

ratory values during treatment in non-ECMO-referred patients with H1N1 was not available.

In the absence of these definitive respiratory values during treatment for non-ECMO-referred patients, but with a view to exploring the hypothesis that Haeck et al outline, we conducted 2 sensitivity analyses limiting comparison of the ECMO-referred patients to non-ECMO-referred patients treated in critical care units either with a higher volume of ventilated patients or with a lower standardized mortality ratio—characteristics associated with better outcomes for ventilated patients and for all patients, respectively. Our base-case results were robust to these sensitivity analyses.

We acknowledge that lower tidal volumes are associated with lower mortality in patients with ARDS and the use of high tidal volumes in patients with H1N1 has been reported elsewhere, as Haeck et al cite, but given the available data, it was not possible to explore the precise role of tidal volume in this analysis.

Giles J. Peek, FRCS (CTh), MD  
Kathryn M. Rowan, PhD

**Author Affiliations:** Heartlink ECMO Center, Glenfield Hospital, Leicester, England (Dr Peek) (Giles.peek@uhl-tr.nhs.uk); and Intensive Care National Audit & Research Centre, London, England (Dr Rowan).

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### Benefits of Male Circumcision

**To the Editor:** The Commentary by Drs Tobian and Gray<sup>1</sup> cited their own and other African trials to support male circumcision to reduce human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs). However, these trials had methodological problems, weakening the evidence. There are more recent African trials they do not cite that are at least as statistically rigorous, showing that male circumcision does not reduce the rate of HIV infection.<sup>2</sup> Physicians are obligated to evaluate data critically and base recommendations on the effective treatment of disease.

Beyond statistical concerns and conflicting data, the article by Tobian and Gray makes no intuitive sense. The United States is the only Western nation where male circumcision is routinely performed, being rare in Western Europe and New Zealand. Nonetheless, the United States has a much higher rate of HIV infection than most other Western nations.<sup>3</sup>

Recent anatomical studies show that the prepuce is not simply a redundant flap of skin but rather a distinct anatomical structure with protective and sensory functions. Circumcision removes this sensitive area of the penis.<sup>4</sup>

Tobian and Gray cite a complication rate between 0.2% and 0.6% and claim “the vast majority of complications are minor and easily treated.” The true morbidity rate is not

known<sup>5</sup> because hospital follow-up is short-term and outpatient procedures are not tracked. As a surgeon, I would consider any complication rate for a nontherapeutic procedure on a healthy infant unacceptable. This is particularly true if the procedure has potentially permanent, harmful effects, especially when there are other methods of disease prevention available.

Mathias Masem, MD

**Author Affiliation:** Department of Orthopedic Surgery, University of California, San Francisco (mmasem@MathiasMasemMD.com).

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**To the Editor:** Drs Tobian and Gray<sup>1</sup> highlight the medical benefits of male circumcision, especially protection against infection with the sexually transmitted viral pathogens HIV, herpes simplex virus, and human papillomavirus. They suggest that if a vaccine with similar efficacy as male circumcision were available for those pathogens, it would be a “game-changing public health intervention.” However, the authors gloss over the additional benefits of circumcision of newborns in the prevention of urinary tract infections, chronic renal disease, balanoposthitis, balanitis, foreskin injuries, phimosis, and paraphimosis.<sup>2</sup> Additionally male circumcision provides direct and lifelong protection against penile cancer and indirect protection against cervical cancer among future female sexual partners.<sup>3</sup>

The benefits thereby accrued to a circumcised male newborn far outweigh the risks. Considering the high prevalence of the conditions that male circumcision protects against and the level of protection afforded, the number of male infants who need to be circumcised to confer protection is likely to be low. Recent reviews suggest that newborn male circumcision is not only cost-effective but in some settings, including the United States, cost-saving.<sup>4</sup>

Given increasing focus on cost-effectiveness as a basis for decisions regarding insurance coverage, it makes no sense that the Centers for Medicare & Medicaid Services should not cover newborn male circumcision costs. We believe that state policies should not deny coverage of a safe, cost-effective, and potentially life-saving intervention. The denial of public insurance coverage for newborn male circumcision in certain states may result in disparities in health outcomes based on income and residence.<sup>5</sup> Federal policy makers and the American Academy of Pediatrics have been discussing newborn male circumcision policy for several years. Given the quality and quantity of the current evi-

dence, we believe they should publish recommendations supporting the benefits of newborn male circumcision.

