

# *S. aureus* Rarely Transmitted From Mom to Baby

## VITALS

**Major Finding:** Maternal colonization with *Staphylococcus aureus* had no significant impact on the rate of *S. aureus* colonization in neonates.

**Data Source:** Review of 2,789 infants born to 2,702 women in New York during 2009.

**Disclosures:** Dr. Top and Dr. Saiman said they had no relevant financial disclosures.

BY MITCHEL L. ZOLER

FROM THE EASTERN SOCIETY FOR PEDIATRIC RESEARCH ANNUAL MEETING

PHILADELPHIA – Neonates do not face an increased risk of colonization or infection by *Staphylococcus aureus* when they are born to mothers who have anovaginal colonization with this pathogen, based on a review of more than 2,700 deliveries.

The low 1% rate of transmission of *S. aureus* from colonized mothers to their children precludes the need to routinely screen pregnant women for anovaginal *S. aureus* colonization, Dr. Karina A. Top said. “Maternal anovaginal *S. aureus* colonization may be a risk factor for maternal infections, but it does not appear to be associated with neonatal infections,” said Dr. Top, a pediatric infectious disease physician at Columbia Universi-

ty and New York-Presbyterian Hospital in New York.

“People have been saying that maybe we should culture pregnant women” to determine whether they have anovaginal *S. aureus* colonization, “but it’s a huge expense, and you’d have to really convince yourself that it matters,” said Dr. Lisa Saiman, a professor of clinical pediatrics at the university and a collaborator on the study. “*S. aureus* is normal flora. If there is a skin break it can lead to infection, but usually not. You don’t want people to worry about what’s normal. The message [from these results] is that there is no role for routine screening of pregnant women and neonates, because these are normal flora” she said in an interview.

This is the first study to systematically look at mother-to-neonate transmission of *S. aureus*, she added.

The current analysis is based on a prior study by Dr. Top of 2,921 pregnant



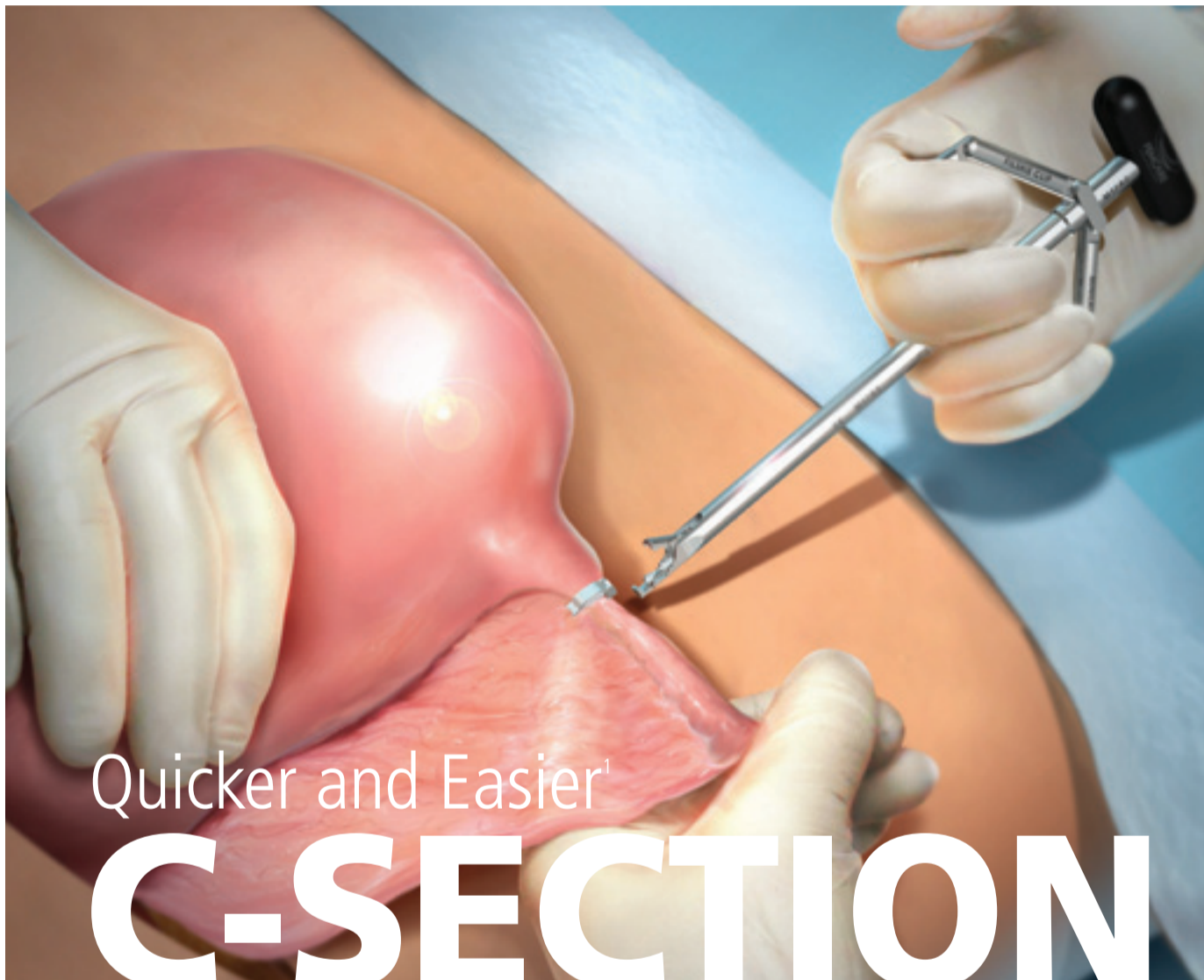
**The low 1% transmission rate from colonized mothers to their children precludes the need to screen pregnant women.**

