

Title	Ultrasound guidance for peripheral nerve blockade
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Aim

According to professionals, ultrasound guidance for peripheral nerve blocks (PNBs) has been progressively entering the practice of regional anaesthesia for about ten years. Other guidance techniques that preceded ultrasound guidance are used, such as the surface landmark technique combined with paraesthesia and the neurostimulation guidance technique.

With a view to the reimbursement of this method of guidance for PNBs in the upper and lower limbs, trunk and abdominal wall by National Health Insurance, in May 2013 the CNAMTS and the Société française d'anesthésie réanimation (French Society of Anaesthesia and Intensive Care) jointly asked the Haute Autorité de Santé (French National Authority for Health) to assess this method of guidance.

The objective of this work is to ensure that ultrasound guidance is a validated method when administering a PNB.

Conclusions and results

The literature selected confirms that this guidance method has become more widespread since the 2000s. Most of the studies included in the selected literature (systematic reviews, meta-analyses, technological assessment reports and guidelines) had a high level of evidence (randomised controlled studies). This literature is in favour of ultrasound guidance because of its proven advantages in relation to other guidance techniques as regards the quality of the procedure (increased success rate) and its safety (reduced risk of vascular puncture).

The professional view is consistent with the analysis of the literature. In particular, these two national professional councils believe that ultrasound guidance is a validated guidance technique which is taught and adopted in practice; that it is appropriate for all PNBs and all types of patient; and that there are no particular points to be born in mind when adopting it and using it, provided that anaesthetists have been properly trained in its use.

The data collected during this assessment (literature and professional opinion) are therefore congruent with the arguments and objectives of the request.

In summary, this assessment by HAS shows that ultrasound guidance is now a validated method for use in PNBs.

Methods

A systematic bibliographical search of the scientific literature, focusing on the efficacy and the safety of the technique, was carried out in order to meet this objective. Fifteen documents, most of which were systematic reviews met the selection criteria. The primary efficacy endpoints were the quality of the nerve block (success rate) and the safety of the nerve block (incidence of adverse events). The selected literature was analysed critically and the views of professionals were obtained by consulting the parties involved (Conseils nationaux professionnels des anesthésistes-réanimateurs et des radiologues [National Professional Councils of Anaesthetists and Radiologists]).

Written by

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