Introduction
This 2016 document consists of the first completed sections of an entirely new Urological Infections Pocket Guideline, formulated following new EAU guideline production methodology. Subsequent sections will be added over the next three years to cover the key clinical questions. In the interim, the previous 2015 full length and pocket guidelines will be available through the EAU website Uroweb for sections not yet contained in the new guideline, http://uroweb.org/guideline/urological-infections/.

Antimicrobial Stewardship
Antimicrobial stewardship programmes aim to optimise the outcome of prevention and treatment of infection whilst curbing overuse and misuse of antimicrobial agents.

The most important components of antimicrobial stewardship programmes are:
• Regular training of staff in best use of antimicrobial agents.
• Adherence to local, national or international guidelines.
• Regular ward visits and consultation with infectious diseases physicians, with audit.
• Treatment outcome evaluation.
• Monitoring and regular feedback to prescribers of their antimicrobial prescribing performance and local pathogen resistance profiles.

**Detection of bacteriuria prior to urological procedures**
Identifying bacteriuria prior to diagnostic and therapeutic procedures is recommended to reduce the risk of infectious complications by controlling any pre-operative detected bacteriuria and to streamline the antimicrobial coverage in conjunction with the procedure.

**Recommendation for the detection of bacteriuria prior to invasive urological procedures**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>LE</th>
<th>GR</th>
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<tbody>
<tr>
<td>Laboratory urine culture is the recommended method to determine the presence or absence of clinically significant bacteriuria in patients prior to undergoing urological interventions.</td>
<td>3</td>
<td>B</td>
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</tbody>
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**Acute Infective Epididymitis**
Acute epididymitis is clinically characterised by pain, swelling and increased temperature of the epididymis, which may involve the testis and scrotal skin. It is generally caused by migration of pathogens from the urethra or bladder. The predominant pathogens isolated are *Chlamydia trachomatis*, Enterobacteriaceae (typically *Escherichia coli*) and *Neisseria gonorrhoeae*. 
**Recommendations for the treatment of acute infective epididymitis**

<table>
<thead>
<tr>
<th>Recommendations</th>
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<th>GR</th>
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<tbody>
<tr>
<td>Obtain a mid-stream urine and a first voided urine for pathogen identification.</td>
<td>3</td>
<td>A*</td>
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<tr>
<td>Initially prescribe a single antibiotic or a combination of two antibiotics active against <em>Chlamydia trachomatis</em> and Enterobacteriaceae in young sexual active men; in older men without sexual risk factors only Enterobacteriaceae have to be considered.</td>
<td>3</td>
<td>A*</td>
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<tr>
<td>If Gonorrhoeal infection is likely give single dose ceftriaxone 500 mg intramuscularly in addition to a course of an antibiotic active against <em>Chlamydia trachomatis</em>.</td>
<td>3</td>
<td>A*</td>
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<tr>
<td>Adjust antibiotic agent when pathogen has been identified and adjust duration according to clinical response.</td>
<td>3</td>
<td>A*</td>
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<tr>
<td>Follow national policies on reporting and tracing/treatment of contacts for STI.</td>
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<td>A*</td>
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* Upgraded based on Panel consensus

STI = sexually transmitted infections
Figure 1: Diagnostic and treatment algorithm for adult men with acute epididymitis.

Acute scrotal pain and swelling in adult male

Torsion suspected

Urgent surgical exploration

Suspected epididymitis

Gonorrhea unlikely

Gonorrhea likely

Midstream urine for culture
Urethral swab/smear
First voided urine for nucleic acid amplification test (NAAT)

Single antibiotic or a combination of two antibiotics active against Chlamydia trachomatis and Enterobacteriaceae
Consider parenteral therapy if severe infection

Ceftriaxone 500mg IM plus a course of an antibiotic active against Chlamydia trachomatis

Proven sexually transmitted infection
• Reporting
• Check cure
• Trace and treat contacts

Scrotal ultrasound examination
Clinical Assessment

IM = intramuscularly

Prostate Biopsy Infection: Non-antibiotic Prevention
Histological examination of needle biopsies of the prostate is the principle method for prostate cancer diagnosis. Infection is the most clinically significant harm experienced by men
following prostate biopsy and includes urinary tract infection, prostatitis, and urosepsis.

**Recommendations on non-antibiotic strategies for reducing the risk of infective complications in men undergoing prostate biopsy**

<table>
<thead>
<tr>
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<tr>
<td>Use rectal cleansing with povidone-iodine in men prior to transrectal prostate biopsy in addition to antibiotic prophylaxis if local risk of infectious complication is high.</td>
<td>1a</td>
<td>B*</td>
</tr>
</tbody>
</table>

*Downgraded as highest quality trial in meta-analysis showed no difference.*