

## Waterford: Antimicrobial Guidelines - Antimicrobial Guideline: Appendix 4: Prophylaxis Pre-TRUS Guided Prostate Biopsy

### Appendix 4: Prophylaxis Pre-TRUS Guided Prostate Biopsy

Antimicrobial prophylaxis is recommended for ALL patients undergoing TRUS-guided prostate biopsy

The figures below outline the recommended approach.

Patients with a history of colonisation/infection or with risk factors for CRE/CPE (Carbapenem Resistant Enterobacterales/ Carbapenemase Producing Enterobacterales) should be screened in advance with a rectal swab for CRE/CPE carriage and not listed for TRUS-guided prostate biopsy pending CRE/CPE screening results.

Risk factors may include but are not limited to:

- History of fluoroquinolone use in the previous six months
- Patient is a healthcare worker
- Previous sepsis/infection following TRUS-guided prostate biopsy
- History of antimicrobial resistant Enterobacterales colonisation/infection (e.g., ESBL, fluoroquinolone and/or aminoglycoside resistance)
- Other risk factors as per local policy

If the results of CRE/CPE screening are positive, it is recommended that the multi-disciplinary team (MDT) discuss the optimal strategy for performing the prostate biopsy safely in this patient.

Thereafter there are two recommended options (2a and 2b in Figure 1):

Oral ciprofloxacin 750mg as a one drug antimicrobial prophylaxis regimen for patients *without* risk factors for colonisation with resistant Enterobacterales .

Patients with risk factors for antimicrobial resistant Enterobacterales (other than CRE/CPE) should be given a two drug antimicrobial prophylaxis regimen.

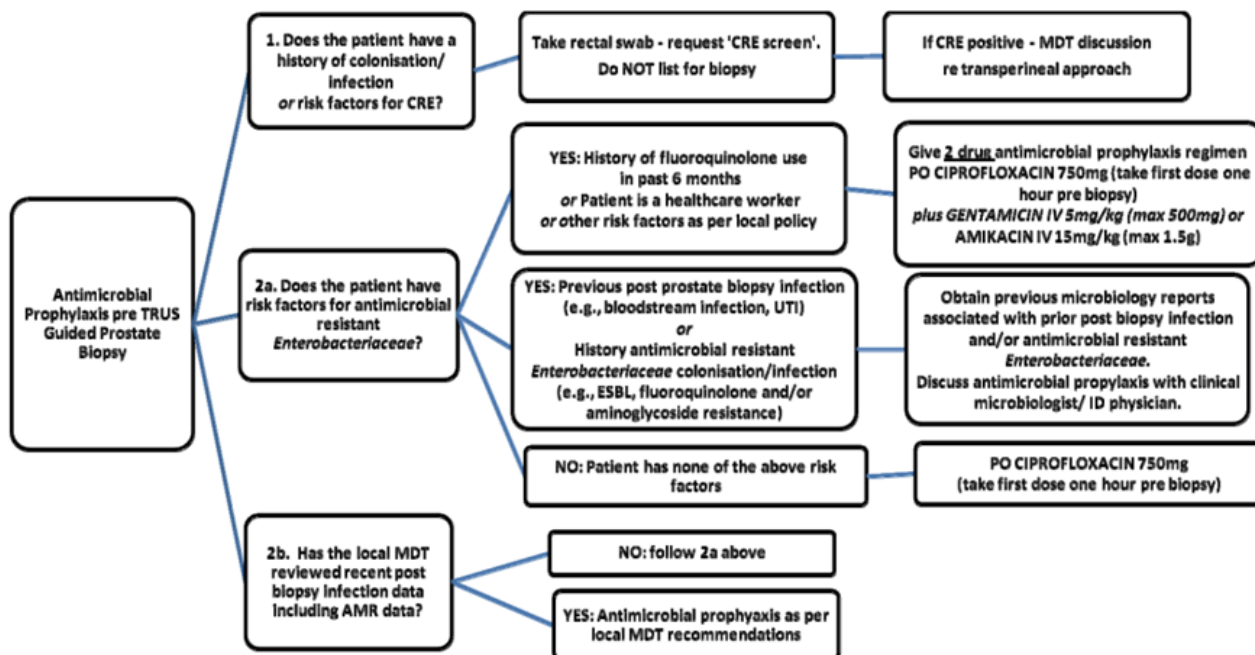
A combination of ciprofloxacin and an aminoglycoside is recommended (unless the patient has a history of previous microbiology results indicating resistance to fluoroquinolones and/or aminoglycosides, in which case the prophylaxis choice should be discussed with the local Clinical Microbiologist

Before prescribing antimicrobial prophylaxis, it is important to document if the patient has an antimicrobial allergy and calculate the Creatinine Clearance (CrCl) for adjustment of dosing/therapy in renal impairment.

**Please note important safety information, cautions and contraindications if prescribing a quinolone including risk of tendon damage, seizures & prolonged QT interval. Please see European Medicines Agency review for further details**

<https://www.ema.europa.eu/en/medicines/human/referrals/quinolone-fluoroquinolone-containing-medicinal-products>

Figure 1



**Table 1: Empiric Antimicrobial Prophylaxis for patients undergoing TRUS-guided prostate biopsy**  
12,14,15,18,19

Drug	Route	Does if normal function	Adjust in renal impairment	How long before biopsy?	Duration
<b>Ciprofloxacin</b>	PO	750mg	none	1 hour	one further dose 12 hours post-biopsy
<sup>‡</sup> <b>Gentamicin</b>	IV	5mg/kg (max 500 mg)	*use alternative if CrCl <30ml/min	30 minutes <sup>§</sup>	single dose
<sup>‡</sup> <b>Amikacin</b>	IV	15mg/kg (max 1.5g)	*use alternative if CrCl <30ml/min	30 minutes <sup>§</sup>	single dose

<sup>‡</sup> Consult local policy for details of administration of intravenous gentamicin or amikacin.

\*If renal impairment (CrCl < 30ml/min) or contra-indication to aminoglycoside use, consult clinical microbiologist/infectious diseases physician for advice.

<sup>§</sup> Note, the timing of the end of the infusion should coincide with commencement of biopsy.

Adapted from: NCCP National Prostate Biopsy Infection Project Board

NCCP&HSE. National Policy on the Prevention and Management of Infection Post Trans Rectal Ultrasound (TRUS) Guided Prostate Biopsy 2014

Available from:

<https://www.hse.ie/eng/services/list/5/cancer/pubs/guidelines/nccp%20management%20of%20infection%20post%20trus%20biopsy%20policy%20document.pdf>