HEAD AND NECK TUMORS

DISORDER

Definition

- Head and neck tumors, commonly referred to as head and neck squamous cell carcinomas, typically originate in the squamous cells that cover the mucosal surfaces of the head and neck. The larynx, oral cavity, and oropharynx are the most frequent locations where these cancers develop. It's important to understand that cancers affecting the brain, eyes, esophagus, thyroid gland, and the skin of the head and neck are generally not categorized as head and neck cancers (Chow, 2020; Son et al., 2018; Schiff, 2022).

Etiology

- Most patients with head and neck cancer have a history of alcohol use, smoking, or both (Hashim et al., 2019). Other potential causes include the use of snuff or chewing tobacco, sun exposure, previous head and neck x-rays, certain viral infections, chronic candidiasis, and poor oral hygiene. (National Cancer Institute, n.d.; Schiff, 2022).
- The use of paan or betel quid, a common practice in Southeast Asia, also increases the risk of mouth cancer (Goldenberg et al., 2004).
- Human papillomavirus (HPV) infection, particularly with HPV-16, is strongly linked to head and neck squamous cell carcinoma, especially oropharyngeal cancer. The rise in HPV-related cancers has led to an overall increase in oropharyngeal cancer cases, counteracting the expected decline due to reduced smoking rates over the past two decades. The way HPV causes cancer differs from how tobacco-related pathways lead to cancer (Chaturvedi et al., 2011; Schiff, 2022).

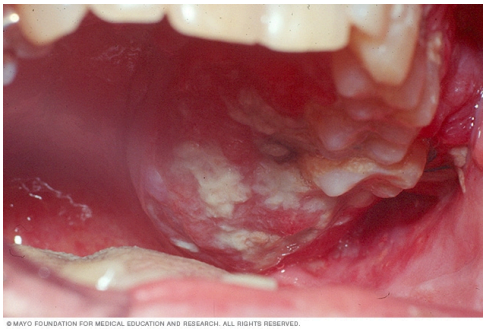
Causes of Cancer in Children

- Childhood cancers are often congenital, meaning they are present at birth. Causes can include medical conditions, genetics, or issues during development in the womb.
    - For example, children with Down's syndrome are 10 to 20 times more likely to develop leukemia, though it remains rare even in this group (Dimaras et al., 2015).
    - Some genetic cancers, like retinoblastoma, occur when a gene is inherited or changes during early development (Dimaras et al., 2015).
    - Certain cancers, like Wilms tumor and retinoblastoma, may start in the womb when some cells fail to mature properly and turn into tumors (Cancer Research UK, n.d.).
- Exposure to infections can also be a factor.
    - Epstein Barr virus (EBV) is a common infection in young children. In rare cases, infection with EBV can contribute to the development of

	cancers. These include Hodgkin lymphoma and Burkitt's lymphoma (Cancer Research UK, n.d.; Hashemieh & Shirvani, 2020). ● Exposure to radiation and previous cancer treatments may also be etiologies that cause cancer (Cancer Research UK, n.d.) Causes of Cancer in Adults ● Cancer in adults is commonly caused by lifestyle factors and exposure to the environment. ● Long-term heavy use of tobacco and alcohol increases the risk of squamous cell carcinoma by almost 40 times (Schiff, 2022) ● Other risk factors include smokeless tobacco, sunlight exposure, past head and neck X-rays, certain viral infections, poorly fitting dental appliances, chronic candidiasis, and poor oral hygiene (Schiff, 2022). ● Just like in children, the Epstein-Barr virus also contributes to nasopharyngeal cancer, and certain proteins from the virus in the blood may signal cancer recurrence (Schiff, 2022).
Prevalence Locally: ● In 2020, 4.77% of new cancer cases were classified as head and neck cancers in the Philippines. This accounts for more than 7,000 Filipinos diagnosed with this type of cancer Internationally: ● According to the Global Cancer Statistics of 2020, head and neck cancer ranked as the third most prevalent cancer worldwide. There were 1,464,550 new cases and 487,993, accounting for 7/6% of all cancers and 4.8% of all cancer-related deaths.	**Incidence** ● There are approximately 560,000 new cases diagnosed with head and neck cancer and 300,000 deaths each year worldwide (Garba et. Al., 2020). There is, however, a decline in associated mortality and disability-adjusted life years due to enhanced prognosis (Zhou et al., 2019)
Manifestations of the Disease that the Physician/Allied Health Medical Professional Perceives ● According to Schiff (2022), "the manifestations of head and neck cancer depend greatly on the location and extent of the tumor." The author states that common manifestations may include: ○ An asymptomatic neck [or head] mass ○ Painful mucosal ulceration [an ulcer that specifically occurs on a mucous membrane, like the lining of the nose and mouth]	**Manifestations the Patient Experiences** ● The National Cancer Institute (2021) states specific symptoms a patient may experience based on the area affected [besides those presented above], which include: ○ In the Oral Cavity: a white or red patch on the gums, tongue, or lining of the mouth, and unusual bleeding or pain in the mouth

