalable so as to be accessed to a wider audience. This is because the method does not mandate a face-face learning experience.

SUSTAINING THE CHANGES

The legacy provided by online learning will be relied upon to sustain the change.

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REFERENCES