Nursing Responsibilities for Diagnostic Testing

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Introduction

Diagnostic testing enables health care providers to diagnose, monitor, and treat conditions or anticipate changes in the health statuses of individuals. Diagnostic screening is different to diagnostic tests as they are carried out to detect early disease or risk factors in seemingly healthy individuals who aren't displaying any symptoms.

Definition of diagnostic test

A test used to help figure out what disease or condition a person has based on their signs and symptoms.

Purpose of diagnostic testing

-Gain additional information
-Join with thorough history and physical exam to :
- Confirm diagnosis
-Provide info about a clients status/ establish a baseline
-Provide info in response to therapy
Screening for disease/ abnormalities (e.g., mammogram/colonoscopy/sonography…)

Phases of diagnostic test

Diagnostic testing involves three phases:

1-Pre test :focus on preparation of the patient

2-intra test : focus on specmin collection

3- Post test :focus on observation of the patient

Nurses have responsibilities for each phase of diagnostic testing:

Pretest 1

In the pretest, the main focus is

A) preparing the patient for the diagnostic procedure

) e.g. pt education, preparation, support, comfort, answers to questions)

The nurse prepares the patient by:

-Explanation of procedure and answering client questions about the procedure

-Medical record for herbal supplements, allergies or prior reactions to dyes, contrast media, if so report it in file.

Consent) Preparation of a consent form, if required.)

Monitoring any physical or communication restriction

-Monitoring vital signs

-Assess Orders (NPO or any premedication dosage etc)

Physical and psychological preparation

-If any IV access required, establish it

Documentation of significant data

B)Nurse cooperates with technicians in carrying out her part in the procedure by:

-Obtaining the proper type of container or equipment necessary(Container should be intact, clean, sometimes sterile)

-Checking the equipment to assure it is working properly and is ready for use on patients.

-Cleaning equipment before and after each use to prevent the spread of infection is done by the nursing staff.

-Report any broken or damaged equipment and prevent it from being used on patients before it is fixed.

C) preparation of the environment

-Ensure a safe environment for patient**.**

-The environment needs to be well lighted and the equipment should be organized for efficient use.

-The room should be warm enough to be comfortable for the patient.

-Maintaining privacy for patient.

2-During intra test, the main focus is specimen collection and performing or assisting with certain diagnostic procedures. (Nursing role for Assist with test)

-provide patient care during the test which may include Nurses
-Administering medicines when needed.
-Nurses must help position patients properly, like rolling the patient over, in order to complete the necessary diagnostic testing.
-Use of standard precautions or sterile technique if necessary.
-Invasive diagnosis protective barriers to be worn.
-Providing emotional support to the patient and monitoring the patient's response during the procedure.
-Ensuring the correct labeling, storage, and transportation of the specimen.
-Positioning and draping pt.
-In dye administration, skin allergy test to be conducted.
-Relax the client during the procedure.
-Monitor patients during testing.
-Keep resuscitation supplies in hand.
-Observes reactions of the patient during procedure.
-Report any problems to the health care professional
-Safe patient transportation out of the diagnostic area.

Monitor patients during testing this includes:

-monitoring their current medical condition, especially in those patients deemed unstable.
-Nurse must check patient's vital signs.
-Assess physical condition and keep an eye on any monitors that the patient needs to remain hooked up to during the tests, such as a heart monitor or ventilator.
-Nurses may also be required to connect or disconnect any monitors or devices that can interfere with the testing.

3-Post Test

-Observe for complications due to testing procedure (mainly bleeding and system functioning based on test procedure; resp a priority).
-Management of procedural pain.
-Patient on NPO, if awake and able to swallow, provide water.

Recognize abnormal values and consider implications for client's health state (greater degree abnormality, more likely the outcome is significant).
-Clarify doubts to the patient and family.
-Describe what to expect throughout the initial stages of recovery.
-Documentation

Recording on the chart includes:

Type of test

-solution or drug used.

