Fast Facts: Asymptomatic Bacteriuria

What is asymptomatic bacteriuria (ASB)?

- A positive urine culture in a patient with no signs or symptoms of a urinary tract infection (e.g., dysuria, frequency, urgency, fever, flank pain)

How common is asymptomatic bacteriuria (ASB) and pyuria (Urine containing > 10 white blood cells per high powered field)?

- Asymptomatic bacteriuria is common and often associated with pyuria

<table>
<thead>
<tr>
<th>Population</th>
<th>Prevalence of ASB</th>
<th>Prevalence of Pyuria in Persons With ASB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy premenopausal women</td>
<td>&lt; 5%</td>
<td>32%</td>
</tr>
<tr>
<td>Women 65-90 years old</td>
<td>6-16%</td>
<td></td>
</tr>
<tr>
<td>Women &gt; 90 years old</td>
<td>22-43%</td>
<td></td>
</tr>
<tr>
<td>Diabetic women</td>
<td>9-27%</td>
<td>70%</td>
</tr>
<tr>
<td>People receiving hemodialysis</td>
<td>28%</td>
<td>90%</td>
</tr>
<tr>
<td>Female long-term care residents</td>
<td>25-50%</td>
<td>90%</td>
</tr>
<tr>
<td>Male long-term care residents</td>
<td>15-35%</td>
<td>90%</td>
</tr>
<tr>
<td>Presence of indwelling urinary catheter</td>
<td>100%</td>
<td>50-100%</td>
</tr>
</tbody>
</table>

What patients with asymptomatic bacteriuria should be treated?

- The majority of patients with ASB and/or asymptomatic pyuria SHOULD NOT be treated
- Studies have demonstrated that treatment of ASB does not prevent urinary tract infections (UTIs), but is associated with adverse events related to antibiotic use and the development of future UTIs that are antibiotic resistant
- Exceptions:
  - Pregnant patients: treatment prevents pre-term labor and pyelonephritis
  - Patients about to undergo a urologic procedure in which mucosal bleeding is expected (not just urinary catheter placement): treatment prevents urosepsis

How can I prevent unnecessary treatment of asymptomatic bacteriuria?

- Do not order urine cultures unless your patient has signs and symptoms of a UTI, including in patients undergoing preoperative evaluation or patients with urinary catheters (except in pregnant patients or those about to undergo a urologic procedure in which mucosal bleeding is expected).
- Foul-smelling or cloudy urine does not indicate a UTI
- Mental status changes alone do not indicate a UTI
References


