

A Prospective Surveillance Program to Track Complication Rates Post TRUS and Biopsy in the Urology Service at

Tallaght Hospital.



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Introduction

The most common complications following prostate biopsy are infection, bleeding retention. Post biopsy infections lead to significant morbidity and even death. (AUA 2012)

Aims

- · Identify causes of admission post TRUS.
- •Estimate total cost of all complications to single hospital. (Tallaght).
- •Identify numbers of patients with known sepsis.
- ·Identify peak time for complications.
- •Identify minimal data set to audit TRUS & Biopsy related infections

Prospective analysis on all patients admitted to all hospitals between January 2012 – December 2012.

All patients had antibiotic Ofloxacin 200mg BD x 5 days staring day before biopsy.

In the absence of nationally agreed definitions, post-biopsy infection was classified as, Possible, Probable or Definite

Possible Infection	Probable Infection	Definate Infection
Started antiobiotic.	Started antibiotic.	Started antibiotic.
Could be other source of infection	2 out of the 3 of the following raised, CRP,WCC, Temperature.	Positive Culture blood or urine
	No other possible source of infection	

•A total number of 587 patients had prostate biopsy. 19 patients admitted to 5 different hospital following TRUS and biopsy related complications. 3 patients reported presenting to GP

- 9 (1.5 %) presented with urinary retention. (7 admitted to hospital). Peak time of presentation 1 day post biopsy
- •14 (2.3%) of patients re-presented with suspected infection- (including 1 retention). Peak time presentation - 4 days post biopsy
- · 1 with bleed presented 7 days post biopsy

Symptoms on admission

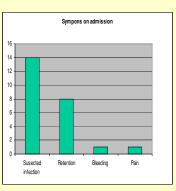
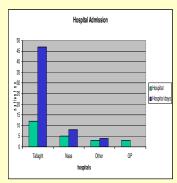


Figure 2 Hospital attended Bed days

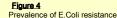


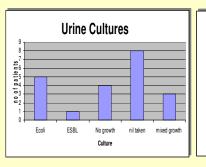
Possible Infection	Probable Infection	Definate Infection
4 (0.68%)	2 (0.34%)	8 (1.3%)

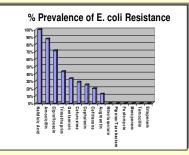
Results Blood and Urine Cultures

Figure 3

Results Urine Cultures







Escherichia coli, UTI represented the majority of infections (n=7), with one isolate being an ESBL producer. There were also two post-biopsy bacteraemia.

High Quinolone resistance (Ofloxacin, Ciproflox and Nalidixic acid)

Results - Retention and Haematuria

Risk groups - those with large prostate volume and high IPPS score Urinary retention occurs in 0.2 – 1.1 %. (AUA 2013). In our cohort the rate of urinary retention was 1.5% Peak time for presentation – within 1 day

Haematuria

I patient admitted with haematuria

Costs of admissions - post biopsy to Tallaght Hospital

€ 806 Euro / hospital day/ patient Antibiotic costs - € 1686.00 Total cost to Tallaght Hospital – € 37,882 Average cost per patient = € 3,156

Data set required to audit biopsy related complications

Symptons	Temp	Pulse	BP	wcc	CRP	Cultures Urine Blood Reports
Prophalaxis	No of cores	Days since biopsy	Hospital GP	Inpatient Days	Antibiotic treatment	Costs Inpatient Antibiotics

Conclusion

The minimal date set required to audit biopsy related infections includes; temperature, pulse, BP, WCC, CRP, urine cultures and blood cultures.

Greater resistance to antibiotic prophylaxis

Increased cost to hospitals expected.

Retention Urine higher than expected.

Patients should have up-to date International Prostate Symptoms Score.(IPPS).

Prevent retention by starting alpha-blocker.

Manecksha R, Nason G, Cullen I, Fennell J, Mcevoy E, McDermott T, Flynn R, Grainger R, Thornhill J. (2012). Prospective study on antibiotic prophylaxis for prostate biopsy involving >1100 men. Scientific World Journal. ID 650858. Zaytoun O.M, Anil T, Moussa A S, Jianbo L, Fareed K, J.S. Jones J S. (2011). Morbidity of prostate biopsy after simplified versus complex preparation protocols: assessment of risk factors. Urology. 77:910-914.

AUA (2012) - Cump J et al. AUA/Suna white paper on incidence, prevention and treatment of complications related to prostate biopsy