

# headandneck 5000

## Association of comorbid burden with survival in head and neck cancer

**Principle Applicant:** Sarah Schimansky

**Co-Applicants:** Andy Ness, Amy Davies, Andrea Waylen, Christopher Penfold, Rhona Beynon, Samantha Lang

### Scientific Outline

#### Summary

This study aims to investigate the relationship between comorbid burden at diagnosis and overall survival in patients with head and neck cancers (HNC). Studies consistently demonstrate that patients with HNC have a higher comorbid burden compared to the general population. The literature also suggests that comorbidity may adversely affect treatment outcomes and survival in HNC. However, due to limited prospective data and frequently low patient numbers many studies were unable to account for all potential confounding variables. It remains unclear whether comorbidity at diagnosis independently affects overall survival or whether it is a surrogate marker for smoking and alcohol intake.

We propose to use data from the Head and Neck 5000 cohort to analyse the association between comorbidity at time of diagnosis and overall survival. The Head and Neck 5000 cohort is unique in that it provides extensive prospective U.K. data on mortality (including 2-year follow-up), treatment, social, behavioural and clinical variables. In addition, detailed comorbidity data was collected using the chart-based Adult Comorbidity Index 27 (ACE 27). This allows us to evaluate the impact of comorbid burden and severity at diagnosis on overall survival and adjust for potential confounders.

The prospective nature of the Head and Neck 5000 data also enables us to study the longitudinal effect of comorbidity to assess if the impact of comorbidity on overall survival changes with time after diagnosis. Overall, the Head and Neck 5000 cohort is ideally suited to answer our research questions. As U.K. data on the impact of comorbidity on survival in HNC remains limited, results from this study would contribute to the current evidence base. The study may ultimately lead to improved patient care and treatment planning in HNC by formally using comorbid burden as a prognostic tool.

## References

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