

RESPIRATORY INFECTIONS

*One-step immunochromatographic tests for
respiratory viruses and bacteria*

 **operon**
immuno & molecular
diagnostics

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RESPIRATORY INFECTIONS

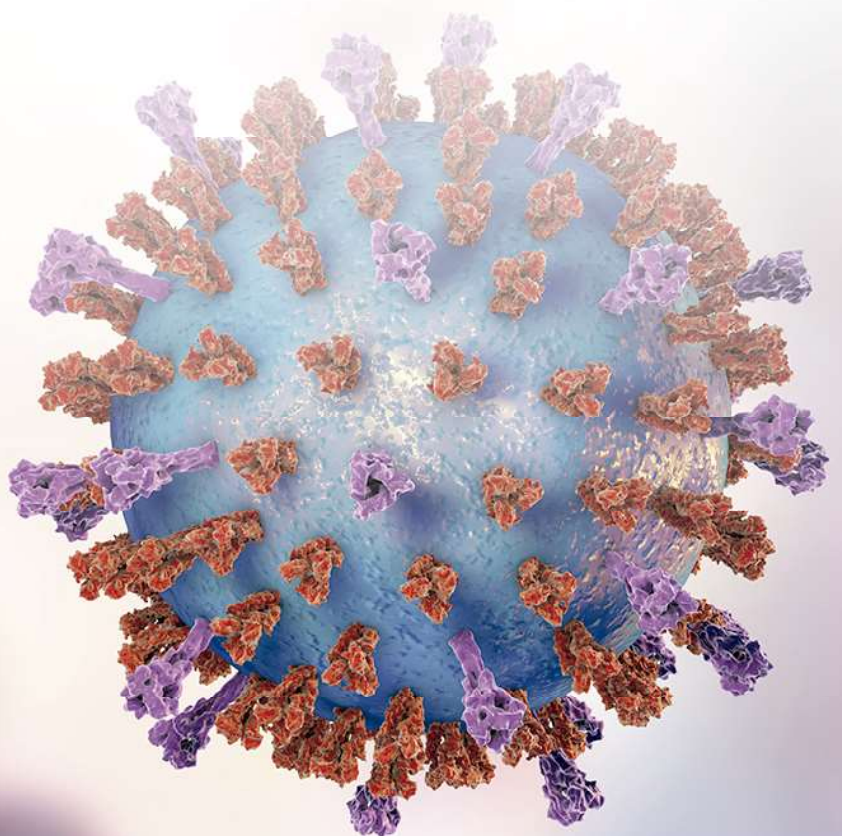
Respiratory tract infections include both upper tract infections, such as the common cold; and lower tract infections, such as pneumonia, bronchitis, bronchiolitis, and exacerbation of asthma. Lower respiratory tract infections cause substantial morbidity and mortality and are a leading cause of hospitalization, especially for infants, the elderly, and immunocompromised individuals.

Respiratory tract infections are caused by a wide variety of pathogens, which include several viral and bacterial agents.

Although the specific microorganisms responsible for illness differ according to season and age of patient, symptoms and seasons are similar for many respiratory pathogens.

Acute respiratory infections are the most common reason for oral antibiotic prescriptions in Western countries. Recent data suggest that approximately 30% of antibiotics used in the outpatient setting are inappropriate, largely driven by misuse of antibiotics for viral upper respiratory tract infections. Overuse of antibiotics has been linked to several negative outcomes, including development of antibiotic resistance, antibiotic-associated infections, increased costs, and drug toxicities. Antibiotic stewardship programs focus on guiding clinicians to use antibiotics for upper respiratory tract infections only when adequate evidence for bacterial infection exists.

Therefore, early and accurate laboratory diagnosis to identify the etiologic agent of a respiratory infection is important to ensure appropriate antimicrobial therapy and for the effective implementation of isolation precautions and patient cohorting.



