



QIAstat-Dx® | Syndromic Testing

Reliably detect central nervous system infections with QIAstat-Dx

Quickly and accurately identify the causative pathogens of meningitis and encephalitis

The global burden of meningitis and encephalitis

Infections of the central nervous system – meningitis and encephalitis – can be fatal within 48 hours (1) and require immediate medical attention. Rapid diagnosis and treatment initiation are crucial for successful patient outcomes. These infections can be caused by many different pathogens, including viruses, bacteria and fungi, making accurate diagnosis complex.



Without treatment, the case-fatality rate can be as high as **70%** (3).



Globally, there are **over 2.8 million cases** of bacterial meningitis each year (2).



28% of community-acquired episodes of bacterial meningitis result in one or more neurologic complications (4).



While anyone can get meningitis/encephalitis, **babies are at increased risk** for bacterial meningitis compared to people in other age groups (5).



A delay in antimicrobial treatment is a **strong and independent risk factor** for mortality (9).

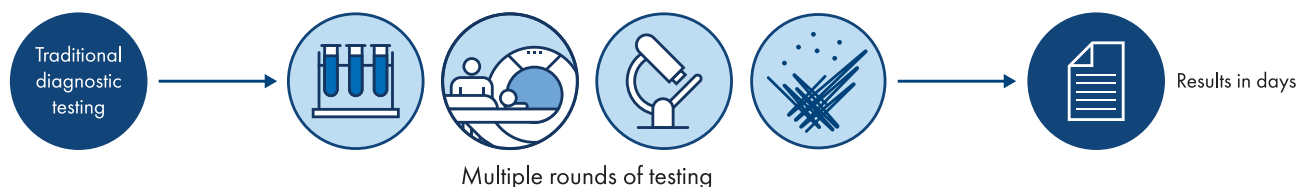


The ICU stay cost for patients with meningitis/encephalitis can be **>USD \$23,660** (6). The average hospital length of stay can range from **a few days** (7) to **weeks** (8).



Traditional lab methods alone aren't fast or sensitive enough

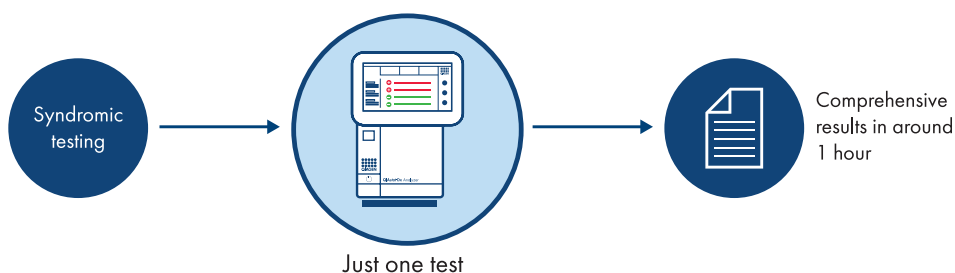
Diagnosing meningitis/encephalitis using traditional methods alone requires many different time-consuming and labor intensive tests, including cerebrospinal fluid (CSF) culture, Gram stain, CT scan and multiple single-target PCR tests. It can take up to 2 days or more for pathogen identification, and the diagnostic yield of these tests is often too low.



- Depending on the causative pathogen and a patient's antibiotic status, the positivity rate for CSF culture varies between 62–97%; for blood culture, the rate varies between 40–90% (10)
- The sensitivity of Gram stain for bacterial meningitis is around 60% (10)
- The yield of culture and Gram stain may decrease by 20% if prior antibiotic treatment has occurred (10)
- Only 24% of patients with meningitis show abnormal findings with a CT scan (11)

Deliver accurate results faster with QIAstat-Dx syndromic testing

In contrast, a single multiplex syndromic test provides results for several different viral, bacterial and fungal pathogens in around an hour. This faster approach, used in combination with traditional methods, can increase diagnostic yield, quickly inform treatment decisions and ultimately help prevent long-term complications and save lives.

