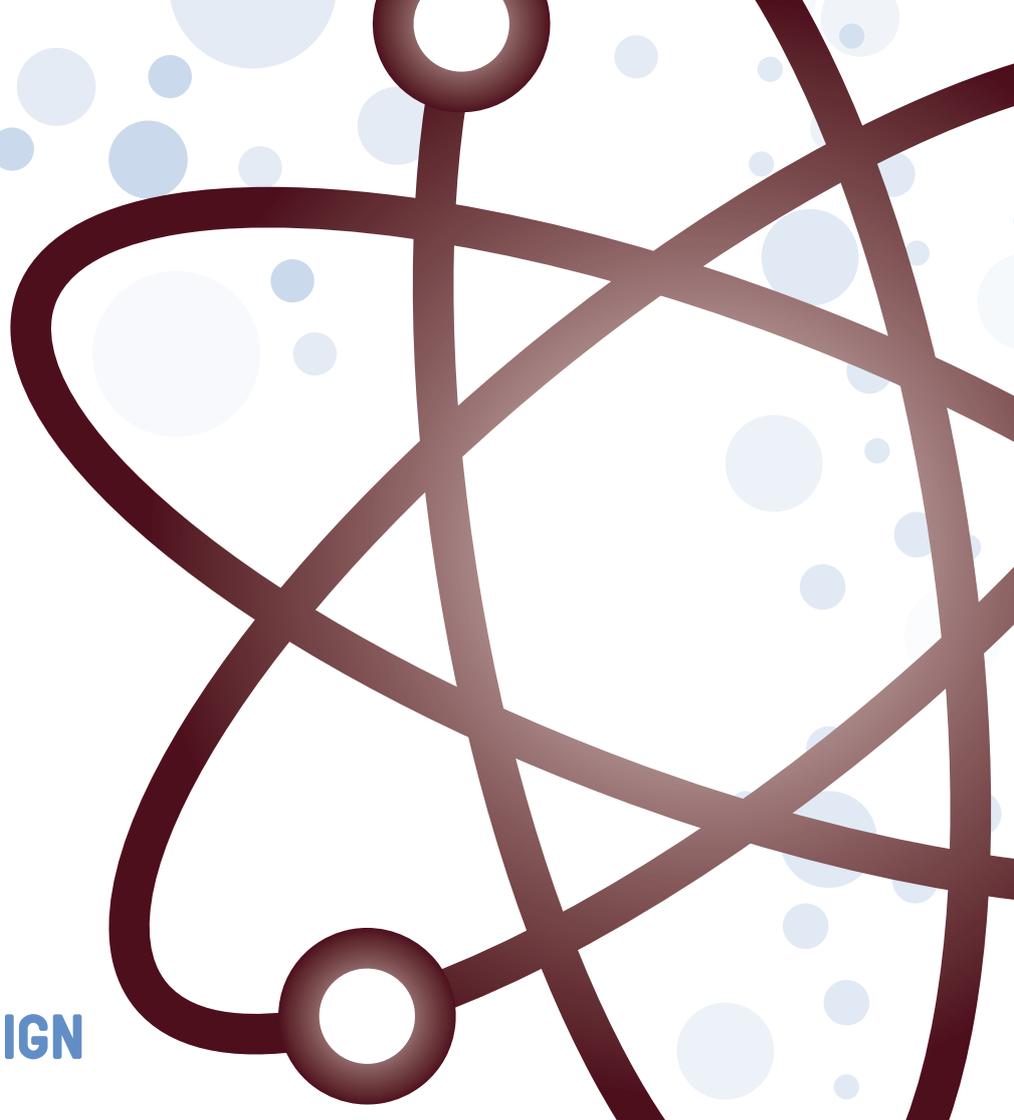


NUCLEAR MEDICINE

MAKESENSECAMPAIGN



WHAT IS NUCLEAR MEDICINE?