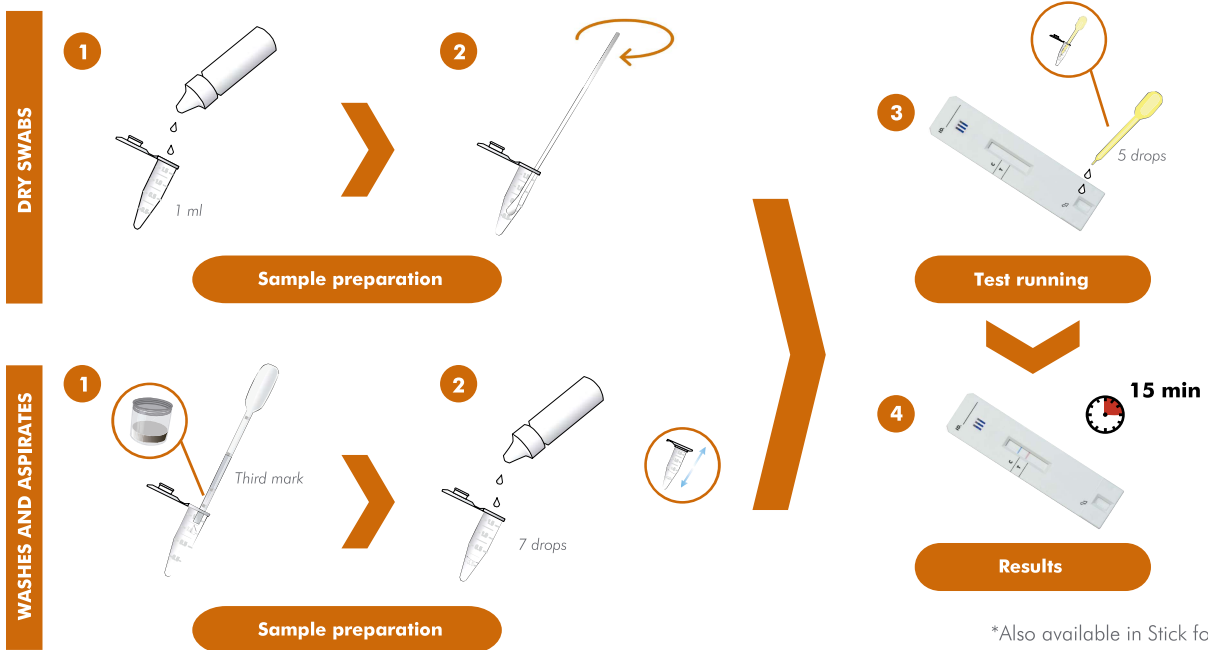
SIMPLE/STICK RSV

One-step immunochromatographic test for the qualitative detection of Respiratory Syncytial Virus (RSV) from respiratory samples such as nasopharyngeal swabs, washes and aspirates

Respiratory Syncytial Virus (RSV) is the leading cause of acute lower respiratory tract infections in infants and young children worldwide. RSV can also become a serious problem in the elderly or immunocompromised adults and is considered as one of the main cause of nosocomial infection. The clinical diagnosis of RSV is hampered by the mostly unspecific symptoms of RSV infection.

SIMPLE/STICK RSV is a rapid test for a prompt recognition of RSV infection. It is useful to optimize care management, minimize unnecessary antibiotic use and provide targeted infection control for children hospitalized with RSV infection. In addition, it is important for timely antiviral treatment in severely sick children.

Procedure

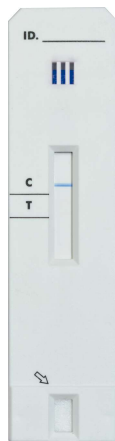


*Also available in Stick format

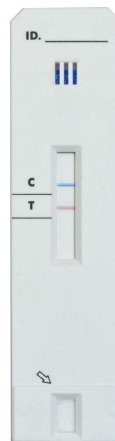
**Compatible with swab samples in transport medium

