

Policy statement and recommended actions for early detection of oral cancer in the Eastern Mediterranean Region

Policy goal

Implement an early detection programme to detect oral cancers at an early stage when they are small and localized, thus reducing mortality from oral cancer.

Background

The incidence and frequency of oral cancer are low in almost all countries of the WHO Eastern Mediterranean Region with the exception of Pakistan, southern Saudi Arabia, Somalia, Sudan and Yemen.¹ A high risk of oral precancerous lesions and oral cancer has been reported among users of qat (e.g. in Yemen)² and toombak (e.g. in Sudan).³

Early diagnosis of oral cancer is feasible, as the oral cavity is an easily accessible site for examination by health professionals or individuals. Cases of early-stage oral cancer have a better prognosis than those with advanced disease.

Oral visual inspection using adequate light, with tactile palpation, is the most widely used oral cancer screening method due to its feasibility, safety and accuracy in detecting oral precancerous lesions and cancer, and its efficacy and cost-effectiveness in reducing oral cancer mortality.⁴ It involves systematic physical examination of the oral mucosa under bright light for signs of premalignant lesions or early oral cancer, followed by careful inspection and palpation of the neck for any enlarged lymph node masses. The target population for oral cancer screening is people aged 30 years and older with tobacco or alcohol consumption habits.

Key definitions

Early diagnosis aims to detect cancer in its early stages in people with symptoms, when treatment is simple and affordable, resulting in higher cure rates. Early diagnosis is based on improved public and professional awareness of signs and symptoms of cancer. It entails recognizing possible warning signs and taking prompt action, and requires education of the public to improve cancer awareness, training of health care professionals to improve their professional awareness and skills in recognizing early signs and symptoms of common cancers, availability, affordability and good access to diagnostic and staging investigations, treatment services and follow-up care in public health services.

¹ Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C et al. GLOBOCAN 2012 v1.0, Cancer incidence and mortality worldwide: IARC CancerBase no. 11 [internet]. Lyon, France: International Agency for Research on Cancer. Available from <http://globocan.iarc.fr>, accessed on 26 July 2016.

² El-Wajeh YA, Thornhill MH. Qat and its health effects. *Br Dent J*. 2009; 206(1):17–21.

³ Ahmed HG. Aetiology of oral cancer in the Sudan. *J Oral Maxillofac Res*. 2013; 4(2):e3.

⁴ Sankaranarayanan R, Ramadas K, Thara S, Muwonge R, Thomas G, Anju G et al. Long term effect of visual screening on oral cancer incidence and mortality in a randomized trial in Kerala, India. *Oral Oncol*. 2013; 49(4):314–21.



Screening is the process of identifying apparently healthy, asymptomatic people who are at high risk of having clinically undetectable early disease. It involves routine application of a screening test at specified intervals and referring those with “abnormal” (positive) screening tests for further diagnostic investigation and treatment. A screening test may be offered to a large number of asymptomatic people in the population, when it is called population-based screening, or it may be offered by a provider to asymptomatic individuals during routine health care interactions, when it is called opportunistic or spontaneous screening.

Population-based screening programmes are characterized by centralized screening invitations to a well-defined target population; systematic call and recall for screening; timely delivery of test results, diagnostic investigations, treatment and follow-up care; centralized quality assurance; and a programme database with linkages to other information systems (such as cancer and death registration systems) for monitoring and evaluation of the programme.

Opportunistic screening programmes provide unsystematic screening to subjects on request or coincidentally during routine health care interactions. There is no predetermined eligible population or protocol, and no systematic invitation at predefined intervals.

Recommended actions for high-risk countries

1. Conduct a situation analysis for planning. Each country should review the burden, the prevalence of high risk factors for oral cancer, the current status of oral cancer prevention, early detection and treatment, in the context of the situation analysis performed for its national cancer control plan (if available). It must consider available resources including infrastructure, trained human resources and health care financing for early detection, treatment and follow-up care with an emphasis on quality assurance. The situation analysis should include the following steps.
 - 1.1 Assess the current situation. Consider demographic data, available cancer data, data on other diseases potentially competing for resources, data on health care facilities and personnel.
 - 1.2 Assess the need to build capacity. Countries should ensure that primary care practitioners, dentists, dental surgeons, and specialists receive appropriate in-service training and reorientation so that they can promptly recognize those with a high clinical suspicion of oral cancer and precancerous lesions based on symptoms and signs and refer them for timely early diagnosis and management. Assess the inclusion of early diagnosis of oral cancer as part of dental and medical school curricula in each country.
 - 1.3 Determine whether investments should be made in health service infrastructure for diagnostic and treatment services. Consider whether appropriate health care financing mechanisms are in place to ensure availability and adequate access to diagnostic investigations and management in a timely and effective manner.
 - 1.4 Review national oral cancer treatment policies and facilities and ensure they are accessible, affordable, efficient and effective according to quality assured evidence-based guidelines. Countries should assess the availability of national guidelines for the diagnosis and management of oral cancer and precancerous lesions. Financial, logistic and sociocultural barriers to patient access should be assessed. Affordable treatment facilities must be available for every cancer patient before initiating any screening programmes.
 - 1.5 Assess availability of a clinical pathway starting from symptoms and signs, imaging and laboratory diagnosis (e.g. triple diagnosis).

2. Consider oral cancer screening. Countries with a high risk of oral cancer should carefully consider health care and financial resources required for screening. A pilot programme should be conducted before introducing a national programme of oral visual inspection screening of the asymptomatic high-risk population of users of tobacco (including toombak), alcohol and qat.
3. Implement an early detection programme. High-risk countries should establish a national committee, with strong leadership, to implement and oversee the country's oral cancer early detection programme. Where possible, all relevant stakeholders (including representatives of relevant nongovernmental organizations) should be included. The concerned government departments should ensure that funding is available to support the work of the committee. An oral cancer control plan should be developed (or reviewed and revised, if already available) as part of the country's national cancer control plan. All steps in the plan should be carefully followed. It is strongly advised that pilot or demonstration projects should first be implemented in defined areas to establish that education, diagnosis and treatment can be delivered in an effective and timely manner.

This is because several elements required for effective oral cancer control may not yet be available in the country. If screening is contemplated, a necessary prerequisite will be determining the target population and how it may be accessed for invitations to screening. Priority should be given to high-risk subjects aged 30 years or older, to ensure that those with precancerous lesions are identified. Oral cancer care will be facilitated if specialized units are established in second tier health care institutions, bringing together diagnostic and treatment expertise, as well as surgeons skilled in oral mucosa biopsy.

4. Conduct regular monitoring and evaluation. Monitoring and evaluation are essential to ensure quality assurance and programme improvement. A prerequisite for an effective oral cancer control strategy is the availability and accessibility of good quality medical records. These are the basis of efficient cancer registration. If a cancer register is not yet available, a special register of the diagnosis, stage and survival of all oral cancer patients should be established. It can later be extended to all cancers when the resources are available. If a screening programme is in operation or initiated, provision should be made to capture data on:
 - participation (proportion of the target population who have been screened in the last two years)
 - false positives
 - cancer and precursor detection (real positives)
 - Stage of diagnosis
 - treatment - availability of radiotherapy and essential medicines for the treatment of oral cancer.
 - the impact of the programme on oral cancer incidence and mortality (by 5-year age groups (20–24, 25–29, 30–34, 35–39, etc.)
 - the health care workforce (nurses, dentists, surgeons, pathologists), specifically identifying those trained in oral cancer