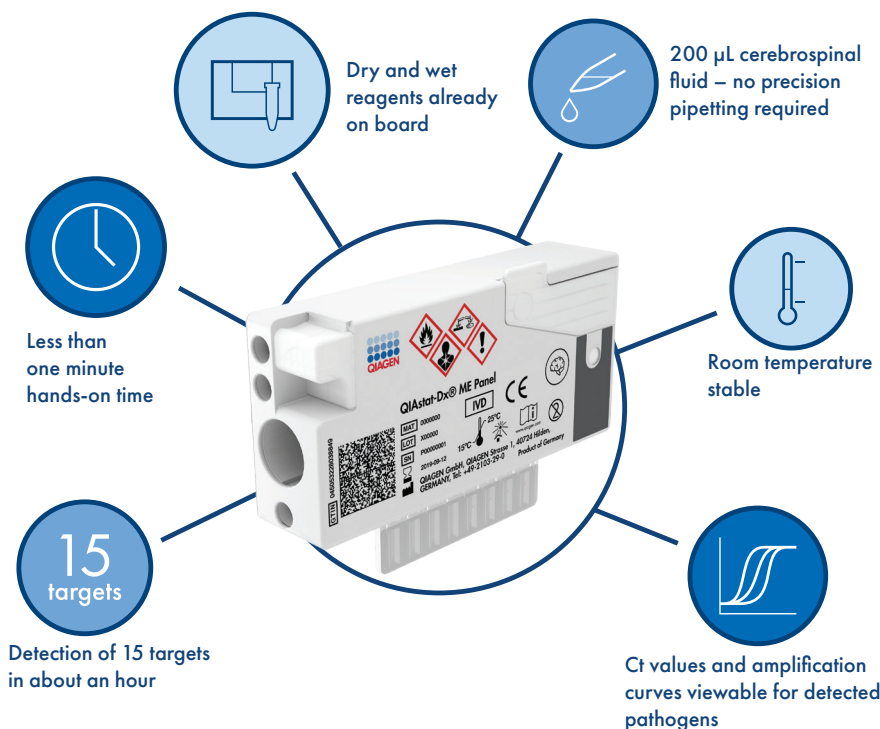


- Reduces time to microbiological diagnosis by 3.3 days (12)
- Reduces length of stay by 2.2 days saving on costs and allowing hospitals to optimize resources (12–13)
- Reduces length of antimicrobial use by up to 3 days and overall inappropriate antimicrobial use (12–14)
- Simple enough to perform in a variety of settings, including community and rural hospitals (15)



QIAstat-Dx Meningitis/Encephalitis Panel

The QIAstat-Dx Meningitis/Encephalitis Panel is a qualitative multiplexed nucleic acid-based in vitro diagnostic test intended for use with the QIAstat-Dx System. The QIAstat-Dx Meningitis/Encephalitis Panel is capable of simultaneous detection and identification of multiple bacterial, viral and yeast nucleic acids from cerebrospinal fluid specimens obtained via lumbar puncture from individuals with signs and/or symptoms of meningitis and/or encephalitis.



Bacterial

Escherichia coli K1
Haemophilus influenzae
Listeria monocytogenes
Neisseria meningitidis (encapsulated)
Streptococcus agalactiae
Streptococcus pneumoniae
Mycoplasma pneumoniae
Streptococcus pyogenes

Viral

Enterovirus
 Herpes simplex virus 1
 Herpes simplex virus 2
 Human herpes virus 6
 Human parechovirus
 Varicella zoster virus