***Positive control available

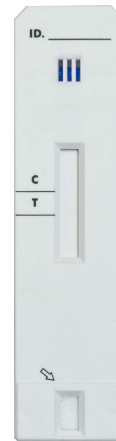
Results



Negative



Positive



Invalid

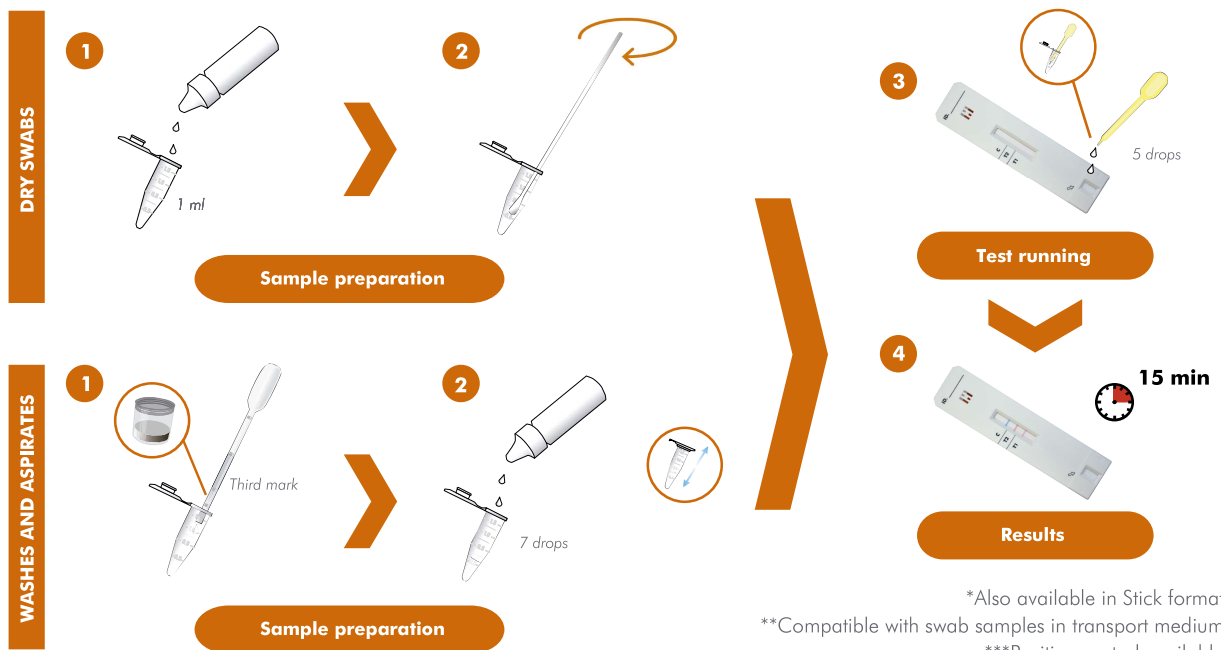
SIMPLE/STICK FLU A+B

One-step immunochromatographic test for the qualitative detection of the Influenza virus types A and B (in separate bands), from respiratory samples such as nasopharyngeal swabs, washes and aspirates

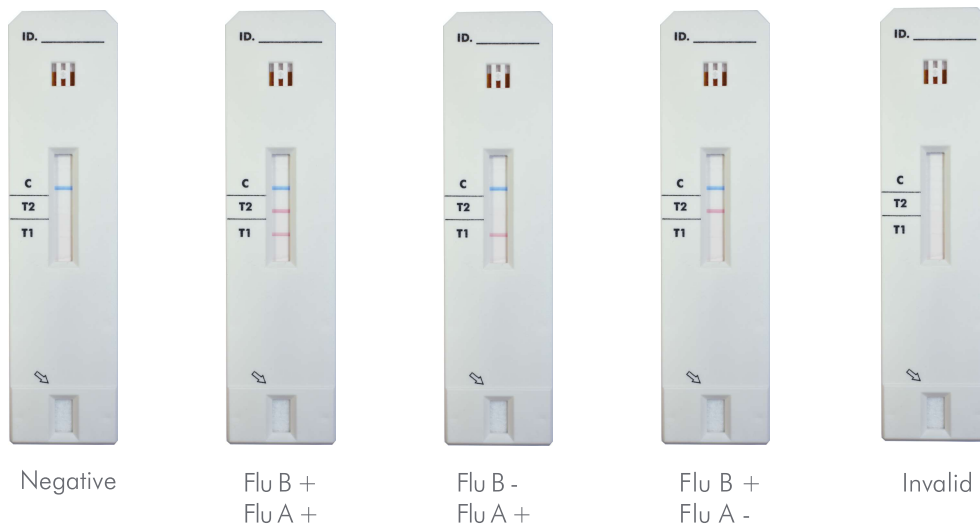
The Influenza virus is a serious and highly contagious infection of the respiratory tract. It causes one third of all upper respiratory infections and may develop into serious complications in risk groups that can lead to death. Influenza type A viruses are usually more frequent than type B viruses and are associated with the most severe flu epidemics. Influenza has a significant load in terms of morbidity, mortality and monetary cost. So, prevention, early diagnosis, and treatment of influenza are heavily prioritized in developed countries.

Simple/Stick Flu A+B allows the early and differential detection of Influenza virus types A and B in the physician's office. So, it is a helpful tool to improve outcomes in influenza patients and to prevent unnecessary testing and treatment reducing healthcare expenses and development of antimicrobial resistance.

