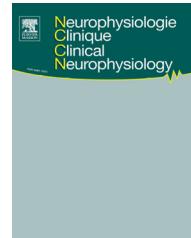




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COMPREHENSIVE REVIEW

## French guidelines on stereoelectroencephalography (SEEG)

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## KEYWORDS

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Children;  
Drug-resistant epilepsy;  
Epilepsy surgery;  
Focal epilepsy;  
Guidelines;  
Invasive exploration;  
Stereo-electroencephalogram;  
Thermocoagulations

**Summary** Stereoelectroencephalography (SEEG) was designed and developed in the 1960s in France by J. Talairach and J. Bancaud. It is an invasive method of exploration for drug-resistant focal epilepsies, offering the advantage of a tridimensional and temporally precise study of the epileptic discharge. It allows anatomo-electrical correlations and tailored surgeries. Whereas this method has been used for decades by experts in a limited number of European centers, the last ten years have seen increasing worldwide spread of its use. Moreover in current practice, SEEG is not only a diagnostic tool but also offers a therapeutic option, i.e., thermocoagulation. In order to propose formal guidelines for best clinical practice in SEEG, a working party was formed, composed of experts from every French centre with a large SEEG experience (those performing more than 10 SEEG per year over at least a 5 year period). This group formulated recommendations, which were graded by all participants according to established methodology. The first part of this article summarizes these within the following topics: indications and limits of SEEG; planning and management of SEEG; surgical technique; electrophysiological technical procedures; interpretation of SEEG recordings; and SEEG-guided radio frequency thermocoagulation. In the second part, those different aspects are discussed in more detail by subgroups of experts, based on existing literature and their own experience. The aim of this work is to present a consensual French approach to SEEG, which could be used as a basic document for centers using this method, particularly those who are beginning SEEG practice. These guidelines are supported by the French Clinical Neurophysiology Society and the French chapter of the International League Against Epilepsy.

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