

Appropriate Use of Laboratory Tests –
(1 3) β D glucan Serum Testing
English summary

Une production de l'Institut national
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et en services sociaux (INESSS)

SUMMARY

Appropriate Use of Laboratory Tests – (1-3)- β -D-glucan Serum Testing

Introduction

Detection of (1-3)- β -D-glucan (BDG) in the bloodstream offers limited benefits compared to traditional microbiological techniques for the diagnosis of suspected invasive fungal infections (IFI). However, requests for BDG detection in Québec appear to have increased in recent years.

In order to reduce the use of biomedical tests of low clinical value, the *Direction des laboratoires et de l'imagerie médicale* (DLIM) of the *ministère de la Santé et des Services sociaux* (MSSS) mandated the *Institut national d'excellence en santé et services sociaux* (INESSS) to assess the clinical relevance of serum BDG testing, as well as its organizational and economic aspects.

Methodology

A review of clinical indications and recommendations related to serum BDG detection in the literature was carried out according to INESSS's rapid review methodology. An advisory committee of healthcare professionals concerned with biomedical test requests was consulted to collect experiential and contextual information specific to Québec. The relevance of the present report and its overall scientific quality, as well as its acceptability and applicability, were reviewed by external readers selected on the basis of their expertise. A guidance sheet to support appropriate use accompanies this report.

Results

Following analysis of all the collected information and an iterative consultation process with stakeholders, the following non-indications and indications were formulated to guide appropriate use of serum BDG testing:

Serum BDG testing **is not indicated** for:

- diagnosis of IFI;
- initiation or monitoring of antifungal treatment.

Other considerations

- Serum BDG testing may be part of a diagnostic strategy in the presence of very specific clinical conditions. Such requests should be **supervised by a microbiologist-infectious disease physician** engaged in IFI.
- **Identification techniques other than** serum BDG testing should be **prioritized** when IFI is suspected.

- Since serum BDG testing is performed outside of Québec, requests require approval from a designated authorizing physician.

Conclusions

The guidance sheet produced as part of this work will guide and equip healthcare professionals for more appropriate use of serum BDG testing. Such practice could lead to reduction in the number of requests made each year and their associated costs. A positive environmental impact may also result from these new recommendations.



Siège social

2535, boulevard Laurier, 5^e étage
Québec (Québec) G1V 4M3
418 643-1339

Bureau de Montréal

2021, avenue Union, 12^e étage, bureau 1200
Montréal (Québec) H3A 2S9
514 873-2563
inesss.qc.ca

**Institut national
d'excellence en santé
et en services sociaux**

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