Procedure



Results



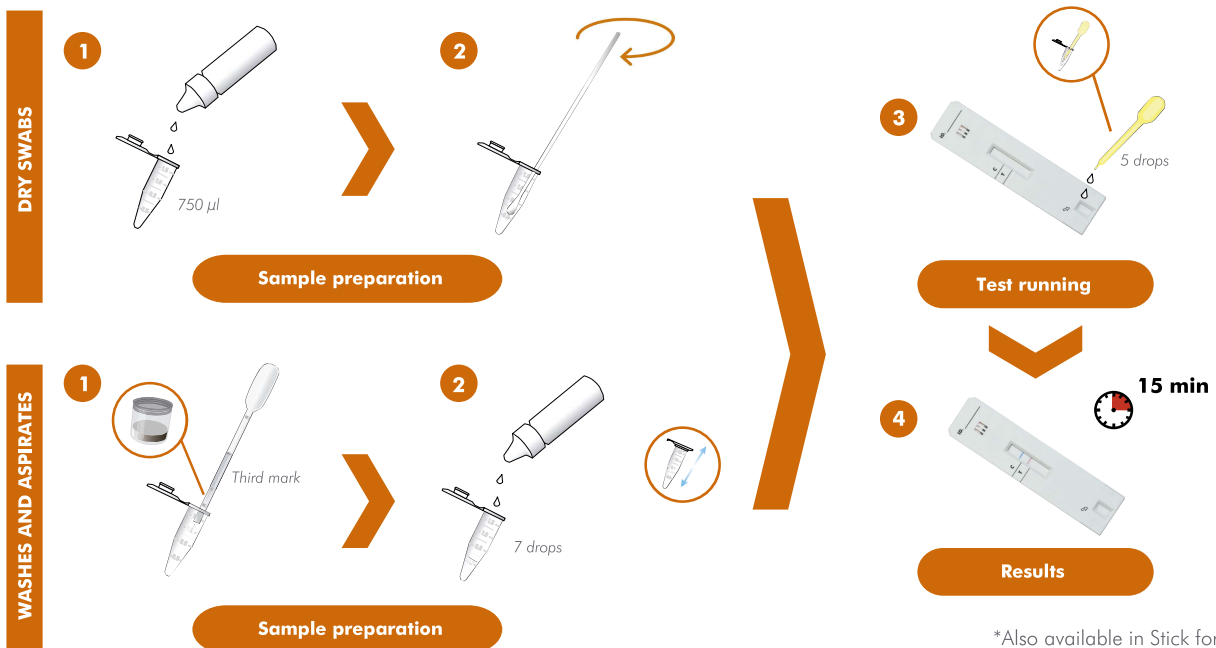
SIMPLE/STICK RESPIRADENO

One-step immunochromatographic test for the qualitative detection of Respiratory Adenovirus from respiratory samples such as nasopharyngeal swabs, washes and aspirates

Adenovirus is a contagious agent causing from 5-24% of respiratory infections in children under 5 years old. Normally, those infections are mild except in immunosuppressed patients where it may be life threatening.

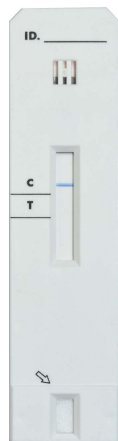
Adenovirus symptoms are similar to those from a common cold. Since the virus is highly contagious, a rapid diagnosis using Simple/Stick RespirAdeno allows the optimal management of the patient, having also a positive effect on the public health system.

Procedure

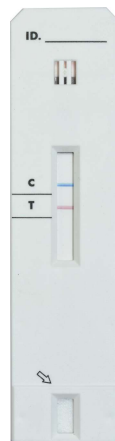


*Also available in Stick format
**Compatible with swab samples in transport medium
***Positive control available