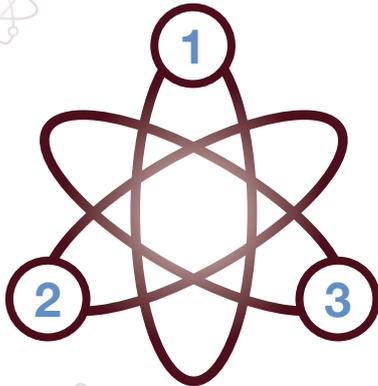
Nuclear medicine is a division of medical imaging, using low doses of radioactive material (or radiopharmaceuticals) to either treat or diagnose cancer. It has been performed for over 50 years in adults and can play an important role in early stage diagnosis.



NUCLEAR MEDICINE HELPS TO:

Determine the extent, severity and progression of the disease

1



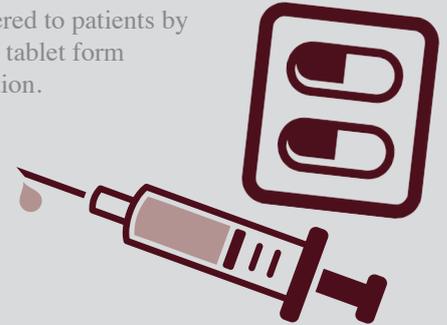
Select appropriate treatment based on biological characteristics of the patient and tumour

Review drug response and assess effectivity of a treatment regimen

ROLE OF RADIOPHARMACEUTICALS

Radiopharmaceuticals accumulate in an area of the body and emit energy in the form of gamma rays, which are detected by a special device, a gamma camera or PET scanner.

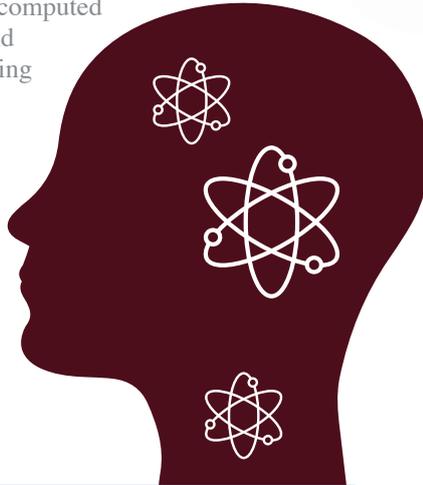
Radiopharmaceuticals are administered to patients by injection, tablet form or inhalation.



DIAGNOSING HEAD AND NECK CANCER

Most nuclear medicine applications in head and neck cancer are not therapeutic but are focused on tumour diagnosis and surveillance. The most commonly used procedure for diagnosing or guiding treatment of head and neck cancer is positron emission tomography (PET) scanning, which is often used in conjunction with computed tomography (PET/CT) and magnetic resonance imaging (PET/MRI). Sentinel node biopsy is another nuclear medicine procedure used often during staging of head and neck cancer.

Nuclear medicine has a traditional role in thyroid and parathyroid cancer, but can be used in the diagnosis in other types of head and neck cancer.



The type of imaging used to diagnose head and neck cancer and subsequently support treatment choices, is dependent on the tumour type and location.



CURRENT PERCEPTIONS OF NUCLEAR MEDICINE

It is important to educate patients on the risks, through educational material to improve their knowledge and ease any concerns. Research shows improvements in concerns through educational intervention.

THE ROLE OF NUCLEAR MEDICINE IN THE MULTI-DISCIPLINARY TEAM

A multi-disciplinary team (MDT) approach is essential in the treatment and care of head and neck cancer patients. The team ensures effective, timely and evidence-based management of these complex and diverse tumours.

MDTs may vary based on country and institution, but should involve nuclear medicine specialists, including:

- Nuclear medicine technologists: *Responsible for all aspects of imaging patients*
- Nursing staff: *Provide clinical support*
- Physicists: *Provide radiation protection, and record research and investigations*
- Radiologists: *Authorise referrals*



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