1. Nursing responsibilities towards a patient scheduled to  receive  neoadjuvant  treatment for the management of cancer

Neoadjuvant therapy is the administration of therapeutic agents before a main treatment. Neoadjuvant therapy aims to reduce the size or extent of the cancer before using radical treatment intervention, thus both making procedures easier and more likely to succeed and reducing the consequences of a more extensive treatment technique, which would be required if the tumor were not reduced in size or extent.

This systemic therapy (chemotherapy, immunotherapy or hormone therapy) or radiation therapy is commonly used in cancers that are locally advanced, and clinicians plan an operation at a later stage. The use of such therapy can effectively reduce the difficulty and morbidity of more extensive procedures

Nurses’ responsibilities before treatment include

* Assess vital signs, weight, fluid and electrolyte balance, heart rate and blood level
* Assess pain level using a scale
* Educate patient and their relatives on the treatment process
* Communicate frequently with patients and encourage to ask questions
* Establish a nurse-patient relationship
* Prepare family members on the anticipated loss of their loved ones
* Counsel them on the importance of follow-up care

1. Discuss your  responsibilities towards a patient receiving radiotherapy on  an oncology unit where your practice

Radiation therapy is a type of cancer treatment that uses beams of intense energy to kill cancer cells. Radiation therapy most often uses X-rays, but protons or other types of energy also can be used. Nursing responsibilities include;

* Carefully assess and manage any complications, usually in collaboration with the radiation oncologist.
* Assist in documenting the results of the therapy; for example, clients receiving radiation for metastases to the spine will show improved neurologic functioning as tumor size diminishes.
* Provide emotional support, relief of physical and psychological discomfort, and opportunities to talk about fears and concerns. For some clients, radiation therapy is a last chance for cure or even just for relief of physical discomfort.
* Monitor for adverse effects: skin changes, such as blanching, erythema, desquamation, sloughing, or hemorrhage; ulcerations of mucous membranes; nausea and vomiting, diarrhea, or gastrointestinal bleeding.
* Assess lungs for rales, which may indicate interstitial exudates. Observe for any dyspnea or changes in respiratory pattern.
* Identify and record any medications that the client will be taking during the radiation treatment.
* Monitor white blood cell counts and platelet counts for significant decreases.

1. What precautions should you take while caring for a patient receiving chemotherapy on your unit

Chemotherapy is used primarily to treat systemic disease. The major goals of chemotherapy are; cure, control, palliation. It may be combined with surgery or radiation therapy;

* to reduce tumor size operatively
* destroy any remaining tumor cells postoperatively
* treat some forms of leukemia.

PRECAUTIONS

The major precaution is the prevention of Extravasation. Extravasation is the deposition of vesicants into the subcutaneous tissue. To prevent Extravasation;

* Infuse 25mL bolus of normal saline
* The medication can then be administered as an infusion via a secondary medication set.
* Vesicant infusion should be infused in no less than 10 min
* Following infusion of the medication, flush with at least 25mL normal saline
* Thrombosis or sclerosis of veins may occur due to the local effect of chemotherapeutic agents on the endothelium.
* These can be managed conservatively with warm or cold compresses depending on the chemotherapy to the area plus an analgesic for pain, if required.

An Extravasation Tray will contain:

* dimethylsulfoxide (DMSO) 99% topical solution
* hydrocortisone 1% cream
* sodium thiosulfate 25% injection, 10mL vial
* sterile water for injection, 10mL vial
* 10mL syringe (for preparing sodium thiosulfate)
* 25 gauge needles
* 3mL syringes
* black indelible ink
* ice pack – in freezer
* sterile gauze dressing and tape
* Sling

Other precautions include:

* Use of aseptic technique and gentle handling
* Monitor laboratory results (blood cell counts),
* Report untoward changes promptly
* Instruction of parents / family on infection prevention
* Dispose of all equipment used in chemotherapy preparation and administration in appropriate, leak-proof, puncture proof containers
* Use a biologic safety cabinet for the preparation of all
* chemotherapy agents,
* Wear surgical gloves when handling antineoplastic agents and the excretions of patients who received chemotherapy.
* Wear disposable, long-sleeved gowns when preparing and administering chemotherapy agents.