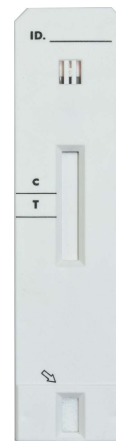
Results



Negative



Positive

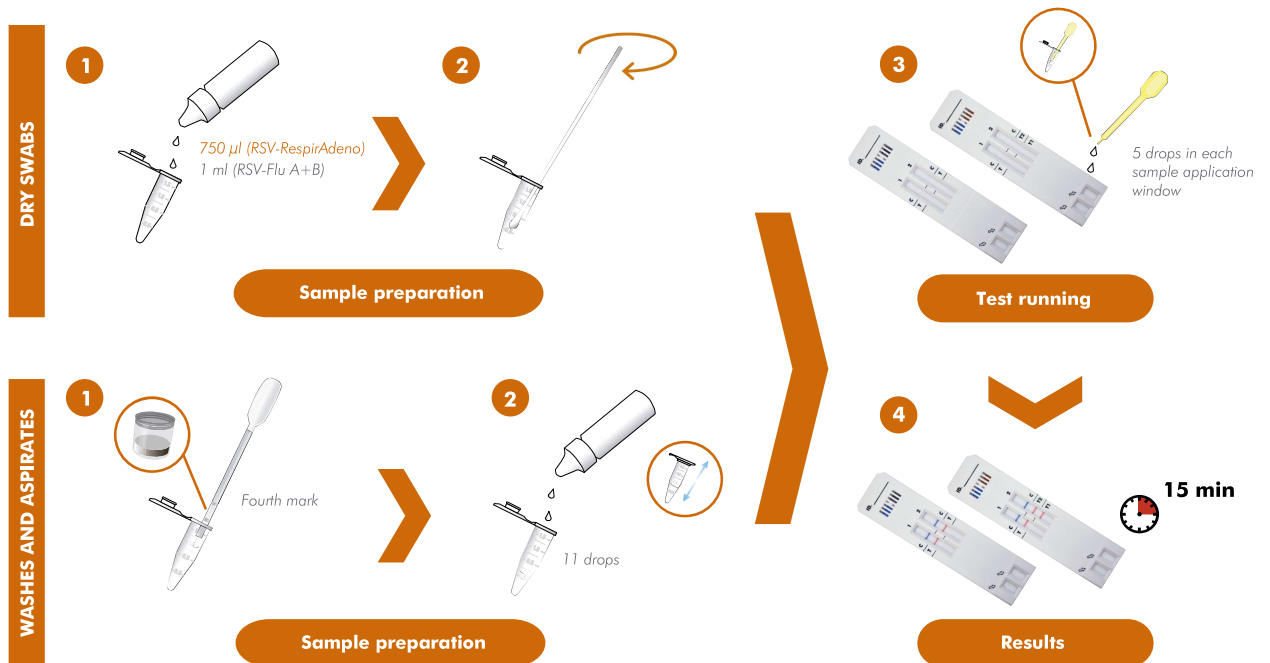


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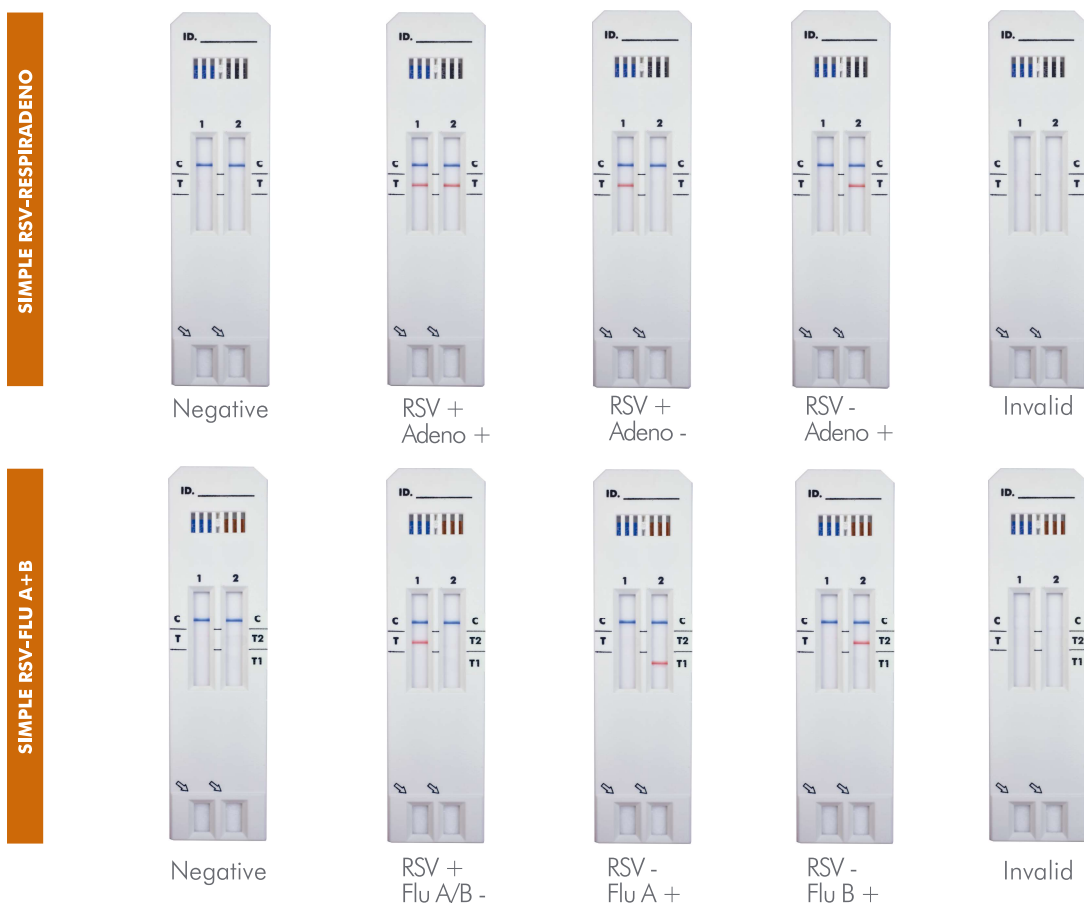
SIMPLE RSV-FLU A+B / RSV-RESPIRADENO

Two combo immunochromatographic tests for the qualitative and differential detection in respiratory samples of RSV and Influenza types A and B on one hand and RSV and Respiratory Adenovirus on the other hand