DR. TOP

woman in New York during 2009 that found colonization with methicillin-sensitive *S. aureus* (MSSA) in 345 women (12%) and colonization with methicillin-resistant *S. aureus* (MRSA) in 18 women (0.6%). Dr. Top and her associates collected specimens from these women at 35-37 weeks’ gestation. Subsequently, 2,702 of these women delivered an infant, resulting in 2,789 live births.

Collection and analysis of specimens from the infants during their first 3 months of life revealed 10 cases of definite *S. aureus* infection in the neonates, 8 cases of probable infection, and 7 cases of *S. aureus* colonization. Dr. Top’s analysis showed a 1.1% rate of neonatal infection or colonization in babies born to colonized mothers, and a 0.9% rate in those born to uncolonized mothers, a difference that was not significant. The median age for the first positive *S. aureus* culture in these infants occurred at 27 days.

Delivery mode, cesarean or vaginal, had no significant impact on *S. aureus* transmission to the infants, but three other variables did significantly link with an increased rate of positive cultures: preterm birth (less than 37 weeks), multiple gestations, and admission to the neonatal ICU. Each of these three factors increased the rate of *S. aureus* colonization by 6- to 17-fold. In contrast, maternal colonization had a statistically significant impact on the rate of maternal infection with *S. aureus* following delivery. Colonized women had a 2.1% rate of postpartum infection, more than threefold higher than the rate in uncolonized women. Women who had a caesarean delivery were significantly more likely to become infected than women with a vaginal delivery. ■



## Tubal Ligation



[Clips Shown Actual Size]

- No transection of tubes or surrounding tissue – reduced risk of bleeding
- Excellent efficacy<sup>2</sup>
- The lowest incidence of ectopic pregnancy<sup>3,4</sup>
- Quicker and easier method compared to Pomeroy<sup>1</sup>
- Engineered to enclose thicker or swollen fallopian tubes
- Also ideal for laparoscopic and post-vaginal delivery tubal ligations

**FILSHIE**  
TUBAL LIGATION SYSTEM™

To learn how the Filshie Tubal Ligation System can benefit you... and your patients, contact CooperSurgical at 800.243.2974 or 203.601.5200 or visit [coopersurgical.com](http://coopersurgical.com)

**CooperSurgical**

© 2011 CooperSurgical, Inc.  
81856 Rev. 01/11

1. Kohaut, BA, et al. Randomized Trial to Compare Perioperative Outcomes of Filshie Clip vs. Pomeroy Technique for Postpartum and Intraoperative Cesarean Tubal Sterilization: A Pilot Study. *Contraception*. April 2004; 69(2004): 267-270.  
2. Penfield, AJ. The Filshie Clip for Female Sterilization: A Review of World Experience. *AJOG*, March 2000, 182-3, 485,489.  
3. Peterson, HB, et al. The Risk of Ectopic Pregnancy After Tubal Sterilization. *The New England Journal of Medicine*. March 1997.  
4. Kovacs, et al. Female Sterilization with Filshie Clips: What is the risk of failure? A retrospective survey of 30,000 applications. *J. of Family Planning and Reproductive Health Care*. 2002; 28(1):34-3.