

# headandneck 5000

## Depression and survival among head and neck cancer patients

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### Scientific outline

**Background.** Depression has been reported in about 11-20% of head and neck cancer (HNC) patients [1]. Awareness for (symptoms of) depression in clinical practice is of great importance, since it influences quality of life [2] and is highly likely to influence survival as well [3,4]. Two systematic reviews in cancer patients in general found that depressed cancer patients were 17-39% more likely to die than non-depressed cancer patients [3,4]. A recent study among HNC-patients supported these findings [5]. However, more detailed insight into the association between depression and survival is called for.

**Methods.** All newly-diagnosed HNC-patients treated with curative intent of the Head and Neck 5000 project will be included. Survival analyses will be performed to assess the association between depression (at baseline and 4 and 12-months follow-up) and 2-year disease-specific and overall survival, once without and once with adjustment for confounders. Potential confounders investigated include gender, age, cancer location, stage, treatment, HPV-status, comorbidity, physical functioning and treatment-related side-effects (symptom scales of the EORTC QLQ-C30 and QLQ-H&N35). In addition, the potential mediating effect of lifestyle behaviour (smoking, alcohol use, diet) will be investigated.

**Discussion.** This study will provide detailed insight into 1) the association between the course of depression and survival in HNC-patients; 2) the adjusted association between depression and survival after adjustment for potential confounding factors, including clinical characteristics and side-effects of cancer and its treatment; and 3) the potential mediating effect of lifestyle behaviour.