A COMPLETE PANEL OF TESTS FOR THE LABORATORY DIAGNOSIS OF LEGIONELLA INFECTION

LEGIONELLA PNEUMOPHILA

Single test ready to use device
Convenient packaging 6 X 6 devices in resealable pouches
Truly walk-away instrument
Reduction of the turn-around time
Legionella pneumophila is the etiologic agent of Legionella or Legionnaires’ disease, a serious form of pneumonia, clinically indistinguishable from other pulmonary infectious diseases, cause of 2-5% of all community-acquired pneumonia (CAP). From an epidemiological standpoint, L. pneumophila serotype 1 (LPsg1) is responsible for 91% of the cases in the US and of 95% in Europe.

Infection occurs by inhalation of aerosol or water contaminated with the bacterium (air conditioning ducts, vaporizers), which may persist for a long time inside the cells. The clinical signs are relevant from the very beginning, with high fever, dry cough, respiratory failure, which can be accompanied by confusional state and hyponatremia. The chest radiograph examination reveals one or more exudative effusions located in different lung areas.

The diagnosis is often a conundrum for the clinicians, because of the non-specificity of the symptoms; however, the frequent seriousness of the clinical picture requires a timely etiological feedback. The bacterial culture from samples of blood, sputum, BAL, pleural effusion, is considered as the microbiological “gold standard”, but the slow response times and an extremely variable sensitivity (10-80%) affect its overall quality. The introduction of tests based on gene amplification, in particular the Real-Time PCR method, represents an innovative diagnostic device, however, the preparation of analytical sessions is related to the number of samples and is also linked to the quality and type of the examined sample.

In the current practice it has spread more and more the use of tests for the detection of specific LPsg1 antigen in urine samples, so to have effectively replaced the bacterial culture, since soluble antigen fragments appear very early (one day after onset of symptoms) and persist for days and weeks. The sensitivity amounts to 70-100%, while the specificity is nearly 100%. A simple complementary approach is represented by the search for anti-L. pneumophila sg1 class IgG and IgM antibodies with ELISA method. Although conditioned by the delayed immunological reaction to the germ, the serological diagnosis enriches the diagnostic potentialities and solves the crux of the rapidity of response to the clinical question.

DIESSE Diagnostica Senese SpA provides the clinical laboratory with immunoassay kits for direct research of Urinary Antigen and for the detection of anti-Legionella IgG and IgM, for a complete and accurate diagnosis of legionellosis, in the Chorus convenient and functional ready-to-use single test format.

**KIT**

- **Chorus LEGIONELLA PNEUMOPHILA 1-6 IgG**  
  COD. 81090  36 tests  
- **Chorus LEGIONELLA PNEUMOPHILA 1 IgG**  
  COD. 81091  36 tests  
- **Chorus LEGIONELLA PNEUMOPHILA IgM**  
  COD. 81093  36 tests  
- **Chorus LEGIONELLA URINARY ANTIGEN**  
  COD. 81301  12 tests