Jeffrey D. Klausner, MD, MPH  
Brian J. Morris, PhD, DSc

**Author Affiliations:** University of California, San Francisco (Dr Klausner) (drklausner@hotmail.com); and University of Sydney, Sydney, Australia (Dr Morris).

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**To the Editor:** Drs Tobian and Gray,<sup>1</sup> in their defense of male circumcision, have ignored arguments and evidence in opposition. A similar commentary by Cooper et al<sup>2</sup> was recently published in Australia, followed by a circumcision policy statement from the Royal Australasian College of Physicians that opposed the procedure. After an exhaustive review of the evidence, the Royal Australasian College of Physicians found that "in low prevalence populations . . . circumcision does not provide significant protection against STIs and HIV," and concluded that there was no medical case for neonatal circumcision.<sup>3</sup>

Tobian and Gray's argument suffers from flaws similar to those of Cooper et al,<sup>4</sup> the most serious of which is its violation of the principles of evidence-based medicine. Evidence of the effectiveness of circumcision from underdeveloped countries with high seroprevalence and predominantly female-to-male transmission cannot be transposed to developed countries with low seroprevalence and transmission predominantly from men who have sex with men or injecting drug users. Where is the evidence from the United States that uncircumcised men are at greater risk of HIV, or that circumcision as an infant is an effective response? Evidence that circumcision of adult men has a protective effect against HIV cannot be extrapolated to children<sup>5</sup>; circumcision in infancy may well have a different impact from circumcision after sexual maturity.

Tobian and Gray assert that surrogate consent from parents overcomes the ethical and human rights problem because a similar situation exists when parents consent to vaccination. This analogy fails because children are vaccinated against diseases that affect them as children. Unlike circumcision, vaccination does not entail the surgical removal of a functional body part. Children are not at risk of HIV or any other STIs; because there is no urgency to intervene, circumcision should be postponed until they are old enough to provide their own informed consent.

Robert Darby, PhD

**Author Affiliation:** Canberra, Australia (robertdarby@homemail.com.au).

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**To the Editor:** Drs Tobian and Gray note the importance of reviewing the medical risks and benefits of routine neonatal male circumcision in light of recent public insurance coverage changes.<sup>1</sup> However, the Commentary failed to adequately discuss the risks for such a procedure in relation to the benefits. Further, the public health benefits discussed lack appropriate context.

Studies from Africa suggest that male circumcision provides benefits for a population at risk of HIV infection through heterosexual contact. The unique context of these findings from sub-Saharan Africa should not be generalized to the United States. In 2009, the Centers for Disease Control and Prevention (CDC) found that only 10.5% (n=4399) of HIV infections in the United States were among men who contracted it from heterosexual contact<sup>2</sup>; only a portion of these cases could have been prevented by routine neonatal male circumcision. The CDC also found that nearly 80% of HIV cases among men are at least partially attributable to male-to-male sexual contact,<sup>2</sup> a group that would receive an unknown benefit from neonatal male circumcision. Only a small percentage of the population (<10%) engages in male-to-male sexual activity, requiring alternative strategies for HIV prevention.

