THYROID CANCER

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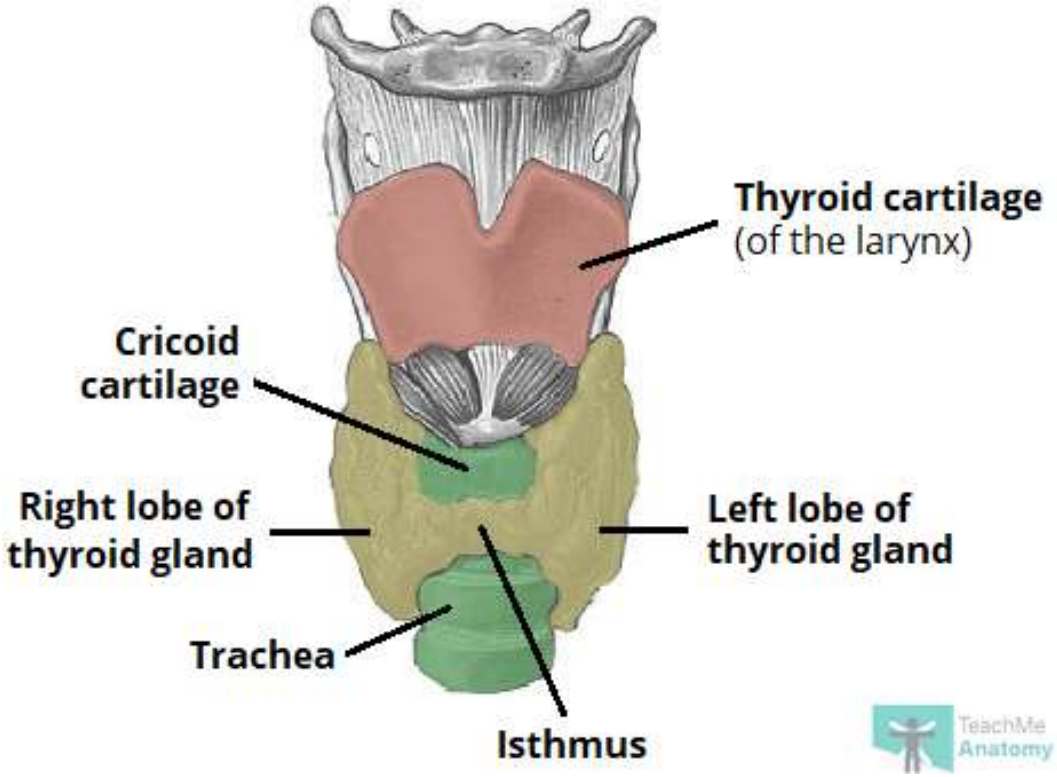
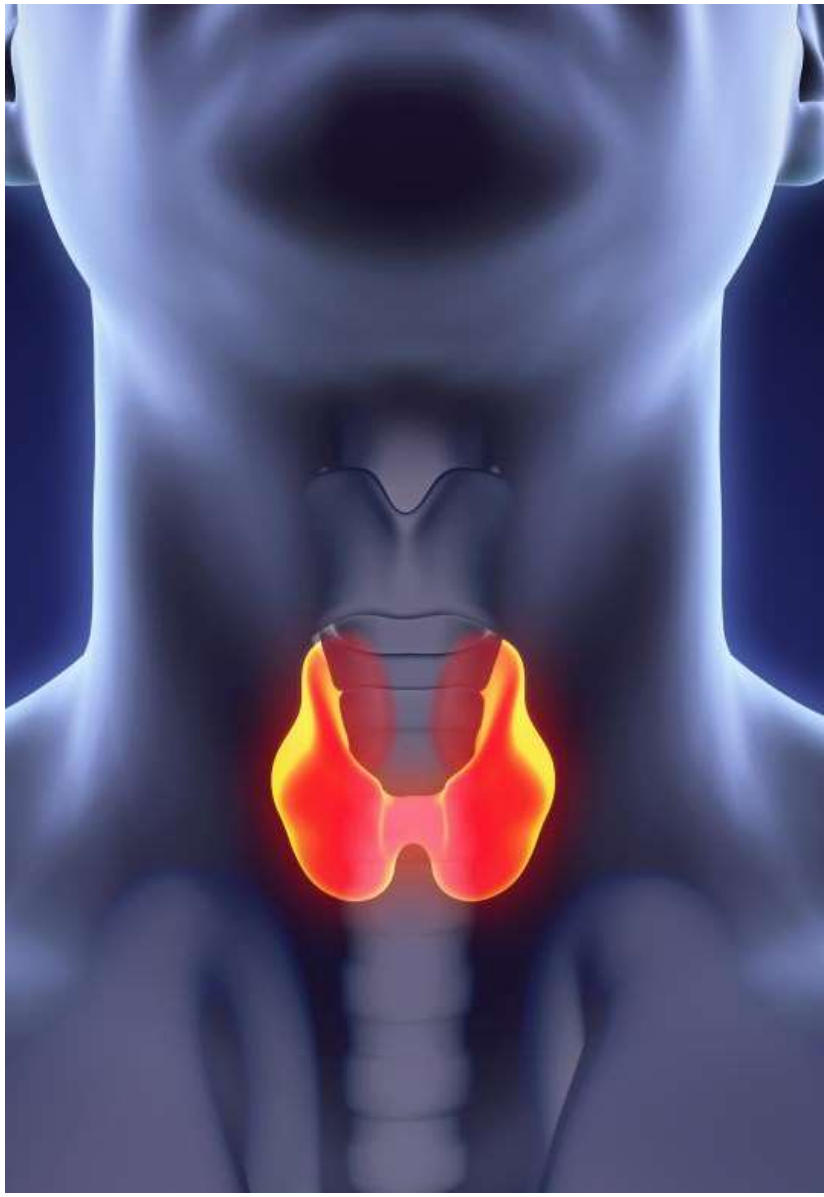
THYROID ANATOMY



