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Transrectal Ultrasound Guided Prostate Biopsy Antibiotic Prophylaxis: Standard vs. Augmented Antibiotic Regimens, and the Role for Pre-Biopsy Rectal Swab Cultures

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Current AUA guidelines recommend a single dose of fluoroquinolones (FQs) or cephalosporins prior to transrectal prostate biopsy.

FQs are standard in the prophylaxis of transrectal prostate biopsies; however, they have come under scrutiny as a result of increasing resistance and FDA Black Box warnings.

**Objectives**

To evaluate peri-procedural antibiotic prophylaxis regimens based on pre-procedural rectal swab cultures.

To evaluate infection rates between transrectal biopsy patients receiving FQs alone and those receiving ceftriaxone or gentamicin in addition to FQs.

**Materials and Methods**


Post-biopsy infection defined as fever or confirmed urinary tract infection within 2 weeks of biopsy.

Cohort was also subdivided into groups receiving standard antibiotic prophylaxis with Ciprofloxacin or augmented antibiotic prophylaxis with Ciprofloxacin AND Ceftriaxone, Gentamicin, or Zosyn.

**Results**

274 males ages 43-86 (median 65) underwent TRUS biopsy. 30 underwent pre-biopsy rectal swab, 0 infections. 9 patients without rectal swab cultures had post biopsy infections (3.7%). (Figure 1)

131 patients received standard antibiotic regimen, 5 had post biopsy infection (3.8%). 143 patients received augmented antibiotic regimen, 4 had post biopsy infection (2.8%). (Figure 2)

**Conclusions & Limitations**

A trend toward decreased infection rates in augmented prophylaxis as compared to fluoroquinolones alone

Retrospective data collection on a small sample size

Lack of standardized antibiotic prophylaxis protocol

**Future Implementation**

Standardized rectal swab and pre-procedural prophylaxis protocol

Prospective data collection and cost benefit analysis of rectal swab-guided prophylaxis vs. standard prophylaxis regimen