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## Nursing care of a patient after limb amputation - case study

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**Abstract** Amputation is the operative, partial or complete cutting off of an organ; the term mainly used for limbs. Traumatic amputation of the limb is one of the oldest surgical procedures. Currently, thanks to the progress of medicine, it is performed less and less often, mainly in cases of malignant tumors, advanced ischemia or complete interruption of blood circulation in the limbs, and also with significant traumatic injuries. The missing part of the limb can be filled with a prosthesis. The most preferred is amputation of the myoplastic limb, i.e. cutting off the limb in a suitable place, or part thereof, followed by suturing of antagonistic muscle groups together and peripheral cutting of the stump bone. Thanks to myoplastic amputation, a functional, well-supplied and painless stump is obtained, suitable for prosthesis.

**Key words:** amputation; nursing care; nurse diagnosis

## **Admission**

Amputation is the operative, partial or complete cutting off of an organ; the term mainly used for limbs. Traumatic amputation of the limb is one of the oldest surgical procedures. Currently, thanks to the progress of medicine, it is performed less and less often, mainly in cases of malignant tumors, advanced ischemia or complete interruption of blood circulation in the limbs, and also with significant traumatic injuries. The missing part of the limb can be filled with a prosthesis. The most preferred is amputation of the myoplastic limb, i.e. cutting off the limb in a suitable place, or part thereof, followed by suturing of antagonistic muscle groups together and peripheral cutting of the stump bone. Thanks to myoplastic amputation, a functional, well-supplied and painless stump is obtained, suitable for prosthesis.

## **Nursing process and nursing diagnosis**

In modern nursing, concepts such as modern, rational, comprehensive and continuous nursing are present. It is understood that personalized care means the same as the care process. In such care, the nurse should recognize the patient's condition in terms of:

- biological
- mental
- social
- spiritual
- cultural

Recognition of these states allows you to take intentional and planned actions that are to contribute to maintaining or changing the current state, and allows you to evaluate the results obtained. The nursing process requires:

- communicate with the care provider
- communicate with your own professional group
- communicate with the therapeutic team
- documenting the nursing process

## **Case study**

Male 50, after limb amputation in 2012, urgently admitted to the Department of Orthopedics and Traumatology. The purpose of the admission was to diagnose a palpable pathological lesion located in the left groin area. This change caused severe pain in the lower left limb. The patient underwent a number of diagnostic tests: blood tests, left iliac iliac biopsy, abdominal ultrasound, x-ray of the hip joints and CT of the small pelvis.

## **Nurse's tasks**

Diagnosis 1: Limited mobility due to amputation of the left lower limb.

Aim of care: Increasing the patient's independence and physical activity.

Nursing activities:

- learning how to use ancillary equipment,
- performing passive exercises,
- motivating to do exercises independently, according to physiotherapist's instructions,
- gradually increasing effort and extending the walking distance with the help of the pulpit balcony,
- making it easier for the patient to move around using equipment by removing unnecessary items, furniture, etc.

Diagnosis 2: A hygiene deficit caused by amputation of the left lower limb.

Aim of care: Increasing efficiency and making it easier for the patient to perform hygienic activities.

Nursing activities:

- facilitating the patient and helping him move to the bathroom and toilet,
- removing items that may hinder movement in the bathroom,
- taking care of the right room and water temperature,
- placing toilet items in a place accessible to the patient,
- ensuring safety in the bathroom with: chairs in the bathtub or cabin, wall brackets, anti-slip mats on the floor, bathtub and cabin.
- ensuring intimacy while performing hygiene activities,
- assistance and supervision during hygienic activities.

Diagnosis 3: Limited independence in dressing due to stump pain and physical restrictions due to amputation.

Aim of care: Increasing independence in dressing.

Nursing activities:

- giving painkillers (at the doctor's request) before dressing or undressing,
- ensuring intimacy when dressing and undressing,
- encouraging the patient to wear loose, wide clothes made of natural fibers,

- inform the patient about the possibility of using auxiliary items such as: ribbons by the zipper, sock device,
- showing patience, giving the necessary time to dress and undress,
- encouraging you to wear clothes according to the time of day.

Diagnosis 4: Pain that hinders rehabilitation and reduces the patient's quality of life.

Aim of care: Reduction of pain.

Nursing activities:

- informing your doctor about pain reported by the patient,
- administering medicines according to the doctor's order, at fixed times,
- controlling the severity of ailments using the VAS scale,
- providing the patient with peace and quiet conditions,
- blood pressure and pulse control.

Diagnosis 5: Low patient knowledge of stump care.

Aim of care: Increasing the patient's knowledge about caring for the stump.

Nursing activities:

- informing the patient about the necessity to keep the stump clean (daily toilet with a mild cleaning agent, gentle drying),
- recommendation to use moisturizing care agents,
- informing about the need to bandage the stump and how to put on the elastic band,
- teaching the patient the correct technique of hardening the stump and explaining the purpose of this procedure,
- motivating the patient to do stump exercises,
- informing about the right way to stack the stump to avoid swelling and contractures.

## Summary

- Limb amputation in the complete application of the patient's daily physical practice. As a result of the procedure, share deficits in terms of movement and self-service operations. The patient is not able to handle, which before the procedure are not a problem. Seemingly simple hygiene procedures, dressing, preparing meals related to the help of another person. In the case of amputation, it ends with limited or activated availability, also the possibility of relaxing, playing sports, and often walking.

- An amputated patient may have psychological problems. One of them is the difficulty in accepting the appearance of your body. A very difficult issue is fear of loneliness, depression, fear of lack of independence, leaving family and friends. Fear of the future, the reaction of family and friends will result in severe depression and even depression. It is very important to show support and help the patient accept his appearance and limitations.
  
- The patient is afraid of the reaction of the immediate environment to his disability. The patient's fear of being rejected by the environment often results in giving up social contacts. However, the disorder of physical activity is the reason for the impairment of interpersonal contacts. Occupational functioning is also a problem for amputees. The patient is unable to take up physical work, and because of phantom pain, also mental work. The consequence are financial problems and deterioration of living conditions.
  
- Pain has a very negative effect on human functioning. The patient after amputation will be accompanied by both physical and mental pain. It can be an obstacle in undertaking and properly implementing the rehabilitation process. Mental pain, fear of the future, reaction of family and friends will result in a serious depression and even depressive states. The pain that the patient will have to deal with for the longest time is phantom pain - pain in the amputee limb.
  
- For rehabilitation to be effective and bring intended effects, it should be implemented in the early postoperative period. Both the physiotherapist and nurse play a huge role in the rehabilitation process. The most beneficial cooperation for the patient will be the cooperation of both specialists. Activities include education in the field of hygiene, hardening of the stump, proper positioning and anti-edema therapy.
  
- A patient after a limb amputation expects support and help in accepting their appearance and limitations. The nurse should encourage the patient to undertake rehabilitation, because it creates a chance for faster registration. Her task is to educate the patient about stump care. It should inform the patient about the development of prosthetics. Modern dentures give the patient a chance to lead a relatively normal life. These activities restore hope to the patient that soon after amputation he will be able to perform the roles he performed before surgery.

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