



# **BINAXNOW™**

*Legionella urinary  
antigen card*

All adult patients with severe CAP should be investigated with blood and sputum samples for culture and UAT for *Legionella pneumophila* and *Streptococcus pneumoniae* to help guide treatment decisions.<sup>1</sup>



### THE BINAXNOW™ LEGIONELLA TEST DELIVERS ACCURATE, TIMELY RESULTS

- Highly sensitive and specific.
- Detects *Legionella pneumophila* serogroup 1 antigen.
- Results in 15 minutes.
- No sample prep and no multiple pipetting, mixing or vortexing steps.
- Enables timely and accurate guidance of appropriate therapy.

### TEST PERFORMANCE<sup>11,12</sup>

UAT METHOD	SAMPLE	SAMPLE PREP	TEST PERFORMANCE	TEST TIME	SAMPLE STORAGE
<b>BinaxNOW Legionella</b>	Urine	None	95% Sensitivity 95% Specificity	15 minutes	Room temp up to 24 hours
Meridian TRU Legionella	Urine	Multiple pipetting and mixing (or vortexing) steps	95% Positive agreement 100% Negative agreement (to BinaxNOW™)	20 minutes	2-8°C at all times

### INDEPENDENT STUDY DATA

In an independent study at the national *Legionella* testing center in France, the BinaxNOW™ *Legionella* test showed a 13% greater sensitivity as compared to the Meridian TRU LEGIONELLA® assay, and represents the only head to head comparison study of the two methods conducted by an independent laboratory.<sup>13</sup>

UAT METHOD	SENSITIVITY	SPECIFICITY
<b>BinaxNOW Legionella</b>	100%	100%
Meridian TRU Legionella	86.8%	98.9%

## LEGIONELLA IS A SERIOUS THREAT

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- *Legionella* is a leading cause of waterborne disease outbreaks.<sup>4</sup>
- Every case is a reportable event to state health departments and is tracked by the CDC.
- Incidence has increased over 5-fold from 2000 to 2017.<sup>5,6</sup>

## LEGIONELLA EXPOSURE FREQUENTLY OCCURS IN HEALTHCARE FACILITIES

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- 76% of locations reporting *Legionella* confirmed a healthcare facility as the source.<sup>2</sup>
- 2/3 of outbreaks occur in hospitals, healthcare facilities, and nursing homes.<sup>4</sup>

## LEGIONELLOSIS OFTEN REQUIRES HOSPITALIZATION, WITH HIGH COSTS AND HIGH MORTALITY

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- Up to 98% of patients require hospitalization, and up to 44% require care in the ICU.<sup>2</sup>
- The average hospital stay is 10.2 days.<sup>8</sup>
- Costs nearly \$43,000 per case.<sup>9</sup>
- 25% of patients will die if acquired in a healthcare facility.<sup>2</sup>
- Settlements and jury awards range from \$255,000 to \$5.2 million.<sup>10</sup>

## AN ACCURATE DIAGNOSIS ENABLES APPROPRIATE ANTIBIOTIC THERAPY

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- Facilitates targeted treatment and antibiotic stewardship.<sup>1</sup>
- Consistent with recommended guidelines for pathogen directed therapy.<sup>1</sup>

## TARGETED TREATMENT IMPROVES OUTCOMES IN CAP

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Clinical trials show targeted treatment helps reduce symptoms, length of stay, and infection rates.

- Fever duration was shortened by 2.5 days.<sup>14</sup>
- Time to patient clinical stability was improved by 2 days.<sup>14</sup>
- Length of stay was reduced by 2.1 days, a 35% reduction.<sup>3</sup>
- Incidence of *C.difficile* was lowered by up to 60%.<sup>15</sup>

## MISSED LEGIONELLA INCREASES EXPOSURE TO SIGNIFICANT RISKS

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- Mortality.<sup>2</sup>
- Extended hospital stays<sup>8</sup>
- Outbreak of healthcare-acquired infection.<sup>2</sup>
- Inappropriate antibiotic use.<sup>1</sup>
- Antibiotic resistance.<sup>1</sup>
- *C. difficile* infections.<sup>15</sup>

### Projected Impact of Reduced Test Accuracy

For every 800 patients tested for *Legionella* with a 5.4% prevalence rate<sup>16</sup>, a test with a 5% lower sensitivity (90% vs. 95%) may:



Increase false negatives by 50% (2 patients)



Delay time to appropriate treatment




Add a total of 4.2 days for hospital stay



Increase total cost of care by nearly \$20,000

Calculations based on 2.1 additional hospital stay days per patient<sup>3</sup>, at \$4,200 cost per day<sup>8,9</sup>. Time and costs relate to hospital stay only, and do not include projections associated with other risks in the presence of false negatives.

# Urinary Antigen Testing (UAT) for Community Acquired Pneumonia (CAP) is recommended by the IDSA and ATS<sup>1</sup>

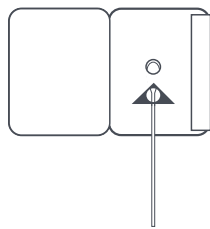
A microscopic image of Legionella bacteria, showing several rod-shaped cells with internal structures, set against a dark blue background. The bacteria are illuminated in a way that highlights their cellular details, including what appears to be the nucleus and other organelles.

For a deadly disease that carries significant patient and healthcare system risks, accurate *Legionella* testing is critically important for appropriate treatment decisions and improved outcomes.<sup>1,2,3</sup>



## PROCEDURE – EASY TO USE AND EASY TO READ

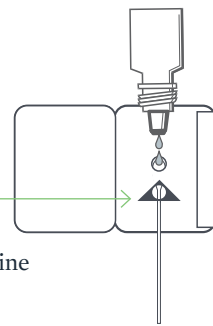
- 1** Dip swab into urine specimen. Then place swab into device.



- 2** Add reagent then close the device and break swab at perforated line.

Add drops here

Break swab at perforated line



- 3** Wait 15 minutes.



- 4** Results can be read visually.

**POSITIVE**  
TWO LINES



CONTROL  
SAMPLE

**NEGATIVE**  
ONE LINE



## ORDERING INFORMATION

PRODUCT NAME	PRODUCT CODE
<b>BinaxNOW™ Legionella urinary antigen card</b>	
22 Test Kit	852-000
Control swab pack— 5 positive and 5 negative	852-010
<b>BinaxNOW™ Streptococcus pneumoniae antigen card</b>	
22 Test Kit	710-000
Control swab pack— 5 positive and 5 negative	710-010

The BinaxNOW™ *S. pneumoniae* Antigen Card is available as a complementary test to BinaxNOW™ Legionella Urinary Antigen Card for ease of compliance with IDSA/ATS CAP guidelines.



### When avoidance of patient and healthcare system risks warrant proven performance and utility, use the BinaxNOW™ Legionella test.

- Test performance compared to cell-culture has been determined in clinical trials.<sup>11,12</sup>
- Clinical impact has been assessed in a randomized, controlled clinical trial.<sup>3</sup>
- Urine samples can be stored at room temperature for up to 24 hours.<sup>11</sup>
- No sample preparation, vortexing, or pipetting is required.<sup>11</sup>
- No urine concentration or heating necessary to increase sensitivity.<sup>11</sup>
- Results available in 15 minutes.<sup>11</sup>

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