-nature and amount of material withdrawn

-dye, anesthesia

-performer's signature, Time and date.

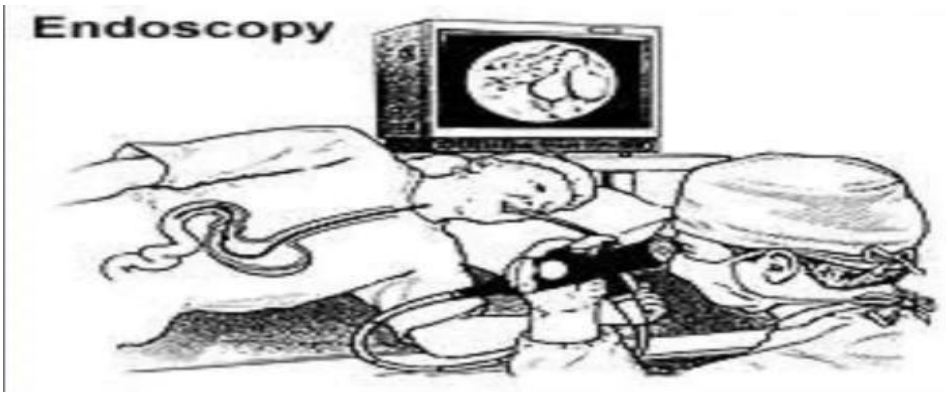
-patient's reaction, vital signs.

-Any complication raised.

Reporting results

Test results are reported to the patient's doctor, specialists and others in need of the information by nurses. Results may be phoned in, faxed or sent electronically via a computer. It may be the nurse's responsibility to check for the results of the tests as well. They may be in charge of entering the results into the patient's medical record.

Nurses must also notify the patient's physician when abnormal or critical results that require an immediate response, such as abnormal blood work with critical potassium levels, are found.



Examples

1)-Endoscopy

Nursing responsibilities for endoscopy

More accurate than radiographic exam

Before procedure

-Signed consent -Explain procedure to pt

-Antibiotic prophylaxis -Sedate patient

-NPO for 8 -12 hrs. -Assess oral cavity

Instruct patient to breathe through the nose during procedure

-Explain that the room is cool, dark and will not be able to talk -

During procedure

-Monitor cardiac & respiratory complications

-Assess vital signs & pulse oximetery frequently

-Assist specialist in positioning pt. (Left lateral decubitus position)

-Observe any abnormalities occur

Post procedure

-Transport pt. in his/her place

-NPO until gag reflex returns

-monitor signs of perforation

-Maintain bedrest for sedated pts until alert

-Oral analgesics can relieve minor sore throat after gag reflex returns.

-Clarify doubts to the patient and family.

-reporting results to the patient's doctor.

-Documentation.

2) Chest x ray

Nursing Responsibilities for Chest X ray

Before Chest X ray

-Signed consent

-Explain procedure to pt

-Remove all metallic objects. such as jewelry, pins, buttons etc. can hinder the visualization of the chest

-No preparation is required. Fasting or medication restriction is not needed

Ensure the patient is not pregnant or suspected to be pregnant. X rays are usually not recommended for pregnant women unless the benefit outweighs the risk of damage to the mother and fetus.

Assess the patient's ability to hold his or her breath. Holding one's breath after inhaling enables the lungs and heart to be seen more clearly in the x ray

-Provide appropriate clothing. Patients are instructed to remove clothing from the waist up and put on an X ray gown to wear during the procedure

-Instruct patient to cooperate during the procedure.

During Chest X

-Assess vital signs & pulse Oximetery frequently.

-Assist specialist in positioning pt(Left lateral decubitus position).

-Ensuring the patient's comfort.

-Observe any abnormalities occur.

After Chest X ray

No special care. Note that no special care is required following the procedure

-Provide comfort.

-Reposition the patient properly.

Clarify doubts to the patient and family. -

-Reporting results to the patient's doctor**.**

-Documentation.