Societal cost analysis for head and neck cancer
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Abstract (350 words)

Background
In order to guide key health care decisions, it is important to assess societal costs for head and neck cancer (HNC) for a number of reasons. Firstly, the incidence of HNC is increasing, particularly oropharyngeal cancer (OPC) associated with human papilloma virus (HPV). Secondly, knowledge on indirect cost for HNC, e.g., sick leave and early retirement, is insufficient, which is important because younger individuals now contract OPC. Finally, since HNCs, e.g., oral cancer, may be treated in more than one way, it is important to assess survival and morbidity in relation to societal costs when deciding which treatment to choose.

Aims
1. To assess societal costs of OPC associated with HPV from: a) a top-down prevalence-based aspect, and b) a bottom-up individual perspective.
2. To describe in indirect societal costs for HNC (all sites) over time in Sweden from 2000 to 2018.
3. To evaluate direct/indirect costs for two different treatments of oral cancer, i.e., surgery either preceded or followed by radiotherapy.

Methods
Data retrieved: 1a) Prevalence data from the literature and costs from national registries. 1b) 123 patients with OPC and costs from local and national registries. 2. Indirect costs for HNC from national registries. 3. 91 patients with oral cancer from the ARTSCAN II-study and costs from local and national registries. Direct costs are based on health care utilization and indirect costs on loss of productivity due to morbidity and premature mortality.

Results
1. 1a) The annual cost of precancers/cancers attributable to HPV was €94.0 million: OPC represented €11.9 million (Östensson 2018).
   1b) The mean cost per patient was €103 386 for HPV-positive and €120 244 for HPV-negative disease, and cases associated with HPV represented 79% of the total costs for OPC (Silfverschiöld 2019).
2. Pending.
3. Pending.
Significance
Due to limited health care resources, it is important to understand in detail where costs arise and what they represent. Focusing so far on OPC, we have detailed costs for the condition, particularly with reference to cases associated with HPV. Our results may help decision makers to understand how to best allocate resources available.

Publications: