In 2016, 1,240 people in Scotland were diagnosed with cancer of the head and neck – with nearly 5 cases diagnosed every working day.

These cancers have shown among the largest increases in mortality rates in recent years – with a 37% increase in deaths in the last decade.

This growing risk has prompted the British Dental Association Scotland to develop this action plan. We have sought to highlight the key oral cancer trends in Scotland, and to set out a number of recommendations for the Scottish Government and NHS Boards on:

**Prevention**
- Ensure sufficient resources for effective smoking cessation and alcohol treatment services.
- Implement the HPV vaccination programme for boys as soon as possible, with a catch-up programme targeting older children still in school.

**Early detection**
- Adopt a proactive approach to target individuals who do not engage regularly with oral health services – including developing novel referral pathways (for example, from community and voluntary sectors) and public awareness campaigns.
- Maintain a maximum dental recall interval of 12 months – or shorter for those considered to be high risk – to ensure the maximum opportunity for early detection.
- Raise awareness of the early signs of suspected oral cancer – such as lesions – to encourage dental visits.

**Joined-up services**
- The same referral process should operate across Scotland and there should be a named contact and a direct dial line in each NHS Board.
- The Glasgow Referral Pathway and Timeline should be accepted as current best practice, while recognising that it has scope for improvement.
- The Scottish Government should commission an audit of referral pathways to highlight where improvements are required.
- NHS Boards need to develop and ensure effective links between independent dentists, GPs and pharmacists at a local level.

As we have developed this plan we have sought opinion from dentists across Scotland. Our members are often the first health professionals to identify the tell-tale signs of oral cancer at a routine checkup. We have tapped into the insights of those on the front line in the battle against this preventable disease.

![Dr David Cross](image)

Chair, BDA Scotland Oral Cancer Working Group
Senior Lecturer and Honorary Consultant, Glasgow Dental Hospital and School

**The case for action**

Oral cancers are among the fastest rising types of cancer and kill more than three times as many people in Scotland as car accidents.
The risk factors, treatment and outcomes from these two types of cancer are different. Each year, around 500 people are diagnosed with mouth cancer in Scotland, and almost 350 people are diagnosed with throat cancer.

Scotland has one of the highest oral cancer incidence rates in Europe. While rates of mouth cancer have seen moderate increases in recent years, rates of throat cancer have almost trebled and are the fastest rising cancers in Scotland.

Cancer Research UK estimates that incidence rates for oral cancers will rise by a further 33% in the UK by 2035. This is despite the rates of smoking – traditionally the main cause of oral cancers – falling.

People in Scotland’s most deprived communities are more than twice as likely to develop and die from mouth cancer.

THROAT CANCER RATES have trebled in recent years – making it the fastest rising cancer in Scotland.

Key trends

Over two thirds of head and neck cancers in Scotland are mouth cancer and oropharyngeal (throat) cancer – which are often first spotted by dentists during routine check-ups.

- The risk factors, treatment and outcomes from these two types of cancer are different. Each year, around 500 people are diagnosed with mouth cancer in Scotland, and almost 350 people are diagnosed with throat cancer.
- Scotland has one of the highest oral cancer incidence rates in Europe. While rates of mouth cancer have seen moderate increases in recent years, rates of throat cancer have almost trebled and are the fastest rising cancers in Scotland.
- Cancer Research UK estimates that incidence rates for oral cancers will rise by a further 33% in the UK by 2035. This is despite the rates of smoking – traditionally the main cause of oral cancers – falling.
- Mouth and throat cancers are among the most unequally distributed cancers in the population, with incidence of mouth cancers, and mortality from mouth cancers, both over twice as high in people in the most deprived areas of Scotland.
- There are very significant financial costs associated with oral cancer in Scotland – with cases costing NHS Scotland up to £90,000 per patient. Factoring in the range of radiotherapy, surgical and restorative treatment options available to patients – this means a potential cost to the taxpayer of over £65 million a year. These costs are expected to more than double by 2035 based on current trends.

The annual cost to NHS Scotland for treating oral cancers is likely to double by 2035.

Likely increase in oral cancer incidence in the UK by 2035.

Cancer Research UK
**Prevention**

Most cases of oral cancer have preventable causes, and over 90% of cases could be avoided.

- The main behavioural risk factors are tobacco use and alcohol consumption – particularly in combination.
- Dentists are deeply concerned about cuts to alcohol treatment and smoking cessation services. There has been a 40% drop in GP prescriptions for smoking cessation products in Scotland between 2005-06 and 2016-17, and we call on Scottish Government and NHS Boards to ensure that adequate funding is provided for these vital services.
- Other important factors include a poor diet which is low in fresh fruit and vegetables, and poor levels of oral health and dental care. Scotland introduced minimum pricing for alcohol in May 2018, and the Scottish Government published A Healthier Future: Scotland’s Diet & Healthy Weight Delivery Plan in July 2018. These initiatives may help to address some of the causes of oral cancer.
- Oral Human Papillomavirus (HPV) is an important risk factor for throat cancer. HPV-driven throat cancer can be uniquely prevented by the HPV vaccination, which has been given to school-aged girls for the last decade in Scotland, and in July 2018 the Scottish Government announced that it would implement a vaccination programme for boys. This follows a successful UK-wide campaign by the BDA and partners from the HPA Action coalition. However, there is currently no timescale for introducing the programme.

**ACTIONS:**

- Ensure sufficient resources, funding and training for effective smoking cessation and alcohol treatment services, including within a dental setting.
- Implement the HPV vaccination programme for boys as soon as possible, with a catch-up programme targeting older boys who are still in school.
Early detection

Early detection of mouth or throat cancers reduces the treatment burden and improves the survival and quality of life of those diagnosed with the disease. Survival can be improved from 50 per cent to 90 per cent with early detection.

- The Scottish Government’s Oral Health Improvement Plan (published in January 2018) included a proposal to extend the dental recall interval for low-risk patients, and cited NICE guidance which stated that it may be extended over time up to an interval of 24 months.

- The overwhelming majority of dentists in Scotland have grave concerns this change will undermine their ability to catch oral cancers early. Colleagues have highlighted the need for more frequent (6 to 12-month) checks – even for “edentulous” patients who have lost their teeth.

- Respondents cited examples of oral cancer cases that simply do not fit the picture of ‘high risk’ patients – affluent, non-smokers, and moderate drinkers. This underlines the unique value of regular dental checks.

**ACTIONS:**
- Raise awareness of the early signs of suspected oral cancer – such as lesions or mouth sores that don’t heal – to encourage dental visits.
- Adopt a proactive approach to target individuals who do not engage regularly with oral health services – including developing novel referral pathways (for example, from community and voluntary sectors) – and public awareness campaigns.
- Maintain a maximum dental recall interval of 12 months – or shorter for those considered to be high risk – to ensure the maximum opportunity for early detection.

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**EARLY DETECTION**

**Survival can be improved from 50% to 90% with early detection.**

**97%**

of Scottish dentists**

believe longer recall intervals would pose a risk for oral cancer detection.

BDA survey

“A 24-month interval would be a disaster as once people forget their 2 year appointment it could be much longer before they remember or decide to return with potentially life threatening symptoms”

Dentist from Borders

“My dentist by her quick actions was a huge contributory factor to the treatment being successful. It’s now been just over 3 years since the treatment finished and so far all examinations to date have been clear. Given what happened to me I am a firm believer in the benefits of 6-monthly dental check-ups.”

Oral cancer survivor from Perth

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Oral cancer survivor from Perth
The Oral Health Improvement Plan recognises that patient outcomes are improved if there is a clear clinical oral cancer pathway. The Plan includes a specific commitment to “ensure that the clinical pathway across Scotland is safe, consistent, clear and effective.”

**Actions:**
- The same referral process should operate across Scotland and there should be a named contact and a direct dial line in each NHS Board.
- The Glasgow Referral Pathway and Timeline should be accepted as current best practice, while recognising that it has scope for improvement.
- The Scottish Government should commission an audit of referral pathways to highlight where improvements are required.
- NHS Boards need to develop and ensure there are effective links between independent dentists, GPs and pharmacists at a local level.
- BDA Scotland welcomes this initiative and within this document proposes a possible pathway that NHS Boards can work towards to ensure that this commitment is delivered. While our members value referral pathways, there are clear inconsistences, and we propose that further audits and research projects are carried out to assess their effectiveness.
- Frontline primary care teams also have a potential role in delivering prevention and early detection interventions. However, cancer pathways can be fragmented over several locations and patients living in remote or rural locations may face particular difficulties in accessing appropriate services.
- Dental practices have a pivotal role in routine clinical oral examination, but it is important to note that people at the highest risk are perhaps less likely to attend dental practices regularly. Further efforts are required to extend the reach of dental services into these communities, possibly by establishing local clinical networks across primary care.
- Recent research has found that around half of patients diagnosed with oral cancer had visited their dentist in the 2 years prior to diagnosis. This highlights the vital role dentists play in early detection of oral cancer. Almost all these patients had attended their pharmacist or GP during this period – emphasising the need to build local networks to reach out to those patients who are not attending the dentist regularly.
- Some patients may require dental extractions before surgery or radiotherapy commences.
- Diagnosis and treatment plan confirmed
  - Cancer nurse
  - Maxillofacial surgeon
  - Oral Surgeon
  - Oral pathologist
  - Radiologist
  - Restorative consultant
  - Hygienist
  - Dietitian
  - Speech therapist
- Restorative clinic
  - Complete dental assessment. Treatment discussed along with tooth replacement options post treatment
  - Cancer is removed. reconstructive surgery can be done to help restore the appearance and function
- Referral – Primary care
  - Dentist or GP make referral
  - Dentist to review after treatment
- Outpatients
- Maintenance & restoration
  - Restorative clinic
  - Reconstructive phase including tooth replacement options like dentures or implants
- Inpatients
  - Radiotherapy or chemotherapy may be used to reduce size of larger tumours
- Outpatients