- Visible mucosal lesion (e.g., leukoplakia, erythroplakia)
- Hoarseness of voice
- Dysphagia

- The author also states other symptoms depending on the location and extent of the tumor, which include paresthesia, nerve palsies, trismus, and halitosis.



- In the Pharynx: pain when swallowing, pain or ringing in the ears, or trouble hearing
- In the Larynx: trouble breathing or speaking, pain when swallowing, or ear pain
- In the Paranasal Sinuses and Nasal Cavity: persistent blockage of the sinuses, chronic sinus infections that do not respond to treatment with antibiotics, frequent headaches and/or nose bleeds
- In the Salivary Glands: swelling under the chin or around the jawbone, numbness or paralysis of the muscles of the face

Structural and Anatomical Changes Related to the Condition

- The National Cancer Institute (2021) states that "head and neck cancer symptoms may include a lump in the neck [or head] or a sore in the mouth or the throat that does not heal and may be painful." Such physical obstructions may cause changes in everyday functioning, including difficulty in breathing, speaking, and swallowing, and changes or hoarseness in a person's voice.

Possible SLP Areas Affected and Their Characteristics

The American Speech-Language-Hearing Association (n.d.) states that the following SLP areas may be affected by head and neck cancer, whether by the condition itself or by subsequent treatment:	
Feeding & Swallowing	Impaired use, strength, range of motion, and coordination of head and neck muscles may result in difficulties such as: • Impaired bolus manipulation and base-of-tongue movement

	• Nasal regurgitation related to the removal of the tumor site (i.e., pharyngeal wall, soft palate, etc.)
	• Reduced glottic closure
	• Impaired peristalsis of the cervical esophagus
	• General Dysphagia related to:
	  ○ Site of tumor and tumor removal in the swallowing-related areas of the head and neck (i.e., tongue, velopharyngeal orifice, larynx, pharyngeal wall, and upper esophageal sphincter)
	  ○ Side effects related to radiation therapy
	• Loss of taste and appetite following treatment

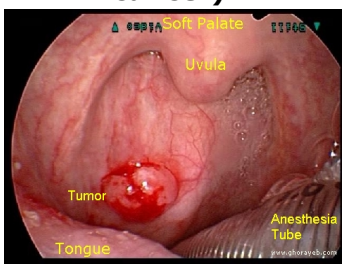
Voice and Resonance	• Dysphonia due to tumors in the larynx, surgical removal of tumors, and/or radiation treatment • Aphonia following treatment (i.e., tracheostomy tube, laryngectomy) • Hypernasality due to palatal defect, surgical resection of the palate, etc. • Hyponasality due to obstruction of the nasal passage • Cul-de-sac Resonance due base-of-tongue lesions
Articulation	• Articulation errors due to reduced strength and/or range of motion • Imprecise speech due to tumor, swelling, trismus, or nerve palsies • Distortions of lingual phonemes due to reduced mobility, lingual resection, and/or reconstruction

Hearing	• Hearing Loss due to:
	  ○ tumor site putting pressure on the auditory nerve
	  ○ Side effects relating to radiation therapy (Jain et al., 2016)
	• Tinnitus – According to the National Institute on Deafness and Other Communication Disorders (2023): the perception of sound that does not have an external source, commonly perceived as ringing in the ears
	• Dizziness/vertigo – According to Penn Medicine (2021): a sensation of motion or spinning that is often described as dizziness

Cognition	• Cognitive fatigue, or changes in attention and/or executive function following radiation or treatment
Social Aspects of Communication	• Subsequent psychosocial concerns following diagnosis and impact of management • Changes in physical or mental health following diagnosis and course of treatment

Types of Head and Neck Tumors

Mouth/Oral Cancer (Oral Cavity)	• This area encompasses the lips, the front portion of the tongue, the gums, the inner lining of the cheeks and lips, the mouth's floor beneath the tongue, the hard palate, and the small region of the gums behind the wisdom teeth (Cleveland Clinic, n.d.). • The most prevalent form of oral cancer is squamous cell carcinoma (Cleveland Clinic, n.d.). • Symptoms may include:

	○ non-healing sores ○ ongoing pain ○ trouble swallowing ○ a lump within the mouth
Pharyngeal Cancer (Nasopharyngeal carcinoma, oropharyngeal cancer, hypopharyngeal cancer) 	• The pharynx is a 5-inch-long hollow tube that begins behind the nose and connects to the esophagus (Boffetta et al., 2003). • It is divided into three sections: the nasopharynx, oropharynx, and hypopharynx. • Squamous cell carcinoma is the most frequent type of cancer in this area, particularly in the oropharynx (Boffetta et al., 2003). • Common symptoms include: ○ persistent sore throat ○ ear pain ○ trouble swallowing ○ a lump in the neck
Paranasal Sinuses and Nasal Cavity (Sinonasal cancer) 	• The paranasal sinuses are small, air-filled cavities within the bones around the nose, while the nasal cavity is the open space inside the nose (National Cancer Institute, n.d.). • Tumors in this area are rare, with squamous cell carcinoma being the most frequent type (National Cancer Institute, n.d.). • Other forms include adenocarcinoma and sinonasal undifferentiated carcinoma (National Cancer Institute, n.d.). • Symptoms may include: ○ nasal blockage ○ nosebleeds ○ facial pain ○ swelling
Salivary Glands Cancer 	• The major salivary glands are situated in the floor of the mouth and close to the jawbone, where they produce saliva (Cleveland Clinic, n.d.). • Minor salivary glands are spread throughout the mucous membranes of the mouth and throat (Cleveland Clinic, n.d.). • Tumors in these glands can be either benign or malignant, with mucoepidermoid carcinoma being a common malignant type (Cleveland Clinic, n.d.). • Symptoms of a tumor may include: ○ swelling or lumps near the jaw, mouth, or neck ○ numbness ○ persistent pain in the salivary glands

Progression of the Condition	**Outcome if Left Treated and/or Untreated**
• The prognosis for head and neck cancer varies significantly based on factors such as tumor size, location, cause, and whether the cancer has spread to regional or distant sites (Schiff, 2022).	• If treated ○ The primary treatments for head and neck cancer include surgery and radiation, which can be used alone or together, sometimes combined with chemotherapy.

- Head and neck cancers typically start by growing locally and then spread to nearby cervical lymph nodes. The extent of this regional spread depends on the tumor's size, reach, and aggressiveness, and it can reduce overall survival by about half. Distant metastases usually develop later, often in advanced stages of the disease, and greatly decrease survival rates, typically making the cancer incurable (Schiff, 2022).
- Advanced disease with invasion into muscle, bone, or cartilage also lowers the chance of a cure. Perineural invasion, which may cause symptoms like pain, paralysis, or numbness, signifies a particularly aggressive tumor. This type of spread is linked to regional lymph node involvement and generally results in a worse prognosis compared to similar tumors without perineural invasion (Schiff, 2022).

    - Early detection and treatment are essential for better outcomes and maintaining function.
    - If you suspect a head and neck tumor, seeking medical evaluation and treatment as soon as possible is important.

- If left <u>untreated</u>
    - Local Progression
        - The tumor may expand and invade surrounding tissues like skin, bones, or muscles, resulting in more severe symptoms and complications.
    - Regional Spread
        - The tumor might spread to nearby lymph nodes, causing swelling and potentially affecting adjacent structures.
    - Distant Metastasis
        - Some tumors can spread to distant areas of the body, such as the lungs, liver, or bones, complicating treatment and decreasing survival chances.
    - Functional Impairment
        - Tumors left untreated can disrupt essential functions like breathing, swallowing, and speaking, depending on their location.
    - Pain and Discomfort
        - As the tumor grows, it can cause significant pain and discomfort, negatively impacting quality of life.
    - Potential for Increased Mortality
        - Without treatment, many head and neck tumors can become life-threatening, particularly if they are aggressive or spread to critical areas

<u>Medical/Surgical Management</u>

Treatment plan for head and neck cancer depends on various factors, including the tumor's location, the stage of cancer, and the patient's age, medical history, and health condition. It may be one or a combination of the following:

- **Surgery** - Surgeons may remove the tumor and a margin of the surrounding healthy tissue. In low-risk patients for whom a brief postoperative admission is anticipated, the benefits of primary

surgery may outweigh the risks. However, in high risk and advanced cases, a prolonged hospital admission might be required.

