CLEAR DIRECTION for Rapid Diagnosis of Pneumonia in Hospitalized Patients

Pneumonia can be fatal. Clinical outcomes are highly dependent upon timely and appropriate therapy. Unfortunately, standard of care microbiology has a number of limitations including

- Requires several days for results
- Affected by sample transport time and temperature
- Fails to determine a causative agent in >50% of pneumonia patients
- Exposure to unnecessary broad-spectrum antibiotics

The only FDA-cleared panel for lower respiratory tract infections that detects *Pneumocystis jirovecii*

**SHIFT THE PARADIGM**

from days to hours for optimal results.

**Comprehensive Testing Panel**

FDA-cleared Unyvero uniquely and accurately detects the most clinically relevant pathogens and antibiotic resistance markers associated with pneumonia.

**BACTERIA**

<table>
<thead>
<tr>
<th>Acinetobacter spp.</th>
<th>Moraxella catarrhalis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia pneumoniae</td>
<td>Morganella morganii</td>
</tr>
<tr>
<td>Citrobacter freundii</td>
<td>Mycoplasma pneumoniae</td>
</tr>
<tr>
<td>Enterobacter cloacae complex</td>
<td>Proteus spp.</td>
</tr>
<tr>
<td>Escherichia coli</td>
<td>Pseudomonas aeruginosa</td>
</tr>
<tr>
<td>Haemophilus influenzae</td>
<td>Serratia marcescens</td>
</tr>
<tr>
<td>Klebsiella oxytoca</td>
<td>Staphylococcus aureus</td>
</tr>
<tr>
<td>Klebsiella pneumoniae</td>
<td>Stenotrophomonas maltophilia</td>
</tr>
<tr>
<td>Klebsiella variicola</td>
<td>Streptococcus pneumoniae</td>
</tr>
<tr>
<td>Legionella pneumophila</td>
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</tbody>
</table>

**RESISTANCE**

<table>
<thead>
<tr>
<th>Carbapenems</th>
<th>kpc</th>
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<tbody>
<tr>
<td></td>
<td>ndm</td>
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<td></td>
<td>oxa-23</td>
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<td>oxa-24</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3rd Generation Cephalosporins</th>
<th>ctx-M</th>
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<tbody>
<tr>
<td>Oxacillin/Cefoxitin</td>
<td>mecA</td>
</tr>
<tr>
<td>Penicillin</td>
<td>tem</td>
</tr>
</tbody>
</table>

**FUNGI**

- *Pneumocystis jirovecii* *

* included on the Unyvero LRT BAL panel.

- Rapid, sample to answer direct from native specimen
- Simple and clear qualitative results based on quantitative algorithms
- Critical information for life-saving treatment decisions

**Specimen Types:**

- Endotracheal Aspirate
- Bronchoalveolar Lavage (including mini-BAL)
One patient sample. Comprehensive results. **unyvero** points the way.

**CLEAR DIRECTION** for **hospitalized pneumonia** patients

**Unyvero is Changing the Status Quo**

- **Greater Diagnostic Accuracy Can Save Lives**
  Unyvero LRT has demonstrated correct identification of key pathogens that are often missed by culture, without relying on the growth of viable organisms.
  - **Sensitivity:** 91.4%
  - **Specificity:** 99.5%

Unyvero LRT identified *Acinetobacter* cases that were initially culture-negative but all had a subsequent culture that grew *Acinetobacter*. All patients with initial negative culture for *Acinetobacter* died.

Would your clinicians want to know?

**Unyvero Supports Antibiotic Stewardship**

*Antibiotic stewardship aims to minimize broad antibiotic use, which is associated with longer lengths of hospital stay, higher morbidity and mortality, higher hospital costs, nephrotoxicity, and nosocomial infections.*

**Potential Impact on Antibiotic Therapy**

Potential impact on therapy based on Unyvero LRT results alone:

- **6.9%** had unnecessary MRSA coverage
- **64%** had unnecessary Pseudomonas coverage

Two-thirds of de-escalations include:

- No antibiotic change indicated
- Favors de-escalation (antibiotics could have been narrowed)
- Favors both de-escalation and expansion of antibiotics
- Favors expansion (antibiotics could have been broadened)
- Start antibiotics

**Get Clear Direction**

Unyvero LRT quickly delivers actionable answers to reduce the time to appropriate therapy and drive optimal, cost-effective care for hospitalized pneumonia patients. For clear, comprehensive, and reliable results to advance antimicrobial stewardship initiatives, **Unyvero points the way.**

Request an evaluation today: customersupport@opgen.com

**References:**

2. Unyvero LRT clinical trial data on file at Curetis.