Procedure



Results



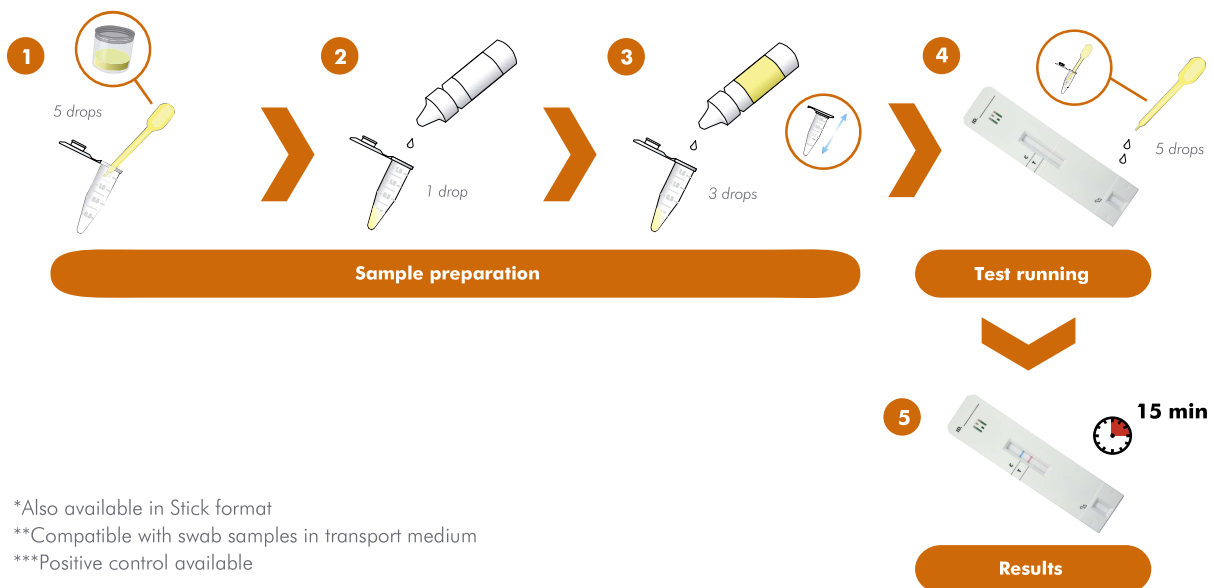
SIMPLE/STICK LEGIO PNEUMO

One-step immunochromatographic test for the detection of the *Legionella pneumophila* serogroup 1 soluble antigen in human urine

Infection by *Legionella* or legionellosis can take on two different clinical forms. These are lung infection, or "Legionnaires' disease", which is known for pneumonia accompanied with a high fever, and the non-pneumonia form known as "Pontiac fever", with symptoms of acute fever with a mild prognosis, which doesn't normally require treatment. The incidence of *L. pneumophila* induced pneumonia varies, accounting for 2 to 15% of community-acquired pneumonia cases requiring hospitalisation. It occurs more frequently among adults aged 40 to 70 years old. It occurs two to three times more often in males compared to females. *Legionella* can be acquired in two domains, community-acquired with a 3 % mortality rate, and hospital-acquired, where it affects high risk patients and has a mortality rate of 10 to 30 %, presenting as outbreaks and in isolated or sporadic cases.

Simple/Stick S. Legio is a helpful tool for the early diagnosis and treatment of "Legionnaires' disease", notably reducing its mortality. In addition, it facilitates the early recognition of epidemic outbreaks favouring a quick response when applying disease preventive and control measures.

Procedure

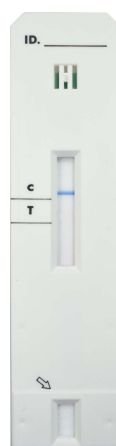


*Also available in Stick format

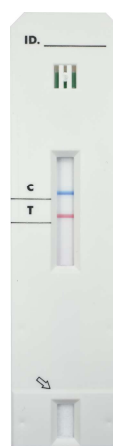
**Compatible with swab samples in transport medium

***Positive control available

Results



Negative



Positive



Invalid

SIMPLE/STICK STREP PNEUMO

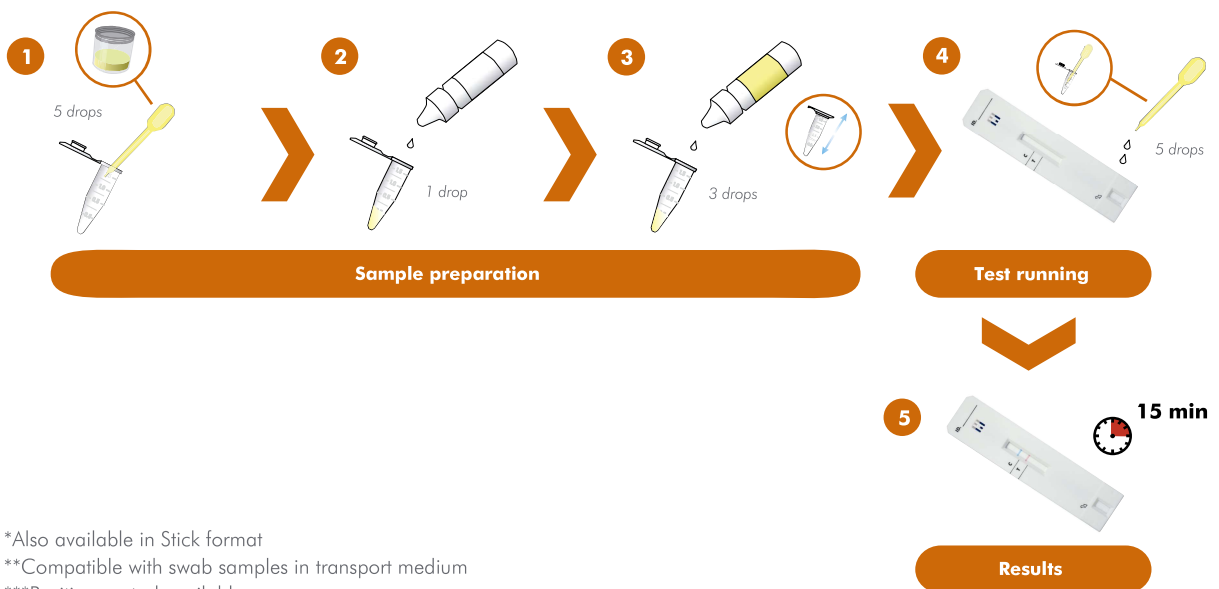
One-step immunochromatographic test for the detection of the *Streptococcus pneumoniae* soluble antigen in human urine

