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headandneck 5000

# Scientific Newsletter

**Issue 4 - June 2018**

**Lübeck Meeting**

**Professor Andy Ness**


In May, Professor Ness attended the German Society of Oto Laryngology, Head and Neck Surgery in Lübeck. He gave a presentation entitled "Prevalence of human papillomavirus antibodies and survival in people with head and neck cancer: results from Head and Neck 5000". Much of the conference was clinically focused and in German but there was a series of research sessions (called the "International Forum") running through each day in English covering a range of topics. There were interesting sessions on "Studies potentially changing future treatment strategies of HNSCC" and on "liquid biopsy". And there was the beautiful city of Lübeck sometimes called "the Queen of the Hanseatic League" or "the Venice of the Baltic" to explore in the spring sunshine! There was even the chance to catch up with Professor Hisham Mehanna who is usually to be found in a city that some have suggested is "the Venice of the North". In addition several researchers based in Germany made contact at the meeting or afterwards wanting to discuss collaboration.

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## Update on the Head and Neck 5000 Follow-up Study

62 out of the 76 possible sites have joined in the Follow-up Study. We have now sent out 3490 questionnaires and received 2144, giving a questionnaire return rate of 61%, which we are very pleased with. The study sites have sent in a total of 4117 Data Capture Forms which leaves just under 300 left to go. The huge task of entering the data is almost up to date, while the huge task of data cleaning is ongoing, but we are making good progress and hope to complete the study on target.

## Collaboration with the German Cancer Research Centre

**Dr Miranda Pring**

In February, Dr Pring joined Professor Ness (on his sabbatical) and visited the German Cancer Research Centre (DKFZ) in Heidleberg. She visited the laboratories and met with colleagues in the Division of Molecular Diagnostics of Oncogenic infection. Several collaborative research proposals were discussed that will be centred on the utilisation of tissue samples that have been donated by our HN5000 participants. During the visit, Dr Pring was invited to deliver a presentation entitled "Large clinical cohorts in Head and Neck cancer- A clinical pathology perspective on the UK Head and neck 5000 study' to local researchers and clinicians.

## Cause of death in people with Head and Neck Cancer: developing a coding algorithm

**Ilaria Pignatelli & Stu Toms**

Both national and international algorithms exist to ensure consistency in coding morbidity and mortality. However, there can be several limitations using death certification for determining cause of death.

Death certificates have been used to identify the cause of death of people with both malignant and benign disease however the literature is limited when looking at cause of death in people with known head and neck cancer. There are several challenges using death certification to identify cause of death, in particular, identifying cause of death in people with multiple co-comorbidities and complex diagnoses. This can lead to misclassification of cause of death as well as under or over-reporting of certain cancers on death certificates. Differences in understanding between doctors certifying and coders of the meaning of a term may introduce systematic biases to the cause of death. For example, "metastatic lung cancer" could be interpreted either as metastasis from a lung primary or metastasis to the lung.

We are working on developing an automated algorithm to provide a more refined and accurate estimate of cause of death using the incorporation of clinical data with death certification data from the UK Health and Social Care Information Centre.

## Change in alcohol and tobacco consumption after a diagnosis of head and neck cancer: Findings from head and neck 5000

**Chris Penfold**

We know that smoking and alcohol consumption increase the risk of developing head and neck cancer. When someone is diagnosed with head and neck cancer, it may be such a significant event in their life that it leads to spontaneous changes in smoking and drinking. Previous studies have looked at whether people change these behaviours after being diagnosed with cancer. However, these studies were often quite small or did not look at whether any changes were maintained throughout the first year after diagnosis.

We used information on smoking and alcohol consumption from 973 participants in the Head and Neck 5000 study recorded at the time of diagnosis, and 4 and 12 months later. We found that the year after a head and neck cancer diagnosis is characterized by reductions in alcohol consumption and smoking prevalence. Most smokers at diagnosis stop by 12 months, but former smokers are at risk of restarting. People who continue smoking 4 months after diagnosis are likely to continue up to 12 months. We also found that the majority of high alcohol consumers at diagnosis did not reduce their consumption. This group of people in particular may benefit from help both to reduce their alcohol consumption and maintain this reduction.

Link to the publication: http://doi.wiley.com/10.1002/hed.25116

## Tobacco smoking and alcohol drinking at diagnosis of head and neck cancer and all-cause mortality: Results from head and neck 5000.

**Rhona Beynon**

It is well-known that smoking and heavy alcohol use increase the risk of developing head and neck cancer, but the prognostic role of these behaviours is not fully understood. Moreover, it is unclear whether any associations of smoking and alcohol drinking with survival are influenced by tumour stage and HPV status. The purpose of this research project was to examine the effects of smoking and alcohol intake at the time of diagnosis on overall survival (OS) in Head and Neck 5000. Models were adjusted for a wide range of clinical, biological and lifestyle factors, including tumour stage, HPV status, comorbidity and socioeconomic position.

The major findings were that, even after adjusting for important prognostic factors, smoking status was associated with OS; current smokers had a 70% higher mortality risk compared to never smokers, whilst former smokers were 40% more likely to die during follow-up (median 3.5 years). The amount of alcohol consumed around the time of diagnosis however, was not associated with OS in this analysis. It is possible that smoking cessation and reduced alcohol consumption could reduce mortality in this population, and this will be the focus of future work. Furthermore, we are currently examining whether epigenetic signatures of tobacco and alcohol exposure improve prediction compared to self-reported smoking status and alcohol use.

Link to the publication: https://onlinelibrary.wiley.com/doi/abs/10.1002/ijc.31416