INTRODUCTION

- Abnormal proliferation of thyroid cells.
- Thyroid cancer is the most common form of endocrine malignancy and accounts for more than 3% of all annually diagnosed cancers worldwide.



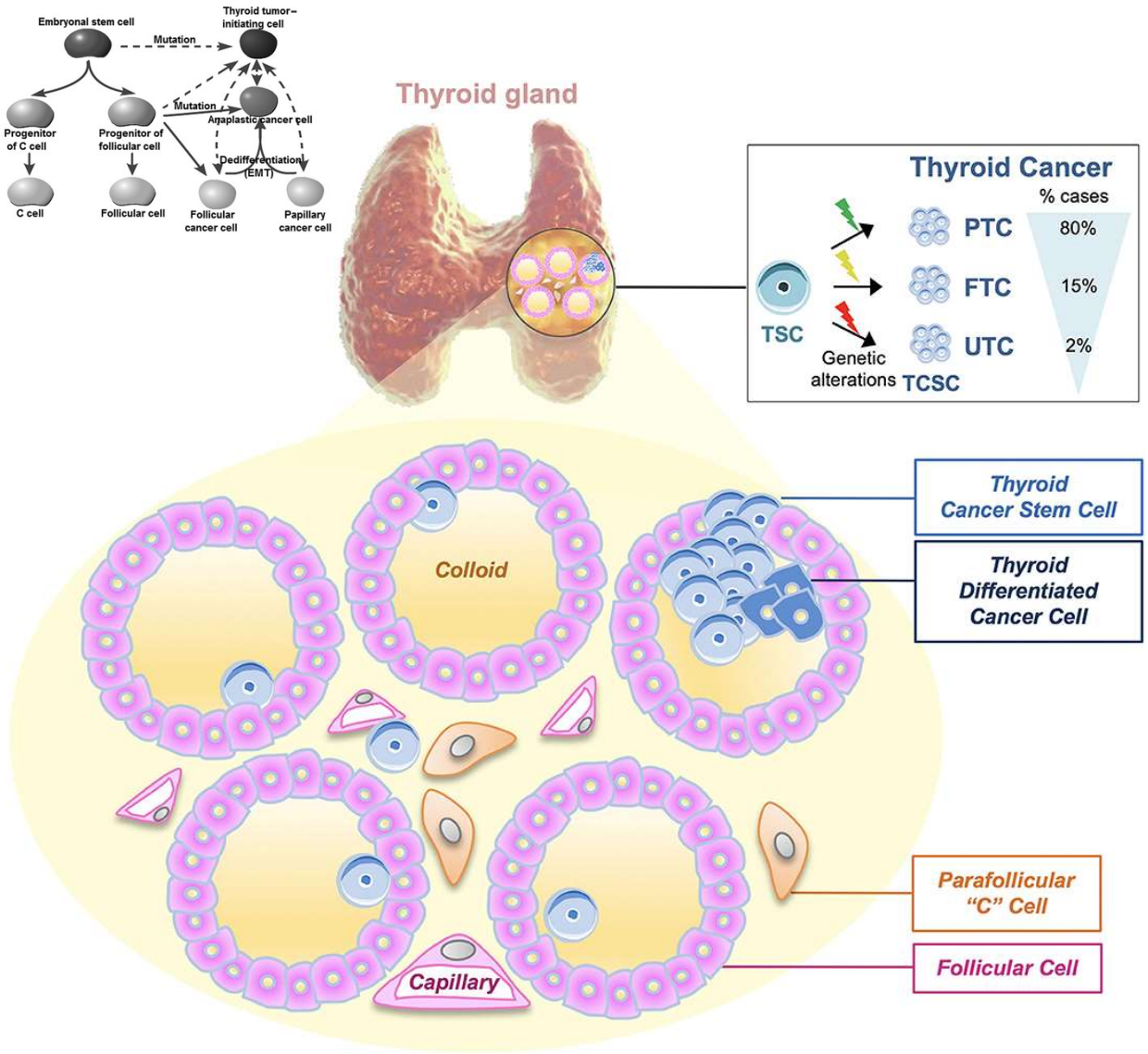
INCIDENCE

Puerto Rico has the highest incidence rate of thyroid cancer (TC) in the Americas and the third highest rate worldwide

INCIDENCE

- In the United States, the incidence of thyroid cancer has increased significantly over the past 4 decades.
- 1974 - 2013, the estimated incidence of thyroid cancer increased 3.6% per year on average.
- 1974 to 1977, 4.56 per 100,000 person-years
- 2010 to 2013, 14.42 per 100,000 person-years.

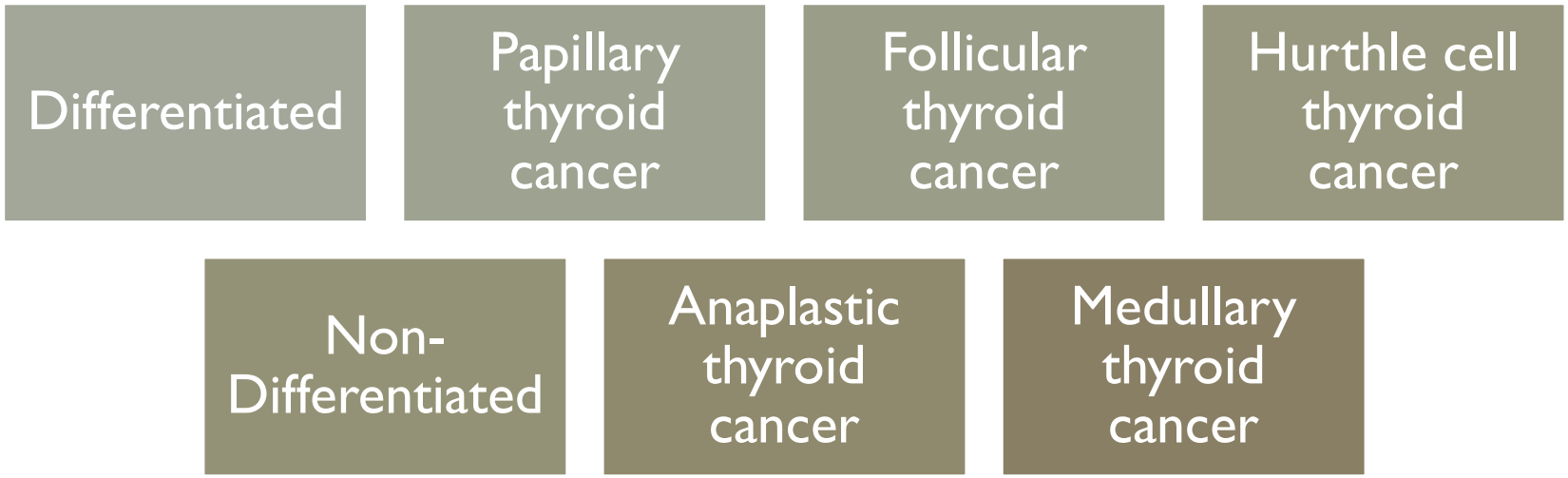
- USA: >70,000 new diagnosis for 2022.



CLASSIFICATION

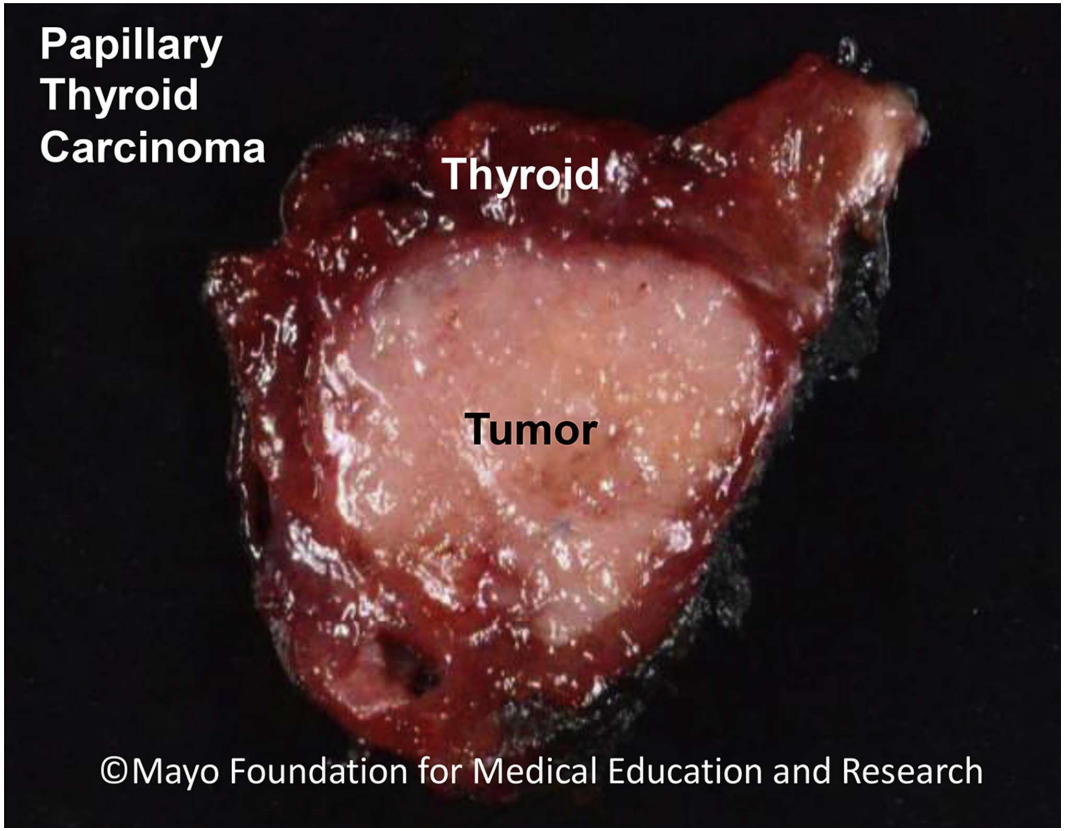
- Thyroid cancers are categorized into 5 main histological types:
  - papillary thyroid cancer (PTC)
  - follicular thyroid cancer (FTC)
  - Hürthle-cell thyroid cancers (HTCs)
  - anaplastic thyroid cancer
  - medullary thyroid cancer