- **Radiation Therapy** - The most common form of radiation for head and neck cancers uses a machine that directs high-energy X-rays toward the tumor. In patients who are considered candidates for radiation therapy alone, treatment may be started with hydration, minimizing the risk of hospitalization by excellent nutritional support and social support. Pretreatment dental evaluation should be performed if possible and patients must be educated of the associated risk of osteonecrosis and worsening dentition in patients of radiation therapy.
    - Radiation therapy utilizes high doses of radiation to target and destroy cancer cells. It is more precise or localized to the affected area, minimizing damage to surrounding healthy tissues.
    - Damages cancer cells but can also damage healthy cells in the treatment area. Rapidly dividing cells like the cells lining the mouth and the GI tract are affected the most.
    - Side effects can happen any time during, immediately after or a few days or weeks after radiation therapy.
        - Fatigue
        - Skin Problems
        - Hair loss
        - Sore and/or dry mouth
        - Loss of appetite and/or taste changes
        - Nausea and vomiting
        - Difficulty swallowing which can be caused by tumor that blocks the throat or stomatitis (painful swelling of the mucous membranes lining the mouth), mucositis (throat), and esophagitis (esophagus) caused by radiation therapy.
        - Earaches
        - Changes to the voice
        - Trismus
        - Dental problems such as tooth decay
        - Hormone problems (i.e. low levels of hormones due to the effect on the hypothalamus, pituitary gland, or thyroid)
        - Nerve damage
        - Osteoradionecrosis (death of bone)
- **Chemotherapy** - Chemotherapy uses a single drug or a combination of drugs to kill cancer cells. It is more commonly used for advanced-stage head and neck cancer.
    - It disrupts the cell cycle of cancer cells, preventing their ability to divide and grow. It can also affect rapidly dividing healthy cells, leading to side effects such as
        - Hair loss
        - Nausea
        - Fatigue
        - Hair loss
        - Anemia
        - Immunosuppression
        - Mouth sores
        - Loss of appetite and/or taste changes

        - Chemotherapy-induced nausea and vomiting (CINV) affects up to 80% of people who get chemotherapy.
    - **Targeted Therapy** - Drugs are used to target specific types of cancer. Cetuximan is a drug that targets a tumor protein called epidermal growth factor (EGFR). This is most often used in combination with other treatments to treat advanced head and neck cancers.
    - **Immunotherapy** - Immunotherapy drugs activate the immune system to identify and destroy cancer cells more effectively. Pembrolizumab and Nivolumab are two immunotherapy drugs used to treat head and neck cancers that have spread or returned following therapy
    - **Clinical Trials** - A clinical trial is a study that tests the safety and effectiveness of new treatments.
    - **Palliative Care** - It is care meant to improve the quality of life of patients who have a serious or life-threatening disease and can be given with or without curative care.
        - The goal is to prevent or treat, as early as possible, the symptoms and side effects of the disease and its treatment, in addition to any related psychological, social, and spiritual problems.
        - Palliative care can begin at any point during cancer treatment. Therefore, it is different from hospice care which only begins when curative treatment is no longer the goal of care and the sole focus is quality of life.

SLP Therapy

Audiology and speech-language pathology management may occur prior to, during, and/or after cancer treatment.

Management during cancer treatment:

- suggesting diet modifications to compensate for the side effects of treatment
- training the patient in compensatory strategies (i.e., for communication, swallowing, or voice deficits)
- introducing alaryngeal speech options and/or augmentative and alternative communication (AAC) when applicable

Management after cancer treatment:

- working with the patient to trial oral prosthetics or develop alaryngeal speech
- educating on the long-term effects of medical intervention as they relate to communication and swallowing, including hearing loss, appetite loss, and taste changes
- training in speech, voice, and swallowing exercises to mitigate the long-term effects of surgical/medical intervention

