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## 1. Introduction

- The most dreaded complication of penile prosthesis (PP) implantation is device infection. Infection retardant coatings, changes in prep solutions and enhancement of surgical technique have successfully decreased the infection rates in high volume surgeons to <1% in primary implantations and 2-5% in diabetic patients.
- We sought to assess whether inadequate cleaning and sterilization of the reusable Furlow inserter may represent one of the last etiologies of infection in PP patients.

## 2. Methods

- We performed a prospective analysis of cultures of the Furlow Inserter used for PP surgeries from 7 centers between May 1st and June 30th, 2019.
- Once the Furlow was received for surgery, the surgical team inspected the device for assembly status (disassembled or not) and the presence of visible stains, pieces of tissue or discoloration on either the interior of the barrel or the plunger.
- Swab aerobic and anaerobic bacterial and fungal cultures were then obtained from the internal component, after removal from the external component if assembled, and after introduction and immediate removal from the external component if disassembled.

**Table 1. Instrument and culture information from 83 cultured Furlow Inserters**

<b>Time of surgery</b>	
First case	67 (80.7%)
Not first case	16 (19.3%)
<b>Location of surgery</b>	
Academic	62 (74.7%)
Non-academic	21 (25.3%)
<b>Sterilization technique</b>	
Autoclave	62 (74.7%)
STERAD (dry heat sterilization)	21 (25.3%)
<b>Median time from sterilization (range)</b>	3 days (1-22)
<b>Median age of device (range)</b>	4 years (2-10)
<b>Device presentation</b>	
Assembled	4 (4.9%)
Disassembled	79 (95.1%)
<b>External component inspection</b>	
Clean	80 (96.4%)
Discolored/stains	3 (3.6%)
<b>Internal component inspection</b>	
Clean	81 (97.6%)
Discolored/stains	2 (2.4%)
<b>Positive cultures</b>	
Aerobic	<b>2 (2.4%)</b>
Anaerobic	0
Fungal	0



Furlow assembled



Furlow disassembled



Internal component inserted then removed



Culture swab of internal component

## 4. Conclusions

- Improper cleaning and/or sterilization of the Furlow Insertion Instrument may represent a source of infection for patients undergoing PP implantation.
- Perhaps, a disposable Furlow inserter might offer the opportunity to reduce the risks of contamination associated with improper instrument handling and impact the rate of device infection.