

- Title** Assessment of tests for meningococci (*Neisseria meningitidis*) and pneumococci (*Streptococcus pneumoniae*) using gene amplification in the diagnosis of meningitis
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Aim

The aim of this study is to assess gene amplification (polymerase chain reaction, PCR) tests in the diagnosis of meningitis suspected of being bacterial for meningococci (*Neisseria meningitidis*) and pneumococci (*Streptococcus pneumoniae*). The aim of this work is to analyse the consistency between, firstly, the request, and secondly good clinical practice guidelines and the opinions of professionals, with a view to the inclusion on the list of medical laboratory procedures reimbursed by the National Health Insurance system in France.

- investigating the consistency between the data collected in this way (good practice guidelines and the reasoned views of professional bodies) and demand; this material was summarised in a proposal submitted to the HAS Board for validation.

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Conclusions and results

This work reports on the homogeneity between the request, on the one hand, and the conclusions of the guidelines analysed and the views of professional bodies on the other.

HAS concludes that:

- testing the cerebrospinal fluid (CSF) using gene amplification (PCR) for meningococci and pneumococci has a place in the diagnosis and management of bacterial meningitis when direct examination of the CSF is negative and if there are no culture results, or when the culture is negative, whatever the result of direct examination;
- testing for the meningococcal genome in skin biopsies or blood samples can be done in certain rare situations: with purpuric lesions if *purpura fulminans* is suspected, or with a blood sample when PCR of the CSF or other tests of the CSF or blood cultures have failed to identify the aetiology of the meningitis, or when lumbar puncture is impossible.

Methods

The method used is an assessment procedure which involves:

- making a critical analysis of the literature reviews identified by a systematic literature search;
- obtaining the reasoned views of the professional bodies concerned (infectology, laboratory medicine, emergency medicine, paediatrics);