Fungal

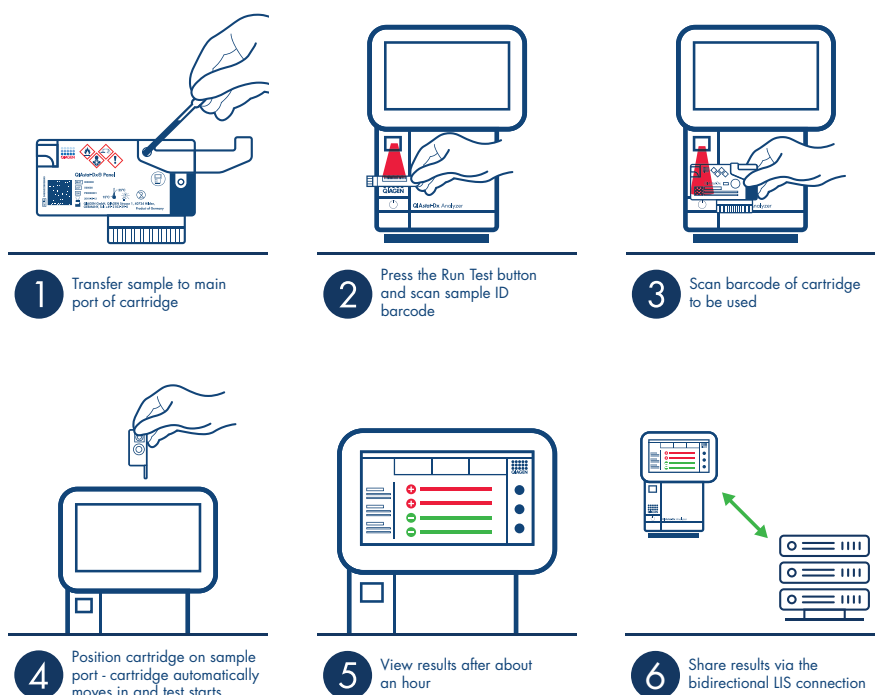
*Cryptococcus neoformans/gattii**

**Cryptococcus neoformans*/*Cryptococcus gattii* are both detected, but not differentiated

Redefining ease of use

Save time and reduce the risk of contamination with the intuitive QIAstat-Dx system. Running a test requires minimal training and there's no precision pipetting involved. Plus, the customizable design allows for scalable throughput to match your hospital's needs.

- Less than one-minute hands-on time means minimal training required
- Comprehensive results in about an hour for earlier therapeutic intervention
- Minimal handling and enclosed cartridge design minimizes chances of contamination
- Room temperature stable for low-cost cartridge storage



Expanding diagnostic capabilities

The QIAstat-Dx Meningitis/Encephalitis panel provides fast and comprehensive results to guide treatment of patients in critical condition. Detection of a full range of pathogens by real-time PCR is available in about one hour.

- Real-time PCR for comprehensive, accurate results
- Ct values provide insights on coinfection and offer additional information to clinicians
- Amplification curves may help monitor sample quality



Ordering Information - Instrument

Product	Contents	Cat. no.
QIAstat-Dx Analytical Module	One each of module containing hardware and software for sample testing and analysis	9002814
QIAstat-Dx Operational Module	One each of module to enable interaction with the Analyzer	9002813

Ordering Information - Assay

Product	Contents	Cat. no.
QIAstat-Dx Meningitis/ Encephalitis Panel	Six individually packaged cartridges containing all reagents needed for sample preparation and multiplex RT-real time PCR plus internal control, including six transfer pipettes	691611



Confidently detect central nervous system infections with QIAstat-Dx – learn more at [QIAstat-Dx.com](https://www.qiagen.com/qiastat-dx)

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The QIAstat-Dx ME Panel is indicated as an aid in the diagnosis of specific agents of meningitis and/or encephalitis and results must be used in conjunction with other clinical, epidemiological, and laboratory data. Results from the QIAstat-Dx ME Panel are not intended to be used as the sole basis for diagnosis, treatment, or other patient management decisions. Positive results do not rule out co-infection with organisms not included in the QIAstat-Dx ME Panel. The agent or agents detected may not be the definite cause of the disease. Negative results do not preclude central nervous system (CNS) infection.

The QIAstat-Dx ME Panel is intended for in vitro diagnostic use by laboratory professionals only.

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