Streptococcus pneumoniae is the main pathogen responsible for community-acquired and hospital-acquired pneumonia in adults and children. It is the second most frequent cause of bacterial meningitis, and a common cause of bacteremia.

The mortality rates are up to 30%, depending on the bacteraemia, age, and latent diseases.

Many non-bacteraemic pneumonia cases remain undetected using traditional respiratory or blood sample culture methods. Simple/Stick S. pneumo enables a quick and reliable diagnosis. This allows the administration of the most suitable antibiotic treatment at the early stages of the disease.

Procedure



*Also available in Stick format

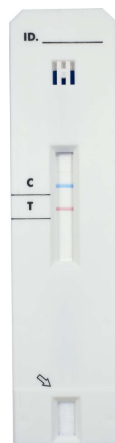
**Compatible with swab samples in transport medium

***Positive control available

Results



Negative



Positive

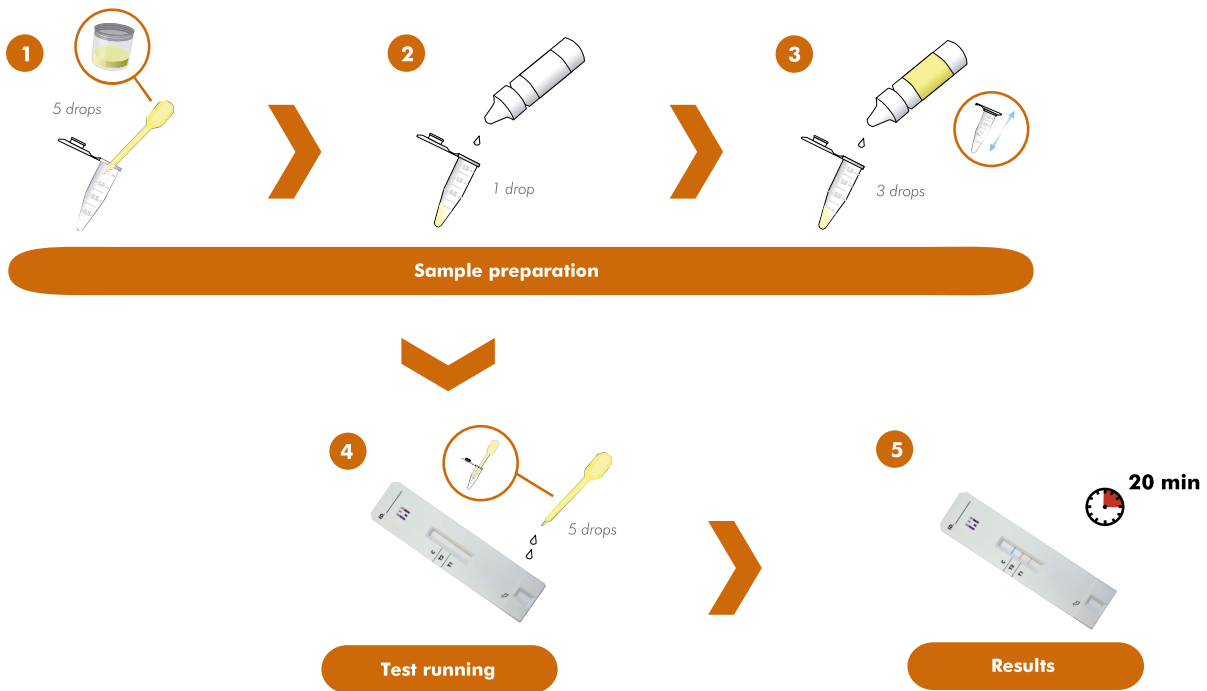


Invalid

SIMPLE/STICK STREP PNEUMO-LEGIO

One-step immunochromatographic test for the detection of the *Streptococcus pneumoniae* and *Legionella pneumophila* serogroup 1 soluble antigen in human urine.

