

Meningitis and Septicaemia 2019
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Update on the development of Rapid Diagnostic Tests for meningitis
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The next generation meningitis Rapid Diagnostic Tests (RDTs) should provide a diagnostic option for all facilities, including those lacking infrastructure for laboratory testing, to diagnose suspected meningitis cases and permit medical staff to rapidly initiate appropriate treatment. The global roadmap to defeat meningitis by 2030 includes in its strategic goals the development and usage of RDTs for meningitis diagnosis and surveillance, for three major purposes:

1. to impact the clinical management of patients with suspected meningitis at first contact with the patient. The provision of a result by a biomarker RDT that does not attribute meningitis symptoms to a bacterial etiology could prompt clinicians to assess the patient for other etiologies. While standard antibiotic treatment for meningitis may be initiated and continued until a causative pathogen is identified, the clinician can incorporate other treatment options as a result of the non-bacterial RDT result and broadened patient evaluation, which could substantially reduce disease morbidity and decrease antibiotic use. An ideal biomarker has yet to be identified however, in particular for a detection in non-cerebrospinal fluid samples.
2. to identify the causative meningitis pathogen, thus providing clinicians with the assurance needed to initiate an appropriate treatment. For this purpose, established or innovative multiplex technologies need to be promoted. A specific target product profile (TPP) is being finalized targeting the district or decentralized hospital level.
3. to monitor and detect outbreaks. In the African meningitis belt, integrating next generation RDTs into meningitis surveillance systems at the point of care level can lead to the early identification of outbreaks and the prompt activation of mass vaccination campaigns. A new lateral flow option (immunochromatography) targeting the main circulating Nm serogroups is currently under evaluation.

WHO, in coordination with international partners is moving this agenda forward. All stakeholders including manufacturers are invited to contribute.