



What is the clinical and cost effectiveness of outpatient biopsy, for diagnosis of suspicious lesions of the larynx, pharynx and tongue base?

What is the condition?

The number of people being diagnosed with head and neck cancer in Scotland is increasing and early detection and treatment is important.

For many people, the first stage of diagnosis includes an examination of their throat using a flexible camera inserted through the nose. For those suspected of having cancer, it is common practice for them to go on to have a further examination under a general anaesthetic in an operating theatre so that a biopsy can be taken to confirm the diagnosis.

What is the technology?

A flexible camera system is now available which has a channel through which fine forceps can be guided. This means that a throat biopsy can be taken during the initial examination in the outpatient clinic. For some patients this facilitates a more rapid diagnosis, with faster progress to appropriate care or treatment.

What we did

We looked for studies which compared biopsy in the outpatient clinic under local anaesthetic with biopsy performed under general anaesthetic in the operating theatre.

What we found

Based on a small number of studies, we found that it was possible to take a biopsy safely in the outpatient clinic during the same appointment as the initial examination, and the procedure was tolerated by most patients.

Following the outpatient biopsy, if the outcome was a diagnosis that cancer was present, it was likely that this diagnosis was accurate. This means that many patients may be able to avoid a procedure under general anaesthetic, and will more quickly progress to appropriate care and treatment.

For patients where a cancer was suspected but the outpatient biopsy was negative, the accuracy was not good enough to rely on it and patients still required an examination and biopsy in the operating theatre under general anaesthetic to reach a diagnosis.

We calculated the costs of outpatient biopsy and compared this to the costs of biopsy in the operating theatre under general anaesthetic. We found that the availability of outpatient biopsies is likely to be resource-saving for the NHS. This is because a proportion of patients may avoid a costly operating theatre procedure, which offsets the initial cost of buying additional outpatient biopsy equipment.

What is our advice to NHSScotland?

Outpatient biopsy safely allows selected patients the possibility of a more rapid diagnosis through the avoidance of biopsy under general anaesthetic in the operating theatre. The availability of outpatient biopsy is likely to result in resource savings for NHS Scotland.

Future work

Since there were only a small number of prospective studies, there is a need for a large prospective study using the latest imaging technology to further assess the procedure.

This plain language summary has been produced based on SHTG Advice Statement 012-18 (October 2018)