Areas for Evaluation	Evaluation Materials	Treatment Strategies

Hearing	• Audiologic Screening includes hearing screening and otoscopic inspection.
	• If the individual fails the hearing screening or if hearing loss is suspected, a referral for a full audiologic evaluation is necessary
	  ○ otoscopic examination
	  ○ acoustic immittance
		The management of hearing difficulty, balance, and tinnitus secondary to head and neck cancers may include:
		• amplification
		• balance therapy
		• cochlear implant
		• tinnitus management

	testing ○ pure-tone audiometry ○ speech recognition thresholds ○ word recognition ○ speech-in-noise testing ○ auditory brainstem response ○ vestibular testing	
Articulation and Speech Intelligibility	• Articulation and speech intelligibility need to be assessed at different levels (e.g., word, sentence, and conversational). • Precision and rate should also be assessed. • The influence of stress and/or fatigue on speech production should be determined. • The Frenchay Dysarthria Assessment is a practicable, valid, and reliable protocol of motor speech assessment for the head and neck cancer population (McKinstry & Perry, 2003)	• Treatment may involve targeted exercise training before, during, or after surgical and/or medical interventions. • Exercise-based (resistance) training is targeted at improving strength and range of motion of oral structures to improve articulatory precision, combat the effect of trismus (muscle spasms in the TMJ), and improve quality of life. Examples include: ○ tongue strengthening and range-of-motion exercises for articulatory precision ○ exercises targeting jaw opening for speech production
Swallowing	Swallowing assessment includes a clinical interview and exam, physiological findings from instrumental assessments, and patient-reported outcome measures. Instrumental assessments include: • Flexible endoscopic evaluation of swallowing	Prophylactic Dysphagia Treatment • Exercises that may reduce impairment, maintain function, and assist in recovery. • Usually focuses on maintaining oropharyngeal and laryngeal muscle

	(FEES) which offers optimal visualization of the tumor, reconstructed anatomy, and effects on swallowing. ○ It allows for an assessment of palatal function and helps assess secretion management. ● Videofluoroscopic swallowing study (VFSS) helps assess oral phase deficits and movement of structures. It provides quantitative information about the pharyngeal phase, including including pathophysiological deficits and related timing measures, the presence of aspiration and extent of residue, and the use of compensatory strategies to eliminate aspiration and improve bolus clearance/reduce residue.	strength and range of motion to maximize swallowing function, efficiency, and endurance for oral intake during and after cancer treatment. ● The same exercises can also be used during and after the treatment. Compensatory Strategies and Postural Modifications ● Compensatory strategies: double swallow, alternating liquids and solids, taking smaller sips and/or bites, and changing bolus delivery methods (e.g. modified spoons or oral syringe feeding). ● Postural modification help redirect movement of the bolus in the oral cavity and pharynx and help modify pharyngeal dimensions to reduce risk of aspiration and/or improve the efficiency of the swallow by facilitating bolus clearance. ○ Examples of postural modifications include head tilt, head rotation, head back, side lying, and chin tuck. Swallow Maneuvers ● Specific strategies that clinicians use to change the timing or strength of swallowing. ● E.g. supraglottic and super-supraglottic swallow, effortful swallow, and the Mendelsohn maneuver. Diet Modifications ● Include changes to the

		viscosity and texture of the food to decrease risk of aspiration, to facilitate efficient oral intake and bolus transfer, and/or to maximize oral intake volume.

Educational Management

- Education regarding the course and side effects of medical treatment, the immediate outcomes of surgical treatment, and posttreatment communication/swallowing expectations and options.
- Training in swallowing exercises and providing alternative communication systems prior to undergoing surgery, systemic therapy, and/or radiation to minimize impairment.

Critical Members of the Management Team

Dentist/Oral Medicine Specialists	• These professionals focus on the health of the mouth and teeth, which is particularly crucial in head and neck cancer cases, especially when radiation therapy is involved. • They provide essential oral care and management of dental issues that may arise from cancer treatments, particularly radiation therapy. This helps prevent infections and maintains oral function and comfort.
Otolaryngologist (ENT Specialist)	• This doctor specializes in ear, nose, and throat conditions, and is typically involved in the initial assessment, biopsy, and surgical treatment of head and neck tumors. • This specialist conducts the initial evaluation and diagnosis, performs biopsies to determine the type of tumor, and manages surgical interventions. Their role is critical in removing tumors and addressing related conditions in the ear, nose, and throat.
Oncologist	• These specialists are skilled in using treatments like chemotherapy to address cancer. • They oversee the administration of chemotherapy and other pharmacological treatments. Their goal is to control the tumor and manage cancer-related symptoms, contributing to the overall treatment strategy.
Head & Neck Cancer Surgeons	• These are expert surgeons who remove cancers from the face, mouth, throat, and neck. They may have backgrounds in otolaryngology, general surgery, maxillofacial surgery, or reconstructive surgery and perform surgeries as needed. • These surgeons perform complex operations to remove tumors from the head, neck, and facial regions. They also handle reconstructive surgery to restore function and appearance, which is crucial for maintaining quality of life and physical appearance.