CLASSIFICATION



OTHERS

- Thyroid lymphomas
- Thyroid sarcomas
- And other rare tumors
- They account for less than 4% of all thyroid cancers.



PAPILLARY THYROID CANCER

- Most common type of thyroid cancer
- 80% pf cases
- Develop from follicular cells
- Slowing growing
- Spread to nearby lymph nodes
- Good prognosis

FOLLICULAR THYROID CANCER

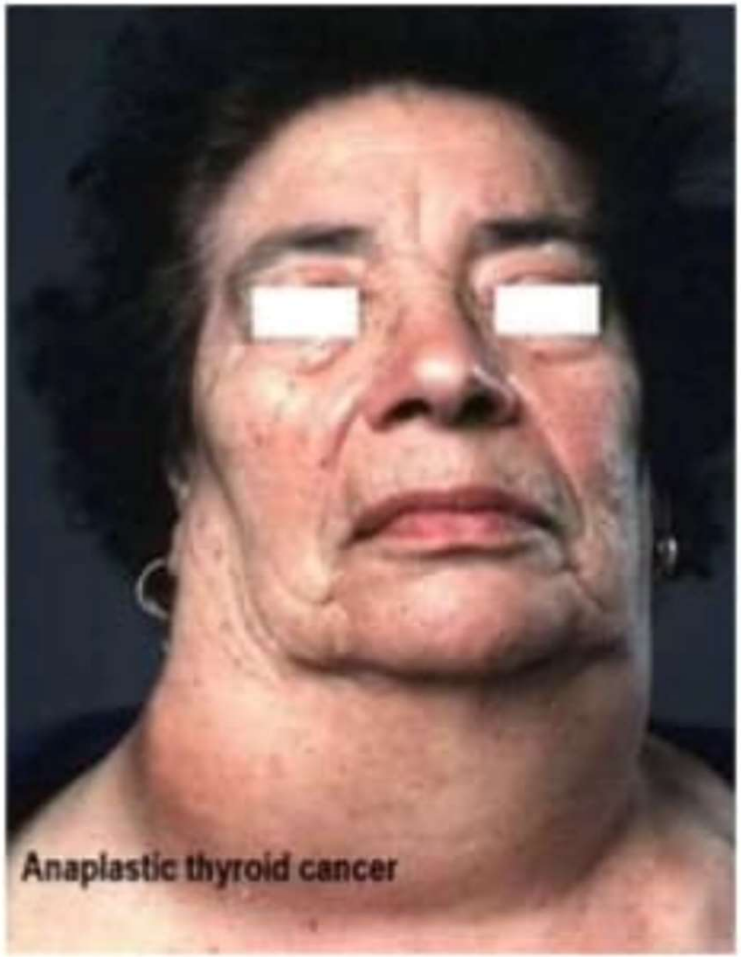
- Second most common type
- 10% of cases
- Most found in countries with inadequate iodine intake
- Good prognosis, but more aggressive than papillary type
- Spread to lymph nodes, lungs and bones*