Reasonable compromise between routine neonatal male circumcision and circumcision for males in high-risk groups should be considered. Young adults are able to access STI prevention services without parental consent at age 16 years in South Carolina and at age 14 years or earlier in Washington, DC, and all other states.<sup>3</sup> This age range seems appropriate for young men to make an informed decision about circumcision, accompanied by sexual health promotion skills and education. Waiting until young adulthood increases non-surgical options for circumcision for those who are in the highest-risk groups; the PrePex system, which uses an elastic band and a plastic ring to stop the flow of blood to the foreskin, does not require anesthesia and has shown great success in clinical trials in Rwanda.<sup>4</sup>

The Commentary notes that viral STI rates are highest among blacks and Latinos and attempts to tie these increases to neonatal male circumcision practices. The au-

thors fail to address confounding factors related to STI rates and lower rates of circumcision. However, rates of circumcision among blacks are approximately equal to rates among whites.<sup>5</sup>

Julie M. Croff, PhD, MPH

**Author Affiliation:** Health Education & Promotion, Oklahoma State University, Stillwater (Julie.croff@okstate.edu).

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**In Reply:** We agree with Dr Masem that medical recommendations should be “based on the effective treatment of disease.” It was not possible in a Commentary to review all studies of male circumcision, so we focused on the randomized trials, the criterion standard of evidence-based medicine. All 3 circumcision trials demonstrated remarkable consistency in the efficacy of male circumcision to reduce STIs, similar to that reported in numerous observational studies and meta-analyses.<sup>1,2</sup> In addition, the majority of observational studies demonstrate that neonatal male circumcision reduces urinary tract infections and penile inflammatory disorders, such as meatitis, balanitis, and phimosis, as mentioned by Drs Klausner and Morris. One randomized trial demonstrated that male circumcision of HIV-positive men did not have an impact on either HIV or high-risk human papillomavirus transmission to female partners over 2 years.<sup>3,4</sup> However, observational studies suggest possible longer-term benefit in women whose partners were circumcised during infancy.<sup>5</sup>

We disagree with Dr Darby and Dr Croff that parental consent for their child is problematic. Physicians and parents must assess the risks and benefits of every medical procedure. The risks and benefits of male circumcision should be clearly explained to all expecting parents to permit them to make an informed decision for their infant son. Parents often make decisions for their children, such as vaccination against hepatitis B virus or orthodontics procedures, which entail risk as a child without benefits until adulthood.

Contrary to the assertions of Masem and as cited in the Commentary, the complication rate of neonatal male circumcision is extremely low. Most adverse events, primarily oozing, hematomas, and infections, are easily treated. When weighed against the morbidity of STIs that most US adults acquire heterosexually at least once during their lifetime, such as genital herpes, oncogenic human papilloma-

virus, bacterial vaginosis, and trichomoniasis, the long-term benefits conferred by neonatal circumcision are potentially substantial. However, male circumcision likely does not have an impact on HIV acquisition among men who have sex with men and injecting drug users.

Rates of HIV and other STIs are highly variable among different ethnicities and socioeconomic groups in the United States. In addition, the modes of HIV transmission vary worldwide, so ecological comparisons of different rates of HIV between Europe and the United States, as suggested by Masem, may be seriously confounded. Observational studies of heterosexual men in the United States, who primarily are circumcised as infants, are compatible with the randomized trials,<sup>2,6</sup> suggesting that the findings from Africa are generalizable to neonatal circumcision in the United States and Europe, in disagreement with Darby and Croff. Thus, neonatal male circumcision in the United States is likely to have a substantial impact on reducing STIs.

Reports of the loss of penile sensitivity among men undergoing circumcision as cited by Masem are difficult to interpret, but in the randomized trials circumcised men and their female partners reported either no difference or improved sexual satisfaction after male circumcision.

We agree with Klausner and Morris that it is time to recognize the benefits of male circumcision. The American Academy of Pediatrics and the American College of Obstetricians and Gynecologists should revise their policy statements in light of the randomized controlled trial data. This will assist physicians to accurately inform parents of the risks and benefits of the procedure. In addition, denying Medicaid insurance coverage for male circumcision discriminates against the socioeconomically disadvantaged who are often at the highest risk of STIs, and this practice should end.

Aaron A. R. Tobian, MD, PhD  
Ronald H. Gray, MD, MSc

**Author Affiliations:** Department of Pathology, Johns Hopkins University School of Medicine, Baltimore, Maryland (atobian1@jhmi.edu).

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