Public knowledge of Head and Neck Cancer

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Abstract
Studies show 60% of patients with newly diagnosed Head & Neck Squamous Cell Cancer in Ireland, present with advanced disease. A poor level of knowledge and awareness among the public of Head & Neck Cancer, is an important consideration in the often delayed presentation for medical attention in many of these cases. Our study surveyed 200 volunteers of the public to assess their knowledge and awareness of Head & Neck Cancer. One hundred and forty (70%) of respondents had never encountered the term Head & Neck Cancer. One hundred and forty six (73%) failed to identify excessive alcohol consumption as a risk factor. Less than 100 (50%) would have concern about persisting hoarseness or a prolonged oral ulcer. An urgent need exists to raise awareness of Head & Neck Cancer among the public in Ireland.

Introduction
The term Head and Neck Cancer (HNC) refers to a group of malignant neoplastic lesions, which present a similar biological and behavioural pattern and are located in the upper aerodigestive tract. There is a wide range of histological types, however squamous cell carcinoma predominates, originating from aerodigestive epithelial lining. HNC is the fifth most common cancer worldwide, with more than half a million new cases diagnosed annually and 200,000 deaths occurring per year. In Ireland, approximately 150 deaths occur annually, as a result of HNC and its sequelae.1

Worldwide the incidence of HNC has remained relatively stable over the last two decades. In many countries however, minor life-style modifications by risk groups and annual screening programmes could impact significantly on morbidity and mortality rates. Ninety percent of HNC cases arise following prolonged exposure to specific risk factors, such as tobacco, alcohol, snuff and UV radiation. Cancer of the mouth and throat are almost non-existent in adults who do not smoke or drink alcohol. Other important causative factors include poor dental hygiene, poor diet, chewing betel or areca nuts. More recently Epstein-Barr virus and human papilloma virus have both been implicated in the development of HNC.2,3 Survival rates however continue to be poor and treatment-related morbidity is still high. For example, 50% of patients with newly diagnosed tongue cancer or presenting with metastatic neck disease will die within 5 years.4 It is accepted that disease stage at diagnosis directly affects survival rates and that early diagnosis and treatment of HNC could boost survival rates to 70-80%. In Ireland, 60% of HNC patients are diagnosed at an advanced stage when the prognosis is poor and treatment morbidity high.5

It is difficult to understand why many patients often present so late for medical attention, particularly when HNC symptoms affect vital functions such as breathing, swallowing and speech. Early recognition of signs and symptoms of HNC can save lives. It is likely that a key factor responsible for a large proportion of patients presenting with advanced disease is a poor level of knowledge and awareness of HNC, among the general public. The aim of the current study was to assess the level of knowledge and awareness of HNC across the public in Ireland and to compare our findings with similar previous studies which have been conducted internationally.

Methods
The objectives of this study were to assess the levels of awareness and knowledge of HNC among the public in Ireland. The study was an open-questionnaire based survey of the general public in the West of Ireland. Members of the public attending Galway University Hospital were approached and asked to participate in the survey. Data was collected using a 12-part questionnaire which was completed by participants. The questionnaire initially explained to participants that Head and Neck Carcinomas (HNC) included cancers of the mouth, throat, larynx, nose and paranasal sinuses, among others. The questionnaire focused on a number of areas including general awareness of HNC, knowledge of symptoms and signs and knowledge of risk factors. Furthermore, it assessed knowledge of the morbidity associated with this range of cancers, along with enquiring about exposure to HNC-related health promotion information.

Results
Two hundred volunteers completed questionnaires; 98 males and 102 females. The volunteers were categorised into 4 age groups; 18 – 30 yrs (34%), 30 – 50 yrs (34%), 50 – 70 yrs (20%) and over 70yrs (12%).

Awareness of Head and Neck Cancer
Seventy percent had never heard the term Head & Neck Cancer, 26% reported hearing the term occasionally and 4% stated they had often heard the term.

Level of Knowledge
Volunteers were then asked what level of knowledge they felt they had about Head & Neck Cancers; 83% felt they knew nothing at all or very little, while 14% & 3% had a small amount or a good level of knowledge, respectively. No volunteers felt they had a background of more than four hundred new cases diagnosed each year.

Risk factors
Volunteers were asked to identify risk factors associated with the development of a Head & Neck Cancer. Ninety six percent successfully identified smoking as a risk factor while 27% were aware that excessive alcohol consumption was a risk factor. Twelve percent were aware that other risk factors, such as poor diet and poor dental hygiene existed.

Early signs of Head & Neck Cancer
A list of six symptoms was given, three of which were early signs of a Head & Neck Cancer. Volunteers were asked to correctly identify any three HNC symptoms from a list.

Disease Morbidity
This area assessed knowledge of the morbidity of Head & Neck Cancer, in particular its effect on vital functions, such as speech, swallowing, breathing and personal appearance.

Head & Neck Cancer health promotion
Volunteers were questioned about any previously encountered health promotion / awareness campaigns (Information leaflets, radio or television campaigns) promoting awareness of HNC in Ireland. Eighty four percent had never encountered any such information.

Discussion
The late diagnosis of HNC is directly related to the unfavourable survival rates which exist (five year survival rates for Stage III disease are 38%, and stage IV are 12-16%).6 This is despite recent advances in the treatment and diagnosis of HNC. A recent study of new cases of oral and pharyngeal cancers in Ireland, identified 60% of cases presenting with advanced disease (Stage III or Stage IV).7 A significant concern in the often delayed presentation of patients with HNC would appear to be a lack of knowledge of risk factors and early warning signs of HNC among the public. The results of our study identify a poor level of awareness and knowledge of HNC in Ireland. Of the volunteers questioned 68% were adults aged 30 or more. This gives significant cause for concern, as the classical at-risk category is males over the age of 40. Of even greater concern is that 70% of volunteers had never or rarely heard of the term HNC and that 83% felt they knew very little or nothing at all about this type of cancer. It is reassuring that 96% of volunteers correctly identified smoking as a risk factor, however this is likely to be due to widespread high-level anti-smoking campaigns.
In conclusion, our study identifies a poor level of knowledge of HNC among the general public in Ireland. Our study, we believe is the first Irish study of its kind to attempt to increase public awareness of HNC by health promotion would be a positive development, but serious consideration needs also to be given to directing resources to target this at-risk group.

A younger subgroup of patients who develop oropharyngeal cancers has recently emerged. These patients are typically non-smokers and drinkers. Recent figures suggest that despite a fall in overall HNC rates, oropharyngeal cancer rates are increasing. This has been attributed to the increased prevalence of sexually transmitted Human Papilloma Virus (HPV) oral infection. HPV-16 in particular has been strongly implicated in the development of these cancers.

Treatment outcomes differ also, with HPV positive tumours being highly radiosensitive and achieving better treatment outcomes compared to HPV negative tumours. Promoting awareness among young adults of the link between HPV oral infection and oropharyngeal cancers should therefore be included in any HNC health promotion.

Overall, an obvious need for health promotion in this area exists, with 98% of volunteers in our study stating that they would like to know more about HNC. This could be achieved through initial processes such as developing information leaflets in waiting areas of health centres, hospitals and dental clinics. Further options for promotion would include higher-profile public awareness campaigns, including both television and radio broadcasts. Furthermore, it is of equal importance to improve awareness among primary care providers and dentists of the early signs of HNC. Screening is generally quick, with a brief history and head and neck examination taking under ten minutes. Equally, it is important to provide clear information on the appropriate referral pathway for suspected new HNC cases, allowing them to be seen in a timely and efficient manner, preferably at a specialist cancer centre.

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