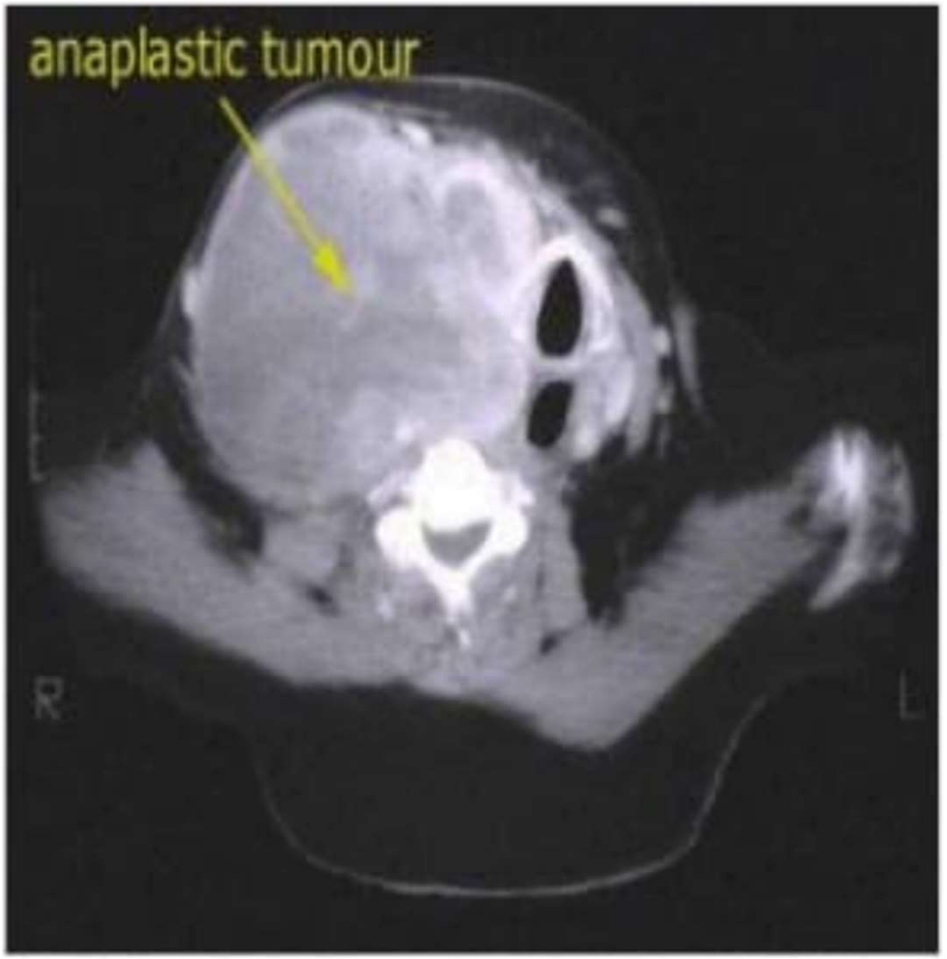
MEDULLARY THYROID CANCER

- Develop from C cells in the thyroid gland (Parafollicular cells)
- Account for approximately 4%
- More aggressive and less differentiate than follicular or papillary
- Associated high high levels of calcitonin and carcinoembryonic antigen (CEA)
- Aggressive
- Spread to lymph nodes and organs
- RET mutation, Familial/Genetic, MEN Syndrome

ANAPLASTIC THYROID CANCER

- The most undifferentiated type of thyroid cancer
- 2% of cases
- Very aggressive
- Quick spread to neck and body


Anaplastic thyroid cancer


anaplastic tumour
R
L

CAUSES

- Iodine deficient diets, may lead to increase the TSH level and considered goitrogenic
- Thyroiditis
- External radiation
- Increase age
- Nuclear power accidents
- Food source contaminated with radioactivity
- Germline mutations

PRESENTATION

Solitary painless thyroid mass/nodule (75-95%)	Swelling in the neck	Pain in the front of the neck
Hoarseness or voice changes	Trouble swallowing or breathing	Cough

WORK UP

- History and physical exam
- Thyroid function test
- Ultrasound
- Thyroid scan
- Biopsy
- MRI or CT Scan
- Radioactive iodine uptake studies
- Thyroid suppression test

MANAGEMENT

Surgery: lobectomy or thyroidectomy with or without lymph node removal, is the main treatment for all thyroid cancers except anaplastic

- Surgery
- Thyroid replacement therapy
- Radioactive iodine therapy
- Drug-thyroxine therapy
- Chemotherapy
- Radiotherapy
- Target Therapy

MANAGEMENT

Radioactive iodine to ablate any remaining thyroid tissue not removed during surgery or to treat any other areas where the cancer may have spread.

- Surgery
- Radioactive iodine therapy
- Thyroid replacement therapy
- Drug-thyroxine therapy
- Chemotherapy
- Radiotherapy
- Target therapy

MANAGEMENT

All patients who have had their thyroids removed will begin thyroid hormone therapy to help maintain the body's metabolism and potentially prevent recurrence.

- Surgery
- Radioactive iodine therapy
- Thyroid replacement therapy
- Drug-thyroxine therapy
- Chemotherapy
- Radiotherapy
- Target therapy

MANAGEMENT

Patients who have medullary or anaplastic thyroid cancer, experience recurrence, or have metastatic disease often receive external-beam radiation therapy.

- Surgery
- Radioactive iodine therapy
- Thyroid replacement therapy
- Drug-thyroxine therapy
- Radiotherapy
- Chemotherapy
- Target therapy

SIDE EFFECTS

Dysphagia	Dysphomia	Hypocalcemia
Xerophthalmia	Xerostomia	Secondary cancer

FOLLOW UP

- Thyroid cancer survivors will need to be followed by a primary care physician after treatment, especially if their thyroid was removed and they are on thyroid hormone therapy to ensure their hormones are kept at the appropriate level.