Speech-Language Pathologists	• They assist with issues related to speech, language, and swallowing, which may be impacted by the tumor or its treatment. • They address communication and swallowing difficulties that may result from the tumor or its treatment. Their work helps improve the patient's ability to speak, eat, and maintain social interactions.
Occupational Therapists	• Plays a key role in managing head and neck cancer by helping patients overcome difficulties with Activities of Daily Living (ADLs) such as eating, dressing, and grooming. • They also assist with daily routines, lifestyle management, and developing coping strategies. • This includes helping patients adjust to physical changes, manage fatigue, and find ways to maintain independence and quality of life throughout treatment and recovery. • They may also address issues like swallowing difficulties, posture, and adapting the home environment to suit the patient's needs.
Radiation & Nuclear Medicine Specialists	• Experts in delivering radiation therapy and using nuclear medicine techniques for diagnosis and treatment. • They administer radiation therapy and use nuclear medicine techniques for precise targeting of tumors and management of symptoms, aiming to minimize side effects and improve the effectiveness of treatment. • Radiation therapy kills cancer cells, prevents metastasis, and shrinks tumors, but it may cause localized side effects like dry mouth, tooth decay, toothaches, and gum inflammation. • Chemotherapy, a more general treatment, affects the whole body, kills cancer cells, and may lead to side effects like nausea and vomiting.
Nutritionist/Dietitian	• Provides guidance on diet and nutrition to support patients during treatment and manage any difficulties with swallowing or changes in appetite. • They offer advice on managing diet and nutrition during treatment, helping patients maintain weight, manage swallowing issues, and ensure adequate nutritional intake, which supports overall health and recovery.
Palliative Care Team	• Comprising doctors and nurses who focus on alleviating symptoms and enhancing quality of life, particularly for patients with incurable cancer. • This team provides symptom management and emotional support, focusing on relieving pain and discomfort, addressing psychosocial issues, and improving the overall quality of life, especially for patients with advanced or incurable cancer.
Social Worker	• Assists with practical care needs, including navigating insurance, accessing support services, and offering

	emotional support to patients and their families. ● They assist with practical challenges, including navigating healthcare systems, accessing support resources, and providing emotional support to patients and their families, which can alleviate stress and improve overall well-being.

Medical Precautions Regarding Speech-Language Therapy

According to Clarke et al. (2016), the following are precautions that a SLP can take when treating a patient with head and neck tumors:

Before	During	After
● Communicating with other medical team members regarding the extent of the patient's condition, necessary prosthetic use (if any), palliative care (if applicable), subsequent tests needed, and the general course of treatment ○ Pre-assessment of baseline speech and swallowing capabilities following surgery	● Using appropriate therapy materials, techniques, and textures of food, especially during dysphagia therapy ● Following safety and sanitation protocols, especially Post-Surgery, or While the patient is under Chemotherapy or Radiation ○ Avoid treatment when the therapist is sick ○ Give breaks to the patient, especially if they feel nauseous ○ Position the patient appropriately for feeding therapy, according to what is most beneficial (i.e., chin-tuck position, head tilted, etc.) ○ Using soft foods of different viscosities for patients who may present with swallowing difficulties (Nam, 2024)	● Education and counseling of the patient and family regarding the current course of treatment, as well as the exercises being implemented to carry over treatment practices in the home

SUPPORT SYSTEMS

Philippines

Philippine Cancer Society (PCS) is a non-stock, non-profit organization primarily engaged in programs, projects and activities in the prevention and control of cancer.

- Its advocacies and programs are in cancer registry, education and information for prevention and early detection, patients services, hospice and palliative care.

Department of Health and Department of Budget and Management

- Both departments have a Joint Memorandum Circular to prescribe the implementation of Cancer Assistance Fund (CAF) which refers to the fund to support the cancer medicine and treatment assistance program in accordance with Section 20 of R.A. No. 11215.

International

Head and Neck Cancer Alliance supports a free online community for individuals, and their loved ones, who are facing oral, head and neck cancers.

- The free online community offers peer-to-peer support and a safe environment to connect with others who have similar experiences.

Support for People with Oral, Head and Neck Cancer (SPOHNC) is a patient-directed self-help organization dedicated to meeting the needs of oral and head, and neck cancer patients.

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