



## Assessment of the usefulness of performing bacterial identification and antimicrobial susceptibility testing 24 h a day in a clinical microbiology laboratory

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Titre	Assessment of the usefulness of performing bacterial identification and antimicrobial susceptibility testing 24 h a day in a clinical microbiology laboratory
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Auteur	Eveillard, Matthieu [1], Lemarié, Carole [2], Cottin, Jane [3], Hitoto, H. [4], Mahaza, C. [5], Kempf, Marie [6], Joly-Guillou, Marie-Laure [7]
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Mots-clés	antimicrobial resistance [8], antimicrobial therapy [9], clinical microbiology laboratory [10], night service [11], patient management [12]
Résumé en anglais	<p>The impact of inoculating agar media with positive blood cultures and of performing bacterial identification and antimicrobial susceptibility testing (AST) for positive urine cultures, blood cultures and certain fluid cultures after day hours (night service (NS)) was evaluated in a clinical microbiology laboratory. The impact of the NS was assessed in terms of decreases in the delays from the time of sampling to the time at which results became available and of the consequences for patient management and antimicrobial treatment. Two major benefits were obtained: initiation of earlier appropriate treatment, and change to a reduced-spectrum but still efficient regimen. The hours of laboratory testing and the availability and transmission of results to the clinical staff were recorded. Concurrently, these hours were estimated as though laboratory tests had been performed in the absence of NS. Reductions in delay were defined as the differences between the hours actually spent and the estimated hours. Economic concerns were also considered. Overall, 430 samples for which an identification and/or AST were performed during the NS were included in the study. The NS led to the implementation of earlier appropriate therapy in 97 cases (22.6%), and to the change to reduced-spectrum but still efficient regimens in 23 additional cases (5.3%). In conclusion, there appeared to be benefits from a system providing bacterial identification and AST overnight, but a study of the cost-effectiveness of the NS would be useful to back up this observation.</p>
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### **Liens**

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