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Essential oncology nursing care along the cancer continuum

Prof Annie M Young, PhD • Prof Andreas Charalambous, PhD • Ray I Owen, PhD • Bernard Njodzeka, MPH • Wendy H Oldenmenger, PhD • Mohammad R Alqudimat, MSN • et al. Show all authors

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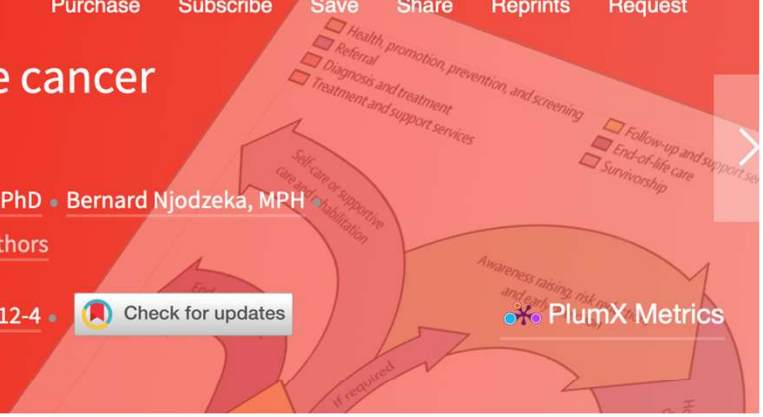


Summary

Oncology nurses are at the heart of tackling the increasing global burden of cancer. Their contribution is unique because of the scale and the diversity of care roles and responsibilities in cancer care. In this Series paper, to celebrate the International Year of the Nurse and Midwife, we highlight the contribution and impact of oncology nurses along the cancer care continuum. Delivering people-centred

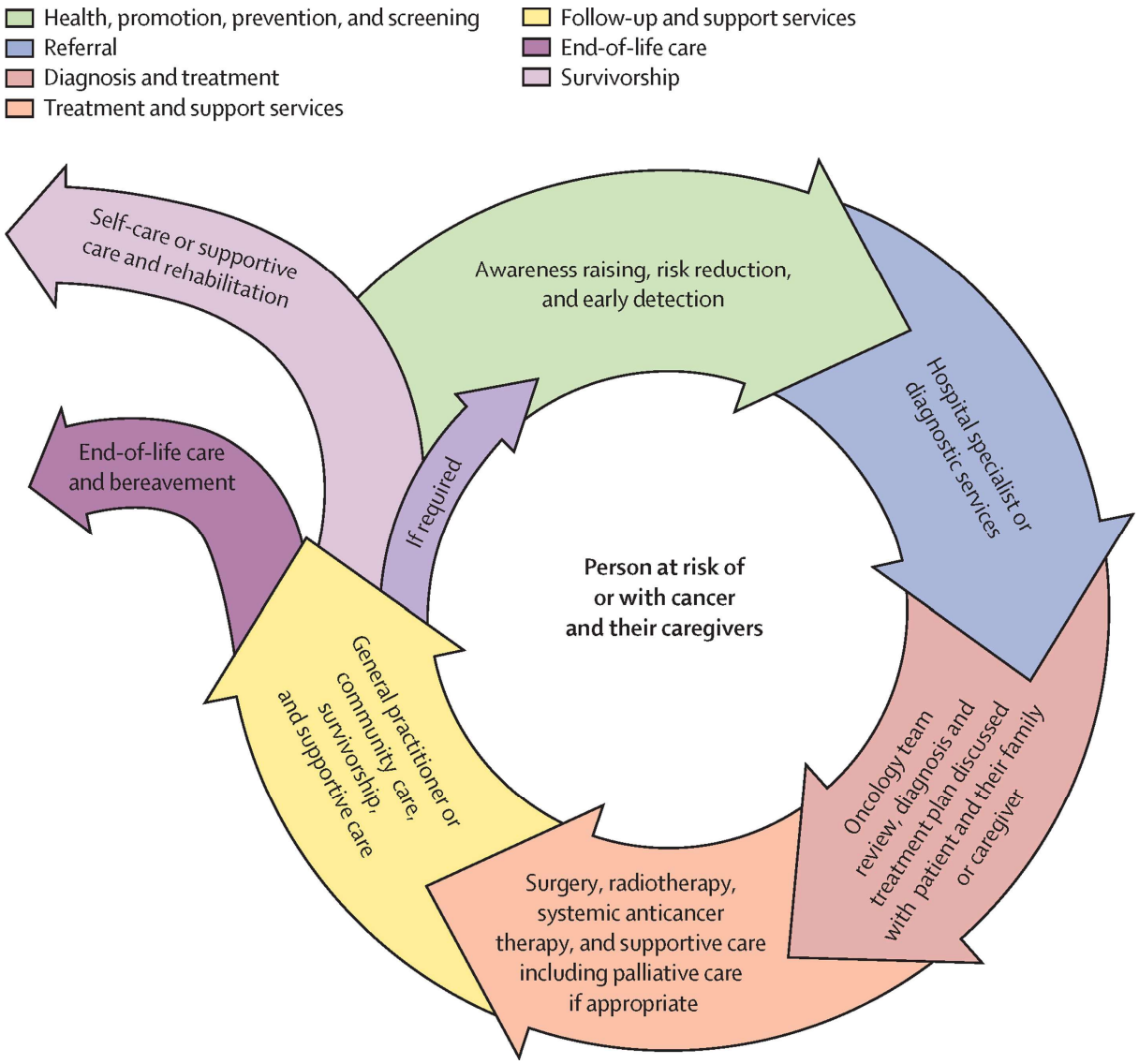
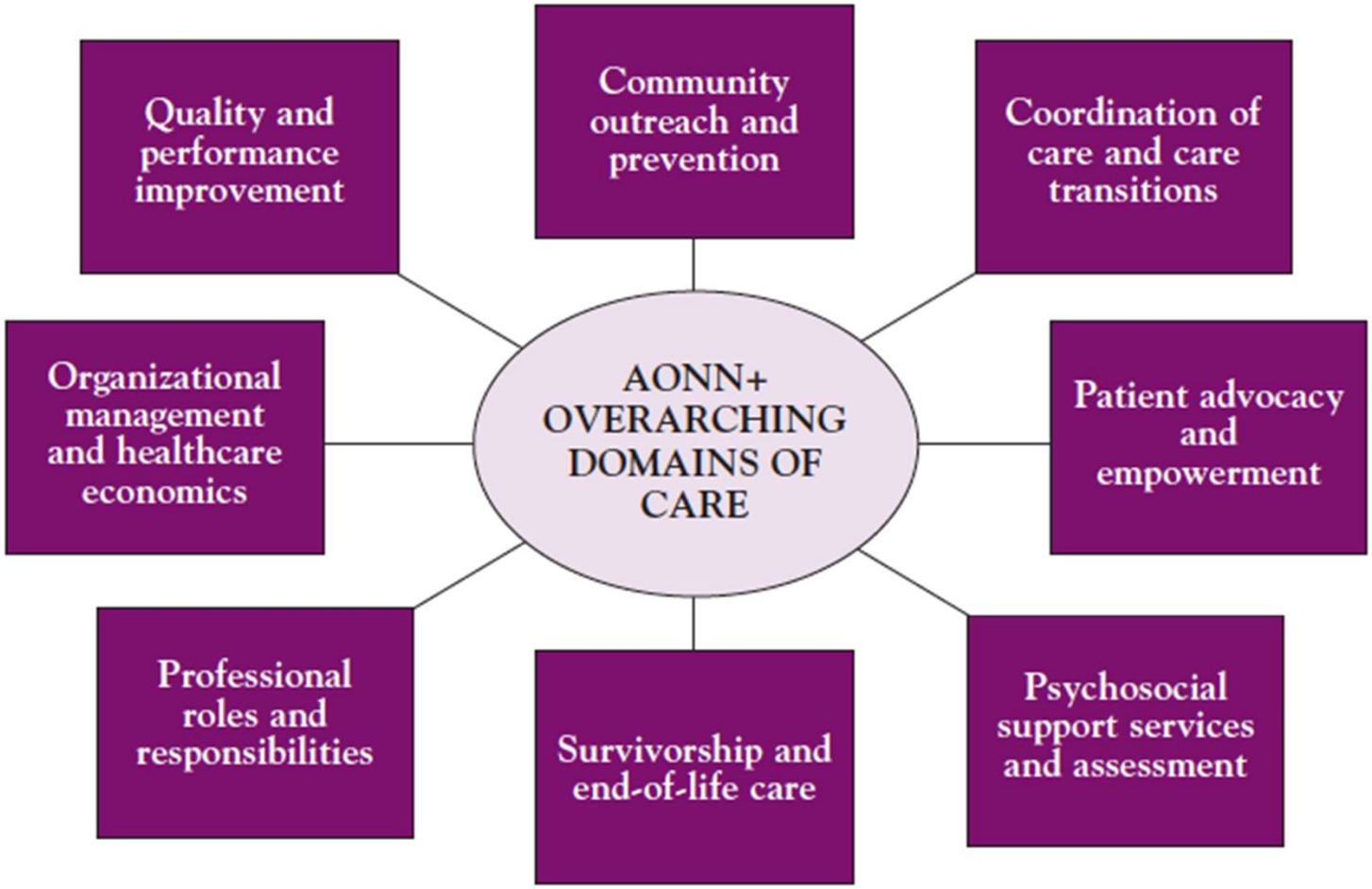
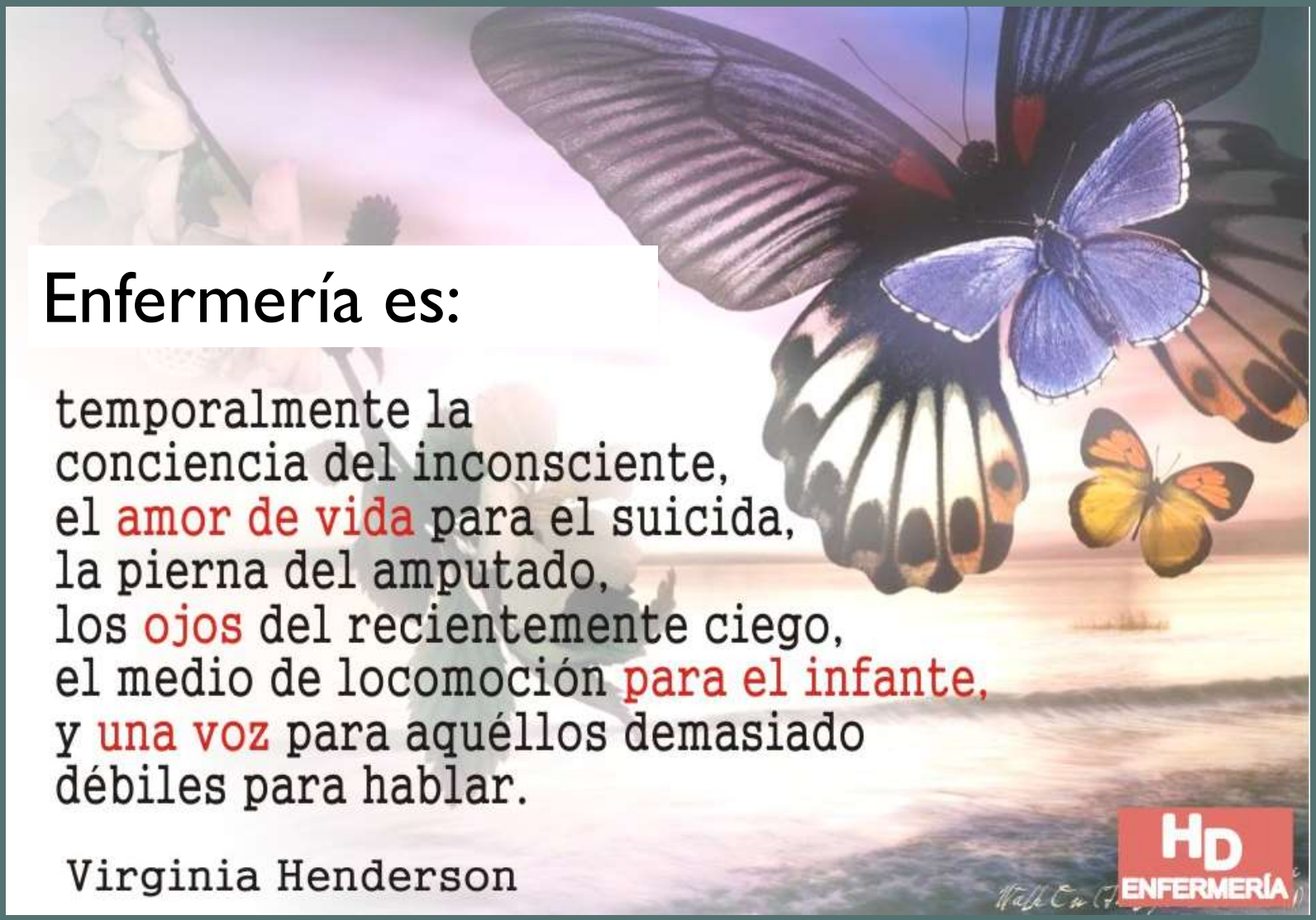

