



## Professor Iain Hutchison's research at Barts and the London: SEND the cancer away

Mouth cancers can occur anywhere in the oral cavity. This includes the lip, tongue, gums, tonsils and back of the mouth (oropharynx). Over 6,000 people are diagnosed with oral cancer every year in the UK and almost 2,000 lose their fight (every year).

About 90% of mouth cancers are oral squamous cell carcinomas (or OSCC), cancers that start in the skin-like cells that cover the inside of the mouth, nose and throat. OSCC comprises many different types of cancer that differ according to where they grow. The other 10 percent of oral cancers affect mainly the salivary glands and the lymph nodes, glands that make up our lymphatic system. This is part of our immune system and helps our body fend off infections and remove toxins.

### When mouth cancer spreads

One thing that most oral cancers have in common is that they usually start spreading to the lymph nodes in the neck. Unfortunately, cancers that have spread (secondaries or metastases) are often too small to see, feel or even read on scans, making it very difficult for the doctors to understand if tumour cells have reached the lymph nodes.

This poses a dilemma for the doctors - if cancer cells have spread and are not removed, new tumours may start growing even if the main mass is removed. Many surgeons therefore also remove some of the lymph nodes in the neck when they operate on the primary mouth cancer to try to remove as many lymph nodes as possible. But this procedure comes with the risk of more side effects for the patient.

### Improving surgery, improving lives

Removing lymph nodes from the body, is an invasive procedure that can cause physical and cosmetic side effects including persistent pain, stiffness or swelling so doctors always need think about its benefits carefully. At the moment surgeons don't know what is best to do when they cannot see cancer in the lymph nodes. We need to know if removing the cancer alone or removing the cancer as well as some of the lymph nodes in the neck improves the outcome for people with mouth cancer.



Professor Iain Hutchison is running the only large scale surgical trial in head and neck cancer in the UK. This study is in collaboration with the charity Saving Faces<sup>1</sup>, which was founded by Professor Hutchison and he is also the Chief Executive. The trial involves over 40 surgeons and 30 centres across the country and aims to determine the appropriate treatment that people with the disease should receive. This could improve the outlook and quality of life for thousands of patients. In the trial, the lymph nodes will be removed from people with oral cancer and no sign of spread, only if their tumour exceeds a certain size. This selective procedure, called SEND, may be the way forward in making sure people with oral cancer are not either over- or undertreated.

Dr Hutchison wants to see if this new criteria will keep the number of lives that surgery saves unchanged or if it can even improve it by avoiding unnecessary operations. His objective is to save as many lives as possible and to make sure that all patients have the best quality of life possible after their treatment.

Dr Hutchison divides his time between St. Bartholomew's, The Royal London and University College London Hospitals, where he works as an oral and facial surgeon and in reconstructive head and neck cancer surgery. His research group is based at the Blizard institute in Whitechapel, London, a centre of excellence in biological research that provides the perfect environment for the development of interdisciplinary collaborative research.



*Barry at the Blizard, with Dr Ahmad Waseem and Dr Tech Teh.*

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<sup>1</sup> Saving Faces is a charity dedicated to the worldwide reduction of worldwide reduction of facial injuries and diseases.