

State of knowledge in support of the decision to integrate new endobronchial ultrasound (EBUS) services in Québec hospitals

English summary

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The complete version of this guidance (in French) is available on the website of INESSS in the *Publications* section.

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SUMMARY

Background

Endobronchial ultrasound (EBUS) is a minimally invasive procedure performed with a bronchoscope fitted with an ultrasound transducer, which, when introduced into the airways, enables one to visualize the structures surrounding the trachea and bronchi and to perform transbronchial needle biopsies of any lesions detected.

In 2016, two lung cancer network partner hospitals made a request to the ministère de la Santé et des Services sociaux (MSSS) to offer EBUS, and other similar requests are expected. The MSSS would like to develop an analytical framework for making objective, coherent decisions in line with the mission of the hospitals and their facilities. Care management at the provincial level has to take into account, among other things, two main issues: the provision of quality care and the population's access to care locally.

Method

A literature search was performed for the purpose of evaluating EBUS indications, quality, safety and performance. We consulted a few key stakeholders and drew up an overview of EBUS practice in Québec.

Results

EBUS is a specialized procedure and is deemed safe. Diagnostic performance and clinical utility have been demonstrated, in particular, for diagnosing pulmonary nodules, diagnosing, staging and restaging lung cancer, and diagnosing sarcoidosis. In Québec, most EBUS indications concern lung cancer.

The quality of EBUS is dependent on a trained, competent multidisciplinary team, the availability of adequate resources, and the use of clinical protocols. Measuring diagnostic performance is the reference standard for technical quality, but this is not routinely done in Québec. Without this direct measure, EBUS quality can be gauged by the number of procedures for acquiring and maintaining technical competence. The minimum number required per professional in training for developing expertise is about 50, although some studies note that improvement continues after this number is reached. The number of procedures needed to maintain competence has not been well studied. Two out of three expert consensus reports suggest a minimum threshold of 20 to 25 procedures a year to maintain competence per professional, however, innovative evaluation methods of clinical performance other than the measure of volumes exist. The applicability of these innovative performance and maintenance-of-competence evaluation methods would merit examination in Québec. According to Québec data, 20 % of respirologists perform fewer than 20 procedures annually.

The overview of EBUS practice in Québec reveals disparities in the offer of services between regions and between CISSSs. These differences are not always

due to geographical remoteness or proximity to major urban centres. The offer of services should be planned in accordance with quality and access criteria both at the provincial and regional levels. An analytical grid is proposed to assist in making a decision to integrate a new EBUS service and to provide CISSSs / CIUSSSs support for organizing services in line with the parameters of the Direction générale de la Cancérologie (DGC)'s hierarchical and integrated network.

Various factors need to be taken into account. They include quality assurance based on EBUS competence certification procedures and/or EBUS volumes for maintaining competence, the expertise required of a trained, competent team, the continuity of services in the care and services trajectory of CISSS clientele, geographical accessibility, and a cost analysis. The projections for the future demand for EBUS are complex and should take into account these variables and the potential optimization of the relevance of utilizing EBUS. Using the proposed grid as a guide, we provide an analysis of the two hospitals that made the request to offer EBUS.

The possible practice and performance differences in the trajectory of care of patients suspected of having lung cancer could be measured. This would help support decisions aimed at optimizing EBUS and, more broadly, the management of Québec lung cancer patients. The analysis should be performed for each CISSS or CIUSSS, taking into consideration interinstitutional variabilities in terms of social, geographical and health care realities. The lung cancer network planning done by the DGC in collaboration with the stakeholders will define the hierarchy of diagnostic services and the hospital designation criteria.



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