Health, promotion, prevention, and screening
Referral
Diagnosis and treatment
Treatment and support services
Follow-up and support services
End-of-life care
Survivorship
Self-care or supportive care and rehabilitation
Awareness raising, risk reduction, and early detection
Hospital specialist or diagnostic services
End-of-life care and bereavement
If required
Person at risk of or with cancer and their caregivers
General practitioner or community care, survivorship, and supportive care
Surgery, radiotherapy, systemic anticancer therapy, and supportive care including palliative care if appropriate
Oncology team review, diagnosis and treatment plan discussed with patient and their family or caregiver

Figure AONN+ Overarching Domains of Care



AONN+ indicates Academy of Oncology Nurse & Patient Navigators.


QUESTIONS


Enfermería es:
temporalmente la
conciencia del inconsciente,
el amor de vida para el suicida,
la pierna del amputado,
los ojos del recientemente ciego,
el medio de locomoción para el infante,
y una voz para aquéllos demasiado
débiles para hablar.
Virginia Henderson
HD
ENFERMERÍA

THANKS!

REFERENCE

- Chmielik E, Rusinek D, Oczko-Wojciechowska, et al. Heterogeneity of thyroid cancer. *Pathobiology*. 2018;85:117-129.
- Cabanillas ME, Ryder M, Jimenez C. Targeted therapy for advanced thyroid cancer: kinase inhibitors and beyond. *Endocr Rev*. 2019;40:1573-1604.
- Lim H, Devesa SS, Sosa JA, et al. Trends in thyroid cancer incidence and mortality in the United States, 1974-2013. *JAMA*. 2017;17:1338-1348.
- Haugen BR, Alexander EK, Bible KC, et al. 2015 American Thyroid Association management guidelines for adult patients with thyroid nodules and differentiated thyroid cancer: the American Thyroid Association Guidelines Task Force on Thyroid Nodules and Differentiated Thyroid Cancer. *Thyroid*. 2016;26:1-33.