Procedure



*Also available in Stick format

**Compatible with swab samples in transport medium

***Positive control available

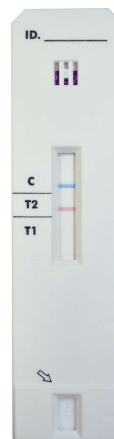
Results



Negative



L. pneumo -
S. pneumo +



L. pneumo +
S. pneumo -



Invalid

SIMPLE STREP A*

*UNDER DEVELOPMENT

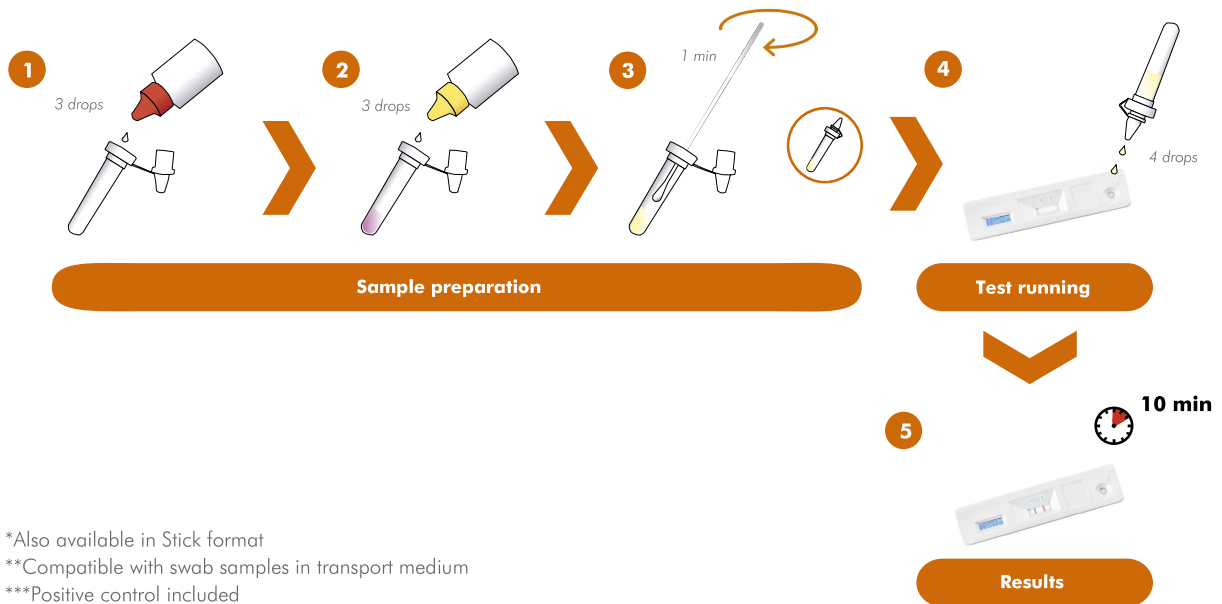
One-step immunochromatographic test for the detection of Group A Streptococcus in respiratory samples

Group A Streptococcus is a major cause of upper respiratory infections in human, being the most significant pathogen causing pharyngitis. In the paediatric population, it is estimated that 30% of pharyngitis are caused by Group A Streptococcus. The symptoms may become more severe if not treated and the patient can develop complications such as rheumatic fever, toxic-shock like syndrome and glomerulonephritis. So, a rapid identification to initiate an antibiotic treatment can prevent these complications.

Conventional methods used to identify Group A Streptococcus involve 24-48 h culture of throat swabs specimens and its confirmation of beta-hemolytic colonies as Group A Streptococcus. The Simple /Stick Strep A test is a rapid immunochromatographic method which employs specific antibodies against an antigen (a carbohydrate present in the wall cell) unique to Group A Streptococcus. To perform the test, a throat specimen is collected and the antigen is extracted with Sample Diluent Buffers 1 and 2 that has to be mixed previously before the addition of the swab.

The test detects either viable or non viable organism directly from throat swabs or culture colonies within 10 minutes (or less in the case of high positive samples).

Procedure



*Also available in Stick format

**Compatible with swab samples in transport medium

***Positive control included

Results



Negative

















Positive



Invalid

HIGHLIGHTS

-  All formats: Stick/Simple, Single/Combo
-  Ready to use
-  Simple transport & storage: Room temperature
-  Long shelf-life: 24 months
-  Flexible: different sample types -nasal/nasopharyngeal swab or nasopharyngeal wash/aspirate-
-  Efficient: one common patient sample for all the tests
-  Safe: minimal sample manipulation
-  Easy: limited hands-on-time
-  Fast: results in minutes
-  Easy interpretation of the results: different coloured bands
-  Reliable: highly accurate results
-  Positive Controls available
-  Actionable: Valuable information before hospital admission to control the spread of infection
-  Reassuring: optimal patient management before leaving the doctor's office



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