INTRODUCTION
Postoperative wound infection with tissue expander (TE) breast reconstruction historically has a broad rate of 5-20% \(^1\). Majority of studies demonstrate about 12-16% infection rate. Breast pockets are thus generally irrigated with a variety of solutions to decrease bacterial load.

Triple antibiotic solution (1 g of cefazolin, 50,000 U of bacitracin, and 80 mg of gentamicin in 500 mL of NS) is commonly used to decreases bacterial growth \(^5\). However, the concern is that antimicrobials work during bacterium logarithmic growth phase.

0.05\% chlorhexidine gluconate (CHG) is commonly used to prep skin and known to be bactericidal on contact with rapid and persistent activity against common bacteria such as Staphylococcus aureus and Escherichia coli among others.

Given this, we hypothesize that dilute chlorhexidine would decrease postoperative TE infections.

METHODS

Inclusion criteria:
- Females 18-81 years old undergoing bilateral mastectomy
- Candidates for immediate breast reconstruction with tissue expanders (TE)

Exclusion criteria:
- Unilateral reconstruction
- Autologous reconstruction
- Bilateral reconstruction with other reconstructive techniques
- Allergies to treatment drugs

Primary outcome:
- Frequency of surgical site infection (SSI)
- Minor: treated with outpatient PO antibiotics
- Major: IV antibiotic, surgical treatment
- Explanation

Secondary outcome:
- Necrosis
- Hematoma
- Wound separation
- Capsular contracture
- Implant extrusion
- Seroma

CONCLUSION
Preliminary data demonstrates no significant difference in infection rate between CHG and Triple Antibiotic Irrigation though trends showed decreased infection in CHG group.

In order to reach adequate power to demonstrate a true difference with the use of chlorhexidine with infection rates, enrollment is to continue.

REFERENCES