

Physiotherapy icu 6th semester 3rd year
Preoperative intervention

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- Although surgical intervention can correct or reduce adverse effects and impairments (e.g., pain, deformity, instability) associated with musculoskeletal pathology.
- a carefully planned and progressed rehabilitation program is essential for a patient to achieve optimal functional outcomes after surgery.
- In an ideal situation, rehabilitation begins with patient education before surgery and continues after surgery with direct intervention from a therapist followed by long-term self-management by the patient.

Benefits of Preoperative Contact with a Patient

- Examination and evaluation of a patient's preoperative impairments and functional status to establish a baseline for documenting postoperative improvement
- Opportunity to identify and prioritize a patient's needs and understand a patient's goals and functional expectations after surgery
- A basis for establishing rapport for enhanced continuity of care after surgery
- A mechanism for patient education about the scheduled surgery and the components of postoperative rehabilitation

Considerations for Preoperative Management

- Contact with a patient prior to preplanned, elective surgery is advisable whether it occurs on a one-to-one basis between therapist and patient or in a group setting.
- In the health care environment of the past two to three decades, authorization for a preoperative visit with an individual patient has become increasingly difficult.
- However, preoperative contact with a group of patients scheduled for similar surgeries may be possible

Preoperative Examination and Evaluation

- it enables a therapist to perform a comprehensive, systematic examination to document the patient's impairments and functional status prior to surgery.
- By evaluating the findings of the examination, a therapist can identify:

1/ patient's needs

2/ anticipated goals

3/ and expected functional outcomes as a result of the surgery.

Testing and measurement of the following areas are of particular importance for determining realistic goals and functionally relevant outcomes of surgery and postoperative rehabilitation.

Pain.

- *Quantitatively measure the patient's level of pain* with a visual analog scale or a scale that identifies the degree of pain with specific functional activities.

Range of motion and joint integrity.

- *Measure both active and passive range of motion (ROM) of the involved joint or extremity and compare it to the ROM of the uninvolved areas.*
- Check the stability and mobility of joints.

Integrity of the skin.

- *Note the presence of scars from previous injuries or surgeries, particularly those that are adherent and restrict mobility of skin*

Muscle performance (strength and endurance).

- *Evaluate* muscle strength of the affected areas, recognizing that pain adversely affects strength.
- *Assess* the functional strength of unaffected body segments in anticipation of postoperative ambulation with assistive devices, transfers, and activities of daily living (ADL).

Posture.

- *Identify the patient's preferred positions for comfort and any postural abnormalities that may affect ROM and function.*

Gait analysis.

- *Analyze the gait characteristics, type of supportive or protective devices currently used, and degree of weight bearing tolerated during ambulation.*
- *Note any inequality in leg lengths.*

Functional status.

- *Identify the patient's preoperative functional limitations and abilities*

Preoperative Patient Education—Methods and Rationale

- Patient education can be initiated preoperatively, either during an individual instruction session with a patient or in a group setting with patients planning to undergo similar surgeries.
- Some large, acute-care facilities, for example, have reported descriptions of programs for patients scheduled for joint replacement surgery that focus on preoperative group instruction by team members from several disciplines, including nursing, physical therapy, and occupational therapy.
- The group program may also include a tour of the operating and recovery rooms.

- It is believed that programs such as these help a patient understand what to expect the day of surgery and during the early postoperative days and may alleviate some of a patient's anxiety about the surgery and hospital experience.
- Preoperative instruction gives a patient an opportunity to become familiar with wound care, any special precautions that must be followed after surgery, and the use of assistive or supportive equipment such as crutches, a splint or a sling

- it enables a patient to practice and learn early postoperative exercises without being hampered by postoperative pain or the side effects of pain medication, such as disorientation and drowsiness.
- If surgery is scheduled on an outpatient basis, which is a growing trend, preoperative instruction enables a patient to be safe at home during the early postoperative days and to begin postoperative exercises at home the day of or after surgery before follow-up by a therapist at a later time

Components of Preoperative Patient Education

Overview of the plan of care.

- *Explain the general plan of care the patient can expect during the postoperative period.*

Postoperative precautions.

- *Advise the patient of any precautions or contraindications to positioning, movement, or weight bearing that must be followed postoperatively.*

Bed mobility and transfers.

- *Teach the patient how to move in bed or perform wheelchair transfers safely, incorporating necessary postoperative precautions*

Initial postoperative exercises.

- Teach the patient any exercises that will be started during the very early postoperative period.

These often include:

- Deep-breathing and coughing exercises.
- Active ankle exercises (pumping exercises), if possible, to prevent venous stasis and decrease the risk of deep vein thrombosis.
- Gentle muscle-setting exercises of immobilized joints.

Gait training.

- *Teach the use of any supportive devices, such as crutches or a walker, that may be needed for protected weight bearing during ambulation after surgery*

Wound care.

- *Explain or reinforce postoperative care of the incision for optimal wound healing.*

thanks