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**Introduction:** The American Urological Association (AUA) recommendations on antibiotic prophylaxis in penile implant surgery are based on low quality evidence and expert opinion. Recent evidence suggests the recommended regimens may be suboptimal.

**Objective:** To determine if the AUA recommended antibiotic regimen (vancomycin + gentamicin) for primary penile implant surgery is associated with a higher infection risk than non-standard regimens.

**Methods:** We performed a multicenter, retrospective cohort study of patients undergoing primary IPP surgery. Patients undergoing revision surgery or with a history of IPP placement were excluded. Additionally, patients who underwent concomitant procedures for Peyronie's disease or stress urinary incontinence were excluded. Patients were divided into those receiving standard AUA antibiotic prophylaxis (vancomycin + gentamicin) and those receiving any other (non-standard) antibiotic prophylaxis. The time to postoperative device explantation due to infection via a Cox regression model, the microorganisms involved, and the management of patients with device infection were evaluated. A subgroup analysis to identify the appropriate dosage of gentamicin was also performed.

**Results:** 4,161 patients underwent primary IPP placement (2,411 received vancomycin + gentamicin and 1,750 received other regimens). The infection rate was similar between groups, 1.0 vs 1.2% for standard vs non-standard prophylaxis. In the multivariate Cox regression analysis, the use of vancomycin + gentamicin (HR: 2.74, 95%CI: 1.38-5.41, p=0.004) and diabetes (HR: 1.87, 95%CI: 1.03-3.39, p=0.04) were significantly associated with higher risk of device explantation due to infection. Concomitant infusion of antifungals (HR: 0.08, 95%CI: 0.03-0.19, p<0.001) was associated with lower risk of infection. Staphylococcus aureus and Escherichia coli were the most frequently cultured microorganisms. Device infection was most commonly managed with salvage using a malleable prosthesis (40.4%). In patients of both groups receiving gentamicin as part of perioperative antibiotic prophylaxis, the use of weight-based gentamicin compared to 80 mg gentamicin was associated with similar risk of device explantation due to infection (HR: 2.88, 95% CI: 0.83 to 10, p = 0.1).

**Conclusions:** Vancomycin + gentamicin for antibiotic prophylaxis in primary penile implant surgery is independently associated with a higher infection risk than non-standard antibiotic regimens while antifungal use is associated with lower infection risk. There does not appear to be a difference in weight-based vs low dose (80mg) gentamicin on infection risk. Our results further demonstrate the importance of antifungal use in prophylaxis regimens. Additionally, a critical review of the recommended prophylactic regimens is needed. Tailoring individual regimens to local antibiograms may provide the best infection prevention.

**Disclosure:** Any of the authors act as a consultant, employee or shareholder of an industry for: Coloplast, Boston Scientific, Antares Pharma, Clarus Therapeutics, Cynosure, Promescent, Sprout, Viome.

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#### (105) A MULTICENTER ANALYSIS OF THE AUA RECOMMENDED ANTIBIOTIC PROPHYLAXIS FOR PENILE IMPLANTATION RESULTS IN HIGHER, NOT LOWER, INFECTION RISK

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