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QUESTION NO 1

Correlation between therapeutic radiology and oncology?

Ans

Therapeutic radiology is also called radiation oncology or radiation therapy.

It is the treatment of cancer and other diseases with radiation.

* oncology is the branch of medicine that focuses on diagnosing & treating cancer.

Radiation in many forms is used to kill the cancer cells by preventing them from multiplying.

Therapeutic radiology may be used to kill the cancer cells. may be used to cure or control cancer.

(2)

Healthcare providers who treat diseases with therapeutic radiology are called oncologists.

Therapeutic radiology was developed just a few years after x-rays were discovered in 1895 and radium in 1898.

The first cure of cancer by radiation was given in the exact area. They may also make special shields to help focus the radiation & protect the surrounding tissue.

The first cure of cancer by radiation was reported in 1899. It involved a case of skin cancer.

Radiation oncology became a medical speciality in 1922.

Therapeutic radiology treatment may be used alone or along with others types of treatment include.

Surgery, chemotherapy etc

Treatment Plan

Once the simulation has taken place the radiation oncologist will decide the exact type of treatment.

Therapeutic radiology treatment can be confused & stressful for both you & your family.

ANSWER NO 07.

Responsibility of Radiation oncologist.

In radiation oncology, physicists have the primary responsibility for the following, except where the responsibility is noted as share.

Planning for resource allocation with radiation oncologists administration and technologists including:

- * Equipment usage: selection & replacement
- * Staff requirement, assignment and recruitment.
- * Budget preparation.
- * Program operation
- * Continuing review of the program's policies and procedures.

Physical aspects of all radiation sources used in a radiation oncology programme including

- * Performance specifications: accept testing and commissioning of new equipment
- * Calibration
- * development and maintenance of a quality assurance program

The radiation safety programme including

- ① Development and administration of the radiation program, including compliance with all regulating and certifying agencies
- ② Administration of personal radiation monitoring program
- ③ Supervision of source preparation and handling during brachytherapy
- ④ Calculation of shielding required for new removed treatment rooms, radioactive source storage and handling facility & brachytherapy patient rooms.

ANSWER NO 03

conditions treated with Radiation therapy.

Radiation therapy is used to treat many conditions including

Acoustic neuroma:

A non cancerous tumors that may develop from an overproduction of schwann cells that press on the hearing and balance nerves in the inner ear.

Bone cancer:

An abnormal growth of tissue (tumor) in the brain that may be cancerous or non-cancerous.

~~Bone tumor:~~

Brain tumor:

An abnormal growth of tissue in the brain that may be cancerous or benign.

Breast cancer

A disease in which malignant cells from the tissues of the breast

Cancer:

- colorectal colon cancer
- * esophageal cancer.
- * head & neck cancers.
- * Leukemia.
- * Liver cancer.
- * Lung cancer.
- * Lymphoma.
- * Metastatic brain cancer.
- * Meningioma.
- * Non Hodgkin's lymphoma.
- * osteosarcoma.
- * Pancreatic cancer.
- * Sinus cancer.
- * Prostate cancer.
- * Soft tissue sarcomas.
- * Spinal cord tumors.
- * Trigeminal neuralgia.

ANSWER NO 04.

Side effects of radiation therapy.

Some side effects depend on the type and location of radiation therapy.

Head and neck:

Radiation therapy aimed at a person's head or neck may cause these side effects:

- ⇒ Dry mouth.
- ⇒ Mouth & gum sores.
- ⇒ Difficulty swallowing.
- ⇒ Stiffness in the jaw.
- ⇒ Nausea.
- ⇒ Hair loss.
- ⇒ Tooth decay.

Chest:

may cause these side effects:

- (1) Difficulty swallowing.
- (2) Shortness of breath.
- (3) Breast soreness.
- (4) Shoulder stiffness.

Abdomen & stomach

these side effects

Nausea
vomiting
Diarrhea

Pelvis:

Side effects.

- * Diarrhea.
- * Rectal bleeding.
- * incontinence.

not able to control his or
her bladder.

- * Bladder irritation

END: