

STANDARD OPERATING PROCEDURES: NURSING IN PRIMARY HEALTH CARE

PART I

Sarajevo, 2019

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FOREWORD

Dear All,

This publication is the result of a series of activities that have been implemented within the Strengthening Nursing in Bosnia and Herzegovina Project funded by the Swiss Government.

The main aim of this project is to contribute to the improvement of health outcomes in BiH by improving the quality and effectiveness of nursing services, in particular at the primary health care level, and to increase access to nursing services for vulnerable groups of the population.

Nursing is an important segment in the health care system, since it encompasses all cycles of man's life, from caring for the newborn to palliative care, health promotion and disease prevention as well as participation in health policy making, and cooperation with patients associations, medical chambers and educational institutions.

Like other professions, nursing is facing constant challenges with regard to demographic changes, i.e. the needs of the population, new knowledge, technology and innovations in healthcare, as well as public health challenges. It is therefore necessary to get an adequate approach to education that involves enhancing the competencies while respecting the basic principles of medical ethics.

The development of nursing is inseparable from continuous education, and there is an evident increase in the number of highly educated nurses, both in Europe and in our country.

Performing health care jobs involves a variety of activities, from independent performing of duties and tasks and undertaking all the necessary activities that are in the best interest of the patient, to active roles in a team that demands constant collaboration of nurses and doctors in the process of establishing diagnoses and therapies, based on professional standards.

The role of a nurse in the team is crucial, since it is of immense importance to the outcome and quality of treatment, to establish good contact with the patient and achieve co-operation that will enable quality anamnesis.

Bearing in mind the importance of quality nursing for the adoption of health policies and their successful implementation, the Federal Ministry of Health has provided support to the activities of the much needed standardization of nursing practice in the Federation of BiH.

We hope that the standardization in providing nursing care services will lead to its ultimate goal, which is, above all, an improvement of security, quality and efficiency of health care in the Federation of Bosnia and Herzegovina.

Minister

Doc. Dr Vjekoslav Mandić

INTRODUCTION

Due to the sudden and continuous increase in the number of chronic illnesses, demographic changes, war events, effects of socioeconomic factors, the health system in Bosnia and Herzegovina is facing an increasing need for health services. Given this shifting context, it was necessary to redefine the role of a nurse with strong potential to affect the health outcomes and thus raise the quality of life of the population in Bosnia and Herzegovina. Consequently, nursing has been recognized as one of the most important pillars of the healthcare system.

Activities in the field of standardization of nursing practice in the Federation of BiH are of great importance given that the need to define nursing standards appeared a long time ago. Nursing standards are measurable definitions of the agreed and acceptable quality of nursing care at a particular workplace and are used to assess and evaluate the current nursing practice. Standards act as guidelines or goals by which we determine whether nursing activities meet a pre-determined quality level or not. The standard defines a harmonized level of quality and quantity of work.

Standard Operating Procedures (SOPs) are just one part of nursing practice standards, along with standards and norms of healthcare, nursing documentation and records, as well as nomenclature of services.

By adopting the Law on Health Care, the Law on Nursing and Obstetrics, and the Law on Quality Improvement, Security and Accreditation in Health Care, health institutions are obliged to establish, develop and maintain a system of safety and quality of healthcare services, which implies, inter alia, the preparation and application of procedures for the services provided.

Based on the needs and general objectives of the Project 'Strengthening Nursing in Bosnia and Herzegovina', the Federal Minister of Health, Doc. Dr Vjekoslav Mandic has appointed a working group that has made 46 SOPs, 12 algorithms and 6 attachments for nurses at the primary health care level.

The procedures have been developed using different professional literature, knowledge, experience and good practice. The procedures include relevant principles and standards for eliminating all forms of discrimination in their application, including gender standards, in accordance with the applicable legal framework in force in Bosnia and Herzegovina.

The working group that worked on the preparation of standard operating procedures included, in relevant procedures, a different approach for women/girls and men/boys, where their biological differences require so. Special procedures have been developed for women only as end users, related to providing care during pregnancy and childbirth. Gender sensitive approach, as a part of other relevant procedures, will continuously be improved on the basis of the experience acquired applying the SOPs. Gender sensitive approach refers to gender differences and the different needs of women and men, in regard to the social context of a person's gender, conditioned by sociological and cultural factors. Please note that although only one grammar gender form in the procedures is used, the equality of both genders is implied.

The main purpose of this manual is to make these SOPs, developed in cooperation with the Project of Strengthening Nursing in Bosnia and Herzegovina and the Federal Ministry of Health, available to all nurses working in primary healthcare institutions in the Federation of Bosnia and Herzegovina, helping them provide uniform and standardized healthcare services, improving the safety, quality and efficiency of patient healthcare.

PART I

RECORDS AND DOCUMENTATION

- 1 Standard operating procedures (SOPs) development instructions
- 2 Patient identification procedure
- 3 Consultation scheduling and rescheduling and procedure in case of extended treatment
- 4 Documenting nursing procedures

STANDARD OPERATING PROCEDURES (SOPs) DEVELOPMENT INSTRUCTIONS

The preparation of standard operating procedures should involve: employees of the department to which the procedures relate, employees of legal department who harmonize the procedures with the valid legal regulations and the appointed employees for establishing, maintaining and improving the quality and safety of health services in the institution (coordinator, department, section, and ward).

Definition and purpose of the Standard Operating Procedure

- The procedure implies a set of activities, steps, and processes that need to be applied in a certain order to achieve a specific goal.
- The purpose of the operating procedures is to ensure that all employees carry out the same procedures in exactly the same way.
- The standard operating procedure is a written set of instructions that should be followed to complete the work safely, without adverse effects on the health of patients, the health of the staff or the environment.
- Procedures are requisite for good, safe, quality, continuous and transparent health care, that helps reduce the possibility of making errors during the work process.

Reasons for setting procedures

- They ensure that the service providers have all information needed regarding the safety, health of patients, environment and the appropriate preparations, necessary to complete the work adequately.
- They ensure that the steps in service delivery are taken consistently, providing for service quality control.
- They ensure that the process takes place without interruptions and is completed within the anticipated time-frame.
- Ensure that no errors occur.
- They ensure the application of regulations and good practices.
- They serve as a training document in the domain created for and are used in the training and education of new employees.
- They serve as verification lists ('checklist') for supervision and control of work performance.
- They serve as evidence of how certain processes have taken place, which equipment and material were used, etc.
- They explain the steps in the process and can be considered in the event of adverse outcomes to justify the actions taken by healthcare professionals.

When should the procedures be created?

The procedures should be created:

- For each existing process;
- When a new process is being introduced;
- When changing the existing process;
- When introducing new equipment – technology;
- When there are indications that new knowledge application will yield benefits through improved work practices;

- When the standards and legal regulations upon which the procedures were created are being changed;
- Testing the incidents may also indicate the need to change or write the procedures.

What to take into account when writing the procedures

The procedure should be short, clear and comprehensible. If the procedure has more than 10 steps, the following options should be considered:

- Divide it into several logical sub-procedures.
- Write a shortened form as an attachment to the procedure, which will only include steps without detailed explanation (algorithm).
- If a work process requires a more extensive structure, it is possible to create a document in the form of a manual or guide.

Components of the Standard Operating Procedure

I Header

Each standard operating procedure must have a header, most commonly in the form of a table, containing:

1.1 *Name of health institution*

Be sure to write the full name of the health institution where the procedure is being applied.

1.2 *Name of the procedure*

The name of the procedure should match the contents. Do not use abbreviations in the name of the procedure.

1.3 *Type of the procedure*

- Procedure in line with accreditation standards (specify standard and criterion).
- Procedure in line with certification standards (specify standard and criterion).
- Work process procedures, operating procedures, or work procedures (procedures describing processes).

1.4 *Unique number of the procedure*

The procedure number implies:

The number in the institution's central records of the procedures, consists of at least three figures, with the first being the number in the records; the second refers to the year when the procedure was adopted or revised, and the third to the number of the version of the procedure. It is possible to add the fourth figure that refers to the organizational unit.

1.5 *Number of pages of the procedure* – specify the number of pages.

1.6 *The validity of the procedure* – for a maximum of 3 years from the adoption or performed revision.

NAME OF THE INSTITUTION: PHCC _____	
NAME OF THE PROCEDURE: Establishing the Venous Route	Page ½
TYPE OF THE PROCEDURE Work process procedure	Unique number of the procedure: 14/17-1
	Valid until May 2020

Table I Example of the header

2. Obligatory elements of the contents of the procedure

2.1 General policy statement

Determines the institution's viewpoint towards a particular procedure or operation. Defines the aim/purpose and reason for the application of the procedure.

2.2 Application Field

List the organizational units – departments where the procedure will be applied.

2.3 Distribution and supervision

Ensure that all personnel concerned is familiar with the procedure . The procedure should be submitted to senior level managers who will distribute it to the lower level managers. The managers of the lowest organizational units are tasked to present the procedure to the operational personnel applying the procedure. In this section, it is important to indicate to whom the procedure should be available, and who performs regular and periodic supervision over the implementation of the procedure. Supervision is also performed I, following levels of responsibility.

2.4 Procedure/ course of action/ process/steps

It should contain a description of the process consisting of a whole series of interrelated mutually dependent steps, a method of proper and safe implementation, the records of the course of implementation, if required by the procedure etc. The procedure contains a description of the work process steps that is the subject of the procedure (type of activity, persons responsible for carrying out the activity, time and manner of carrying out the activity).

2.5 Revision of the procedure

Regular revision of the procedure is carried out every three years and is usually recorded at the end of the procedure. An extraordinary revision can be performed earlier in the case of changes of the legal acts, regulations followed by procedures, new equipment or work methods being introduced, etc. Month and year of the revision should be specified in the procedure.

3 Adoption of the procedure (signature and verification)

The following is listed at the end or at the beginning of the procedure:

- Names and signatures of persons involved in drafting or revision of the procedure,
- Name and signature of the person providing consent to the procedure (if it is a nursing procedure, approval for the application is provided by the chief nurse of the institution),
- Name and signature of the director of the institution approving the procedure,
- Date of adoption,
- A stamp of the institution.

Adopted procedure becomes a requirement for certain behaviour, and a failure to comply represents violation of the work discipline.

	Name and surname	Verification (signature)
Prepared by		
Agreed by		
Approved by		
Date of adoption		

L.S.

Table 2 Example of adopting the procedure

2 PATIENT IDENTIFICATION

I GENERAL POLICY STATEMENT

The application of this procedure will ensure proper patient identification in order to prevent the substitution of identity, abuse of health system services and possible entailing consequences.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

- 4.1 The correct identification of the patient is indispensable to avoid a medical procedure being carried out on the wrong patient.
- 4.2 The primary responsibility for proper identification of a patient lies with the nurse working at reception/admission, who is also an integral part of the medication administration process, treatment procedures and diagnostic procedures.
- 4.3 Patient identification is done by name, last name and PIN.
- 4.4 A document that includes a photograph (ID card, driver's license, passport) is compared with the patient's face and then with the information on the health card.
- 4.5 Identification of an adult patient is performed as described above.
- 4.6 Minors need to have a health card and accompanying person (parent, teacher, guardian) with an identification document that includes a photograph (ID card, passport and driver's license).
- 4.7 In case of identity theft, the team working at that moment takes the information from the document and makes a proper note to be submitted to the legal department of the institution as soon as possible.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

3 CONSULTATION SCHEDULING AND RESCHEDULING AND PROCEDURE IN CASE OF EXTENDED TREATMENT

I GENERAL POLICY STATEMENT

The introduction of consultation appointment system improves the quality of health care and increases the satisfaction of patients and healthcare professionals. The scheduling system should be flexible and not strict or rigid.

The purpose of the procedure is to define the basic principles of scheduling and the manner of recording.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

A scheduled consultation is a pre-determined date and time of arrival of the patient with the anticipated length of examination or intervention. A patient, family member or legal representative of the patient can make an appointment for a consultation in person, by phone or by e-mail.

4.1 Basic principles of making appointments for consultation or services:

- Adapt the scheduling system to the needs of patients, in accordance with the availability of the team;
- When scheduling, the nurse, in communication with the patient or family member, receives information on the type of service the patient needs and accordingly offers a choice of two terms;
- Plan 2–3 openings during a day in case of extended consultation or emergency;
- In case of extended consultation and use of the scheduled consultation time of another patient, the team staff must immediately inform the patients in the waiting room about the necessary sudden change to the schedule;
- Educate the patient on the principles of scheduling, rescheduling and cancelling of the consultation;
- In case of rescheduling of a consultation by the team, the nurse will timely notify the patient.

Department/Polyclinic/Unit

Scheduling a consultation with _____

Date _____ day _____

Hour	Patient's name and surname	Phone number	Date of scheduling	Reason of arrival		Remark	Nurse's signature
				P-first	K-control		
7:30							
7:45							
8:00							
8:15							
8:30							
8:45							
9:00							
9:15							
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12:00							
12:15							
12:30							
12:45							
13:00							
13:15							
13:30							
13:45							
14:00							
Number of examined _____		Number of the scheduled patients _____		Number of patient who did not turn up for scheduled appointment _____		Number of cancelled patients _____	

Figure 1.1 An example of the consultation scheduling form

4.2 Records of scheduled consultations

Required patient information is entered in the standardized protocol for scheduling:

- The name and surname of the patient physician;
- The date the patient had consultation scheduled;
- The date and time of the patient's appointment;
- The name and surname of the patient;
- Appointment made by the patient or their family member;
- The reason for appointment;
- Signature of the nurse making the appointment.

In the event of any corrections in the Appointment Book, the use of correction tape/stick is not allowed – just strike through and record the reason.

RECOMMENDATION: Notice about the obligation to make a consultation appointment must be placed on the notice board (information for patients on their rights and duties) and verbally communicated to the patient on the first arrival to the outpatient clinic.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

4 DOCUMENTING NURSING PROCEDURES

I GENERAL POLICY STATEMENT

Documenting nursing procedures (nursing documentation) is an integral part of a safe and effective nursing practice and represents a set of data that serves for the assessment, planning, implementation, evaluation, control and expert supervision of planned and implemented nursing care. The documentation is kept by a nurse, writing down the information about his/her findings, procedures, and healthcare services provided to health care users.

This procedure defines the method of documenting the qualitative content of the nursing procedures, using the elements of the nursing process.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

- Nurse maintains documentation for patients in need of nursing care in solving their current or possible health issues, based on patients' needs or personal assessment.
- The documentation is maintained individually for each patient and is an integral part of the patient's health or nursing record.
- The form and content of the documentation, with basic elements of the nursing process, is adaptable and can be tailored to the specifics of particular areas of nursing care.

4.1 Basic elements

4.1.1 Header:

- Name of institution, department/polyclinic/ward/dispensary,

4.1.2 General patient information: name and surname, gender, a parent's name, PIN, address of residence, phone number,

- 4.1.3 Assessment,
 - 4.1.4 Plan, Nursing process
 - 4.1.5 Implementation,
 - 4.1.6 Evaluation.
- } Nursing process

Assessment – implies a systematic, continuous patient data collection, data analysis and identification of the patient’s problem or nursing care needs.

- *Data collection methods:* observation, interview, measurements (body weight, height, BMI, pain scale, temperature, pulse, blood pressure, blood glucose, PEF), analysis of existing medical documentation.
- *Data sources:* patient, accompanying persons, data from medical records, medical findings and immediate observations of a nurse.
- *Assessment tools:* Assessment scales and forms (Mobility Assessment Form, Pain Scale, Decubitus Ulcer Risk Assessment Scale, Mental Health Assessment Form, MMS-mini mental status, Phlebitis Assessment Scale, Fall Risk Assessment Tool, Cardiovascular Risk Assessment Chart, etc.).
- *Nursing diagnosis* is the ultimate result, conclusion, obtained by assessment or identification of the problem. Nursing diagnosis is descriptive and is written in the official languages of BiH. The text of diagnosis consists of problems/symptoms and causes (e.g. insomnia due to frequent urination during the night, inability to independently administer insulin due to impaired vision, obesity due to insufficient physical activity).

ASSESSMENT	LIFE STYLE	Diet		Physical activity		Bad habits		PHYSICAL ASSESSMENT	Body weight	RISK FACTORS	smoking	
		diverse		good			Body height		alcohol			
		unbalanced		moderate			BMI		obesity			
		moderate		poor			waist size		menopause			
		increased appetite		immobile			TA					
		low appetite					PEF					
							blood sugar level					
Additional assessment												
Nursing diagnosis												

Figure 1.2 – Example of table for recording the assessment

4.2.1 Plan – contains goals (desired outcomes of nursing care) and nursing interventions needed to achieve the goal.

- The goals are determined on the basis of the patient’s expectations (it is best to write down the words of the patient), the resources available and the professional knowledge and experience of the nurse.
- Goals should be realistically achievable, clear and specific and usually include the time range for their achievement and evaluation (e.g. ‘Achieve body weight of 70kg in 1 month’ or ‘Stop smoking by 1 June’).
- The plan should include the recorded planned interventions that are estimated to help achieve the goals.

- Plans can be short-term and long-term with specified implementation deadlines by priority (greater effect is achieved with more short-term goals).
- The patient or family members are included in plan creation.
- The plan for the patient must be signed by the nurse who prepared the plan and by the patient who confirms his/her consent with the prepared plan.

GOAL	1.	3.	
	2.	4.	
PLAN	Planned activities	DATE	NURSE'S SIGNATURE

Patient's signature _____

Figure I.3 Example of the table for plan and goal recording

4.2.2 **Implementation** represents the activities performed by the nurse, related to the planned diagnostic and therapeutic procedure education, counselling, demonstration and patient monitoring.

- If counselling or education is carried out, in addition to the type, it is necessary to present in short the tips or content of the education.
- Make a record if a written information or promotional-preventive material is delivered to a patient.
- With each performed intervention, enter the date and signature of the nurse who completed the course of action.

IMPLEMENTATION	Conducted activities	DATE	NURSE'S SIGNATURE

PLANNED EDUCATION		date _____ duration of education ____ minutes	
CONTENTS			
	Written material	Comment:	
	yes no		
DEMONSTRATION		Goal achieved	Date of next visit
		yes no	

Patient's signature _____

Education		Interest in learning		Barriers to learning	
Understandable		Asks appropriate questions		No barriers	
Good		Actively listens		Illiteracy	
Limited		Does not respect the educator		Visual, auditory	
Poor		Uninterested		Sound judgment	
Other (specify)		Confused		Motivation	

Figure I.4 Example of the table for recording the conducted operations (Implementation)

4.2.3 **Evaluation** is the assessment of the set goals fulfilment. If the goal is not met, and the evaluation is negative, an additional assessment is required and a new plan should be made. In the evaluation, write any deviations from the agreed plan indicating the reason for the deviation.

Deviations from the plan			
EVALUATION	Comments/remarks	GOAL-achieved	
		yes	no

Figure 1.5 Sample of an evaluation recording table

4.2.4 If a standardized form with the recorded basic elements of the nursing process is not available, the records in the documentation may have a specific form of record in the form of the acronym SOAPIER.

- S** – Subjective symptoms – what the patient says
- O** – Objective signs – measurements, diagnostic findings
- A** – Analysis of data obtained and patient assessment
- P** – Plan of course of action
- I** – Interventions
- E** – Evaluation
- R** – Revision (change or supplement to the plan)

4.3 Recommendations for keeping the nursing documentation

- Nursing documentation can be maintained in paper or electronic form,
- Quoting of the patient is allowed,
- The nurse recording the data is responsible for the accurate, complete and timely recording in the documentation signed by her
- Any changes or supplements to the data should be dated and signed,
- Use of correction fluid is not permitted.
- Write with a pen, neatly, legibly, clearly, concisely, unambiguously,
- Avoid abbreviations other than those generally accepted,
- Respect the confidentiality of the data.

The recorded data should:

- Depict the state of the patient and his/her nursing care needs,
- Have a chronological sequence that makes a logical unit,
- Shows at all times what, how and when has been done.

It is not allowed to:

- Enter and sign interventions performed by someone else,
- Destroy, ‘mislay’ the documentation,
- Enter incomplete and unverified data,
- Write inappropriate comments (negative mocking characteristics, plain words, etc.).

4 REVISION

The revision of this procedure is performed every three years or earlier if required

PART II

INFECTION CONTROL

- 5 Hand washing and disinfection
- 6 Safe disposal of sharp objects
- 7 Instruments and sanitary materials preparation and sterilization

5 HAND WASHING AND DISINFECTION

1 GENERAL POLICY STATEMENT

Hand washing is the most important individual measure to prevent infections. The term hand washing defines several actions for the purpose of removing impurities and reducing the transient colonization of the bacterial flora by the use of liquid water and liquid soap. The facility provides rooms for hand washing that are available to patients and staff. Instructions for proper washing procedure should be placed at the hand washing area.

The purpose of this procedure is to define the course of proper hand washing, in order to prevent the onset and spreading of infections.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Hygienic hand washing

Hand washing is necessary before and after each direct contact with the patient and is performed with liquid water and liquid soap to remove dirt and transient flora as well as after each direct contact with the patient's skin, body fluids or excretions, contaminated underwear and equipment, after removing the gloves and after using the toilette.

Before you wash your hands, remove jewellery (rings, bracelets, and watches).

4.2 Instructions for hand washing

- Use liquid soap;
- Use warm liquid water;
- Taps should be set to open and close easily;
- Avoid spraying clothes and floor;
- Rub your hands together well for at least 30 seconds;
- Intensely rub your fingers and area between your fingers;
- Rinse your hands thoroughly;
- Dry your hands with a paper towel and close the tap using the towel.

4.3 Procedure for antiseptic hand washing – skin disinfection

It is done before any antiseptic action to remove micro-organisms from the hands of health workers and refers to any action using an antiseptic solution for the hand cleaning and disinfection. Hygienic hand rubbing with disinfectant implies hand rubbing with a small amount of about 4 ml of highly effective and fast acting antiseptic agent for 30 seconds.

Procedure:

Pour on the palms of the washed dry hands about 4 ml of disinfectants and rub until the skin is dry to achieve a bactericidal and fungicidal effect.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

HYGIENIC HAND WASHING



Wet your hands under running water



Dispense liquid soap for hand washing



Rub your palms together



Rub the right hand palm on the back of the left hand and vice versa



Rub palms together with intertwined fingers



Clasp the opposite hand fingers and rub them



Rub the thumbs of both hands with circular movements



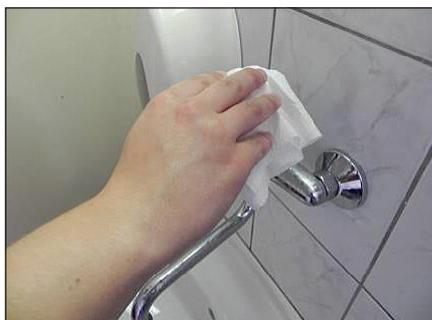
Rub the right hand fingertips on the left hand palm and vice versa



Thoroughly rinse your hands with running water



Dry your hands with disposable paper towel



Use the used towel to close the tap



Dry and clean hands

6 SAFE DISPOSAL OF SHARP OBJECTS

1 GENERAL POLICY STATEMENT

Every employee handling sharp objects such as needles, scalpels, lancets, is at risk of injury and possible infection.

The purpose of this procedure is to reduce/prevent injuries and possible infections by safe and proper disposal of sharp objects.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Sharp waste, such as needles, scalpels, lancets and other disposable medical instruments, is disposed of where generated, in a suitably fitted container.

4.1 Waste disposal container for sharp disposable items

- 4.1.1 The container must be made of hard plastic, impenetrable for the contents i.e. puncture resistant and made to prevent the contents from falling out or injuring and transferring the infection to persons disposing of waste or handling waste.
- 4.1.2 Nurse prepares the container for sharp waste and labels it. The following information is entered on the label: source of waste (name of department), waste category and code (sharp items 18 01 01), and after closing the container, the closing time and date.
- 4.1.3 The container should be placed close to places where sharp objects are used, as far as it is convenient (on a therapeutic trolley).

4.2 Disposing of sharp objects

- 4.2.1 Disposing of sharp objects is carried out in a safe manner that will not endanger the person who disposes of contaminated sharp objects or the risk is minimal.
- 4.2.2 It is not recommended to recap the needle. When the situation requires returning the plastic cover on the needle (e.g. insulin pen), use the 'one-hand method'.
- 4.2.3 If the container is not at the intervention site, then the contaminated needle is not carried in the hands, but in the kidney dish, and then is disposed of using tweezers in a dedicated container.
- 4.2.4 The needles are disposed of by separating the needle from the syringe by pulling the syringe back when the needle is already in the opening of the container for sharp waste.
- 4.2.5 During a home care visit, each healthcare worker's obligation is to safely return the harsh objects used to the department and to proceed following the procedure.

4.3 Sharps disposal container management

- 4.3.1 The container may be filled up to 2/3 of its volume and then closed without the possibility of re-opening (*do not pour in the disinfectant*).
- 4.3.2 Nurse, upon closing the container, delivers the same to the caretaker, who takes the container to the temporary storage facility in the department, and then according to the daily schedule of waste disposal, takes the same to the central room for disposal of infectious waste in the facility.

4.3.3 Each medical waste transfer shall be recorded:

- Place of waste generation (intervention, department, outpatient clinic),
- Type of waste with waste code,
- Amount of waste,
- Date and time of handover,
- Signature of the person who handed over the waste, and of the person who took it over.

Every employee's injury by a sharp object is subject to a written report.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

7 INSTRUMENTS AND SANITARY MATERIALS PREPARATION AND STERILIZATION

1 GENERAL POLICY STATEMENT

Sterilization is a process that completely removes all forms of micro-organisms and their spores from instruments and sanitary materials. The preparation for sterilization and the sterilization of medical instruments and sanitary materials is carried out in order to prevent the occurrence and transmission of infection to patients, oneself and the environment.

The aim of the procedure is to implement the sterilization process in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Preparation of instruments for sterilization

- 4.1.1 The instruments used are subjected to the process of washing and mechanical cleaning of dried blood, pus and other exudates.
- 4.1.2 With a soft brush, each instrument and each part thereof is washed separately, especially articular parts and uneven surfaces (do not use a metal brush for washing the instruments).
- 4.1.3 Instruments are washed with cold water and then with hot water and then immersed in the disinfectant of the appropriate concentration according to the manufacturer's instructions.
- 4.1.4 Disinfected instruments should be washed well under the water jet, with the mandatory protection of materials and instruments from physical and thermal damage, as rough handling can damage them.
- 4.1.5 Disinfected and washed instruments should be placed on multilayer gauze-compress and on the foreseen surfaces, for draining and wiping.
- 4.1.6 Place well-dried instruments on special grids or on special trays. The number and type of instruments depend on the intervention for which the kits are intended.
- 4.1.7 Place a test strip (indicator) for sterilization control on the tray, with the entered date and time of sterilization.
- 4.1.8 Semi-open trays with instruments should be placed in a sterilizer.

4.2 Preparation of sanitary material for sterilization

- 4.2.1 Fold the gauzes of different shapes and sizes and place into the drum.
- 4.2.2 Fill the drum with gauze that will be used within 24 hours.
- 4.2.3 Fold the gauzes 'on flap' to facilitate the circulation of steam for efficient sterilization.
- 4.2.4 Open the lateral openings on the drum.

4.3 Steam sterilization (autoclave)

- 4.3.1 Sterilization by hot steam under pressure is the process of destroying all types of micro-organisms and their spores from instruments and sanitary materials.
- 4.3.2 Arrange the prepared trays with instruments and drum with sanitary material in autoclave and make sure that the time, pressure and temperature are set according to the manufacturer's instructions.
- 4.3.3 Depending on the type of material being sterilized in the autoclave, the recommended temperature ranges between 126 and 138°C, and the pressure is between 1.5 and 2.5 Bar, with the sterilization time from 3 to 30 minutes.

4.4 Dry heat sterilization (dry sterilizer)

- 4.4.1 Use of dry air to sterilize objects withstanding high temperature – glass and metal objects (instruments).
- 4.4.2 The recommended temperature for sterilization of instruments in a dry sterilizer is 160°C for two hours or 170°C for one hour after reaching the target temperature.
- 4.4.3 If a higher temperature is used, sharp instruments may be damaged.

After the sterilization and cooling time (the optimum time is 60 minutes), close the trays and later openings on the drum, and put the drum in a predetermined, safe place.

4.5 Records of sterilization process:

- Date and time of turning on the sterilizer;
- Types of material being sterilized;
- Sterilization temperature;
- Time of the reached required temperature;
- Duration of sterilization;
- Time of turning off the sterilizer;
- Signature of the nurse who conducted preparation and sterilization process.

4.6 Sterilization performance control

Sterilization control is used to verify the efficacy of the sterilization process. Control is carried out continuously.

- 4.6.1 The methods of sterilization control are:
 - The physical method is an indirect method which states that the temperature and pressure in the autoclave or only the temperature in the dry sterilizer is achieved; it is carried out by monitoring the thermometer and the pressure gauge.
 - The chemical method is an indirect method and is based on the change of chemical substance under the effect of temperature. It is carried out with dedicated test strips that change the colour after the temperature of 160°C is reached.

- The biological method is a direct method and at the same time most reliable because it directly controls the efficiency of elimination of micro-organisms. It is performed using bacterial spores in the form of biological indicators.

4.6.2 For each sterilizer, record in the sterilization book the findings of the sterilization controls carried out, as evidence of sterilization testing and validity.

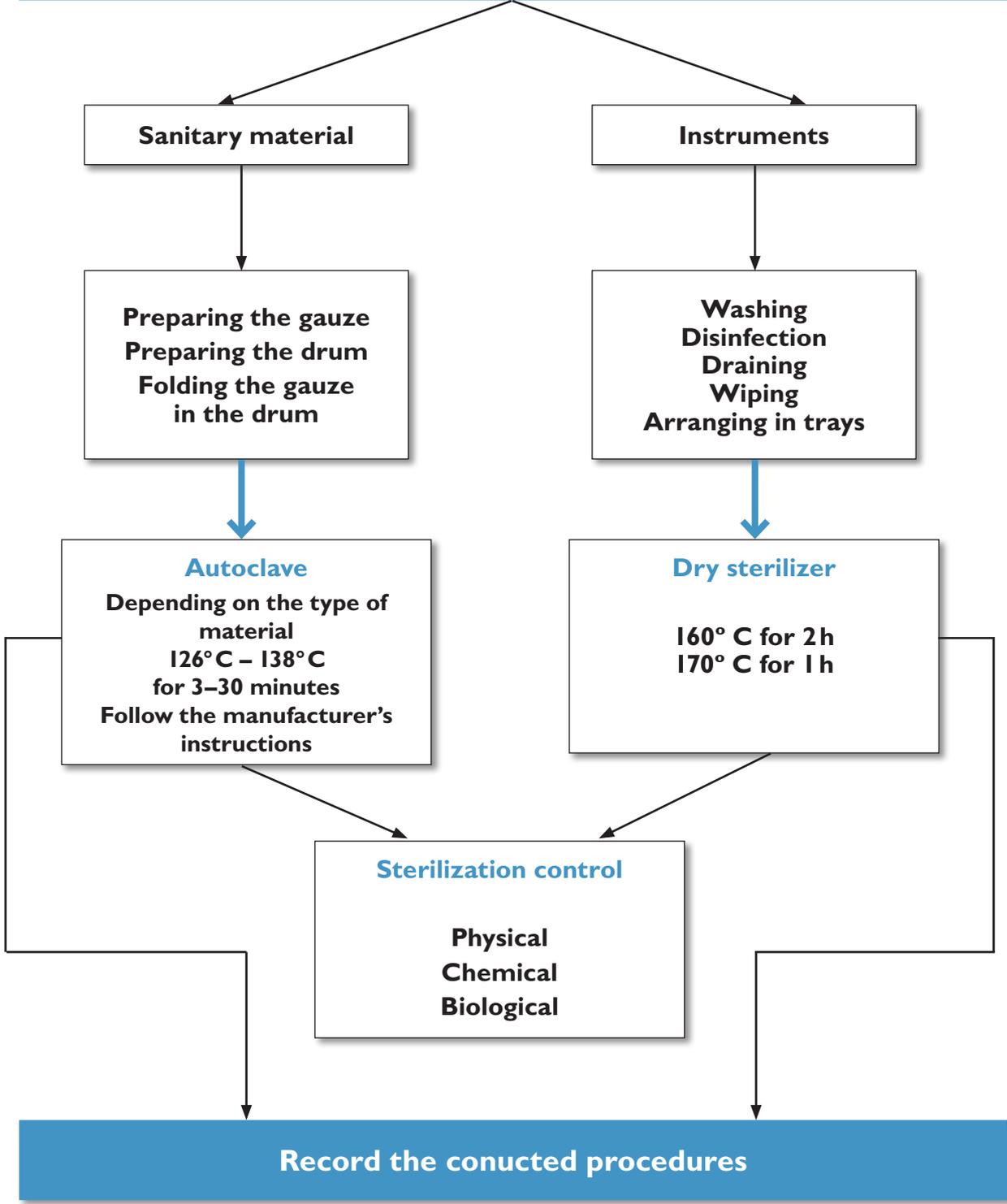
4.7 Precautions:

- After washing the instruments, check the reached purity and function of the instruments.
- Before the sterilization close the instruments in the drum at the first tooth.
- Maintain the instrument with the hinged surfaces according to the manufacturer's instructions.
- Nurses are obliged to monitor the operating parameters of the device (temperature, pressure, and voltage drop or power failure). In the event of a power failure the sterilization process should be repeated unless the break was short and did not affect the temperature reduction.
- If sterilization is not completed by the same person who started the process, enter in the record book the name of the nurse who completed the procedure.
- Unopened trays with instruments are considered sterile for 72 hours.
- Sterile material, which has been used after 24 hours, is no longer sterile.
- Safety of sterile material must be ensured.
- In the case of any doubt about the sterility of the material, repeat the sterilization process.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

STERILIZATION



PART III

MEASUREMENT PROCEDURES

- 8 Measuring the body weight and height and calculating the body mass index (BMI)
- 9 Measuring the glucose level from peripheral blood
- 10 Electrocardiogram (ECG)
- 11 Measuring the blood pressure
- 12 Measuring the pulse by palpation
- 13 Measuring the body temperature
- 14 Anthropometric measurement of children (percentile curves)

MEASURING THE BODY WEIGHT AND HEIGHT AND CALCULATING THE BODY MASS INDEX (BMI)

1 GENERAL POLICY STATEMENT

Body Mass Index (BMI) is a framework indicator of nutrition, which relates weight and height, and is applicable to people over the age of 18, except pregnant women and athletes with increased muscle mass. It is calculated by dividing the body mass value of the person, obtained by measurement, and expressed in kilograms, by the square of the height expressed in meters.

The purpose of the procedure is to correctly measure the body mass and height and accurately determine the body mass index.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Required equipment

- Scale with height measuring rod, placed on a hard surface;
- BMI table or calculator.

4.2 Patient preparation

- Explain to the patient the purpose, significance and manner of performing the procedure,
- Ask the patient to remove shoes and most of the clothing, as well as glasses, large pins or massive jewellery if he/she has them, if the patient uses orthopaedic aids (prosthesis, corset), first measure the patient with the aid, then measure the aids separately and subtract from the total weight of the patient.

4.3 Measuring the body weight

- 4.3.1 Check the scale accuracy (weigh at 0, scale 'pens' balanced).
- 4.3.2 Help the patient to stand on the scale if necessary.
- 4.3.3 The patient needs to stand on the scale with his back facing the height measuring rod, with his/her arms down the body.
- 4.3.4 Explain to the patient that it is important to stand still during the measurements.
- 4.3.5 Sliding the big weight, move it to the dent on the scale representing the patient's likely weight (the distance between the dents is 10 kg).
- 4.3.6 Sliding the small weight, move it (the distance between the dents is 100 g) until the scale 'pens' are balanced).
- 4.3.7 Sum up the figures from the lower and upper scales to determine the patient's weight.
- 4.3.8 Return the weights to '0'.

4.4 Measurement of body height

- 4.4.1 The patient is standing upright on the scale base.
- 4.4.2 Raise the measuring rod above the patient's head.
- 4.4.3 Lower the rod until it touches the top of the patient's head.
- 4.4.4 Read the height of the patient.
- 4.4.5 Help the patient get off the scales.

kg \ cm	135	140	145	150	155	160	165	170	175	180	185	190	195	200
110	60	56	52	48	45	43	40	38	36	34	32	30	29	27
105	57	53	50	46	43	41	38	36	34	32	31	29	28	26
100	55	51	47	44	41	39	37	34	33	31	29	28	26	25
95	52	48	45	42	39	37	35	33	31	29	28	26	25	24
90	49	46	43	40	37	35	33	31	29	28	26	25	24	23
85	46	43	40	38	35	33	31	29	28	26	25	24	22	21
80	44	41	38	35	33	31	29	28	26	25	23	22	21	20
75	41	38	35	33	31	29	28	26	25	23	22	21	20	18
70	38	35	33	31	29	27	26	24	23	22	21	20	19	18
65	35	33	31	29	27	26	24	23	21	20	19	18	17	16
60	33	30	28	27	25	24	22	21	20	19	18	17	16	15
55	30	28	26	25	23	22	20	19	18	18	16	16	15	14
50	27	25	23	22	21	20	19	18	18	18	15	14	13	13
45	24	23	21	20	19	18	18	18	18	18	14	13	12	12
40	22	20	19	18	18	18	18	18	18	18	11	11	10	10
35	19	18	16	15	14	13	13	12	11	11	10	9	9	9

Figure 3.1 Table with calculated BMI values

4.5 Calculation of BMI

Enter the values Obtained by measuring height (in m²) and weight (in kg) in the formula or use the tables with already calculated BMI values.

$$\text{BMI} = \text{mass (kg)} / \text{height}^2 (\text{m}^2)$$

4.6 Table of weight groups

BMI	Classification
<18	Underweight
19 – 25	Normal weight
26 – 30	Overweight
>31	Obese

Table 3.1 – Table of weight groups

4.7 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information;
- Date and time of measurement,
- Calculated BMI value;
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

MEASURING THE GLUCOSE LEVEL FROM PERIPHERAL BLOOD

I GENERAL POLICY STATEMENT

The goal of the procedure is to provide precise blood glucose (BG) level from peripheral blood using an electronic apparatus (glucometer).

The use of a glucometer has its advantages: simple procedure, rapid results and reduction of venepuncture related complications.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Glucose in peripheral blood is measured at the physician's order and depending on the condition of the patient according to the judgment of the nurse.

4.1 Preparation of material

- A blood glucose meter;
- BG test strips;
- Lancet;
- Gloves;
- Kidney dish;
- Container for the disposal of sharp objects;
- Disinfectant;
- Cotton pad.

4.2 Patient preparation

The procedure is performed in agreement with the patient, i.e. with his/her consent and explained reasons for conducting the procedure.

4.3 Measuring procedure

- 4.3.1 Wash your hands with soap and warm water, dry and put on the gloves.
- 4.3.2 Turn on the meter according to the manufacturer's instructions.
- 4.3.3 Insert the appropriate strip into the meter.
- 4.3.4 Check the strip code.
- 4.3.5 Wipe the finger tip of non-dominant hand with disinfecting agent and let it dry.
- 4.3.6 Lance the fingertip.
- 4.3.7 Touch and hold the test strip opening to the drop until it has absorbed enough blood to begin the test.
- 4.3.8 After taking the blood sample, put the cotton pad on the puncture site.
- 4.3.9 Read and record the result and inform the physician about the BG of the patient.

4.4 Disposal of used material

- Place the lancet in the container for disposal of sharp waste,
- Put the used strip into the bin for infectious waste,
- Place gloves in infectious waste if they were in contact with the blood of the patient.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information;
- Date and time of BG measurement;
- The value of BG measured;
- Signature of the nurse who conducted the procedure.

5. REVISION

The revision of this procedure is performed every 3 years or earlier if required.

10 ELECTROCARDIOGRAM (ECG)

I GENERAL POLICY STATEMENT

Electrocardiography (ECG) is a non-invasive procedure for registering electrical potentials that the heart produces through its work. The standard electrocardiogram consists of 12 leads, three standard leads (I, II, III), three unipolar leads of extremities (aVR, aVL, aVF) and six precordial leads (V1 to V6).

Cardiac monitoring through the graphic record of heart's electric potential is performed to set up a diagnosis of heart diseases, a rapid clinical orientation of the condition of the patient or to decide on further therapeutic procedure.

Intervention under a single procedure is performed by the nurse independently or upon the physician's order.

The purpose of this procedure is to perform the ECG recording procedure properly and technically correctly.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Indications for ECG procedure

4.1.1 Indications for independent performance of ECG procedure by a nurse.

A diagnostic ECG procedure performance in the case of medical emergency, especially in the presence of chest pain, difficult breathing, arrhythmia or other signs and symptoms indicating the possibility of acute cardiovascular disease.

4.2 Materials and accessories required for ECG recording

- ECG machine;
- ECG strip;
- Electrodes;
- Electrically conductive gel;
- Paper towels for wiping.

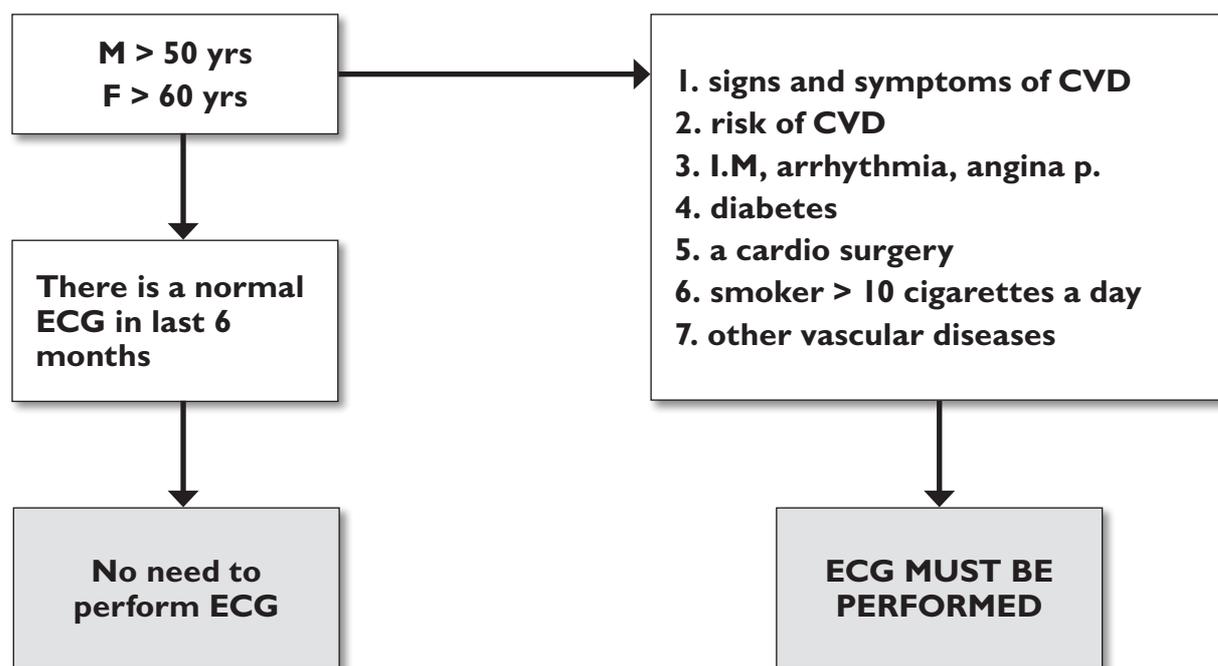


Figure 3.2 Algorithm for conducting the ECG procedure

4.3 Patient preparation

- Provide privacy (close the door, set the screen),
- If the patient’s condition permits, explain to the patient the recording procedure,
- Instruct the patient to free the chest and extremities of clothing and jewellery (if needed, assist the patient),
- If necessary, shave the patient’s chest,
- Place the patient in a comfortable lying or sitting position (high Fowler’s position),
- Place the electrodes with prior application of the gel to the skin, at the sites where the electrodes will be placed (in the absence of gel, use water).

4.4 Eliminate all factors that may interfere with the correct ECG recording

- Patient’s contact with metal parts,
- Poor contact of electrodes with skin,
- Touching the patient during recording,
- Twisted cables,
- Advise the patient to relax.

4.5 Positioning of electrodes at extremities:

- Inner side of right hand wrist – **RED**,
- Inner side of left hand wrist – **YELLOW**,
- Inner side of left ankle – **GREEN**,
- Inner side of right ankle – grounding electrode – **BLACK**,
- In the case of an amputated extremity, use the remaining stump.

4.6 Positioning of electrodes on the chest V1 – V6

- V1 – fourth intercostal space (ICS) parasternal RIGHT,
- V2 – fourth ICS parasternal LEFT,

- V4 – ictus – one finger medially from midclavicular line, fifth ICS,
- V3 – between V2 and V4,
- V5 – fifth ICS in the front axillary line,
- V6 – fifth ICS in the middle axillary line.

4.7 When operating an ECG, it is necessary to follow the manufacturer's instructions for use.

4.8 When the machine completes the recording, remove the electrodes, wipe the gel residues from the patient's skin using cellulose, remove the gel from electrodes and arrange them properly (disconnect the cables).

4.9 Enter the patient's name and surname, year of birth, date and time of recording in the ECG record.

4.10 Maintenance of the machine

Cleaning the machine:

- Turn off the machine from the power supply,
- Using a mild detergent solution, wipe the surface of the machine, dry with a paper towel,
- Using a mild detergent solution, clean the surface of the cables, and then dry,
- Disinfect the electrodes with a cloth soaked in alcoholic disinfectant.

4.11 Records

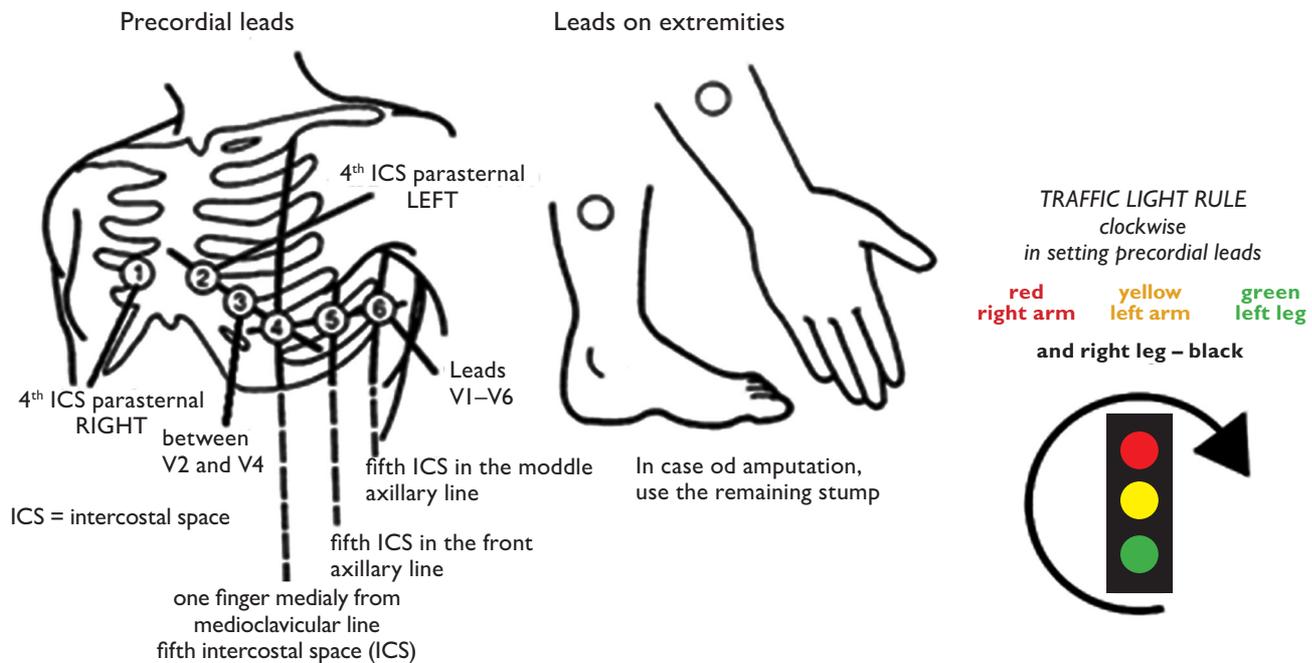
Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time when ECG was performed,
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

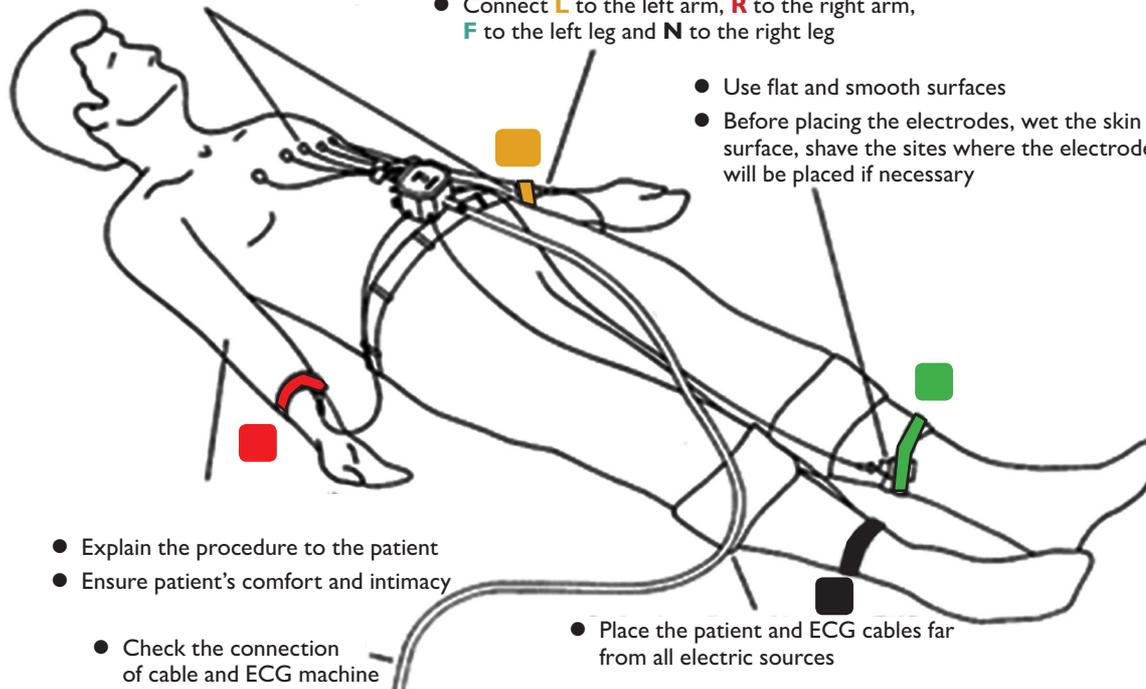
GUIDELINES FOR ECG



- Use flat and smooth surfaces
- Before placing the electrodes, wet the skin surface, shave if necessary

- Connect the leads to electrode holders
- Connect **L** to the left arm, **R** to the right arm, **F** to the left leg and **N** to the right leg

- Use flat and smooth surfaces
- Before placing the electrodes, wet the skin surface, shave the sites where the electrodes will be placed if necessary



- Explain the procedure to the patient
- Ensure patient's comfort and intimacy

- Check the connection of cable and ECG machine

- Place the patient and ECG cables far from all electric sources

II MEASURING THE BLOOD PRESSURE

I GENERAL POLICY STATEMENT

Blood pressure measurement is an important diagnostic method and is performed by a physician or nurse as a part of a physical examination or monitoring of the therapeutic effect. A mercury sphygmomanometer or aneroid sphygmomanometer and a stethoscope are used to determine the systolic and diastolic pressure expressed in mm Hg.

The purpose of the procedure is to carry out blood pressure measurement in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Preparation of material

- Mercury sphygmomanometer or aneroid sphygmomanometer
- Stethoscope.

4.2 Patient preparation

- Identify the patient,
- Explain to the patient the procedure of measurement of blood pressure as well as the cooperation expected from him,
- Place the patient in a sitting or lying position with the arm extended at the level of the heart and leaning on a flat surface and palm facing upward,
- Measurement is performed after 5 minutes of rest, if circumstances and condition of the patient allow it.

4.3 Procedure for blood pressure measurement

Wrap the deflated cuff around the patient's exposed upper arm above the antecubital fossa (the inner part of the elbow). When measuring blood pressure in adults, put the lower edge of the cuff around 2.5 cm above the crook of the elbow. The central part of the cuff should be just above the centre of the elbow pit. Most cuffs have an arrow that should be positioned above the brachial artery. The cuff should cover at least 80% of the circumference of the upper arm and two thirds of the length of the upper arm. Dimensions of small cuffs are 9x28 cm, standard 12x35 cm, and large cuffs 15x34 cm.

- 4.3.1 Place the earpieces of stethoscope in your ears.
- 4.3.2 Use the stethoscope to detect the strongest beats and keep it at that place with one hand.
- 4.3.3 With the thumb and forefinger of the other hand, turn the valve on the rubber part of the air pump clockwise to close the valve.
- 4.3.4 Quickly inflate the cuff by pressing the rubber pump, to 20 to 40 units above the level of the last audible sound. Do not inflate the cuff slowly, because false values will be obtained.
- 4.3.5 Open the air pump valve and slowly release air from the cuff, not faster than 2–3 mm per second.
- 4.3.6 Listen carefully and register the first beat, read the value on the scale when the beat occurred (systolic pressure), then register the last tone (diastolic pressure).
- 4.3.7 Release the cuff by opening the valve.
- 4.3.8 If you need to repeat the measurement, wait 2–3 minutes before re-inflating the cuff.
- 4.3.9 At the end of the measurement, the nurse who performed the blood pressure measurement disinfects the earpieces and the membrane of the stethoscope and places it in the prescribed place.
- 4.3.10 On the first arrival of the patient to the physician and the first measurement of pressure, the measurement is performed on both hands.

4.4 Records

Upon the completion of measurement, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of measurement,
- Value of the pressure obtained by measuring,
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

12 MEASURING THE PULSE BY PALPATION

I GENERAL POLICY STATEMENT

Pulse is a reflection of heart action on peripheral arteries. It is measured by palpation using the second, third and fourth finger on the surface arteries having a solid underlay for 60 seconds. The normal number of beats in a healthy, resting adult is between 60 and 80 minutes.

Pulse measurement is a procedure for obtaining significant anamnestic and diagnostic data necessary for the successful treatment of certain conditions and illnesses. The aim of measurement is to evaluate the pulse frequency, rhythm and intensity.

The purpose of the procedure is to carry out pulse measurement in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Preparation of material

- A stopwatch, a clock with a second-hand, or a digital clock.

4.2 Patient preparation:

- Identify the patient,
- Explain the procedure,
- Allow questions,
- Place the patient in proper position.

4.3 Performing the procedure of pulse measurement

Before measuring the pulse, attention should be paid to factors that affect the value of the pulse such as cardiovascular status, drugs, age, sex, body temperature, stress as well as the time since the last physical activity of the patient. It is most often measured on the radial artery, and can also be measured in the brachial artery, temporal artery, carotid artery, femoral artery, popliteal artery, dorsalis pedis artery and posterior tibial artery.

4.3.1 Wash your hands.

4.3.2 Find the pulse on the artery by palpation.

4.3.3 Using the fingertips of 2nd, 3rd, and 4th finger, by gentle pressure on the artery during one minute (in arrhythmia, measure for two minutes, and longer according to the assessment), measure the frequency using the clock control, assess the rhythm (rhythmic-arrhythmic), intensity (bounding, normal, faint, and not palpable).

4.3.4 Wash your hands.

4.3.5 Report the measured pulse to the doctor.

4.4 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of measurement of the pulse,
- Frequency, rhythm and intensity,
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

13 MEASURING THE BODY TEMPERATURE

I GENERAL POLICY STATEMENT

Body temperature is the difference between the amount of heat produced by body processes and the amount of body heat lost to the outside environment. Average temperature or deep tissue temperature is under the control of the hypothalamus and moves within a narrow range. The range of normal body temperature measured by axillary method is from 36.0–37.2°C. Changes in body temperature during a day depend on a number of factors: time of the day, physical effort, emotional status, menstrual cycle, pregnancy, illness and the like. At primary healthcare level, body temperature is most often measured by axillary and/or rectal method. The procedure is performed by a nurse.

The purpose of the procedure is to measure the body temperature in a proper and safe manner using a uniform procedure.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Measuring body temperature by axillary method

The temperature is measured axillary using a mercury thermometer or a digital thermometer. Contraindications of axillary measurement of body temperature are: inflammatory process in the armpit, inaccessibility, disability and very thin persons.

4.1.1 Preparation of material

- Thermometer,
- Clock,
- Towel or cotton pads,
- Disinfectant,
- Kidney dish.

4.1.2 Patient preparation

- Identify the patient,
- Explain to the patient the measurement procedure and position him/her comfortably,
- Ask the patient to wipe the armpit with a paper towel; help the patient if necessary.

4.1.3 Measurement procedure

4.1.3.1 If it is a mercury thermometer, check whether the mercury in the column is below 36°C.

- 4.1.3.2 Place the top of the thermometer in the central part of the axilla between the skin folds, so that it does not come to the opposite side.
- 4.1.3.3 Instruct the patient to place the arm where the thermometer is positioned towards the opposite shoulder.
- 4.1.3.4 If the condition of the patient does not allow it, the nurse shall hold that arm.
- 4.1.3.5 If using a mercury thermometer measure the temperature for 3 to 5 minutes, if using an electronic thermometer wait for it to signal the measured temperature.
- 4.1.3.6 The temperature is read and the value is entered into medical records.
- 4.1.3.7 After measurement, wash the thermometer with lukewarm water and liquid detergent, drain and store or disinfect with the disinfectant.

4.2 Measuring body temperature by rectal method

Indications for rectal temperature measurement are: in small children, contraindication of axillary temperature measurement and suspected inflammatory process in the abdomen.

Contraindications for rectal temperature measurement are: inflammatory process in the rectum, diarrhoea and agitated patients.

4.2.1 Preparation of material

- Rectal thermometer,
- Clock,
- Petroleum jelly or paraffin oil,
- Towel or cotton pads,
- Disinfectant,
- Kidney dish.

4.2.2 Patient preparation

Explain to the patient the measurement procedure and place him/her in the appropriate position (lateral position with legs bent towards the abdomen; children take the supine position with raised legs held by the nurse).

4.2.3 Procedure for rectal measurement of body temperature

- 4.2.3.1 Put on the gloves. Using one hand spread the gluteuses, and using the other hand with the cotton pads soaked in liquid soap, wipe the anal opening.
- 4.2.3.2 Apply petroleum jelly or paraffin oil to the top of thermometer and slowly insert the top of the thermometer into the rectum, in the newborn up to 1.5 cm, in small children up to 2.5 cm, and in adults from 3 to 5 cm.
- 4.2.3.3 Hold the thermometer during the measurement: mercury thermometer for 3–5 minutes; electronic until an acoustic signal.
- 4.2.3.4 Remove the thermometer, wipe it with the cotton pad and read the measured value.
- 4.2.3.5 After measurement, wash the thermometer with lukewarm water and liquid detergent, drain and store or disinfect with the disinfectant.
- 4.2.3.6 Remove the gloves and wash your hands.

4.3 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of temperature measurement,
- The value of the measured temperature,
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

14 ANTHROPOMETRIC MEASUREMENT OF CHILDREN (PERCENTILE CURVES)

I GENERAL POLICY STATEMENT

Anthropometric measurements of children are part of the daily, routine activities of nurses in the provision of healthcare services for preschool and school children. Anthropometric measurement of children is one of the methods of monitoring normal growth, and is performed by measuring head circumference, length–height and body mass, comparing the obtained values with the standards set by the World Health Organization (WHO).

The purpose of the procedure is to measure anthropometric parameters in children in a uniform and safe way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Child growth monitoring includes

- Measurement of head circumference, body height (length) and body mass,
- Recording of received data in the health card of the child,
- Comparing the data obtained with the standards of children of the same gender and age,
- Identifying children with growth and development disorders.

4.2 Required equipment

- Plasticized centimetre (non-woven, because it is elongated by the use),
- Scale with lever (decimal scale), scale with height measuring rod,
- Bed for child length measuring or length measuring mat,
- Percentile curve form for boys and/or girls.

4.3 Preparation of space

The room for measurement should be light, clear and warm.

4.4 Preparation of the child

- Explain to the mother or accompanying person the purpose, significance and manner of performing the procedure,
- Ask mother (accompanying person) to undress the child,
- Measurements are performed preferably before meals.

4.5 Measurement of the weight and length of infants

- Measure the infant's weight by calibrated, digital or mechanical scale, disinfected and covered with a clean diaper. Place the naked child on the scale and read the body weight on the scale;
- Length measurement: place the child in a disinfected bed covered with a diaper or on length measuring mat so that the lower extremities are extended. Measure from head top to foot heel;
- Enter the values obtained in the percentile curve chart for length, indicating on the horizontal line or abscissa the child's age in months, and on the vertical line or longitudinal, the body length in centimetres;

- The obtained values should be connected into one point. Multiple measurement points are merged into a curve that is compared to the standard curve.

4.6 Measurement of head circumference

- Measure the head circumference following fronto-occipital line,
- Place the centimetre on the back of the head, then around the head over the upper edge of the auricles, above the eyebrows and over the occipital bulge (by moving the centimetre over the back, the largest circumference of the head is required),
- Measure the child's head circumference until the full second year of life or until the large fontanel is closed.
- Enter the values obtained in the percentile curve chart for head circumference, indicating on the horizontal line or abscissa the child's age in months, and on the vertical line or longitudinal, the child's head circumference in centimetres;
- The obtained values should be connected into one point; multiple measurement points are merged into a curve that is compared to the standard.

4.7 Measuring the height and weight of children

- The weight and height of the children are measured by the nurse on the weighing scale with a height measuring rod, at least twice a year, during systematic examinations and at the request of a physician;
- Undress the child except for the underwear, set him/her to stand with the back facing the height measuring rod, with his/her arms down the body, with the raised head and the legs together;
- Explain to the child that it is important to stand still during the measurement.

Measuring the height

- Raise the headpiece above the child's head.
- Push headpiece down until it rests on the top of the child's head.
- Measurement reading is recorded in the Growth Chart.

Measuring the weight

- Set the large poise weight to indicate child's likely weight (the weight graduation is 10 kg);
- Sliding the small poise weight, moving it (the weight graduation is 100 g) until the pointer is centred).
- Sum up the figures from the lower and upper scales and record the values in the Growth Chart;
- Return the poise weights to '0'.
- Help the child to come off the scales;
- Enter the values obtained in the form for body weight and height, indicating on the horizontal line or abscissa the child's age in years, and on the vertical line or longitudinal, the body weight in kilograms and length in centimetres;
- The obtained values should be connected into one point. Multiple measurement points are merged into a curve that is compared to the standard curve.

4.8 Records

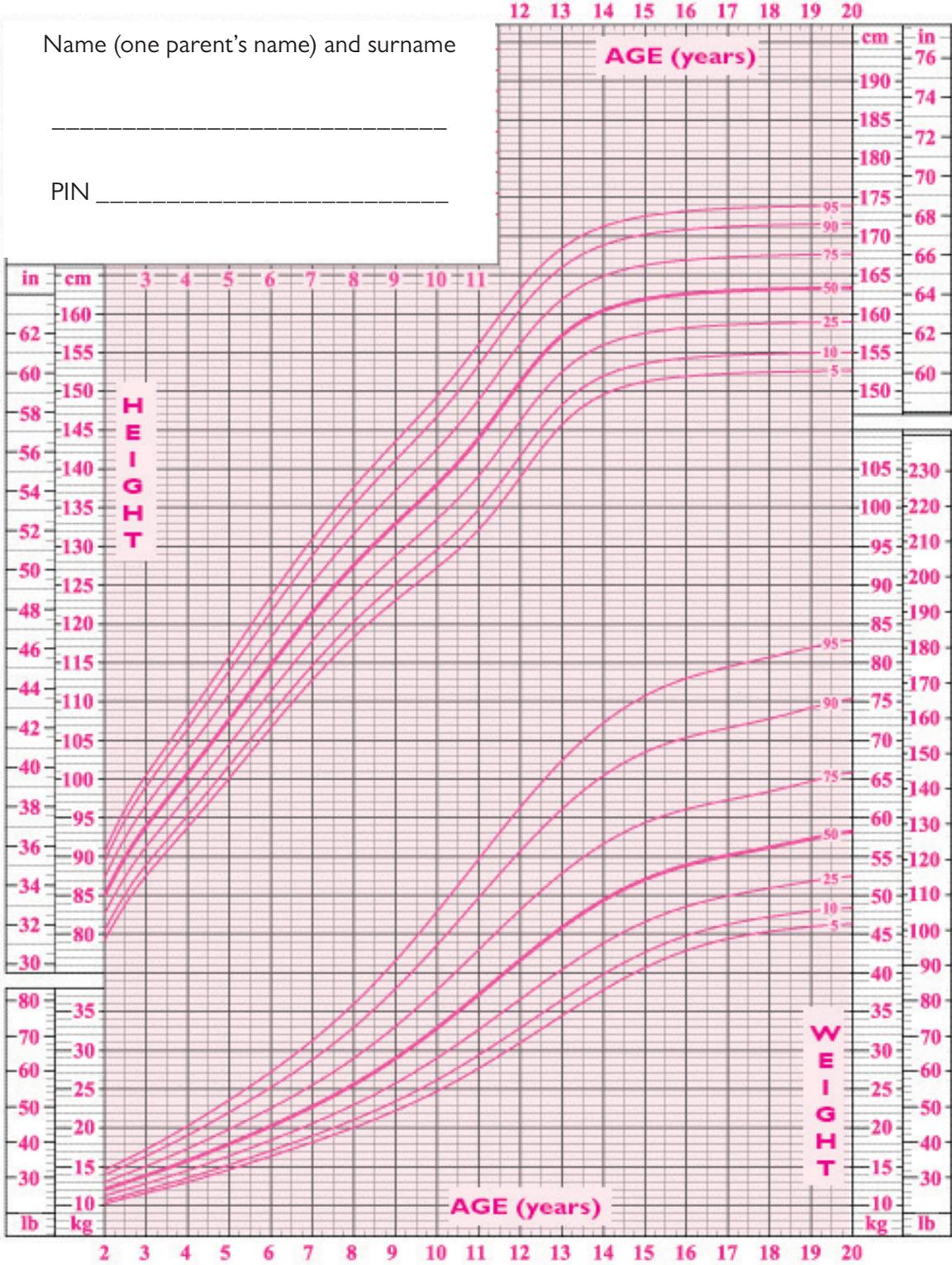
Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General information about a child (patient),
- Date of measurement,
- Values obtained by measuring and calculating,
- Signature of the nurse who conducted the procedure.

5 REVISION

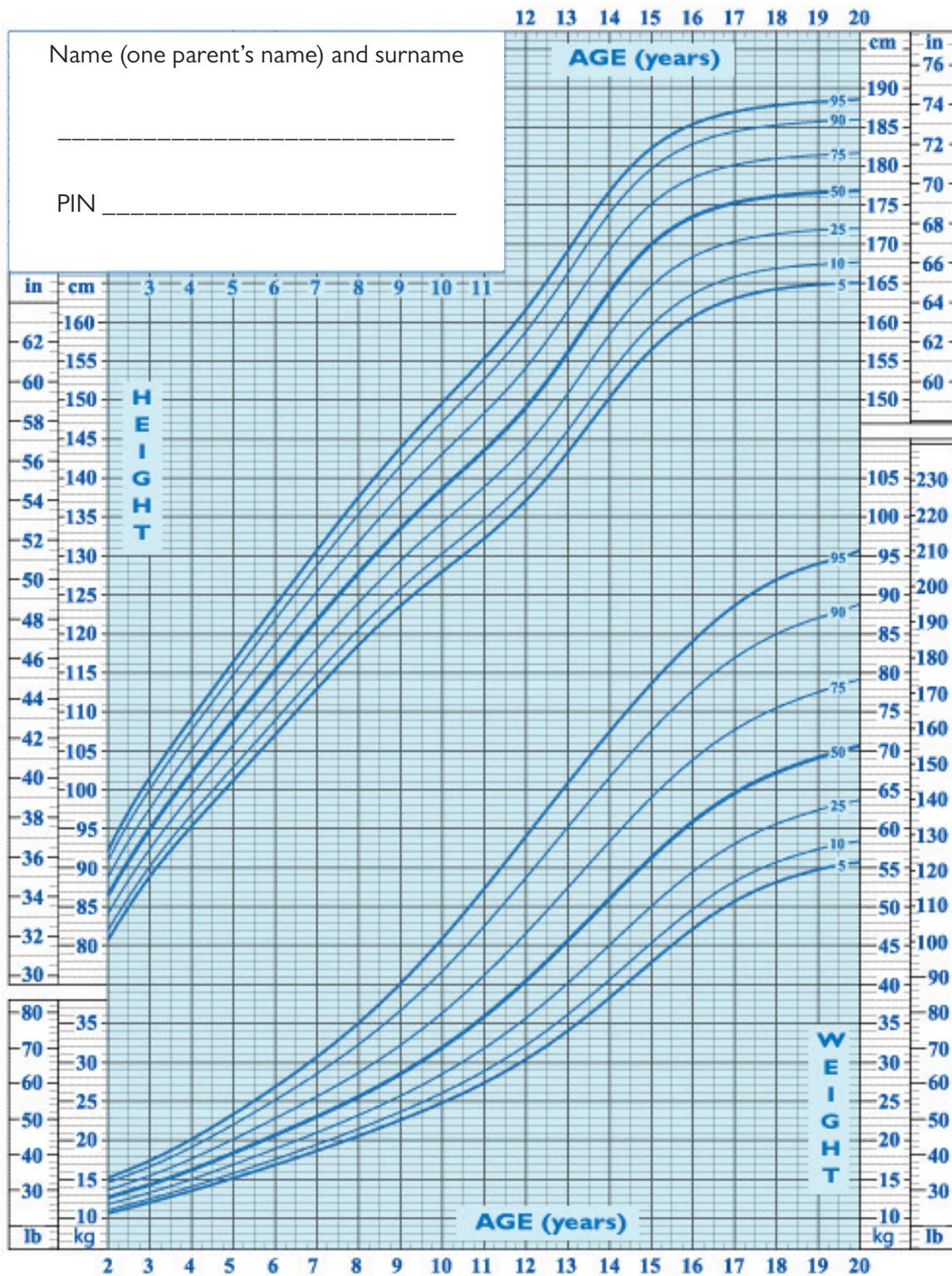
The revision of this procedure is performed every 3 years or earlier if required.

GROWTH CHART (girls from the age of 2 to 20 years)

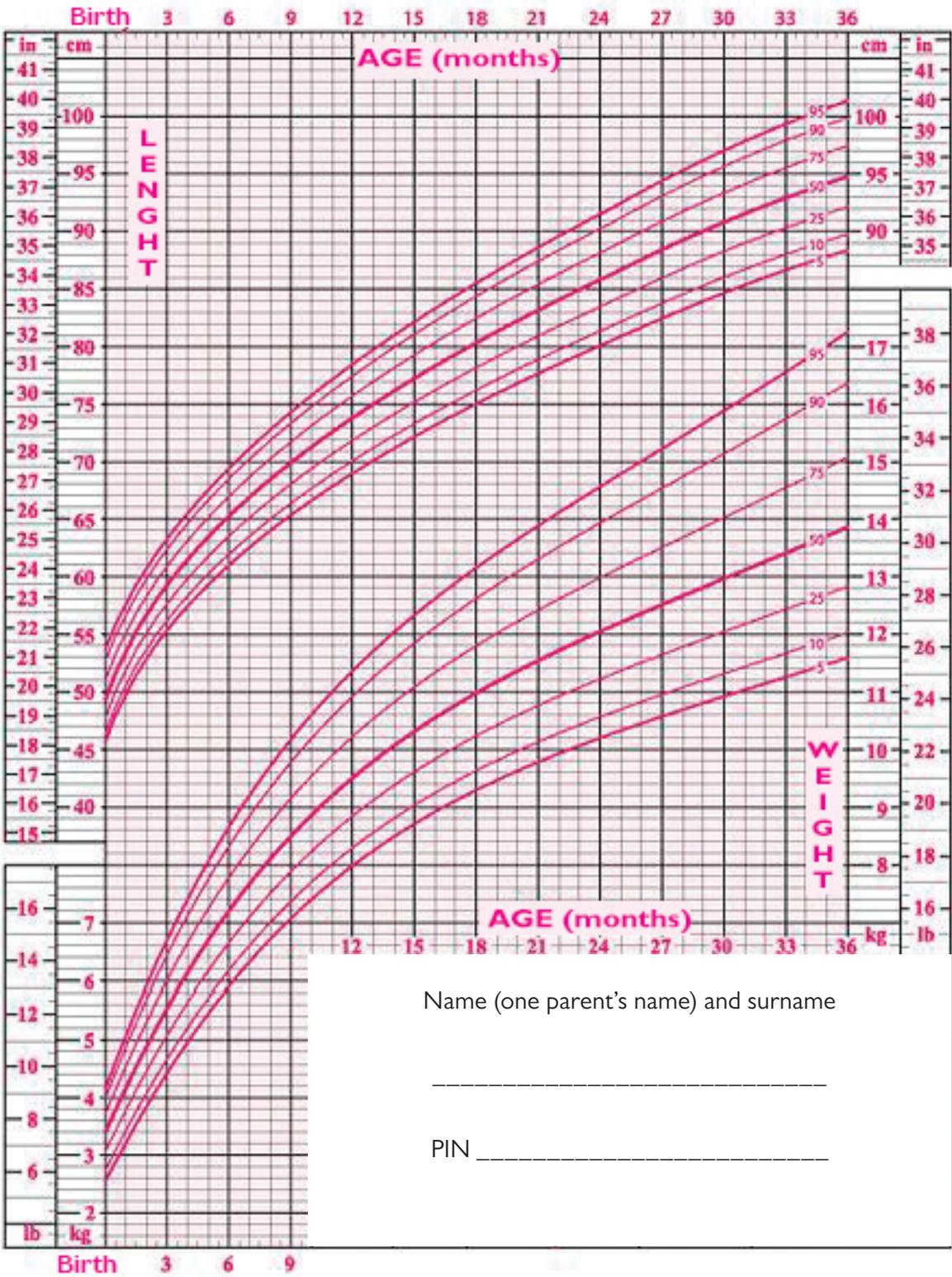


GROWTH CHART

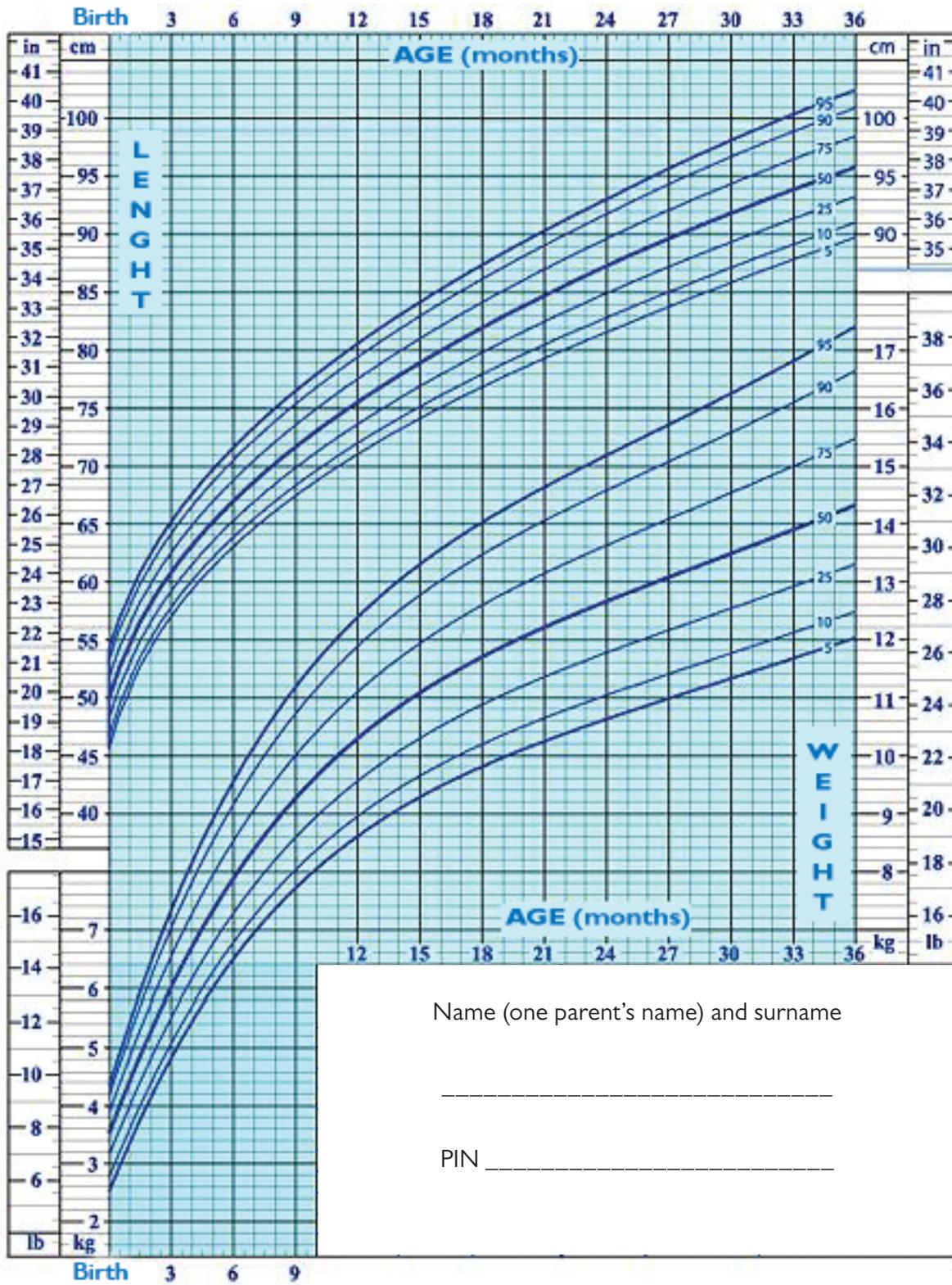
(boys from the age of 2 to 20 years)



GROWTH CHART (girls from birth to 36 months)



GROWTH CHART (boys from birth to 36 months)



PART IV

MEDICATION ADMINISTRATION PROCEDURES

- 15 Application of Five Rights (5Rs) before medication administration
- 16 Drawing medicine out of a vial (flacon) and ampule
- 17 Establishing the venous route
- 18 Intravenous medication administration – intravenous injection (IV)
- 19 Medication administration via a peripheral intravenous cannula
- 20 Administration of solution for infusion
- 21 Medication administration under the skin – subcutaneous injection (SC)
- 22 Intramuscular medication administration
- 23 Ocular medication administration
- 24 Ear medication administration
- 25 Nasal medication administration
- 26 Therapeutic application of oxygen
- 27 Inhaled medication administration

APPLICATION OF FIVE RIGHTS (5Rs) BEFORE MEDICATION ADMINISTRATION

1 GENERAL POLICY STATEMENT

Five Rs is a procedure with guidelines that ensure proper drug administration. The purpose of this procedure is the safe administration of all medicines prescribed by the physician.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

5Rs is a mandatory procedure that must be performed by every nurse prior to drug administration. Before administration, read the instructions for the medicine (leaflet), follow the manufacturer's recommendations and the shelf life.

4.1 The Right Patient

- Identify the patient

4.2 The Right Drug

- Compare the name of the prescribed drug on the prescription with the name of the drug on the original packaging.
- Check the shelf life.
- Check the colour, appearance and properties of the drug.

4.3 The Right Dose

- Prepare the prescribed dose and quantity (special caution is needed if the medicine has one measuring unit indicated on the envelope/label of the drug, and another measuring unit is prescribed, e.g. mg/ml).

4.4 The Right Time

- Administer the prescribed drug at the prescribed time.

4.5 The Right Route

- Check the administration route of the prescribed drug on the prescription comparing it with the instructions on the original packaging.
- Follow the manufacturer's instructions.
- Check all ambiguities on the prescription before drug administration.
- Record the drug administration on the prescription and in medical records.

IMPORTANT: It is not recommended to administer a medicine prepared by someone else. Always prepare the drug personally and give it to the patient, with his/her consent (signature) if administering parenteral therapy.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

16 DRAWING MEDICINE OUT OF A VIAL (FLACON) AND AMPULE

1 GENERAL POLICY STATEMENT

This procedure defines the procedure for proper and safe drawing of the medicine out of an ampoule or vial (flacon) for parenteral administration using a needle and a syringe.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Drawing out a medicine will be conducted by a nurse who will also administer the drug.

Drawing out of a prepared, prescribed drug or solution is performed under aseptic conditions.

The drug may be in ampoules or vials/flacons, as a prepared formulation, or in the form of a powder, which is dissolved before being drawn into the syringe. The medicine should be administered immediately after drawing out.

The following safety measures must be taken during the preparation of the drug:

- Check the drug expiry date,
- Check if the drug is properly packed,
- Check the name and dose of the drug (compare with the prescription),
- The route of administration and concentration of the solution according to the instructions in the leaflet and compare with the physician's prescription,
- Check the appearance of the solution (organoleptic properties).

4.1 Preparation of accessories and materials

- Work spaces and areas for conducting the process must be clean and neat,
- Trays or trolley,
- Appropriate drug,
- Disinfectant,
- Syringe and needle have the required lumen and size,
- Cotton pads,
- A dish for contaminated stuff,
- For Sharp objects disposal container ,
- Gloves.

4.2 Conducting the procedure of drawing medicine out of an ampoule

- 4.2.1 Wash or disinfect and dry your hands, put on the gloves.
- 4.2.2 With a semi-circular movement, lower the drug from the top of the ampoule to the bottom of the ampoule.
- 4.2.3 Disinfect the neck of the ampoule.
- 4.2.4 Break the neck of the ampoule at the mark on the neck of the ampoule.
- 4.2.5 Attach the needle to the syringe, insert the needle to the bottom of the ampoule and draw out the medicine.
- 4.2.6 Without pulling the needle out of the ampoule, turn the syringe vertically and squeeze the air bubbles into the ampoule, making sure that the drug is not squeezed out.

- 4.2.7 Place the used needle in the container for disposal of sharp objects.
- 4.2.8 Place a new sterile needle of the appropriate lumen, with the cover on the syringe.
- 4.2.9 In case of intravenous drug administration, remove air from the syringe.
- 4.2.10 Save the ampoule until the end of the drug application and then put it in a domestic waste bin.

4.3 Conducting the procedure of drawing medicine out of a bottle (flacon):

- 4.3.1 Wash or disinfect and dry your hands, put on the gloves.
- 4.3.2 Remove the aluminium or plastic cap from the bottle.
- 4.3.3 Disinfect the bottle cap with a cotton pad or gauze soaked in disinfectant.
- 4.3.4 Draw out the required amount of solvent into the syringe and insert the needle into the bottle through the rubber plug and inject the solvent.
- 4.3.5 Leave the needle and syringe in the bottle (a small amount of air will enter the syringe due to increased pressure in the bottle, do not separate the needle from the syringe and the bottle).
- 4.3.6 Lightly rotate the bottle and wait for the drug to dissolve.
- 4.3.7 Hold the bottle by the syringe plunger vertically with the bottom down, press the air out of the syringe into the bottle and carefully pull the needle up to the level of the stopple.
- 4.3.8 Slowly draw the medicine into the syringe.
- 4.3.9 Separate the syringe and needle from the bottle and put the needle in the container for sharp objects.
- 4.3.10 Place a new sterile needle of the appropriate lumen with the cover on the syringe.
- 4.3.11 In case of intravenous drug administration, remove air from the syringe.
- 4.3.12 Save the bottle until the end of the drug application and then put it in a domestic waste bin.
- 4.3.13 Remove the gloves, wash and dry your hands.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

17 ESTABLISHING THE VENOUS ROUTE

I GENERAL POLICY STATEMENT

An intravenous route is most commonly established for diagnostic or therapeutic needs of the patient. The choice of sites and equipment for establishing an intravenous route depends on the general condition of the patient, the type of solution to be administered, the rate and length of the administered therapy and the age of the patient. Most often, intravenous cannula of the appropriate size is used for the opening of the venous route. The opening of the intravenous route is of vital importance in emergencies.

The purpose of this procedure is the safe and uniform way of establishing a venous route.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

An indication for establishing a venous route is determined by a doctor.

The nurse prepares the material, the patient and establishes the venous route.

4.1 Material preparation

- Cannula of the appropriate size (14–24 G),
- Disinfectant,
- Esmarch tourniquet,
- Plaster,
- Cotton pads and gauze,
- Container for the disposal of sharp objects,
- Kidney dish,
- Drape sheet,
- Gloves.

4.2 Patient preparation:

- Identify the patient,
- Inform the patient about the procedure and its importance,
- Inform the patient about the cooperation expected of him/her,
- Place the patient in proper position.
- Check the area where cannula is to be placed,
- In the case of breast disease, insert the cannula at the opposite body side,
- In haemodialysis patients, apply cannula on the opposite side of the fistula,
- In patients with scar tissue, do not place cannula on that extremity,
- In the case of that cannula needs to be placed at a site not suitable for application the team doctor/nurse will make a judgement.

4.3 Procedure

- 4.3.1 Wash and dry your hands and put on the gloves.
- 4.3.2 Palpate the area and choose a vein.
- 4.3.3 Place Esmarch tourniquet ten centimetres above the predetermined place for cannula application.
- 4.3.4 Disinfect the place of the puncture, and do not palpate after disinfection.
- 4.3.5 Use the non-dominant hand to tighten the skin over the blood vessel, while holding the needle in the dominant hand under an angle of 30–45°.
- 4.3.6 With the opening of the needle upwards, pierce the skin and enter the vein. Reduce the penetrating angle so that the needle is almost parallel to the skin and enter the vein. With the appearance of blood in the plastic cap of the needle, pull out the needle, and insert the cannula all the way into the blood vessel.
- 4.3.7 Remove the tourniquet, recap the cannula and fix the wings with a plaster. If the drug is not administered, check the passage of the cannula gently flushing with 2–5 ml of 0.9% NaCl solution.

4.4 Waste disposal

The generated waste is disposed of following the medical waste management procedure.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of establishment of the venous route,
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

18 INTRAVENEOUS MEDICATION ADMINISTRATION – INTRAVENEOUS INJECTION (IV)

I GENERAL POLICY STATEMENT

Intravenous drug administration is a method of administering the drug by the needle or baby system and a syringe directly into the vein, i.e. in circulating blood.

This procedure ensures a uniform and safe administration of a prescribed drug for intravenous administration.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The procedure is carried out by a nurse under a written order/prescription of a physician under strictly aseptic conditions.

4.1 Preparation of space

- Provide patient privacy,
- Ensure favourable conditions in the room (the room must be clear and illuminated).

4.2 Preparation of material

- Prescribed medicine (apply the 5Rs rule),
- Sterile syringes of appropriate volume,
- Appropriate sterile needles,
- Esmarch tourniquet,
- Saws for opening ampoules,
- Disinfectant for skin and accessories,
- Cotton pads or gauze,
- Disposable gloves,
- Leukoplast,
- Container for disposal of sharp waste,
- Kidney dish,
- Protective pad.

4.3 Patient preparation

- Identify the patient,
- Explain to the patient the procedure, possible discomforts and drug reactions,
- Check for drug allergy,
- Place the patient in the appropriate sitting or lying position,
- Place the patient's hand on a firm surface and place a protective pad.

4.4 Procedure

- 4.4.1 Wash and dry your hands and put on the gloves.
- 4.4.2 By way of examination and palpation, choose the most suitable vein, preferably the vein of the non-dominant hand.
- 4.4.3 Place the tourniquet around 10 cm above the planned injection site, palpate the vein. If for any reason the vein is not palpated, release the tourniquet and palpate further.
- 4.4.4 When the appropriate vein is found, disinfect the skin by circular movements from the centre towards the periphery at least three times, wait for 15–30 seconds to allow the skin to dry.

- 4.4.5 Using the dominant hand, take the syringe with the needle and the prepared medicine, remove the protective cap.
- 4.4.6 Using the non-dominant hand, hold the patient's arm and tighten the skin.
- 4.4.7 Puncture the skin at an angle of 30–45°, 1 cm below the entry point in the vein lower the needle by 10° and enter the vein lumen by 0.5–1 cm.
- 4.4.8 Aspirate, if blood appears, release the tourniquet.
- 4.4.9 Slowly inject the drug, 1ml/1min unless otherwise prescribed.
- 4.4.10 Occasionally aspirate to make sure we are in the vein.
- 4.4.11 In the case of perforation of the blood vessel wall or the appearance of pain, burning sensation or any kind of inconvenience according to the patient's statement, administration should be discontinued immediately.
- 4.4.12 After applying the medicine, gently press the injection site with a dry cotton pad or gauze and fix it with a plaster.
- 4.4.13 Remove the needle, press it with a cotton pad and hold for 3 minutes. In the case of prolonged bleeding, keep it longer.
- 4.4.14 Place the needle in a container for disposal of sharp objects (do not put the protective cover back on the needle), and the syringe into infectious waste.
- 4.4.15 Remove gloves and put them in a container for contaminated and infectious waste.
- 4.4.16 Wash and dry your hands.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of administration of therapy,
- The type and doze of the administered therapy;
- Signature of the nurse who conducted the procedure.

Fill out all the boxes in the prescription (date, name of drug, amount of medicine, method of administration, patient's signature and signature of nurse).

4.6 Precautions

- Check the shelf life of the syringe and the needle for the drug administration, and if there is damage to the syringe and needle packaging.
- Get informed about the specifics of certain medicines and the adverse reactions that the drugs may cause (see the original package leaflet).
- Ask the patient to stay in the waiting room for another 15 minutes due to possible adverse reactions.
- Inform the doctor about any adverse reactions and record them.
- Only clear aqueous, sterile and pyrogen-free solvents may be used.
- Observe the injection site for extravasation of the solution (paravenous administration of solution) or appearance of phlebitis.
- It is not recommended to administer intravenous medications in the lower extremities, particularly in the extremities where the veins are enlarged, peripheral circulation damaged, in the extremity with AV fistula or lymphedema.
- After the injection site is determined and disinfected, it is not allowed to re-palpate the injection site.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

MEDICATION ADMINISTRATION VIA A PERIPHERAL INTRAVENOUS CANNULA

I GENERAL POLICY STATEMENT

The application of this procedure will ensure the correct and safe administration of the prescribed drug and/or solution for intravenous administration by means of already inserted intravenous cannula, see the 'Procedure for establishing the venous route'.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The procedure is performed by a nurse following a physician's written order/prescription, using aseptic technique on the principle of 1 ml/1 min unless indicated otherwise.

4.1 Preparation of space

- Provide patient privacy,
- Ensure favourable conditions in the room (the room must be clear and illuminated).

4.2 Preparation of material

- Prescribed drug and/or solution (apply the 5Rs rule),
- Sterile syringes of appropriate volume,
- Saws for opening ampoules,
- Saline solution 0.9%,
- Cotton pads or gauze,
- Gloves,
- Kidney dish,
- Protective pad or towel.

4.3 Patient preparation

- Identify the patient,
- Explain to the patient the procedure, possible discomforts and drug reactions,
- Check for drug allergy,
- Place the patient in the appropriate sitting or lying position,
- Place the patient's hand on a firm surface and place a protective pad.

4.4 Procedure

- 4.4.1 Wash and dry your hands and put on the gloves.
- 4.4.2 By inspection and palpation, assess the cannula and the vein it is placed in.
- 4.4.3 Disinfect the area around the stopple (the skin under the stopple and the cannula around the stopple).
- 4.4.4 Put sterile gauze (5x5 cm) under the entrance to the IV cannula.
- 4.4.5 Open the stopple and place it on sterile gauze.
- 4.4.6 Before administering the drug, aspirate blood from cannula using a 2–5 ml syringe. If blood is present in the syringe, IV cannula is patent and the prescribed drug can be administered.
- 4.4.7 Do not flush a non-patent cannula. If the cannula is not patent, remove it and place a new one at a different site.
- 4.4.8 Dispose of the syringe in the kidney dish.
- 4.4.9 Attach the syringe with the drug or the infusion system to the cannula.

- 4.4.10 Observe the insertion site, ask the patient whether he/she feels any pain or discomfort.
- 4.4.11 After completion of the drug administration, flush the cannula with 2–5 ml of 0.9% saline solution if the same cannula will be used to continue the therapy.
- 4.4.12 Close the stopple.
- 4.4.13 Dispose of the gauze into infectious waste if it is stained with blood.
- 4.4.14 With sterile gauze and plaster or bandage, fixate the cannula (it is also possible to use a transparent semipermeable foil for easier insight into the site of applied cannula, which also ensures the sterility of the site).
- 4.4.15 Replace the used equipment.
- 4.4.16 Remove the gloves.
- 4.4.17 Wash and dry your hands.

4.5 Intravenous cannula removal

- Carefully remove from the skin the dressing securing the cannula.
- With one hand, gently press the tip of the cannula with a cotton pad, and with the other hand gently pull out the cannula.
- Dispose of the cannula in infectious waste.
- Protect the insertion site with a dry cotton pad and apply firm pressure on the extended arm for at least 30 seconds. The patient can hold his/her arm up and make compression him/herself. The cotton pad may be fastened with leukoplast or bandage.

4.6 Precautions

- Strictly pay attention to aseptic conditions.
- Do not administer the drug if you notice local signs of inflammation – redness along the vein, pain, oedema; remove the cannula immediately and place a new one in another place.
- Venepuncture and cannula site change after 48–72 hrs or earlier if required, depending on the condition of the vein or cannula, to prevent phlebitis manifesting as warmth, redness and swelling of injection site or thrombophlebitis which, in addition to the above mentioned symptoms, has the hardness of the vein at the site of the cannula tip. The longer the cannula is in the vein, the incidence of phlebitis and thrombophlebitis increases.
- Observe the injection site during drug administration to detect possible infiltration of the drug or solution into the surrounding tissue at the initial stage.
- Inflammation is characterized by oedema and/or coldness of the area, and significant reduction in flow rate, the patient feels pain, discomfort and burning sensation.
- If the hand pad is used, it is necessary to check the circulation condition distal from the place of drug administration.
- When handling an already placed cannula, it should be held to prevent its movement, vein bursting, and infiltration or hematoma.

4.7 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of administration of therapy,
- The type and doze of the administered therapy;
- Signature of the nurse who conducted the procedure.

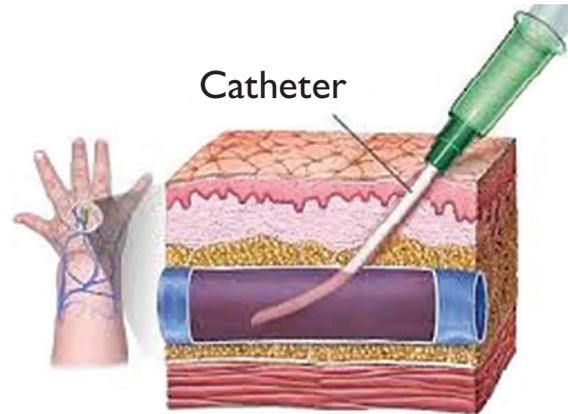
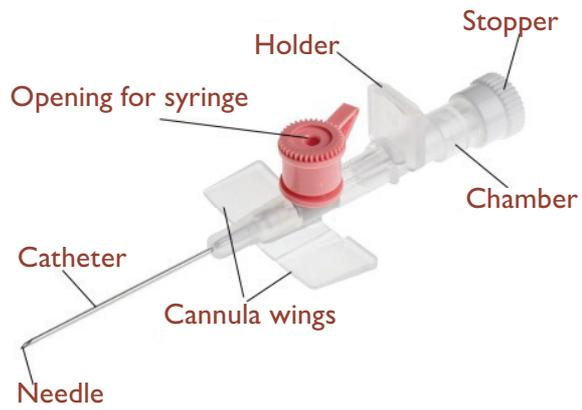
Fill out all the boxes in the prescription (date, name of drug, amount of medicine, method of administration, patient's signature and signature of nurse).

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

IV CANNULA APPLICATION

CANNULA



Set the tourniquet



Palpate the puncture site



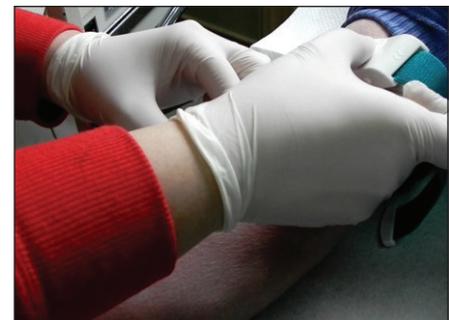
Disinfect the puncture site



Apply the cannula



Pull the needle, push the catheter



Remove the tourniquet



Remove the protective cap



Close the cannula



Fix the cannula

20 ADMINISTRATION OF SOLUTION FOR INFUSION

I GENERAL POLICY STATEMENT

Intravenous infusion provides intake of a larger amount of fluid in the body using a disposable infusion system. Applying this procedure ensures the safe administration of the prescribed drug in the solution or of the solution itself and the fluid replacement of the circulating volume.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The procedure is carried out by a nurse under a written order/prescription of a physician and is performed under strictly aseptic conditions.

4.1 Preparation of space

- Provide patient privacy,
- Ensure favourable conditions in the room (the room must be clear, clean, illuminated, and quiet).

4.2 Preparation of material

- Trays or trolley,
- Accessory for establishing a venous route if not established (tourniquet, needle, baby system, cannula),
- Disposable infusion set (infusion system),
- Prepare a drug if s prescribed,
- A prescribed infusion solution with a legible label,
- Apply the 5Rs rule,
- Sterile syringes and needles of appropriate volume,
- I.V. pole Bottle holder, if necessary,
- Non-sterile cotton pads or gauze and sterile compresses 5x5 cm,
- Drape sheet,
- Disinfectant,
- Disposable non-sterile gloves,
- Leukoplast,
- Scissors,
- Protective pad, towel,
- Dish for disposal of sharp objects,
- Kidney dish.

4.3 Patient preparation

- Identify the patient,
- Inform the patient about the importance and purpose of the intervention,
- Check for any possible patient's allergy to the drug,
- Ask the patient for co-operation and tell him to report any possible adverse reaction during and after the infusion,

- Allow questions,
- Before the administration of the infusion, allow the patient to eliminate the stool and urine,
- Place the patient in a comfortable lying or other appropriate position,
- Place the protective pad under the patient's arm and place his/her arm in the appropriate position where the needle/cannula is to be placed or where cannula was already placed i.v.
- If the infusion is administered in a home care visit, protect the bed with a leak-proof material below the infusion site.

4.4 Procedure for preparation of infusion system

- 4.4.1 Wash your hands and put on the gloves.
- 4.4.2 Place a bottle holder (if necessary).
- 4.4.3 Remove the cap from the bottle stopple (disinfect the stopple).
- 4.4.4 Open the set packaging, take out the infusion set, and close the flow regulator.
- 4.4.5 Remove the cap from the system and pierce the stopple on the bottle.
- 4.4.6 Turn over the bottle and hang it on the rack or bracket.
- 4.4.7 Open the air opening on the system.
- 4.4.8 Half fill the chamber of the infusion system with the solution.
- 4.4.9 Open the flow regulator on the system and release fluid into the kidney dish to discharge the air from the infusion system.
- 4.4.10 Close the flow regulator.
- 4.4.11 If there are bubbles, press the bubbles towards the chamber by tapping the tube.
- 4.4.12 If the drug is added to the infusion, close the system, remove the bottle from the rack, and put it on the tray.
- 4.4.13 Inject the prepared medicine into an infusion solution (draw the medicine into the syringe according to 'Procedure for drawing out the drug from an ampoule/flacon').
- 4.4.14 Dispose of the needle in the container for sharp waste, and the syringe in the waste bin.
- 4.4.15 Write on the bottle the name of the patient, the name and dose of the drug added, the date and time of the infusion, hang the bottle with the infusion on the rack.

4.5 Administration of infusion – if a needle or baby system is used

- 4.5.1 Choose a vein by palpation.
- 4.5.2 Select the vein into which the needle or baby system will be inserted, preferably on the forearm of the non-dominant arm (start from the hand upward, and save the vein cubitalis for the extraction of the blood, also for the mobility of the arm in the elbow). Esmarch tourniquet should be tied at about 10 cm above the planned puncture point.
- 4.5.3 Palpate the pulse, if not present, loosen the tourniquet until the pulse is felt.
- 4.5.4 Disinfect the skin by circular movements from the centre towards the periphery at least three times, wait for 15–30 seconds to allow the skin to dry.
- 4.5.5 Place the needle or baby system on the flushed system, remove the protective cap from the needle or baby system, let out a few drops through the needle or baby system.
- 4.5.6 Using the non-dominant hand, hold the patient's arm and tighten the skin.

- 4.5.7 Using the dominant hand puncture the vein under 30-45 degree angle, lower by 10 degrees and enter 1 cm in the vein lumen, with the needle opening faced upwards.
- 4.5.8 When blood appears in the system, release the tourniquet, fix the needle or baby system with leukoplast, and regulate the flow of infusion.
- 4.5.9 Fix the infusion system tube to the arm, 5 cm below the connector.

The administration of the infusion through the cannula is performed according to the Procedure for drug administration by peripheral intravenous cannula.

4.6 Changing the bottle with infusion solution

- 4.6.1 Close the infusion flow on the regulator.
- 4.6.2 Check compatibility of medicines and infusion solutions that will continue to be administered after the previous infusion.
- 4.6.3 If the drugs are compatible, remove the system from the bottle of administered drug and under aseptic conditions insert the system into a new bottle.
- 4.6.4 Place the bottle on the rack and regulate the flow of the infusion solution.
- 4.6.5 Dispose of the used bottle into the waste according to the regulations of the facility.
- 4.6.6 If the medicines to be used are not compatible with the previous solution, set up a new infusion system.

4.7 End of infusion administration

- Use the regulator to close the flow in the infusion system,
- Put on the gloves,
- Disconnect the infusion system from the venous route.

4.8 Separation of the infusion system when the infusion solution is administered via cannula, requires:

- To close the flow on the infusion system, to separate the system from the cannula,
- Flush the cannula with 5 ml of saline solution,
- Remove the syringe,
- Close the cannula with a stopple,
- Replace the used equipment.

4.9 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of administration of therapy,
- The type, doze and amount of the administered therapy,
- Signature of the nurse who conducted the procedure.

Fill out all the boxes in the prescription (date, name of drug, amount of medicine, method of administration, patient's signature and signature of nurse).

4.10 Precautions

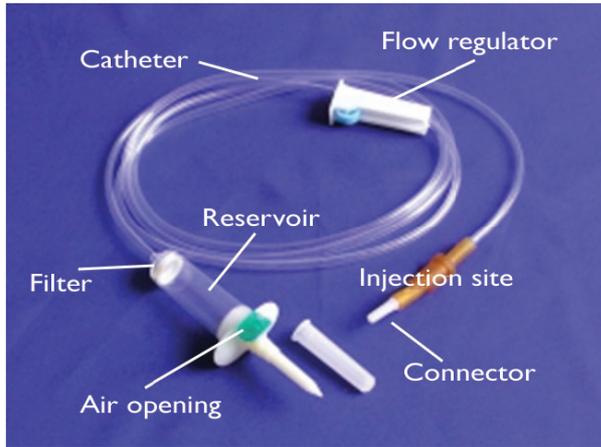
- Check the shelf life of the syringe and the needle for the drug administration, and check for damages to the syringe and needle packaging.
- When preparing infusion solutions, it is important to check which medicines and solutions can be given together, and which cannot, due to possible interactions.

- Start infusion immediately after preparation (longer standing increases the risk of contamination).
- Because of contamination, it is forbidden to puncture the plastic bottle with a needle.
- During infusion, monitor the condition of the patient.
- Observe the injection site for extravasation of the solution (paravenous administration of solution) or appearance of phlebitis.
- In case of possible allergic reactions to the drug (TA drop, tachycardia, suffocation, anaphylaxis, skin rash), stop infusion and inform the physician immediately.
- Keep track of the amount of liquid intake.
- Observe that the liquid level in the bottle remains above the top of the system in the bottle.
- For conventional infusion systems, about 15 to 20 drops corresponds to 1 ml of solution,
1 ml/min= 60 ml/hour,
2 ml/min= 120 ml/hour.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

PREPARATION OF IV INFUSION



Infusion system and infusion



Disinfect the infusion opening



Puncture the system tip to infusion



Remove the protective cap



Open the part for air



Press the reservoir



Eject the air from the system



Close the flow regulator



Return the protective cap

MEDICATION ADMINISTRATION UNDER THE SKIN – SUBCUTANEOUS INJECTION (SC)

I GENERAL POLICY STATEMENT

A subcutaneous injection (SC) is a way to administering the drug using the needle and syringe in the subcutaneous tissue. Subcutaneous injection is used to administer smaller amount of drug (up to 2 ml) resulting in slower and more even resorption.

Following this procedure provides a uniform and safe method of subcutaneous drug administration.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The application of the drug under the skin (SC) is performed by the nurse upon the written doctor's order – prescription.

4.1 Preparation of space

- Provide patient privacy,
- Ensure favourable conditions in the room (the room must be clear and illuminated).

4.2 Preparation of material

- Prescribed medicine (apply the 5Rs rule),
- Drug solvent,
- Sterile syringes of appropriate volume,
- Appropriate sterile needles,
- Saws for opening ampoules,
- Disinfectant for skin and accessories,
- Cotton pads or gauze,
- Gloves,
- Container for disposal of sharp waste,
- Kidney dish,
- If we administer a prepared vaccine in the syringe with the fixed needle and the solution ready-inserted in the syringe, unpack the syringe, check the authenticity and the shelf life.

4.3 Patient preparation

- Identify the patient (personal ID card or a document with a photo health ID card and prescription),
- Check the existence of possible patient's drug allergy (by asking and inspecting the health ID card),
- Inform the patient about the importance and purpose of the intervention, which the patient confirms with his/her signature,
- Ask the patient for co-operation and tell him/her to immediately notify nurse in case of any change of condition (general and local) during and after SC injection,
- Place the patient in the appropriate position.

4.4 Procedure

- 4.4.1 Wash and dry your hands and put on the gloves.
- 4.4.2 Open the wrap from the side of the syringe, grip the plunger and pull the syringe out of the wrap and fit on it the needle to draw the content out of an ampoule/bottle.
- 4.4.3 Disinfect the neck of the ampoule and the saw with a cotton pad damped with a disinfectant.

- 4.4.4 After opening the ampoule, draw out the contents into the syringe.
- 4.4.5 Draw out the medicine by the procedure 'Drawing the medicine out of bottles and ampoules'.
- 4.4.6 Remove the needle used for drawing the medicine out, place the needle in the container for disposal of sharp waste and drain the air from the syringe.
- 4.4.7 Place a proper new sterile needle with a cover.
- 4.4.8 Determine the puncture site. The most common places for subcutaneous injection are the outer side of the upper arm, the front thigh, the subcutaneous lower abdominal tissue, the upper thigh, the gluteal part and the upper back. Subcutaneous drug injection is prohibited on damaged and defective parts of the skin, moles, scars, etc.
- 4.4.9 Disinfect the puncture site with a cotton pad wetted with the disinfectant and wait for the site to dry.
- 4.4.10 Remove the needle cap and place it in the kidney dish.
- 4.4.11 Make a skin fold with the thumb and forefinger of the non-dominant hand.
- 4.4.12 Insert the needle at the angle of 45–90° depending on the thickness of the subcutaneous fat tissue and the type of drug.
- 4.4.13 Lightly aspirate by pulling the syringe plunger, monitoring if the blood appears in the syringe. If blood occurs, stop the procedure, pull out the needle, prepare a second injection and inject the drug in another site.
- 4.4.14 When the drug is administered, pull out the needle and place it in the container for disposal of sharp waste.
- 4.4.15 Put on the puncture site a cotton pad or gauze wetted with a disinfectant.
- 4.4.16 Remove the accessories.
- 4.4.17 Remove the gloves, wash and dry your hands.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of administration of therapy,
- The type and doze of the administered therapy;
- Signature of the nurse who conducted the procedure.

Fill out all the boxes in the prescription (date, name of drug, amount of medicine, method of administration, patient's signature and signature of nurse).

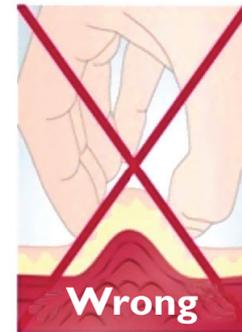
4.6 Precautions

- Check the shelf life of the syringe and the needle for the drug administration, and if there is damage to the syringe and needle packaging.
- Get informed about the specifics of certain medicines and the adverse reactions that the drugs may cause (see the original package leaflet).
- If the prescribed drug volume is greater than 2 ml for subcutaneous administration, it is recommended to administer the drug in two sites, subcutaneously, with a new syringe and needle.
- The best place for heparin injection is subcutaneous tissue of the lower abdomen, 5 cm below the navel between the left and right iliac bones.
- It is not necessary to aspirate or rub and massage the injection site when administering heparin and insulin.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

SC INJECTION APPLICATION



Disinfect the ampule and saw



Draw out the medicine



Change the needle



Eject the air from the syringe



Disinfect the puncture site



Lift the skin and insert the needle



Aspirate



Inject the medicine



Press the puncture site

22 INTRAMUSCULAR MEDICATION ADMINISTRATION

I GENERAL POLICY STATEMENT

Administration of the drug intramuscularly (i.m) requires proper preparation of the drug, proper technique of performing, and observance of the intended time to administer the therapy. Compliance with the above conditions reduces complications in intramuscular drug administration and increases the effect of the drug.

The purpose of this procedure is to administer the drug intramuscularly in a safe, proper and uniform way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Intramuscular therapy is administered by a nurse upon a written order from a doctor – prescription.

4.1 Preparation of space

- Ensure favourable conditions in the room (the room must be clear and illuminated),
- Provide patient privacy,

4.2 Preparation of material

- Prescribed medicine (apply the 5Rs rule),
- Drug solvent,
- Sterile syringes of appropriate volume,
- Appropriate sterile needles,
- Saws for opening ampoules,
- Disinfectant for skin and accessories,
- Cotton pads or gauze,
- Gloves,
- Container for disposal of sharp waste,
- Dish for disposing of the used equipment.

4.3 Patient preparation

- Identify the patient (personal ID card or a document with a photo, healthcare booklet and prescription),
- Check the existence of possible patient's drug allergy (by asking and inspecting the healthcare booklet),
- Inform the patient about the importance and purpose of the intervention, which the patient confirms with his/her signature, ask him/her for co-operation and tell him/her to immediately inform the nurse in case of any change of condition during and after injection,
- Place the patient in the appropriate lying position.

4.4 Procedure

- 4.4.1 Wash your hands and put on the gloves.
- 4.4.2 Open the wrap from the side of the syringe, grip the plunger and pull the syringe out of the wrap and fit on it the needle to draw the contents out of an ampoule.
- 4.4.3 Disinfect the neck of the ampoule and the saw using a cotton pad wetted with a disinfectant.
- 4.4.4 After opening the ampoule, draw out the contents into the syringe.
- 4.4.5 Draw out the medicine by the procedure 'Drawing the medicine out of bottles and ampoules'.

- 4.4.6 Remove the needle used for drawing the medicine out, place the needle in the container for disposal of sharp waste and drain the air from the syringe.
- 4.4.7 Place a proper new sterile needle with a cap.
- 4.4.8 Determine the puncture site (area of the upper outer quarter of the gluteus), taking into account possible changes in the skin and muscle.
- 4.4.9 Disinfect the puncture site using cotton pad and wait for the place to dry.
- 4.4.10 Remove the needle cap and dispose of it.
- 4.4.11 Insert the needle at an angle of 90°.
- 4.4.12 Lightly aspirate by pulling the syringe plunger, monitoring if the blood appears in the syringe. If blood occurs, stop the procedure, pull out the needle, prepare a second injection and inject the drug in another site. Do not inject the solution with blood.
- 4.4.13 When the drug is administered, wait for 10 seconds and pull the needle rapidly at the angle of 90°.
- 4.4.14 Put on the puncture site a cotton pad or gauze wetted with a disinfectant.
- 4.4.15 Place the needle in the container for disposal of sharp waste,
- 4.4.16 After the drug administration, follow the patient for a few minutes to respond promptly in the event of an allergic reaction to the drug.
- 4.4.17 Remove the accessories.
- 4.4.18 Remove the gloves, wash and dry your hands.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of drug administration,
- Type, quantity and route of administration of the drug,
- Signature of the nurse who conducted the procedure.

Fill out all the boxes in the prescription (date, name of drug, amount of medicine, method of administration, patient's signature and signature of nurse).

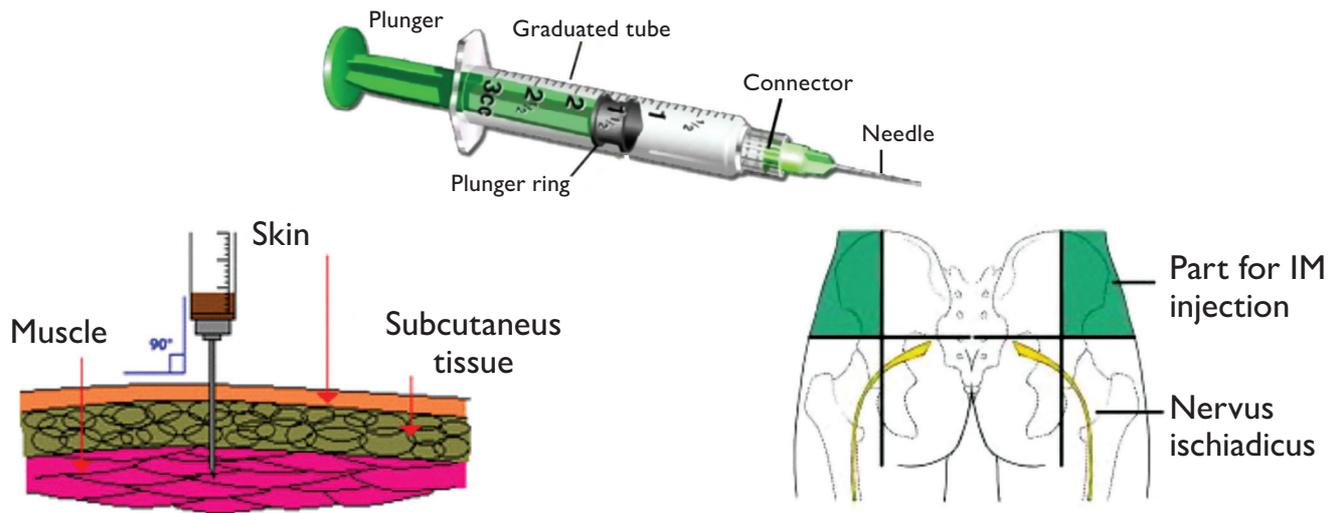
4.6 Precautions

- Check the packaging, appearance and the shelf life of the drug,
- Check the shelf life of the syringe and the needle for the drug administration, as well as the damage to the syringe and needle packaging.
- Get informed about the specifics of certain medicines and the adverse reactions that the drugs may cause (see the original package leaflet).
- For drug doses greater than 5 ml, drug should be drawn into two syringes and administered in two different sites,
- Oily drug solutions and iron preparations are applied using Z-track method, deep muscular, to avoid subcutaneous tissue irritation and discoloration; using your palm, pull the skin over the place of the planned puncture up or down, and keep it tight during the drug administration; after injecting the drug, wait for 10 seconds and at the same time pull out the needle and release the tighten skin part and press the puncture site with the cotton pad; the Z track method can be used in elderly patients with reduced muscle mass; it is important, after the application of the iron preparation *not to massage* the injection site and to warn the patient to rest for the next 30 minutes.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

APPLICATION OF IM INJECTION



Disinfect the ampule and saw



Draw out the medicine



Change the needle



Push the air out of syringe



Disinfect the puncture site



Insert the needle to muscle and aspirate



Apply the medicine and wait for 10 sec.



Remove the needle and press the puncture site with a pad



Dispose of the needle to sharp waste

I GENERAL POLICY STATEMENT

Eye solutions and ointments are sterile and are administered only by the aseptic technique. The purpose of this procedure is to administer prescribed eye solutions in the form of solutions and ointments to the eye, in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The procedure is performed on the basis of a written order of a doctor/prescription, and is performed by a nurse.

4.1 Preparation of space

Ensure privacy and favourable conditions in the room (illumination, without strong airflow).

4.2 Preparation of material

- Prepare prescribed medication at the room temperature according to the manufacturer's instructions and enter on the drug packaging the date and time of opening, and signature of the nurse who performed it,
- Sterile gauze pads,
- Sterile eye compresses,
- Leukoplast and bandage (as required),
- Saline solution (if necessary)
- Disposable non-sterile gloves,
- Kidney dish.

4.3 Patient preparation

- Identify the patient,
- To inform the patient about the importance of drug administration, the method of administration of the drug, and ask him/her for co-operation,
- Place the patient in a comfortable sitting or lying position, with head slightly leaned to the back.

4.4 Procedure

4.4.1 Administration of the drug to the eye in the form of drops

- Wash and dry your hands and put on the gloves.
- If necessary, first clean the eye with a sterile gauze pad, soaked in the saline solution; clean the eye in one move from the outside of the eye to the nose,
- Throw the used gauze pad in the kidney dish,
- Take the medicine in the dominant hand and open the bottle,
- Take a gauze pad in the non-dominant hand, lightly pull the lower lid down, making the conjunctival sac available,
- When applying the drug in children, both lids should be open,
- Ask the patient to look up and out,
- With the dominant hand, apply the prescribed drug at a 90° angle into the conjunctival sac (to calm your arm, press it on the patient's forehead), taking care that the tip of the dropper should not be closer than two centimetres to the eyeball so as not to touch the patient's eye,
- Avoid drops dripping directly on the eyeball,
- After administration, ask the patient to close the eye and rest for 10–20 minutes,
- If the drops are dripped into the other eye, repeat the procedure and immediately close the vial,

- If you need to add more than 1–2 drops, always make an interval of 5 minutes, because tears will wash out the drug,
- After the administration of drops in the eye, release the lower lid, ask the patient to lightly close the eyes and carefully press the inner eye corner (by the nose) to keep the drug in the eye, to prevent the drug from flowing out through the tear canal into the nasal cavity,
- If two types of eye drops are administered, another drug should only be administered after a minimum of 5 minutes to avoid mechanical expulsion or dilution of the previously administered drug.

4.4.2 Application of the drug in the form of ointment

- The preparation of the material and the patient is the same as when administering drops in the eye,
- Wash and dry your hands and put on the gloves.
- If necessary, first clean the eye with a sterile gauze pad, soaked in the saline solution; clean the eye in one move from the outside of the eye to the nose,
- Throw the used gauze pad in the kidney dish,
- Take the medicine in the dominant hand, lightly squeeze a small strip of ointment into the bottom of the conjunctival sac from the inner to the outer corner of the eye without touching with the tip of the tube the lower lid and lashes, end the strip by turning the tube,
- Ask the patient to close the eye and move the eyeball left–right and up–down to spread the ointment well but not to rub it with fingers; remove excess ointment with a clean gauze,
- If the ointment is applied to the other eye, repeat the procedure and close the tube,
- If we have a combination of eye drops and ointment, first drip in the drops, wait for 20 minutes, and then apply the ointment,
- If the patient wears lenses, it is necessary to wait for 20 minutes after the drops/ointment application, before re-inserting them,
- If necessary, after application of the drug protect the eye with sterile gauze, do not rub and if necessary fix with a plaster or bandage,
- Dispose of the used material,
- Take off the gloves,
- Wash your hands.

4.4.3 Waste disposal

Dispose of the used dressing material into infectious waste.

4.4.4 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of administration of therapy,
- The type and doze of the administered therapy;
- Signature of the nurse who conducted the procedure.

4.5. Precautions

- Check for any possible patient’s sensitivity to the drug,
- Apply the 5Rs rule (the Right patient, the Right drug, the Right dose, the Right route, the Right time),
- Comply with the dosing interval and the number of prescribed drops,
- In particular, attention should be paid to the eye to be treated, as different drugs or doses can be ordered for one and different for the other eye,
- The patient should be advised that they will have blurred vision (as in fog) after the application of the medication, but that these interruptions will pass quickly, blinking will clear the

vision. In the event of a longer period of tingling, itching, redness, blurred vision, contact the healthcare professional,

- Keep the medicine according to manufacturer's instructions,
- If the patient uses contact lenses, they must be removed before the drug is applied.
- If we use already used ointment for the application, it is necessary to push the hardened part out of the tip of the tube.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

24 EAR MEDICATION ADMINISTRATION

I GENERAL POLICY STATEMENT

The drug is applied to the ear in certain ear diseases, mainly related to external and middle ear disorders (otitis externa and otitis media). It is prescribed by a doctor. Ear solutions and ointments are sterile and are administered by aseptic technique.

The purpose of this procedure is to administer prescribed drugs, solutions and ointments to the ear, in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The intervention is performed on the basis of a written order of a doctor/prescription, and is performed by a nurse.

4.1 Preparation of space

Ensure privacy and favourable conditions in the room (illumination, without strong airflow).

4.2 Preparation of material

- Prescribed medication, room temperature prepared according to the manufacturer's instructions and enter on the drug packaging the date, time of opening, and signature of the nurse who performed it,
- Sterile gauze pads,
- Cotton beads,
- Leukoplast and bandage (as required),
- Saline solution (if necessary),
- Disposable non-sterile gloves,
- Kidney dish.

4.3 Patient preparation

- Identify the patient,
- Inform the patient about the procedure, explain that drug administration is not painful but may cause mild discomfort in the sense of fullness in the ear or mild dizziness, and ask him/her for co-operation,
- Place the patient in a sitting or lying position, with his/her head turned to the side so that the ear that is treated is facing upwards,
- Small children sit in the lap of their parents who hold their head.

4.4 Procedure

- 4.4.1 Wash and dry your hands and put on the gloves.
- 4.4.2 Before the drug administration, if necessary, clean the affected ear with a gauze pad wetted with saline and dry.
- 4.4.3 Heat the drops by holding the bottle in your hand. If necessary, shake the bottle.
- 4.4.4 With gentle movements, pull the ear back (in adults and older children up and back, and in children under three years old down and back) and drop the prescribed number of drops into the ear canal.
- 4.4.5 After dropping, hold the ear in the same position so that the drops slide down the side of the ear canal, not directly on the eardrum.
- 4.4.6 After the administration of drops, the patient needs to hold the head tilted to the side for 2–3 minutes so that the drops do not flow away.
- 4.4.7 Put a cotton bead carefully into the earlobe to pick up the excess of the drug, making sure that the ball does not penetrate too deep into the canal, as this will prevent the drainage of the secretion and increase the pressure on the eardrum.
- 4.4.8 Help the patient get up.
- 4.4.9 If prescribed, perform the procedure on the second ear after 10 minutes.
- 4.4.10 In medical institutions, a nurse administers drops into the ear, and if the patient will use the ear drops alone, the method of administration needs to be explained to him/her.
- 4.4.11 If an ointment and drops are ordered, drops should be administered first.
- 4.4.12 Inform the doctor in case of any adverse reactions (restlessness, disorientation, dizziness, tinnitus, etc.).

4.5 Waste disposal

Dispose of the used dressing material into infectious waste.

4.6 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of administration of therapy,
- The type and doze of the administered therapy;
- Signature of the nurse who conducted the procedure.

4.7 Precautions

- Assessment whether the assistance of another person is needed (in small children).
- Check for any possible patient's sensitivity to the drug.
- Apply the 5Rs rule (the Right patient, the Right drug, the Right dose, the Right route, the Right time).
- Comply with the dosing interval and the number of prescribed drops.
- When using, to prevent microbiological contamination, it is not desirable to touch the dropper with either hand or ear, but drop directly into the ear canal.
- Keep the medicine according to manufacturer's instructions.
- If we use already used ointment for the application, it is necessary to push the hardened part out of the tip of the tube.
- Administering the drops containing corticosteroid preparations is contraindicated in case of herpes.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

25 NASAL ADMINISTRATION OF MEDICATION

I GENERAL POLICY STATEMENT

Administering a drug in the form of drops, ointment, gel or spray to the nose is a method of applying a drug for therapeutic purposes, and is prescribed by a doctor.

The application of this procedure provides for a uniform and safe method of drug administration to the nose.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The nurse prepares the space, material, patient and applies the drug to the nose.

4.1 Preparation of space

Ensure privacy and favourable conditions in the room (illumination).

4.2 Preparation of material

- Prescribed medication, room temperature prepared according to the manufacturer's instructions and enter on the drug packaging the date, time of opening, and signature of the nurse who performed it,
- Cotton pads or gauze,
- Saline solution (if necessary),
- Cotton swabs,
- Disposable gloves,
- Kidney dish.

4.3 Patient preparation

- Identify the patient,
- When applying the drops and ointment to the nose, place the patient in a sitting or lying position with head leaned back (to prevent leakage of the drug into the throat),
- When applying a drug in spray, it is necessary that the patient keeps his/her head in an upright position,
- Small children should sit in the lap of their parent who should hold the child's head,
- Explain to the adult patient the procedure, possible discomforts and drug reactions,
- Assess the condition of the patient's nasal and airway patency,
- Ask the patient to clean secretion from the nose (blow the nose) before applying the drug,
- If the patient cannot blow his/her nose alone: put on the gloves, clean the available secretion from the nose with the nose cotton swab wetted with saline.

4.4 Procedure

4.4.1 Drug administration in the form of drops

- Wash and dry your hands and put on the gloves.
- Nurse, using the non-dominant hand, gently raises the tip of the patient's nose, the patient needs to exhale, and then drops the prescribed dose of drops into one, then into the second patient's nostril.
- Warn the patient to breathe through the mouth and stay in the same position for 5–10 minutes.
- Warn the patient that it is not desirable to blow the nose for 10–20 minutes after the application.
- Every patient needs to have his/her own packaging of drops.

4.4.2 Drug administration in the form of spray

- Wash and dry your hands and put on the gloves.
- Shake the vial before use.
- Remove the protective cap and check for spray passability.
- The patient needs to exhale and close his/her eyes.
- Close one of the patient’s nostrils and put the tip (continued) of spray inside the other nostril in the upright position.
- Ask the patient to breathe in through the nostril, and at the same time inhale the medication in the nostril, and then exhale through the mouth.
- Repeat the same procedure for another nostril.
- If more than one dose of drug is prescribed, repeat the procedure with 30 seconds of interval between two doses.
- Warn the patient not to blow the nose for at least 20 minutes.
- One spray bottle is used by only one person.

4.4.3 Drug administration in the form of ointment or gel

- Wash and dry your hands and put on the gloves.
- Apply the drug on the cotton swab or use the applicator.
- Ask the patient to breathe through the mouth.
- Lightly insert the cotton swab or applicator into the nostril, not deep, and smear the prescribed area very carefully in circular movements.

4.5 Procedure after intervention

- Dispose of the used equipment (swabs) into infectious waste,
- Remove the gloves, wash and dry your hands.
- Return to the patient his/her drops/ointment/gel packaging and give him/her additional instructions on how to store and use the medicine, especially emphasize the importance of expiration of the drug after opening the packaging and the time allowed for the drug use (not longer than 5 to 7 days, 4 to 5 times a day).

4.6 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of administration of therapy,
- The type and doze of the administered therapy;
- Signature of the nurse who conducted the procedure.

4.7 Precautions

- Check for any possible patient’s sensitivity to the drug.
- Apply the 5Rs rule (the Right patient, the Right drug, the Right dose, the Right route, and the Right time).
- Observe the dose intervals and concentrations of the prescribed drug.
- If we use already used ointment for the application, it is necessary to push the hardened part out of the tip of the tube.
- Keep the medicine according to manufacturer’s instructions.
- Assessment whether the assistance of another person is needed (in small children).
- Warn the patient not to use nasal drugs longer than prescribed, as they may have a recessive effect that may worsen the condition.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

I GENERAL POLICY STATEMENT

Oxygen therapy is a process of treatment by administering oxygen by inhalation. Lack of oxygen in the blood and tissues represents the main indication for the use of oxygen therapy. The indication for oxygen administration is set by the physician, while the nurse applies oxygen as a standard procedure.

The purpose of this procedure is to apply oxygen in a uniform and safe way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

An order for oxygen therapy is issued by a physician, who determines the method (type of equipment: mask or nasal catheter), the amount (l/min) and the duration of the oxygen application.

4.1 Preparation of material

- Oxygen tank,
- Tank holder,
- Oxygen system,
- Oxygen applicators (catheters and masks),
- Paper tissues,
- Cotton pads,
- Drape sheet ,
- Gloves,
- Kidney dish.

4.2 Preparation of space

- The room must be bright, airy,
- Provide the patient with privacy.

4.3 Patient preparation

- Place the patient in a comfortable position,
- Explain to the patient the treatment procedure and allow questions,
- Give the patient paper towels to discharge the nostrils,
- When using nasal cannula/catheter, check the condition of the nasal mucous membrane; if it is damaged, the approach of oxygen application is changed.

4.4 Procedure

The procedure for administration of oxygen by inhalation is performed by a nurse in the following order:

- 4.4.1 Check if there is and how much oxygen in the bottle.
- 4.4.2 Check the humidifier – the dish containing redistilled water (between the MIN and MAX marks).
- 4.4.3 Check the correctness of the oxygen system, the oxygen regulator ball, the connections with catheter and the mask.
- 4.4.4 Open the oxygen administration system (bottle).

- 4.4.5 Set the prescribed oxygen flow (l/min).
- 4.4.6 Connect the catheter or mask to the system and set it to the patient's face.
- 4.4.7 If oxygen concentrations up to 40% are required, with a flow of 1–3 l/min, a nasal catheter is used; for a concentration of up to 60% with a flow rate of 6–8 l/min, the masks are used, unless there are contraindications or unless the doctor prescribes otherwise.
- 4.4.8 Nasal catheter
- Put the tops of the catheter in a glass of water to check the passability of the system (bubbles are created), then dry the catheter tops,
 - The base through which the oxygen is supplied is placed on the nose and about 1–2 cm of the tube is inserted in each nostril,
 - The extension of the nasal catheter should be placed behind both ears and under the chin of the patient and both catheter arms should be fastened with a movable loop that is on the nasal catheter tube,
 - Avoid too tight fixing, as it may cause additional pressure on the face,
 - Connect the catheter with oxygen source,
 - Open the oxygen source by turning the main valve on the bottle,
 - Use the reduction valve to dispense the prescribed amount of oxygen, ensuring that the centre of the ball floats at a prescribed flow rate.
- 4.4.9 Oronasal mask – ordinary mask
- Test the patency of the system.
 - Choose mask size that best suits the patient,
 - During the application, make sure that the mask is well attached to the face and covers the nose and chin,
 - Place the mask on the nose, mouth and chin of the patient and shape the flexible metal rim towards the root of the nose,
 - Attach the elastic band around your head to hold the mask firmly but comfortably over the patient's cheeks, chin and nose root,
 - When breathing, the patient inhales with oxygen the air entering through the mask openings and mixing with oxygen,
 - The patient is breathing in the mask, the oxygen supply must be sufficient to release the amount of exhaled breath from the mask before the next inhale,
 - The advantage of this mask is that it permits somewhat higher oxygen concentrations and does not dry the mucus because oxygen mixes with the air entering the openings,
 - The disadvantage is that the patients do not tolerate it well, especially in acute phases, because it gives them the feeling that they cannot breathe.
- 4.4.10 Completion of therapy
- At the end of administration of prescribed oxygen therapy, remove the nasal catheter or mask, close the main reduction valve of the bottle by turning it clockwise,
 - Wait until all the oxygen gets out of the system (the bubble disappearance in the humidifier is a sign that the system is emptied),
 - Close the oxygen dosing valve by turning it clockwise,
 - Take care of the patient,
 - Dispose of the used material,
 - Wash and dry your hands.

4.5 Maintenance of equipment

- Wash the mask and the catheter after each use with running water,
- Soak in the disinfectant made by the manufacturer,
- Wash in lukewarm water, dry and protect it with sterile gauze,
- Oxygen cylinders must always be clean,
- After use, wash, disinfect and dry the oxygen humidifier and change the humidifying liquid (distilled water),
- Keep daily records of oxygen consumption (Table 4.1).

Form of records – oxygen consumption							
Date	record number of bottle	Volume of empty bottle in L 2; 5; 10	O2 pressure (120–200 Pa; atm; bar)	Quantity of oxygen in litres (bottle volume x pressure)	Spent litres (litre x minute)	Remaining	Nurse's signature
	xy 367	5	150	750	60	690	
					80	610	
					60	550	

Table 4.1: Sample of oxygen consumption records

4.6 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of conducting the procedure,
- Type, dose and method of administered therapy (oxygen),
- Signature of the nurse who conducted the procedure.

Record the oxygen consumption in the Form of the oxygen consumption records.

4.7 Precautions

- Do not roll the bottles or drag them on the floor,
- Keep the bottles in the vertical position and make sure that the valves are protected by caps,
- It is not allowed to carry bottles by their valves,
- Keep the bottles at least 1 meter from the source of heat,
- Do not use flame or smoke cigarettes near the oxygen,
- Avoid exposing bottles to high temperatures,
- Do not handle the oxygen system with greasy hands,
- Do not use oil derivatives to clean the bottles and the system (they increase the risk of oxygen explosion),
- It is not use any sort of adhesive to stick the labels to bottles and other parts of the system,
- Lower oxygen concentration than expected can be the result of: shallow breathing, mask not adhering well to the face, oxygen supply is insufficient,

- For older or patients with hollow cheeks, stick to the mask the gauze pads over the cheeks surface, to obtain a tight sealing,
- The minimum amount of oxygen we can administer through the mask is 6 L/min and with this amount we achieve 35–40% oxygen concentration in the inhaled mixture,
- The highest oxygen concentration administered through the mask is about 60% and is achieved with about 10 L/min,
- Keep the full bottles separated from empty bottles,
- To install and uninstall the bottles use cylinder wrenches that do not spark (brass),
- Before opening the oxygen bottle, always turn the valve to the end and turn it back by one turn – to avoid someone trying to open an already open valve,
- Never change the oxygen flow arbitrarily.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

27 INHALED MEDICATION ADMINISTRATION

I GENERAL POLICY STATEMENT

Drug administration by inhalation is a therapeutic method of delivering the drug into the body through the mucous membranes of the respiratory organs. By administering a drug in this way, a faster effect of the drug and easier breathing are achieved, which directly affects the clinical features of the patient. Inhalation therapy (type and mode) is indicated by a physician and is performed by a nurse according to a uniform procedure.

The purpose of the procedure is to properly and uniformly apply the inhalation therapy.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 The indication for drug administration by inhalation is ordered by the physician, stating in the prescription:

- Drug name,
- Recommended dose,
- Method of drug administration,
- Time interval of inhalation.

4.2 Patient preparation

- Identify the patient,
- Give instructions to a patient, child, parent/guardian about the inhalation procedure,
- Place the patient in a comfortable high half-sitting or sitting position; a small child is sitting in his/her accompanying person's/mother's lap.

4.3 Preparation of materials, equipment, medicines

To administer the prescribed inhalation therapy, it is necessary to prepare:

- Inhaler and inhalation system,
- Disinfected clean dry mask of the appropriate size,
- Prescribed medicine (apply the 5Rs rule),

- In the appliance dispenser, pour the drug in the indicated dosage with the solvent (most often 0.9% NaCl solution).

4.4 Procedure for drug administration using an electric inhaler

- 4.4.1 Give advice if the patient is able to cough out and blow his nose.
- 4.4.2 Inform the patient about the importance of proper breathing in during inhalation, as well as of the significance of deep inhalation and full exhalation, and necessity to rest in case of breathing effort.
- 4.4.3 Turn on the inhaler and control the flow of inhalation all the time.
- 4.4.4 Monitor the general condition of the patient and report any changes to the doctor.
- 4.4.5 After inhalation, the nurse carefully removes the mask from the patient's face.
- 4.4.6 Advise the patient to wash the face to avoid local side effects (skin redness, whitish fungal deposits), rinse the mouth or give a child to eat or drink.

If inhalation is prescribed as drug administration in the form of a spray, a volumatic or babyhaler is prepared, depending on the age of the patient.

4.5 Use of metered-dose inhalers (pumps)

- 4.5.1 Remove the cap and shake the pump reservoir two or three times.
- 4.5.2 Tell the patient to:
 - Lightly breathe out – exhale, but never into the pump,
 - Put the mouthpiece between the lips,
 - Start breathing in and press the drug reservoir at the same time,
 - Continue breath in slowly to the end,
 - Hold the breath for 10 seconds,
 - Exhale slowly.
- 4.5.3 If the dose is repeated, wait for 1–2 minutes and repeat the above steps.
- 4.5.4 After use, close the inhaler with the cap.
- 4.5.5 Rinse mouth with fresh water.

If a patient cannot properly use an inhaler (small children, patients with inability to coordinate the pumping and inhaling, patients with high irritability of the airways), aids are used (volumatic).

4.6 Use of metered-dose inhalers (diskus)

- 4.6.1 Open the diskus, holding the outer casing in one hand, and place the thumb of the other hand on the thumb grip.
- 4.6.2 Push your thumb from yourself until you fully open the diskus (until you hear 'click' when the diskus is ready for use).
- 4.6.3 Tell the patient to:
 - Lightly breathe out – exhale, but never into the diskus,
 - Put the mouthpiece into the mouth, then suddenly and deeply inhale, not breathing through the nose,
 - Remove diskus from the mouth and hold breath for 10 seconds,
 - Exhale slowly and close the diskus,
 - Rinse mouth with fresh water.

4.7 Use of metered-dose inhalers using babyhaler (children up to 5 years)

Babyhaler is an aid for applying a drug in spray (pump) for inhalation. It is used according to the manufacturer's instructions, with deviations depending on the age of the patient. It is intended for easier drug administration using the pumps to infants and children up to 5 years of age.

- Patient preparation for the procedure is the same as in inhalation with an electric inhaler.
- Drugs are used as a spray (pump, metered-dose inhaler).
- This method of drug administration is also used in volumatic.

4.8 Procedure

- 4.8.1 Shake the spray dose (pump), and put it in the babyhaler.
- 4.8.2 Put disinfected babyhaler mask on the patient's nose and mouth.
- 4.8.3 Press the dose one time (one inhalation), pressing the drug into the babyhaler.
- 4.8.4 Keep the babyhaler mask on the patient's nose and mouth for about one minute (5–10 inhalations and exhalations). From the movements of valves (membranes) which have their inhaling and exhaling path, a nurse knows how many times the patients have inhaled and exhaled, and what amount of medication they have taken into their body. Babyhaler has a double valve that allows the child to breathe normally into the mask. Thereby, the drug from the chamber enters the child's lungs, while the exhaled air does not enter the chamber but is routed out.
- 4.8.5 Monitor the general condition of the patient and report possible changes to the doctor.
- 4.8.6 After completed inhalation, carefully remove the mask from the patient's face.
- 4.8.7 If the patient needs more than one dose of the same medicine then, after a 5–10 minute pause, repeat the procedure as many times as the inhalations prescribed.

4.9 Use of metered-dose inhalers using volumatic (children over 5 years)

- 4.9.1 Volumatic has a conical shape, composed of two parts:
 - Material: transparent plastic, volume 750 ml,
 - Membrane (one, one-way).
- 4.9.2 The general guidelines for drug administration using volumatic and patient preparation are the same as for electrical inhaler and babyhaler.
- 4.9.3 Volumatic is used to administer drugs in the form of spray (pump – metered-dose inhaler).

4.10 Washing and disinfection of inhalation aids

- With electric inhalers and babyhalers remove the mask from the system, pour distilled water into the dispenser for medicines, turn on the appliance and rinse the dispenser,
- Parts of the inhaler with which the patient comes into contact should be removed and washed mechanically under the jet of lukewarm water and then disinfected, then rinsed again with distilled water and allowed to dry,
- After completion, arrange and put all parts at the foreseen place,
- Disassemble the volumatic into two separate parts the pulling both halves in the opposite directions, taking care of removable valves (membranes),
- Parts are first washed mechanically, disinfected, and then rinsed well with distilled water and left to dry, only then assemble the parts and put away until the next use.

4.11 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of therapy administration,
- Type and amount of therapy,
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

PART V

DIAGNOSTIC-THERAPEUTIC PROCEDURES

- 28 Ear irrigation
- 29 Placing the fixation bandage
- 30 Wound care and dressing
- 31 Treatment of minor burns
- 32 Assessment and treatment of decubitus ulcer
- 33 Immobilization – indications, objectives, types, devices and principles
- 34 Immobilization - special types
- 35 Colostomy nursing care
- 36 Placing and maintaining urinary catheter
- 37 Umbilical cord stump treatment in the newborn
- 38 Treatment of oral cavity in an infant with stomatitis (thrush)

28 EAR IRRIGATION

1 GENERAL POLICY STATEMENT

This procedure defines a uniform and safe way to perform ear irrigation for diagnostic and therapeutic purposes, as ordered by a physician.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The intervention is performed on the basis of a written order of a doctor/prescription, and is performed by a nurse.

4.1 Preparation of space

Ensure privacy and favourable conditions in the room (illumination, without strong airflow).

4.2 Preparation of material

- Syringe for ear irrigation,
- Container with hot water,
- Non-sterile disposable gloves,
- Pad (compress),
- Drape sheet,
- Cotton pads,
- Kidney dish.

In addition to hot water, the following solutions may also be used:

- Saline solution 0,9%,
- Acidum boricum 3%.

4.3 Patient preparation

- Identify the patient,
- Inform him/her about the method of conducting the procedure and ask for cooperation,
- Place the patient in a sitting position, head upright, slightly inclined to side,
- Water temperature should be as body temperature (higher or lower temperatures can cause dizziness),
- Put the protective compress – towel on the patient's shoulder,
- Ask the patient to hold the kidney dish under the earlobe.

4.4 Procedure

- 4.4.1 Wash and dry your hands and put on the gloves.
- 4.4.2 Draw the prescribed liquid into the syringe and empty all the air out of it.
- 4.4.3 Using the non-dominant hand, pull the earlobe back and up, and direct the syringe tip toward the back of the head and up so that the water jet enters over the upper ear canal wall and goes out over the bottom.
- 4.4.4 Hold the tip of the syringe against the upper side of the ear canal.
- 4.4.5 It is best to start with several weak jets, followed by the stronger ones, until water drains out the cerumen deposits.

- 4.4.6 Irrigation should be painless; if the hot water jet is painful, the jet power and speed should be reduced.
- 4.4.7 After the ear is irrigated, the head of the patient should be inclined so that the remaining water can come out of his/her ear.
- 4.4.8 The earlobe can be pulled backwards to straighten the ear canal and to facilitate the water draining.
- 4.4.9 After finishing the procedure, dry the ear with drape sheet or cotton pad.
- 4.4.10 Place a cotton pad in the inlet of the ear canal.
- 4.4.11 Remove the gloves, wash and dry your hands.
- 4.4.12 Help the patient stand up.
- 4.4.13 Remove the instruments and material used.
- 4.4.14 Wash the tip of the syringe and disinfect it, and wash the syringe and dry it.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of irrigation,
- The type of liquid used for irrigation,
- Signature of the nurse who conducted the procedure.

4.6 Precautions

- Check that the syringe has no damage.
- Test the liquid temperature by placing a few drops on the inside of the wrist.
- The maximum amount of fluid used to irrigate one ear is 500 ml.
- If the ear is not completely irrigated with this amount of solution, inform the doctor.
- Small children should sit in the lap of the parents who hold their heads.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

29 PLACING THE FIXATION BANDAGE

1 GENERAL POLICY STATEMENT

Fixation bandage is set for stabilization/immobilization of body parts after luxation, distortion, bone fracture or suspected fracture, to ensure haemostatic pressure, prevent hematoma and oedema occurrence, as well as to stabilize the gauze after wound treatment.

The procedure defines the procedure for setting the fixation bandage in a safe and proper way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Placing the fixation bandage is performed by a nurse at the doctor's request.

4.1 Preparation of space

Space prepared as usual (room illuminated, airy and with optimal temperature).

4.2 Preparation of material

- Gloves,
- Bandage of appropriate width (6–15 cm),
- For dressing of the head, fist, fingers and feet, a 6 cm wide bandage is used
- For dressing of the shoulders, upper arm, forearm and lower leg, a 10 cm wide bandage is used,
- For dressing of the chest and upper leg, a 15 cm wide bandage is used,
- Kidney dish,
- Leukoplast,
- Scissors.

4.3 Patient preparation

- Identify the patient,
- Provide privacy, unless performing first aid,
- Explain the process and expected cooperation,
- Release from the clothes the part of the body being fixed,
- Place the patient comfortably so that the part of the body that needs to be treated in the functional position or the best possible position.

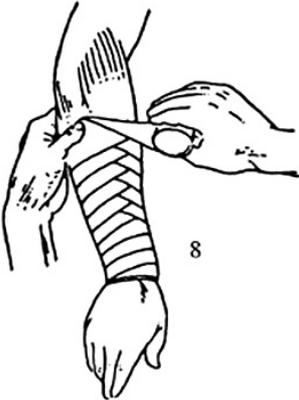
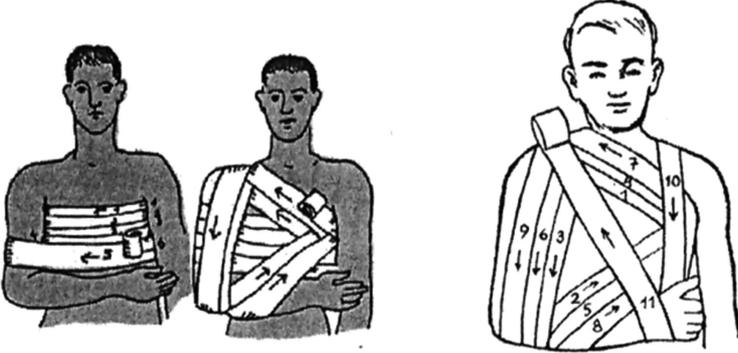
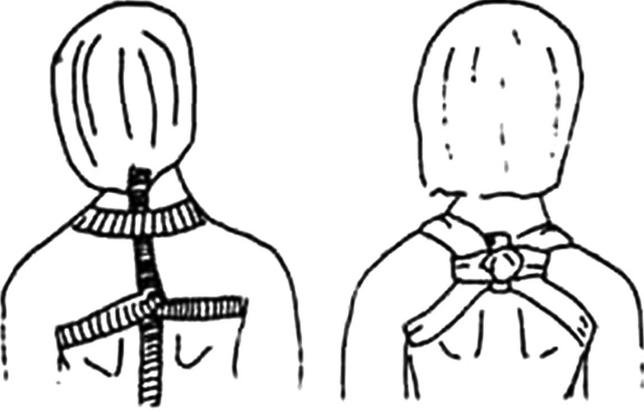
4.4 Dressing/fixation procedure

- 4.4.1 Wash and dry your hands and put on the gloves.
- 4.4.2 Review the area to be covered for possible injury or skin damage (consult a physician if necessary).
- 4.4.3 Place the bandage so that the two skin surfaces are not in contact (thumb-hand, fingers, breasts-arm) to prevent skin irritation.
- 4.4.4 Hold the bandage so that the bandage roll is in the dominant hand and facing upward, and the free end of the bandage in the non-dominant hand.
- 4.4.5 The bandage must not be loose or too tight.
- 4.4.6 The bandage is evenly stretched during the wrapping process.

- 4.4.7 The extremity is dressed from below upwards.
- 4.4.8 Hold the bandage close to the treated area to ensure even tightness and pressure.
- 4.4.9 Dress the body parts, by spiral, reverse spiral, recurrent, or figure 8 method.
- 4.4.10 Finish by cutting the end of the bandage into two strips and tying them up or fixing with leukoplast.
- 4.4.11 Check the distal circulation (check the skin colour and temperature).
- 4.4.12 Remove the gloves, wash and dry your hands.

Figure I Types of bandages

	Procedure		Application
Recurrent bandage	<p>Wrap the bandage circularly, then perform the back movement, and then use the circular movements for the final fixation (Hippocratic cap-shaped bandage).</p>		<p>Head wrapping.</p> <p><i>This procedure is applied when wrapping the stump and hand.</i></p>
Recurrent bandage	<p>Russian cap-shaped bandage</p>		<p>Head wrapping.</p>
Spiral bandage	<p>Each circle partially (2/3) covers the previous one.</p>		<p>For long, straight parts of the body.</p>

	Procedure		Application
Reverse spiral (spike)	Press the bandage and then turn the wrapping direction at half the circumference of each spiral bend.		It is used to adjust the bandage to increased body size (forearm, lower leg).
Desault's bandage	Armpit-shoulder – elbow.		For fixation of shoulder and elbow.
Madsen's bandage			In clavicle fracture

	Procedure		Application
<p style="color: blue; font-weight: bold;">Wrapping the joints</p>	<p>The bandage is attached under the joint and then wrapped alternately upward and above the joint, then downwards and under the joint.</p>		<p>In joint injury.</p>

4.5 Records

Upon the completion of the procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of placing the bandage,
- Bandage application area,
- Signature of the nurse who conducted the procedure.

4.6 Precautions

- If the fixation bandage is placed on the distal extremity joints, do not wrap the fingers to enable monitoring the circulation.
- If the bandage is set after wound treatment, the bandage must extend sufficiently out of the wound position to achieve sufficient pressure and protection. All edges of the gauze must be covered.
- If we place a bandage for haemostasis and during wrapping or subsequently the wound begins to bleed, new layers of gauze and bandage should be placed, but never remove the previously placed bandage.

- When setting the bandage for the purpose of immobilization, it is necessary to use immobilizer and encompass two adjacent joints.
- In case of burns, place the bandage loosely without tightening.
- Items stuck in the body (knife, wood, glass) that cannot be handled at the primary level of health care, should not be removed, but should be fixed with the gauze on all sides and then fixed with the bandage in the found position and forwarded to further processing according to doctor's order.
- In the case of head bones injuries, no direct pressure should be applied by fixation to the injured part of the head bones, but a circle is made of gauze and bandage, wide enough to cross the edges of the injury, over which the fixation is performed with a bandage.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

30 WOUND CARE AND DRESSING

1 GENERAL POLICY STATEMENT

A wound is a break in the anatomical and functional continuity of the tissue. With regard to the healing process, the wounds are divided into acute and chronic. Treatment of wounds on the skin is indicated by a physician and is performed by a nurse according to a uniform procedure. Proper treatment and dressing is the basic procedure for adequate wound healing.

The purpose of this procedure is to ensure a safe, proper and uniform treatment of the wound.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Indication for treatment and dressing of the wound is determined by the doctor, stating in the order:

- Wound treatment method – frequency, dressing type (dry or wet),
- Type of aseptic agent,
- Type of appropriate cover (antiseptics, hydrocolloids, alginates, polyurethane foam, etc.).

The procedure is carried out by a nurse, under aseptic conditions.

4.1 Preparation of space

- The room must be bright, ventilated and with comfortable temperature,
- Provide the patient with privacy.

4.2 Preparation of material

- Sterile gloves,
- Mask,
- Sterile instruments,
- Bigger sterile syringes,
- Sterile needles,
- Sterile gauze of various sizes, bandage, leukoplast,
- 0,9% NaCl solution of room temperature,
- Antiseptic agent,

- Suitable coverings (polyurethane films and foams, hydrocolloids, hydrogel, alginates, non-adhesive contact nets, etc.)
- Kidney dish,
- Dish for infectious waste.

4.3 Patient preparation

- Identify the patient,
- Place the patient in proper position,
- Remove the existing bandage (if the wound is already treated),
- Explain to the patient the procedure and the kind of the cooperation expected from him/her.

4.4 Procedure

- 4.4.1 Wash and dry your hands, put on gloves and put on the mask.
- 4.4.2 Remove from the wound the dressing material and cover (if the wound has already been treated) and dispose of it in a dish for infectious waste.
- 4.4.3 Draw out 0.9% NaCl in the syringe.
- 4.4.4 Place the kidney dish so that liquid and exudate from the wound flush into it.
- 4.4.5 To irrigate the wound, draw a saline solution (0.9% NaCl) into a sterile syringe, and irrigate the wound from a distance of 2–5 cm, ensuring that the jet is not too strong, to prevent damage to the wound tissue.
- 4.4.6 Using a sterile instrument from the drum take a gauze pad, take it with sterile hemostatic forceps and soak with saline solution (making sure that the top of the bottle does not touch the pad) and wipe the wound in circular movements from the centre to the edges.
- 4.4.7 Repeat the procedure several times, using each time a new sterile cotton pad.
- 4.4.8 Clean the skin around the wound with 0.9% NaCl, and then dry with dry, sterile gauze.
- 4.4.9 Place a prescribed cover on the wound, which should be protected by multi-layered sterile gauze.
- 4.4.10 Fix the gauze and/or wrap it with a bandage and fix it with the leukoplast.
- 4.4.11 The same procedure is also carried out in the treatment of infected wound, with an additional wound treatment with antiseptic agent prescribed by the doctor.
- 4.4.12 After wound treatment, apply the antiseptic, as recommended by the physician, which should be left on the wound for a specific period.
- 4.4.13 After that, wipe the wound with sterile saline solution, clean the wound surrounding and place an adequate cover.
- 4.4.14 After the use, dispose of the bandages, gauze and other sanitary materials in the container for infectious waste.
- 4.4.15 After dressing, take off the gloves and wash your hands and remove the mask.
- 4.4.16 On the basis of a doctor's recommendation, arrange the next appointment with the patient.
- 4.4.17 In the following wound's treatment, the presence of a physician is not necessary, except in situations where there are changes: signs of infection in the wound and its surrounding area (redness, increased secretion, present pulsations in the wound, pain, oedema, presence of pus, odour, etc.), rash around the wound, etc., in which case the nurse is obliged to call the doctor.



Figure 1 Wound irrigation



Figure 2 Wound cleaning



Figure 3 Cleansing the surrounding skin



Figure 4 Placement of cover



Figure 5 Secondary cover

4.5 Records of the procedures

Upon the completion of the procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of wound treatment,
- Type of administered therapy,
- Signature of the nurse who conducted the procedure.

4.6 Precautions

- Wound dressing must be gentle, slow, with maximum pain reduction,
- Monitor the general condition of the patient and report any changes to the doctor,
- Do not clean the wound environment with the gauze for wound cleansing,
- If the skin around the wound has been changed (damage, rash, redness, oedema), use the appropriate agent for skin around the wound prescribed by the doctor.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

31 TREATMENT OF MINOR BURNS

1 GENERAL POLICY STATEMENT

Burns are tissue injuries caused by the effect of heat that causes protein coagulation and associated necrosis that is proportional to the height of the temperature and duration of the impact on the tissue. The purpose of this procedure is to treat light burns in a safe and uniform way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

A burn can vary in size depending on the affected surface of the body, of different severity depending on the rate of tissue damage and with various complications.

Etiologically, burns are divided into:

- Thermal – caused by hot liquid and vapor, hot objects, open flame, radiation, etc.
- Chemical – caused by acids, bases, poisons,
- Burns caused by electrical current.

Burns are also classified according to the size of the affected surface and the depth into the superficial and the deep burns, i.e. minor and severe burns. Minor burns are I and II–A level burns and are treated in outpatient clinic.

Degree of injury	Affected skin area	Clinical signs	Healing
I degree – epidermal burns (gradus epidermalis)	Only epidermis has been affected – the protective function of the skin is preserved.	The skin is red to purple and painful. On the surface there are no bullae, with minimal oedema, the pressure is accompanied by a transient pallor that quickly disappears.	Natural in 7 to 10 days, without scarring.
II–A degree – superficial dermal burns (gradus dermalis superficialis)	The upper part of the dermis is affected.	The skin is pink–red, covered with damp blisters, bullae, and extremely painful. Restoring the blood after pressure is preserved.	Elimination of necrotic tissue and epidermal regeneration occurs after 14 to 21 days. Epithelialization takes place from sweat glands, hair follicles, and partly from the edges.

Table 6.1 – Classification of minor burns

The treatment of minor burns is performed by a nurse at the order and according to the instructions of the doctor while respecting the principles of asepsis and antisepsis. The severity of burn is estimated solely by the physician.

4.4 Preparation of space

- The room must be bright, ventilated and with comfortable temperature,
- Provide the patient with privacy.

4.5 Preparation of material:

- 0,9% NaCl solution,
- Sterile gauze pads,
- Sterile gloves,
- Mask,
- A dish for impure,
- Vaseline gauze,
- Bandage,
- Leukoplast,
- Sterile instruments.

4.6 Patient preparation:

- Identify the patient,
- Place the patient in proper position,
- Remove the items of clothes or the existing bandage,
- Explain to the patient the procedure and the kind of the cooperation expected from him/her.

4.7 The procedure for the treatment of minor burns:

- 4.7.1 Nurse calls a physician who examines the patient and gives directions for further treatment.
- 4.7.2 Wash and dry your hands, put on gloves and put on the mask.
- 4.7.3 Clean the area surrounding the burns using a saline solution, from the centre towards the periphery.
- 4.7.4 If the burn is with damaged skin integrity, use gauze pads to gently remove all the exudate and possible impurities.
- 4.7.5 Mildly flush the surface of the burn with a saline solution.
- 4.7.6 Further treatment of burns should be done according to the physician's instructions.
- 4.7.7 After treatment, cover the burn with sterile gauze so that it covers the damaged skin surface at least 1 cm over the edges and fix the gauze with the leukoplast, bandage and turban bandage.
- 4.7.8 Inform the patient about the date of next appointment as determined by the doctor.
- 4.7.9 Dispose of the used material according to the procedure for disposal of infectious waste.
- 4.7.10 During the next visits, the presence of a physician is not necessary, except in situations where there are evident signs of infection in the burned area (redness of the surrounding skin, increased secretion, presence of pus, odour, etc.), then call a doctor.

4.8 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of burn treatment,

- Type of administered therapy,
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

32 ASSESSMENT AND TREATMENT OF DECUBITUS ULCER

I GENERAL POLICY STATEMENT

Decubitus/pressure ulcer is an area of localised damage to the skin or underlying tissue caused by pressure, shear, or friction, or a combination of these (EPUAP; European Pressure Ulcer Advisory Panel). There are five stages of decubitus, and the places that are most susceptible to the formation of the decubitus ulcer are so called decubital sites.

The aim of this procedure is proper evaluation, adequate treatment and continuous monitoring of the decubitus ulcer as well as a uniform approach to each patient.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Assessment of decubital ulcer

Proper classification of decubitus ulcer and evaluation of factors affecting healing is a guideline for determining the treatment that will enable healing of the decubitus ulcer.

4.1.1 Classification of decubitus ulcer

- First degree – warm and red skin at points of pressure on the surface, skin integrity is still preserved, redness fades at the pressure.
- Second Degree – damage to epidermis and dermis with the appearance of bulla and erosion, redness does not fade on the pressure.
- Third degree – affects subcutaneous tissue to muscle fascia with visible necrotic parts, the wound smells and the surrounding skin is hyperpigmented,
- Fourth degree – an extensive decubitus ulcer that covers all layers of tissue including bone tissue with accompanying infection.
- Fifth degree – extremely deep life-threatening defects of all tissue layers with present infection and necrosis.

4.1.2 Factors affecting healing

- Patient-related factors (physical, psychosocial, relation to the disease, drugs, financial capabilities, availability of new materials for wound healing),
- Wound-related factors (duration, size, depth of wound, wound bottom condition, inadequate perfusion, infection, localization of the wound).

4.2 Treatment of decubitus ulcer

Treatment is performed by a community nurse, under aseptic conditions, at the order of a physician, who determines:

- Type of dressing (dry or wet),
- A method of treating a decubitus ulcer that is determined in cooperation with a community nurse,
- The type of appropriate cover (antiseptics, hydrocolloids, alginates, polyurethane foam, etc.).

- 4.2.1 Preparation of space
 - The room must be bright, ventilated and with comfortable temperature.
- 4.2.2 Preparation of material for treatment of decubitus ulcer
 - Material for aseptic treatment of wound (sterile dressing material and instruments, prescribed wound treatment liquids and covers),
 - Sterile syringe, kidney dish, leukoplast,
 - Protective equipment (gloves, mask),
 - Plastic centimetre,
 - A bag for disposal of infectious waste.
- 4.2.3 Patient preparation
 - Identify the patient,
 - Inform the patient about the manner of conducting the procedure,
 - Place the patient in a comfortable, adequate position to make the wound as accessible as possible,
 - Inform the patient about the importance and significance of the cooperation expected from him/her during the treatment,
 - Free the wound from clothes or diapers.
- 4.2.4 Treatment and dressing of decubitus ulcer
 - Remove the cover from the wound,
 - Visually evaluate the wound (measure the size, location, secretion, odour, necrotic tissue, wound bottom appearance, granulation and signs of infection),
 - Compare the condition of the wound with respect to the previous treatment,
 - Assess the pain intensity,
 - Take care of the decubitus ulcer (according to the wound treatment and dressing procedure),
 - Take care of the surrounding tissue around the decubitus ulcer,
 - Place an appropriate cover,
 - Monitor the general condition of the patient during the treatment.
- 4.2.5 Advise the patient or care-giver on:
 - Proper nutrition to help heal wounds,
 - Hygiene and frequent changing of position,
 - The manner of application of the prescribed wound dressing.

4.3 Recommendations for community nurse:

- If a necrotic tissue has been observed, contact the physician in charge as soon as possible.
- If the wound does not heal after 14 to 21 days, inform the doctor.
- According to the doctor's assessment and order, the community nurse takes a swab of decubitus ulcer.
- Community nurse should be educated for treating decubitus ulcer in home care visit.

4.4 Records

From the documentation, the community nurse uses the Health Record of community nursing care to record the activities he/she has carried out in a home care visit.

Community nurse records in the existing and valid medical documentation of the institution:

- General patient information,
- Date of service provided,
- Type of service (wound treatment, type and mode of dressing, counselling, demonstration),
- Signature of the community nurse who provided the service.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

33 IMMOBILIZATION – INDICATIONS, OBJECTIVES, TYPES, DEVICES AND PRINCIPLES

1 GENERAL POLICY STATEMENT

Immobilization is a process by which, using the immobilization devices, the injured part of the body is for a certain time set in the compulsive position and the still condition for its protection, reduction of pain, prevention of damage to tissue, blood vessels and nerves, for faster healing of the wounds. The purpose of the procedure is to conduct immobilization in a uniform, correct and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Indications for immobilization

An indication for immobilization is established by a doctor and the procedure of immobilization is carried out by a nurse or medical team, depending on the severity of the injuries.

- Closed and/or open bone fracture and suspected fracture.
- Spine and pelvis injuries.
- Joint injuries (dislocation, sprain, twist, strain).
- Tendon and peripheral nerve injuries.
- Major blood vessel injuries.
- All gunshot and explosive wounds.
- Amputations after injuries.
- Extensive soft tissue crushing – crush injuries.
- Heat injuries.
- Snake bite.

4.2 Immobilization goals

- To prevent subsequent skin injury (i.e., to prevent turning a closed fracture to an open fracture), soft tissues, nerves, blood vessels, visceral organs (to prevent turning an uncomplicated fracture into a complicated fracture).
- Reduce pain and prevent the possibility of traumatic shock.
- Reduce the risk of embolism.
- Prevent spreading of infection.
- Provide easier transport of the injured.
- With proper immobilization, we create conditions for faster and more successful injury rehabilitation.

4.3 Types of immobilization (distribution by purpose and time of use)

Transport (temporary) immobilization – implies bringing the injured part of the body to still condition at the place of injury, immediately after the injury and during the transport. It is performed with the resources that are currently available.

Therapeutic (definitive) immobilization- applied in healthcare institutions and implies non-operative and operative treatment.

4.3.1 Transport – temporary immobilization

Standard immobilisation devices (of a particular shape, size and purpose)

Immobilisation ready-made devices are used for emergency medical assistance:

- Splints : Cramer’s (commonly used in practice), Thomas’s, Dietrich’s, Nissen’s splint, Volkman’s;
- Vacuum splints, pneumatic splints, vacuum mattress, MAST pneumatic garments;
- Cervical (Schantz) collar;
- Short and long spinal board;
- Scoop stretcher.

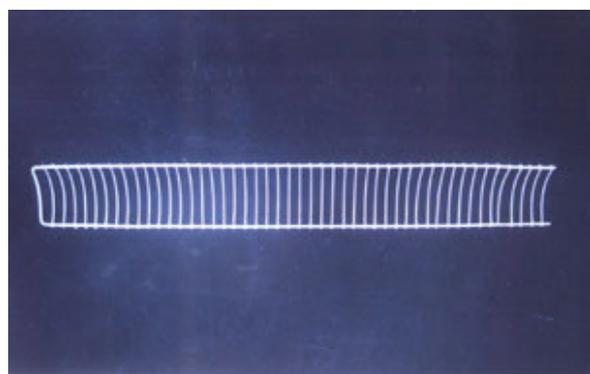


Figure 1 Cramer’s splint



Figure 2 Thomas’s splint.

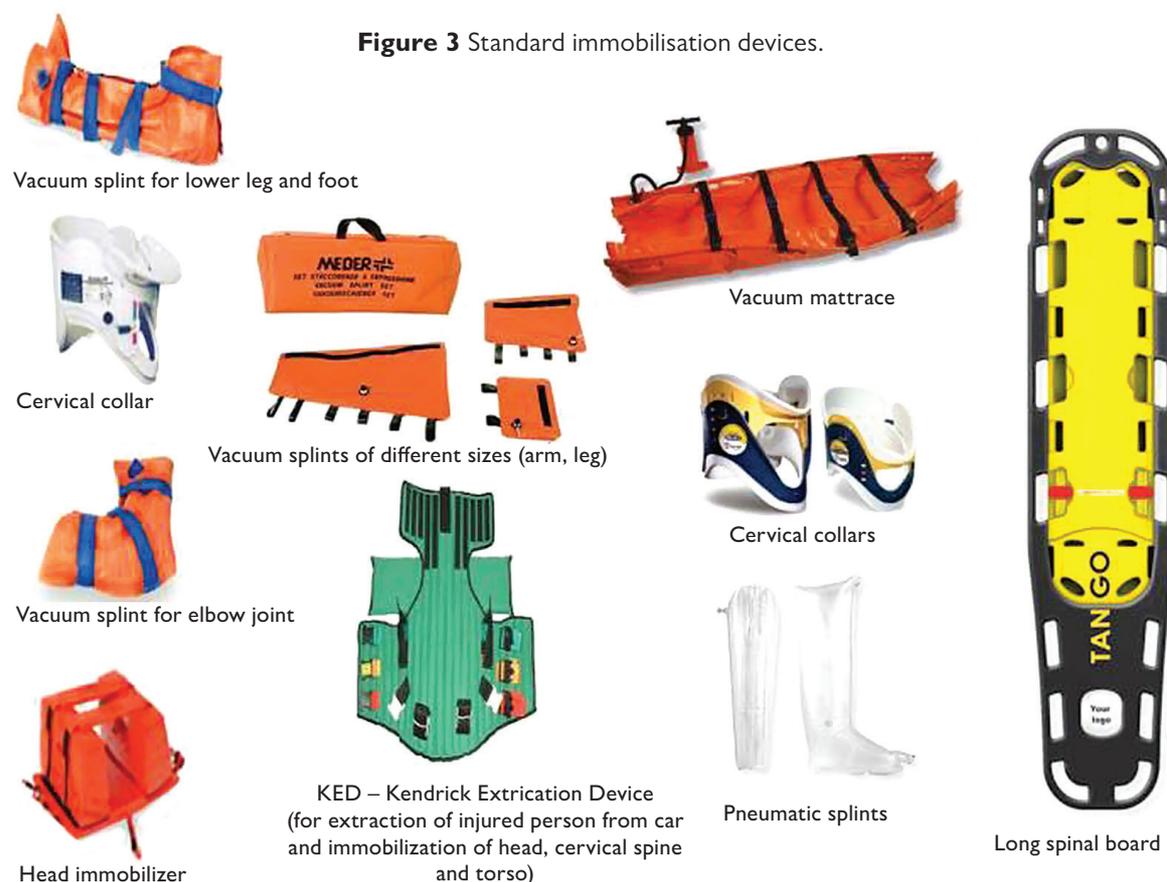


Figure 3 Standard immobilisation devices.

Vacuum splint for lower leg and foot

Cervical collar

Vacuum splint for elbow joint

Head immobilizer

Vacuum splints of different sizes (arm, leg)

KED – Kendrick Extrication Device
(for extraction of injured person from car
and immobilization of head, cervical spine
and torso)

Vacuum mattress

Cervical collars

Pneumatic splints

Long spinal board

4.4 General immobilization rules – immobilization principles:

- If there is any suspected fracture, treat it as if there was a fracture.
- Immobilization is performed immediately upon the occurrence of injury, i.e. as soon as the injured person is approached.
- Carry out a safety assessment check the scene and the person at the accident site (open road, hazard of water, electric current, facility crash).
- Immobilization should be carried out at the place of an accident, regardless of the proximity of the medical institution.
- Apply personal protection measures (gloves, protective mask).
- Perform an assessment of the condition of the injured person – before and after the immobilisation, check and keep controlling the respiratory tract function, pulse, if necessary carry out resuscitation and first aid without excessive moving of the injured part of the body, stop the bleeding, check and control the mobility of the fingers and colour and sensitivity of skin.
- If possible, explain to the injured person the need, significance, and procedure of immobilization.
- In closed fractures, do not remove clothing and footwear from the injured person to avoid the subsequent movement of bone fragments, secondary damage of tissue, blood vessels, nerves and complications.
- In open fractures, release the injured part of the body from the clothing, removing it from the healthy side, by splitting or cutting it by seams.
- In the case of open injuries, take care of the bleeding and perform sterile dressing of the wound.
- The ends of broken bones should not be pushed and returned back through the skin.
- A cold pack on an injured spot can help reduce the oedema.
- Do not move the injured person until the fractures are immobilized.
- Reposition (adjustment) of fractures and/or dislocation is prohibited.
- Apply the 'Rule of Two': in bone injuries, immobilize the injured bone, two adjacent joints and two-thirds of the bone at the joints, and when joints are injured, immobilize two adjacent bones, (except for the fracture of the thumb bone in the typical place, malleolus fractures, apophysis fractures), immobilization device is fixed in two places – above and below the place of fracture, two people provide help, i.e. in immobilization of injuries of spinal cord, pelvis and larger bones, the help of more rescuers is required.
- Immobilize the extremity in a neutral (physiological) position: half-bent hand, elbow bent at 75° angle, shoulder at 90° angle, half-bent knee, foot at 90° angle in relation to the lower leg or in the found position when there is severe pain (dislocation and joint fractures).
- Put the injured extremity in a slightly elevated position (to prevent the oedema and ensure efficient circulation).
- Measure the immobilization devices in relation to the healthy extremity so that they are longer than the two adjacent joints between which the injury is located. The splint must be long enough to immobilize adjacent joints in order to properly secure the injured bone.
- Line the immobilization devices with a soft cloth (cotton wool, bandage, clothing) or place them over the injured person's clothing or pre-set soft cloth pads at the vulnerable site.
- Immobilisation devices are attached to the injured person's body using supporter made of triangular bandages, bandages or parts of clothing, tied to the splint, and not above the unprotected parts of the extremity. The splint must be firmly fixed so that the broken bones do not move, but at the same time it does not endanger the blood supply distal from the injury. If the splint is attached too firmly, it may endanger the bloodstream and cause further injury to the extremities.

- After each fixation of the splint, movement or displacement of the patient, the pulse, sensation and motor response of the injured extremity distal from injury shall be re-evaluated. Changes in distal blood flow, sensory or motor control changes may indicate that the splint is set incorrectly, which may cause additional damage to the injured extremity.
- The fingers of the injured part of the body should be left uncovered for visualization of circulatory disorders and assessment of neurovascular status below the injury site (blue nails, cold finger).
- The injured person should be transported to a health facility with the provision of basic assistance measures, in an appropriate position, with accompanying person.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

34 IMMOBILIZATION – SPECIAL TYPES

I GENERAL POLICY STATEMENT

Immobilization is a process by which, using the immobilization devices, the injured part of the body is for a certain time set in the compulsive position and the still condition for its protection, reduction of pain, prevention of damage to tissue, blood vessels and nerves, for faster healing of the wounds. For the preparation of the material and the patient, use the procedure 'Indications, goals, types, means and principles of immobilization'.

The purpose of the procedure is to conduct immobilization in a uniform, correct and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

4.1 Immobilization of the upper extremity fracture

4.1.1 Shoulder and upper arm

Immobilization device in the shoulder injury includes the fingertips, the elbow, the shoulder of the injured arm and the opposite shoulder and in case of the upper arm injury the fingertips, the elbow and the shoulder of the injured arm.

- The arm is fixated to the body.
- The elbow is in flexion of 90°.
- The forearm is in neutral position.
- The palm of the hand is facing the chest.
- The thumb is turned upwards.
- The upper arm is immobilized by one Cramer's splint.

4.1.2 Forearm

- The elbow joint and wrist are immobilized.
- The standard splint is placed on the outside of the forearm, from the fingertips to above the elbow with the arm bent in the elbow, and the hand half-bent with the half-bent fingers, by placing one bandage into the hand or bending the Cramer's splint so to fill the half-bent fist and half-bent fingers.

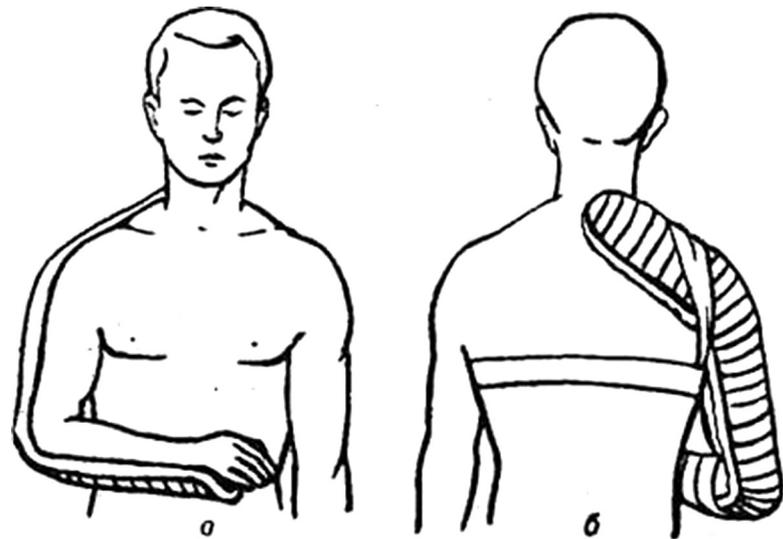


Figure 1 Immobilization of upper arm with Cramer's splint..



Figure 2 Mitela (collar)



Figure 3 Immobilization of the forearm and the lower leg with vacuum splints..

- Arm sling (collar) is placed.
- The forearm is best immobilized with vacuum splints, pneumatic splint or Cramer's splint.

4.1.3 Hand

- A fracture in the wrist and hand is immobilized so that the immobilisation device goes from the fingertips to the elbow.
- Immobilized in so-called '**Functional Position**' (wrist and hand in the position of holding a bundle of soft material, bandage or soft ball).
- Arm sling (collar) is placed.
- It can be immobilized with pneumatic splint or Cramer's splint.

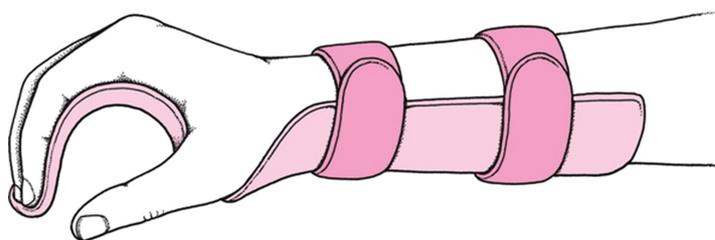


Figure 4 Immobilization of hand and wrist.

4.2 Immobilization of the lower extremity fracture

4.2.1 Hip and upper leg

- The injured person is in a lying position with legs stretched out, with a slightly bent knee and ankle in the middle position, i.e., in the foot position at 90° angle towards the lower leg.
- The upper leg is best immobilized with Thomas's splint.
- In the absence of the Thomas's splint, three Cramer's splints can be used.
- One goes from the back, from the shoulder blade of the injured side, along the back of the torso, the back of the leg, and bends around the heel and reaches the tips of the toes.
- The second Cramer's splint goes from the armpit of the same side of the leg that is immobilized, along the outside of the torso, along the outside of the leg to the foot, and across this it bends to the inside.
- The third splint goes from the groin on the inside of the injured leg to the ankle joint.
- All three splints are fixed separately and jointly with the five-point leg straps: ankle joint, knee, hip, pelvis, and end of the outer splint over the chest.

4.2.2 Lower leg

- The knee and ankle joint are immobilized.
- All principles as in the case of the upper leg fracture apply only the splints are shorter.
- It is best and easiest to immobilize the lower leg with vacuum splints and pneumatic splint.
- In the absence of pneumatic splint, two Cramer's splints can be used.
- The first one goes from the middle of the lower leg down the back of the leg, bends over the heel and goes to the tips of the toes.



Figure 5 Immobilization of the upper leg with Thomas's splint.

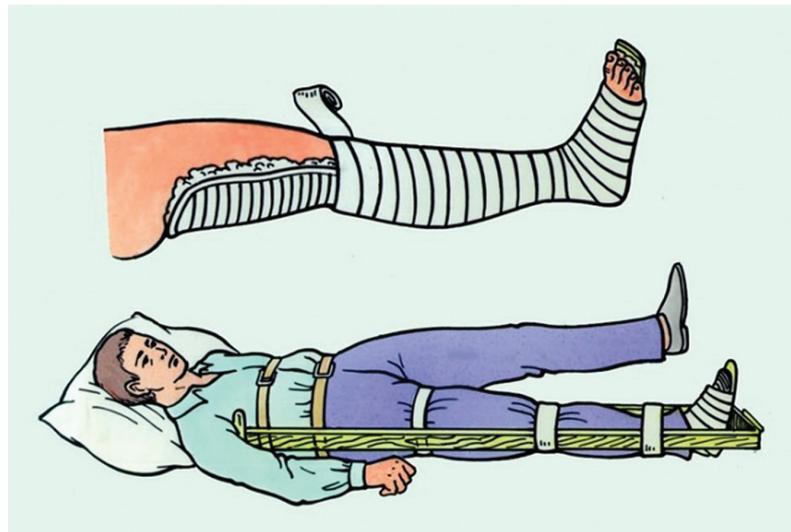


Figure 6 Immobilization with Cramer's splint

- The second one goes from the middle of the lower leg along the outside of the injured leg, bends around the ankle and follows inside the leg to the middle of the upper leg, that is, to the same place from where it started, but on the inside of the injured leg.

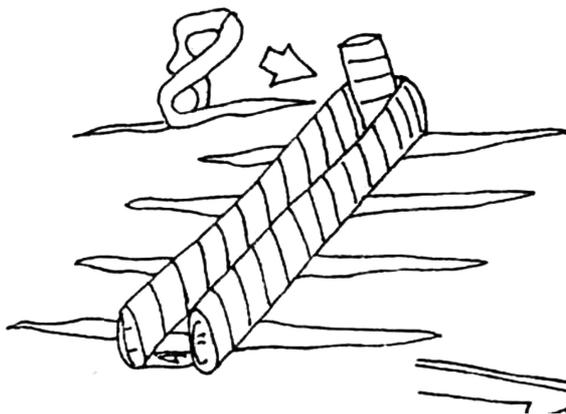


Figure 7 Cramer's splints for the lower leg immobilization..



Figure 8 Immobilization of the lower leg with pneumatic splint.

- The splints are separately and then jointly fixed in three points: the ankle joint, the knee and the upper leg.

4.2.3 Ankle joint and foot

- They are immobilized in the 'found position'.
- It is best and easiest to immobilize with vacuum splints and pneumatic splint.
- In the absence of a pneumatic splint, we can use one Cramer's splint that goes slightly below the knee, from the back of the lower leg, bends around the heel and goes to the tips of the toes.
- The splints are fixed at two points: the ankle joint and below the knee.

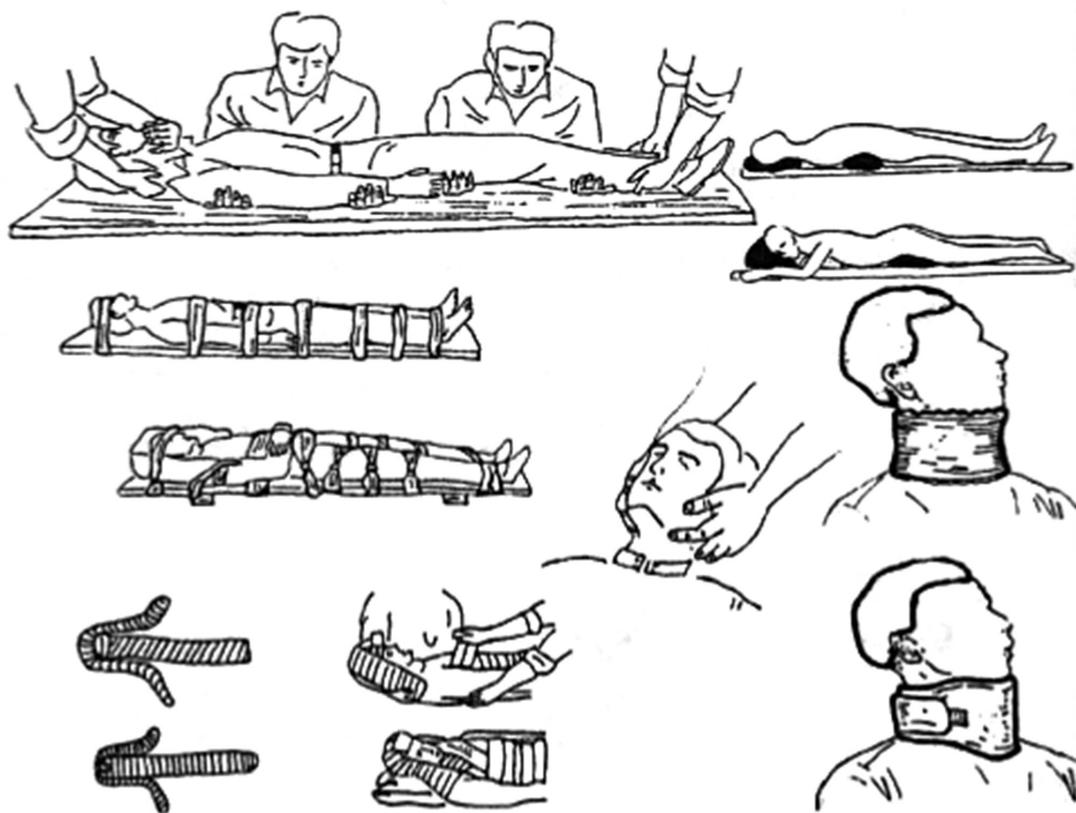


Figure 9 Procedure for spinal injuries..

4.3 Immobilization in spinal injuries

- Assess the severity of injuries and the condition of the injured person (consciousness, breathing, pulse, mobility, and sensitivity of the extremities), take measures of immediate assistance with minimal moving of the injured person.
- Apply a 'triple grip' to release the passage of the airways in the injury of the cervical spine.
- Using the four fingers, with both hands, catch the area under the jaw and pull it up and using the thumbs pull and open the mouth. Thus the neck, i.e., the head is not pulled back, and the passage of the airways is free.
- The presence of three or four people is necessary for the transfer of the injured person to the immobilisation device (spinal board).
- Place a long spinal board next to the injured person.
- The first person (coordinator) stands above the injured person's head, fixing the head and neck in neutral position.
- Persons number two and three kneel beside the injured person on the opposite side of the spinal board.
- The person number two holds the injured person's opposite shoulder and above the pelvic area.
- The person number three holds the injured person's opposite knee (or ankle) and the pelvic area.
- At the coordinator's command they simultaneously rotate (pull) the injured person's body.
- The third person then supports the spinal board below the injured person's body.
- At the coordinator's command again, they simultaneously lower the injured person's body on the spinal board.

- The neck is immobilized by placing the Schantz collar.
- The body of the injured person is fixed by strips over the forehead, shoulders, pelvis and lower legs.
- In this way the injured person is carried to the transport stretcher and transported safely to the healthcare facility.

4.4 Immobilization in pelvic injuries

- The injured person is moved with extreme caution.
- Immobilization is performed on the spinal board.
- Several people are required to perform immobilization.
- The pelvis is tightly wrapped with a bandage around 60 cm wide (blanket or sheet).
- Legs and torso can be fixed with circular bands.
- The injured person is in a horizontal position on his/her back with slightly bent legs.

4.5 Immobilization in head injuries

- The lower jaw fracture is immobilized by placing a sling for chin or tying a bandage around the jaw and over the top of the head.
- Nose fracture is immobilized by a sling for nose.
- Head bone fracture: no compression on broken fragments of skull bones that can compress the brain structures should be performed. Sterile gauze is placed over the wound, and a compression bandage is placed over isolating ring created of cotton or gauze, which is placed around the wound edges, but around the wound, rather than on the wound itself.
- If there is any suspected fracture of the base of the skull, Schantz collar is placed. When placing it, one person holds the injured person's head with two hands (on the side) and performs a slight traction of the head, while the other person places the collar. If the injured person is in the unconscious state, place him/her in a recovery position to avoid aspiration of the body's content (blood, vomited mass), and then urgently transport to the health facility with constant control of the general condition of the injured person.



Figure 10 Madsen's bandage

4.6 Immobilization of clavicle fracture

- It is immobilized by direct bone fixation or fixation of the entire upper extremity.
- Direct fixation is achieved by 'figure-8' – a soft material strip that in front passes over both clavicles, on both shoulders, behind the neck and in the back it crosses between the blades or is fixed with the finished – modelled figure-8 splints.

- By tightening the ends, the shoulders are pulled backwards and the pressure on the broken bone - fragments is dosed.

4.7 Immobilization of sprain

- Fixation of the joint to the physiological position.
- Compression of the joint.
- Elevation of the extremity.
- Local application of ice.

4.8 Immobilization of dislocation

- Respect all principles of immobilization as with fractures.
- Reposition is forbidden.
- Immobilize in the position found.

4.9 Immobilization of open fractures

- Stop the bleeding.
- Put sterile gauze over the wound – protect the wound zone with a soft bandage.
- Immobilize in the position found – bones fragments are not re-positioned.

4.10 Precautions

- If there is any suspected fracture, treat it as if there was a fracture,
- Immobilization is carried out immediately at the accident site,
- Before and after the immobilisation, perform an assessment of the condition of the Injured person – the airways patency, pulse, if necessary carry out resuscitation and first aid, stop the bleeding, check and control the mobility of the fingers and colour and sensitivity of skin,
- Line the immobilization devices with a soft cloth (cotton wool, bandage, clothing) or place them over the injured person's clothing or pre-set soft cloth pads at the vulnerable site,
- Do not move the injured person until the fractures are immobilized.
- Reposition (adjustment) of fractures and/or dislocation is prohibited,
- Immobilize the extremity in the neutral (physiological) position,
- Excessively loose immobilization can lose any effect,
- Too firm immobilization can interfere with blood circulation and lead to complications,
- Immobilization in an improper physiological position causes pain, disturbance in the circulation, and additional injuries to soft tissue parts.

4.11 Records

Upon the completion of the procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of conducting the procedure,
- The procedure that was carried out (it is important to note all the findings, facts and events that followed at the venue and during the transport),
- Signature of the nurse who conducted the procedure.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

35 COLOSTOMY NURSING CARE

I GENERAL POLICY STATEMENT

Colostomy nursing care is a procedure that consists of the hygiene of the stoma opening and peristomal skin, the changing or emptying of the stool pouch, and the changing of the stoma baseplate (base, plate or disc).

The aim of the procedure is to provide a clean and healthy stoma and peristomal skin, to ensure the elimination of the stool without complications, to reduce the patient's anxiety and the feeling of endangered dignity.

The purpose of this procedure is to apply the colostomy nursing care in a uniform and safe way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The intervention is performed on the basis of a written order of a doctor/prescription, and is performed by a nurse.

4.1 Preparation of space

Ensure privacy and favourable conditions in the room (illumination, without strong airflow).

4.2 Preparation of material

- Trays or trolley,
- Suitable self-adhesive plates and colostomy bags (one-piece, two-piece, transparent, opaque bags, with or without filter, with or without drain),
- According to purpose there are also mini pouches that are used for short time periods,
- One-piece pouch consists of a pouch and an outer self-adhesive part,
- Meter for measuring the diameter of the stoma,
- Scissors,
- Gauze pads,
- Saline solution,
- pH neutral soap, warm water, washbowl, drape sheet or paper towels,
- Protective skin cream,
- Disposable non-sterile gloves,
- Kidney dish or container for disposal of contaminated items in patient's home,
- Bags for domestic and infectious waste.

4.3 Patient preparation

- Identify the patient,
- Provide the patient privacy,
- Inform the patient about the procedure, importance, process and ask for cooperation,
- Communicate with the patient during procedure.

4.4 Execution of the procedure

4.4.1 Place the patient in a position convenient for performing the procedure - lying or Fowler's position.

4.4.2 Wash and dry your hands.

- 4.4.3 Place the trolley/tray next to the patient.
- 4.4.4 Measure the size of the stoma.
- 4.4.5 If using self-adhesive pouches, cut the opening to fit stoma size.
- 4.4.6 To change the baseplate, unless mouldable, also cut the opening.
- 4.4.7 Put on the gloves.
- 4.4.8 Free the patient's belly from clothes. PLATE AND POUCH
- 4.4.9 Remove the old pouch – if it is self-adhesive, work very carefully to avoid possible damage to the skin – hold the skin with one hand and gently pull the bag with the other.
- 4.4.10 Put the pouch in the domestic refuse bag.
- 4.4.11 Remove faecal residue by drape sheet or paper towel and dispose of in the waste bag.
- 4.4.12 Wash the peristomal skin with pH neutral soap and warm water, and clean the stoma mucous membrane with a saline solution.
- 4.4.13 Gently dry the skin with a paper towel.
- 4.4.14 Attach the self-adhesive plate to dry skin.
- 4.4.15 The opening of the plate and pouch must cover the skin around the stoma.
- 4.4.16 Attach the pouch with ring to the plate.
- 4.4.17 Check attachment.
- 4.4.18 Take off the gloves, wash and disinfect your hands and put on clean gloves again.
- 4.4.19 Remove the accessories.
- 4.4.20 Dispose of the used dressing material (in the bags for infectious and/or domestic waste).
- 4.4.21 Remove the gloves, wash and dry your hands.
- 4.4.22 Nurses teaching the patient, encouraging early self-reliance for their own stoma care, advising on the best aids choice, eating habits, and using teach-back method, contribute to the return of self-esteem, confidence and desire for quick adaptation to the lifestyle in a newly-created situation. For safety, advise the patient to fix the stoma with abdominal binder.
- 4.4.23 Evaluate and document the procedure and patient's condition.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time of conducting the procedure,
- In the 'note' section, indicate possible skin changes and condition of the stoma, signature of the nurse who conducted the procedure.

4.6 Precautions

- Nursing care and stoma dressing depend on the type of stoma.
- Frequent removing of one-piece pouches can cause damage to the surrounding skin, thus two-piece bags are a better choice.
- The plate is fastened to the skin and can remain for 3–5 days, and only the pouches are changed.
- Therapeutic aids for stoma should be stored in a dry place in a horizontal position, the optimum storage temperature is less than 20° C.

- The humid environment adversely affects the adhesion properties.
- Gasoline or diluent should not be used to clean the skin, avoid coloured and fragrant soaps.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

36 PLACING AND MAINTAINING URINARY CATHETER

I GENERAL POLICY STATEMENT

The placement of urinary catheter through ureter to urinary bladder is an invasive method that is used for diagnostic and therapeutic purposes.

The application of this procedure will ensure a proper and safe method of the urinary catheter placement and maintenance.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Urinary catheter can be inserted once, occasionally and/or permanently, depending on the indication prescribed by the physician.

It is recommended that the physician performs the procedure of insertion of a catheter in male patients, and in female patients this procedure can be carried out by an experienced and educated nurse. The procedure requires the presence of two persons, sterile access and good lighting. The procedure for the catheter irrigation is performed by one person.

Depending on the purpose of catheterization, it is important to choose the type and size of the catheter.

Urinary catheters differ in length, diameter, type of material they are made of, number of canals and peak shape. Depending of the length of catheterization, the catheters can be intermittent and indwelling. Indwelling catheters have a retention mechanism (balloon), so they do not fall out from the bladder (Foley's catheter).

4.1 Preparation of accessories/materials

- Sterile catheter (latex or silicone) – average size for children 6–10 French, for adults 16–20 French,
- Syringe with 5–8 ml physiological solution,
- Syringe with 5–8 ml of aqua redestillate,
- Pean forceps,
- Antiseptic for the mucous membrane,
- Dish/container for impurities (kidney dish),
- Pad (drape sheet),
- Sterile and non-sterile gloves,
- Urine container or urine bag,
- Sterile water-soluble lubricant (lidocaine gel),
- Sterile gauze pads,
- Leukoplast.

4.2 Patient preparation

- Identify the patient,
- The patient confirms with his/her signature the consent for the conduct of the procedure, with a preliminary explanation of the procedure and possible complications,
- Provide the patient's privacy,
- Wash your hands and put on non-sterile disposable gloves,
- Place the patient in the appropriate position: for female patient – supine position with feet flat on the bed and apart (60 cm), knees flexed, for male patient – supine position with legs extended and flat on the bed,
- Perform the genital cleansing,
- In female patient, , with the thumb and the forefinger of the non-dominant hand, separate the labia minora, revealing the urinary meatus, cleanse the urinary meatus, using forceps and gauze pads soaked in disinfectant, by principle one pad for a downward stroke, from the clitoris to the perineum,
- In male patient, hold the penis with the non-dominant hand, retract the preputium, then slightly raise the penis at an angle of 60–90 degrees,
- Using the dominant hand, disinfect the genitals, using the forceps and the gauze pads soaked in a disinfectant, cleanse the glans with circular motion starting from the urethra opening to the outside,
- Dispose of the pads into the container for impurities.

4.3 Procedure for introducing catheter

- The person placing catheter wears sterile gloves, while the assisting nurse wears non-sterile disposable gloves,
- The assistant opens the catheter package and hands it over to the dominant hand of the person who will place the catheter,
- The person placing catheter, uses the dominant hand to hold catheter at 5–7 cm from the top of the catheter, holds it upward between the fourth and fifth fingers, while the person who assists puts the lubricant on the top of the catheter.
- To facilitate the catheter placement, it is necessary for the patient to relax the sphincters thus should be asked to cough while the catheter is being placed, and then to breathe deeply and slowly for further relaxation of the sphincter and spasm.

Do not apply force during catheterisation, and if there is resistance, discontinue intervention and inform the physician if the procedure is performed by a nurse. Most often the resistance is due to the spasm of sphincter, trauma, and prostate enlargement in men or tumour.

- In women, insert the catheter 3–5 cm until the urine begins to flow,
- In men, insert the catheter to the fork of the catheter and check whether the urine flows; when the catheter is inserted into the urethra, never pull it back,
- If the preputium is retracted, replace it to prevent compromising circulation and painful oedema,
- Attach the syringe with the redistillate to the valve, press the plunger and inflate the balloon to keep the catheter in the urethra.

Note: Use only aqua redestillata and do not use saline solution because of the possibility of crystallization and blockage of the balloon canal. The amount of aqua required to inflate the balloon is prescribed by the manufacturer's instructions, specified on the cover of the catheter.

- Urine bag should be placed below the level of the urethra to prevent urine return in the urethra,
- If the patient is mobile, fix the catheter to the hip using the leukoplast.

4.4 Maintenance and removal of catheter

- Routine catheter maintenance is necessary to prevent infection and other complications,
- Indwelling catheter is removed (determined by the physician): when it is no longer necessary to relieve the urinary bladder, when the patient can urinate again, when the catheter is stuck or when the catheter should be replaced,
- Before removing the catheter, wash your hands, put on the gloves, explain to the patient's the procedure, emphasize that they will feel a little discomfort,
- Attach the syringe to the catheter valve mechanism, pull the syringe plunger to aspirate the liquid from the catheter balloon,
- Hold the catheter with absorbent paper (drape sheet) and gently pull it out of the urethra.

4.5 Irrigation of catheter

Irrigation is only performed if the catheter is stuck.

4.5.1 Required material:

- Saline solution,
- 50 ml syringe,
- Gloves.

4.5.2 Catheter irrigation procedure

- Put on the gloves and explain to the patient the procedure,
- Put drape sheet in order to protect the bedding,
- Draw into the syringe 50 ml of saline solution,
- Separate the catheter and the drain hose,
- Inject the physiological solution using the syringe,
- Remove the syringe and direct the return jet from the catheter to the prepared bowl (washbowl),
- Return the drain hose to the catheter again.

Note

- Maintain aseptic conditions,
- If resistance occurs during injection of rinsing solution do not attempt to force it,
- If the catheter is completely obstructed, remove it and replace it with a new one,
- Advise the patients with no fluid intake restriction, to increase the daily intake up to 3000 ml per day, and to consume foods rich in vitamin C, including tea or cranberry juice, to maintain urine acidity and prevent callus accumulation.

4.6. Records and documentation

4.6.1 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General patient information,
- Date and time (placing, irrigating, replacing or removing the catheter) or taking urine sample for analysis),
- Signature of the nurse who conducted the procedure.

4.6.2 Documentation

After the insertion of the catheter, note in the patient's documentation (nursing sheet, Medical Record):

- Date,
- Size and type of catheter used,

- If a bigger quantity of urine is released,
- Urine colour,
- If urine sample was taken for analysis,
- All the changes that have been observed.

When changing or removing the catheter, note the date and time of the catheter change.

Record any changes in the urethra opening, perianal region and urine appearance.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

37 UMBILICAL CORD STUMP TREATMENT IN THE NEWBORN

I GENERAL POLICY STATEMENT

Umbilical cord stump treatment in the newborn is one of the activities of community nurses in the field and nurses in the institution, in order to prevent infections and possible complications in the newborns. Umbilical cord is treated until the umbilical stump falls off and the umbilical wound is completely healed. The purpose of the procedure is to treat the umbilical cord stump in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Umbilical cord stump is treated by the nurse in a home care visit or in outpatient clinic.

4.1 Preparation of space and equipment

- Ensure favourable conditions in the room (the room must be clear and illuminated with optimal temperature),
- Prepare a table or space for dressing the baby.

4.2 Preparation of material

- Sterile gauze of different sizes,
- Sterile instruments (forceps, scissors, tweezers),
- NaCl 0,9% (saline solution),
- Silver nitrate (AgNO₃) for cauterization of umbilical cord,
- Prescribed umbilical cord care therapy,
- Protective net or bandage for fixation,
- Gloves,
- Kidney dish.

4.3 Preparation of newborn

- Before contact with the newborns, wash your hands with lukewarm water and soap,
- Undress the baby to make the umbilical cord available.

4.4 Procedure

4.4.1 Treatment of non-inflamed umbilical cord

- Put the gloves on,
- Unroll the gauze without moving the clamp,

- Wet the sterile gauze pad with saline solution, and clean the area around the umbilical cord,
- Repeat the procedure until the gauze pad remain clean, and finally dry,
- Wrap the sterile gauze around the umbilical cord stump and fix it,
- Educate the mother or another member of the family about the navel care and the importance of proper care.

4.4.2 Treatment of umbilical cord when there is a redness at the at the base of the cord

- Unroll the gauze without moving the clamp,
- Wet the sterile gauze pad with saline solution, and clean the area around the umbilical cord,
- Treat the umbilical cord with a new sterile gauze pad, using a saline solution,
- Dry with a sterile gauze,
- Apply the prescribed treatment on the redness at the at the base of the cord,
- Wrap the umbilical cord with sterile gauze and separate it from the base,
- Advise the mother or other family member to protect the umbilical cord from wetting.

4.4.3 Treatment of umbilical cord when there is a granuloma

- If a granuloma occurs after the umbilical cord stump has fallen off, the treatment (cauterisation) is carried out on the order of the doctor,
- Wet the sterile gauze pad with saline solution, and clean the area around the umbilical cord,
- Cauterize only the granuloma,
- Cover the umbilical cord with a sterile gauze,
- Advise the mother or other family member not to wet the umbilical cord,
- Replace the used equipment.
- Remove the gloves and wash your hands.

4.5 Records

Upon the completion of this procedure, the nurse records in the existing valid medical documentation of the institution:

- General information for mother and baby,
- Date and time of umbilical cord treatment,
- Mother or family member counselling,
- Demonstration of umbilical cord treatment,
- Date of next appointment or referral to a doctor,
- In the 'note' column, indicate any changes on the skin and condition of the umbilical cord,
- Signature of the nurse who conducted the procedure.

4.6 Precautions

- Check the packaging, appearance, shelf life and material sterility.
- Ensure the presence of the mother or other family member while the umbilical cord is being treated.
- In the event of any pathological conditions (bleeding, wetting, rash, granuloma) refer the newborn to the doctor immediately.
- If the stump hangs on a thin thread, it must not be pulled, but let it fall off.
- If the stump does not fall off until the 15th day, refer the newborn to the doctor.
- Prevent the wetting of the umbilical cord by adjusting the diaper edge beneath the umbilical cord.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

TREATMENT OF ORAL CAVITY IN AN INFANT WITH STOMATITIS (THRUSH)

I GENERAL POLICY STATEMENT

Thrush is a fungal infection of the oral cavity caused by the *Candida albicans*. It is manifested like whitish deposits similar to milk clots on the tongue and mucosa of the infant's oral cavity. Unlike milk clots, they cling tightly to the mucosa of cheeks and tongue. If not treated, it may cause difficulty in sucking and swallowing, and painful irritation of the mucosa of the oral cavity. The consequence is difficulty in breastfeeding and even refusing the breastfeeding.

This procedure defines the procedure for the treatment of the oral cavity in infants with thrush in a safe and proper way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

A baby's oral cavity nursing care is performed by a nurse in an outpatient clinic or in a home care visit, with a medicine in the form of drops or gel prescribed by a doctor.

4.1 Preparation of space

- Ensure favourable conditions in the room (the room must be illuminated with optimal, pleasant temperature),
- Prepare a room for performing the procedure (table or bed for dressing the baby).

4.2 Preparation of material

- Drum with sterile gauze,
- Sterile forceps for taking the gauze from the drum,
- Prescribed medication (apply procedure 5Rs),
- Kidney dish,
- Gloves,
- Bag for infectious waste (for home visiting).

4.3 Preparation of infant

- Before contact with the infant, wash hands with running water and soap in the ambulance, and disinfect your hands at home.
- Place the infant in the lying position (on the back).

4.4 Procedure

- 4.4.1 Wash and dry your hands and put on the gloves.
- 4.4.2 Wrap the sterile gauze around the forefinger of the dominant hand.
- 4.4.3 Drop the medicine or squeeze the gel on the gauze.
- 4.4.4 With the thumb and forefinger of the non-dominant hand lightly press the infant's cheeks to open the mouth.
- 4.4.5 With the forefinger wrapped in the gauze, lightly clean the white deposits with a circular motion clockwise.
- 4.4.6 Repeat the procedure 2–3 times changing the gauze.
- 4.4.7 Drop on the baby's tongue 3–5 drops of the drug (unless otherwise prescribed).

4.4.8 Remove the gloves.

4.4.9 Counsel and educate the mother or other family member about the importance of oral cavity care and how to use the medicine.

4.5 Records

Upon the completion of the procedure, the nurse records in the existing valid medical documentation of the institution:

- General information about the mother and the infant,
- Type of procedure (oral cavity treatment),
- Drug type,
- Date and time of oral cavity treatment,
- Counselling and education of a mother or family member,
- Demonstration of the procedure,
- Signature of the nurse.

4.6 Precautions

- Ensure the presence of the mother or other family member while the oral cavity is being treated.
- When cleaning the deposits in the oral cavity, mild bleeding is possible after removal of the deposits, which is not a barrier for the further carrying out of the procedure.
- After the drug administration, advise the mother not to breastfeed for at least half an hour to allow the medicine to work.
- Advise on applying the drug to the tongue and mouth cavity after each breastfeeding.
- Advise the mother on proper breast hygiene to prevent transmission of infection to breasts.
- If the symptoms of infection on the nipple still occur (stabbing, burning pain like ‘sharp needles’ radiating from the nipple towards the breast inside, shiny areola, nipple with possible skin scales), treat the nipple with the prescribed drug.
- Apply the drug to the nipple after breastfeeding, before that remove the remains of milk and saliva from the nipple.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

PART VI

PROMOTIONAL-PREVENTIVE WORK PROCEDURES

- 39 Promotional-preventive work of nurses
(education and consultation)
- 40 Community nurse visit to a pregnant woman
- 41 Community nurse visit to a newborn
- 42 Community nurse visit to a puerpera
- 43 Postnatal breast examination at home
- 44 Community nurse visit to a chronically ill patient
- 45 Decubital ulcer risk assessment and preventive measures
- 46 Community nurse visit to a patient in the terminal (palliative)
phase of disease

PROMOTIONAL-PREVENTIVE WORK OF NURSES (EDUCATION AND CONSULTATION)

I GENERAL POLICY STATEMENT

Patient education and counselling are essential components of the health care process, as only a health-educated man is an active associate in the process of improving and preserving health, meeting basic living needs and treating the disease.

The purpose of this procedure is the uniform way of preparing, carrying out and recording educational activities by a nurse in order to promote health, prevent the occurrence of illness, prevent or delay the complications of chronic illnesses already present, and to provide the highest quality health care as a whole.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Educating and counselling patients a nurse can help patients actively engage in preventive care activities, learn more about their health, and by adhering to the obtained guidelines help achieve better treatment outcomes. Providing health care means providing patients with fully accessible education and counselling about their health status, the necessary health behaviour and the prevention of potential opportunities for development of complications.

The basis for adequate education and counselling of patients is a continuously and well-educated nurse.

A nurse as an educator must have: knowledge and ability, developed ethical principles, empathy and a clear goal in the pursuit of educational activities.

The patient education process must be adapted to the patient's condition, age, intellectual abilities, degree of education, material resources, etc.

4.1 Methods of health education and counselling

- 4.1.1 Conversation is the main method used in education and counselling.
- 4.1.2 Speaking, lectures, presentations through public information media (if you want to cover multiple users).
- 4.1.3 Discussion is a method when several people talk from different points of view, to develop a discussion about it later on.
- 4.1.4 Demonstration is a method of showing a particular procedure (preparation of infant food, breast self-examination, use of peak-flow meter and metered-dose inhalers).

4.2 Health promotional devices

- Exhibitions,
- Moving pictures (film),
- Still pictures (picture, drawing),
- Models,
- Printed (written) devices,
- Education sessions,
- Radio,
- Television,
- Press.

4.3 Individual patient education

- 4.3.1 Individual education is one of the best ways of educating patients. It provides a good contact, bi-directional information, confidence building, and fast adoption of certain skills.
- 4.3.2 It is performed by a nurse in a room where the privacy of the patient is protected (admission room, intervention or in the patient's home).
- 4.3.3 It is desirable to plan with the patient the next education session, so that the nurse can plan the time needed for the education without affecting the daily activities related to teamwork.
- 4.3.4 Before each individual education, it is necessary to make a patient assessment (review medical records, take an anamnesis, assess risk factors, evaluate the patient's need for this type and manner of education, evaluate already existing knowledge on the subject).
- 4.3.5 Before education session you need to prepare: educational material, brochures, pictures, algorithms, models.
- 4.3.6 During the education, show interest, caring, openness, acceptance, sympathy, sincerity and respect.
- 4.3.7 Develop effective communication: listen, ask the right questions and know how to encourage the patient to talk.
- 4.3.8 The pace of education should be adjusted to the patient and his/her ability to receive information.
- 4.3.9 Education session should not last longer than 20 minutes.

4.4 Education in small groups of patients

- 4.4.1 Education in small groups (3–6 people) is conducted periodically in order to promote health, disease prevention and its complications for groups of patients/persons having common interest (same illness or problem, age group, etc.).
- 4.4.2 Education in small groups can be run by one or two nurses.
- 4.4.3 Education should be planned– set optimal time, prepare space (education room, meeting room, larger room).
- 4.4.4 Call the patients by phone, place notice on the bulletin board, or notify them via electronic media.
- 4.4.5 Prepare promotional-preventative materials on a particular subject, provide enough chairs, and ventilate space, bid welcome.
- 4.4.6 Education can last for 20–45 minutes with interactive communication (allow questions and answers; allow participants mutual discussion and exchange experiences).

4.5 Community education (large groups)

- 4.5.1 Community education requires preparations depending on where and for whom the education should be conducted, and implies technical support and cooperation of the local community.
- 4.5.2 Community education is performed by a nurse, several of them or a multidisciplinary team, in rooms for lectures in health centres or similar premises, local communities, schools, kindergartens, participating in radio and TV programmes, etc.
- 4.5.3 Several methods can be used to conduct education, including: discussion, demonstration, case presentation, etc.

- 4.5.4 It addresses current topics related to health promotion, prevention and treatment, relevant to a wider population (harm of smoking, significance of physical activity, risk factor prevention for most common chronic diseases, infectious diseases, vaccines, etc.).
- 4.5.5 These activities can include practical content (BG measurement, TA, measurement of body weight, body height and BMI calculation, tooth hygiene, child learning through games, etc.).

4.6 Recommendations

- 4.6.1 Use a language that is comprehensible and tailored to each patient and his/her accompanying person.
- 4.6.2 Talk to the patient/patients:
- Steadily (without dullness, coercion, hustle, clearly, using the same tone of voice, calmly),
 - Precisely (no words and data excess, no terminological ambiguity and uncertainty),
 - Reasonably (use only verified data, no speculation or semi-information).

4.7 Records

After the completion of educational activities, record in the existing valid documentation of the institution (nursing documentation and protocol):

- 4.7.1 Individual patient education is recorded in the nursing sheet for patient education. (Form attached Nursing documentation for patient education). Record all data obtained by assessment, plan, implementation and evaluation as well as the content of education with the signature of the patient and medical nurse who has conducted the education.

Record in the protocol:

- General patient information,
 - Date and time of conducted education,
 - Topic/type of education,
 - Signature of the nurse who conducted the education,
 - Signature of the patient.
- 4.7.2 Education in small groups is recorded in the protocol:
- Date and time of conducted patient education/counselling,
 - Topic/type of education,
 - Signature of the nurse who conducted the education,
 - Make a list of participants with signatures.
- 4.7.3 Community education is recorded in the protocol:
- Date and time of conducted education,
 - Topic/type of education,
 - Evidence on the education held (signatures, photographs, lists, recordings),
 - Signature of the nurse/staff who conducted the education.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

NURSING DOCUMENTATION

(for patient education)

PATIENT'S NAME AND SURNAME _____ PIN _____

Team _____ Health ID card no. _____ Medical diagnosis _____

Civil status _____ Occupation _____ Employed YES NO Phone _____

ASSESSMENT	LIFE STYLE	Diet		Physical activity		Bad habits	PHYSICAL ASSESSMENT	weight	RISK FACTORS	smoking
		various		good				high		alcohol
		unbalanced		moderate				BMI		obesity
		moderate		poor				waist size		menopause
		expressed appetite		immobile				TA		
		bad appetite						PEF		
						BS				
Additional assessment										
Nursing diagnosis										
GOAL	1					3				
	2					4				
PLAN	Planned activities					DATE		NURSE'S SIGNATURE		
IMPLEMENTATION	Conducted activities					DATE		NURSE'S SIGNATURE		
Deviations from the plan										
EVALUATION	Education		Interest in learning			Barriers to learning		GOAL-achieved		
	Understandable		Asks appropriate questions			No barriers		yes no		
	Good		Actively listens			Illiteracy				
	Limited		Does not respect the educator			Visual, auditory				
	Poor		Uninterested			Sound judgment				
Other (specify)		Confused			Motivation					
Comments/remarks										

Nurse's signature _____

Patient's name and surname _____

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PLANNED EDUCATION		date _____		duration of education _____ minutes	
CONTENTS					
yes		no			
DEMONSTRATION			Goal achieved		Date of next visit
			yes no		

Patient's signature _____

Nurse's signature _____

PLANNED EDUCATION		date _____		duration of education _____ minutes	
CONTENTS					
yes		no			
DEMONSTRATION			Goal achieved		Date of next visit
			yes no		

Patient's signature _____

Nurse's signature _____

PLANNED EDUCATION		date _____		duration of education _____ minutes	
CONTENTS					
yes		no			
DEMONSTRATION			Goal achieved		Date of next visit
			yes no		

Patient's signature _____

Nurse's signature _____

PLANNED EDUCATION		date _____		duration of education _____ minutes	
CONTENTS					
yes		no			
DEMONSTRATION			Goal achieved		Date of next visit
			yes no		

Patient's signature _____

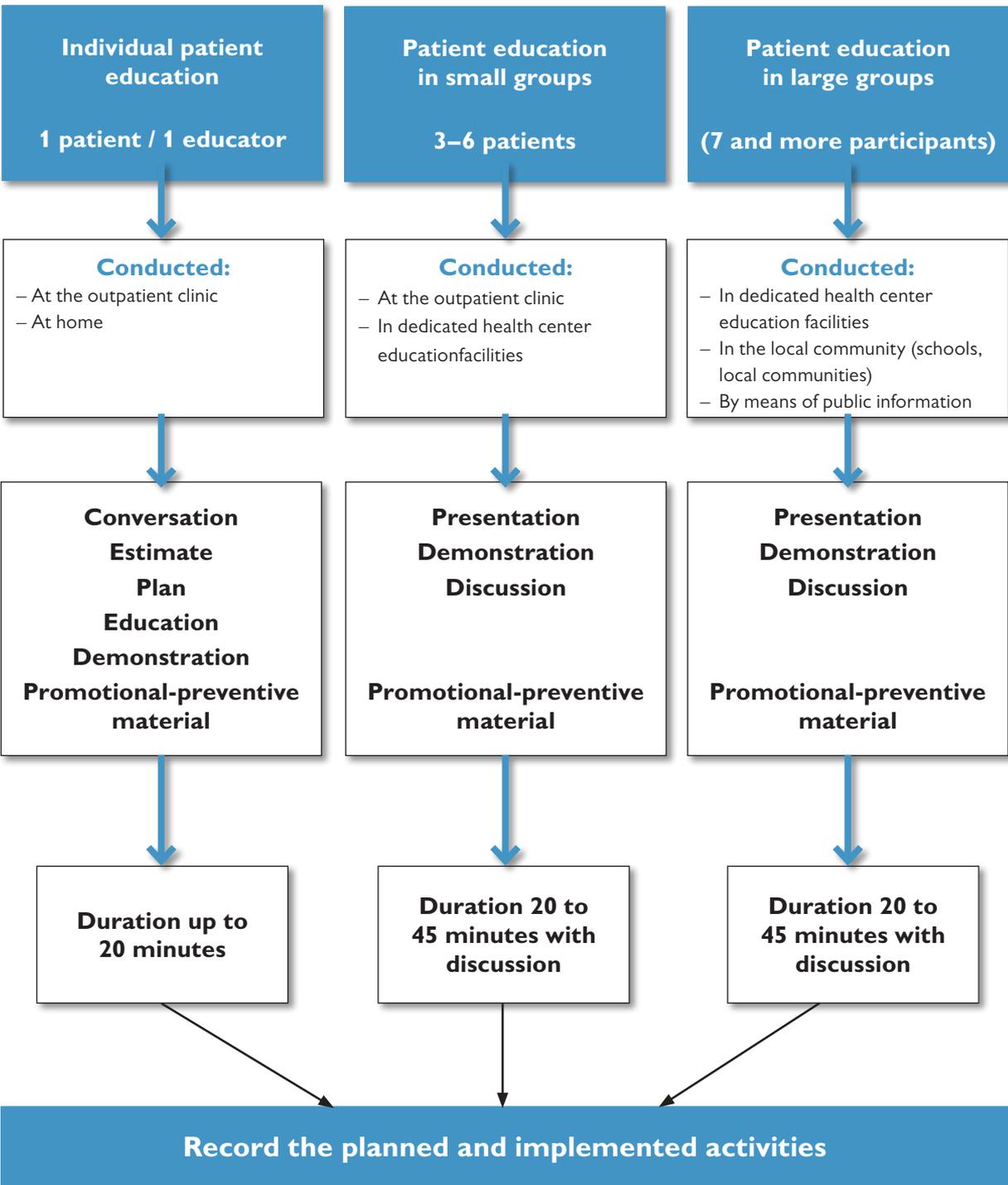
Nurse's signature _____

EDUCATION AND COUNSELLING

PREPARING AND CONDUCTING EDUCATIONAL ACTIVITIES



Types and methods of education



40 COMMUNITY NURSE VISIT TO A PREGNANT WOMAN

I GENERAL POLICY STATEMENT

The activity of a community nurse in the care of a future mother begins during pregnancy and continues after the birth and a return home from maternity ward. Introducing a future mother with a community nurse during pregnancy is of great importance because the community nurse will conduct various forms of nursing care after the mother arrives from maternity ward, and their mutual co-operation and trust are very important.

The purpose of this procedure is to conduct the visit of the community nurse/technician to a pregnant woman in a uniform and safe way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

On the basis of a notification/report/order from a gynaecologist, FM doctor or a call by the pregnant woman, a community nurse/technician plans a visit.

A visit to the pregnant woman should be planned at least twice during pregnancy, and more often if necessary (not before the 12th week of pregnancy), once in the second and once in the third trimester.

4.1 First visit

Arrange a visit at the most suitable time for both sides. When arriving, introduce yourself and show accreditation. Use the time spent with the pregnant woman to get to know the pregnant woman, her environment, the conditions of life, and to present services that the future mother can expect from the community nurse/technician.

Goal of the visit:

- Creating a confidential relationship,
- Determining the conditions of life,
- Point to the importance of regular control at gynaecologists and dentists,
- Inform the pregnant woman of normal pregnancy problems and mitigation measures,
- Inform the pregnant woman with a hygienic-dietetic regime (nutrition, personal hygiene, hygiene of mouth, teeth, breast, clothing, footwear...),
- Adopting positive and suppressing negative habits and behaviours (smoking, alcohol),
- All other tips related to pregnancy,
- Answer any questions she might have.

If necessary, plan additional visits.

4.2 Visit in the last trimester of pregnancy includes:

- Psychophysical preparation for childbirth (physical exercises, breathing exercises and theory classes),
- Recommendations for furnishing space for puerpera and the newborn,
- Recommendations for purchasing equipment for the newborn,
- Recommendations for going to maternity hospital,
- Recommendations for exercising the health and social protection rights of mothers and children,
- Review, counselling and demonstration of breast and nipple preparation for breastfeeding,
- Promotion of breastfeeding – as the best diet,
- Control of the pregnant woman's health condition – it is obligatory to measure blood pressure, pulse, blood glucose, check for the presence of oedema.

4.3 Records

From the documentation, the community nurse uses the Health Record of community nursing care, nursing sheet to record the activities he/she has performed in a home care visit, and the order.

Upon return to the institution, the community nurse records in the existing and valid medical documentation of the institution:

- General information of the pregnant woman,
- Date and time of home care visit,
- Conducted activities,
- Signature of community nurse.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

41 COMMUNITY NURSE VISIT TO A NEWBORN

I GENERAL POLICY STATEMENT

The newborn is a child from birth to 28 days of life. A home care visit to a newborn is a medical-social and educational activity carried out by a community nurse for the purpose of promoting the newborn's health. A home care visit to the newborn requires a partnership and mutual trust with the family or guardians, which is achieved with well-developed communication skills, knowledge and expertise of community nurse.

The purpose of this procedure is the uniform and secure access of the community nurse to the newborn.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Home care visit to the newborn includes:

- Acquaintance with the newborn's health condition (discharge letter and examination),
- Taking anamnestic data,
- Insight into the general conditions of living (housing conditions, household members data, room where the newborn resides and similar data that will create a social image),
- Checking of knowledge, attitudes and practices regarding nourishment and nursing of the newborns,
- Conducting health education activities,
- Providing information on available community resources,
- Data entry into medical records.

The nursing home care visit is provided to the newborn through at least 3 visits.

After notification of a newborn arrival from maternity ward, the community nurse plans a home care visit within 24–48 h.

4.1 Contents of the bag for a home care visit to a newborn:

- Scales (home care),
- Plasticized centimetre,

- Disposable gloves,
- Face mask,
- Disinfectant for hands,
- Materials and accessories for umbilical cord care,
- Thermometer,
- Required documentation,
- Written promotional-preventive material.

4.2 Space

- The room in which the newborn is staying should be illuminated, airy and warm (room temperature around 24 degrees Celsius).
- Ensure privacy during the home care visit (if there are several people, other than parents or guardians, staying in the house at that time).

4.3 Preparation of the newborn

- Identify the newborn,
- Free the newborn from clothing.

4.4 The first visit by the community nurse to the newborn implies:

- Explaining to parents/guardians or family members the purpose of home care visit and expected cooperation,
- Inspecting the medical records and acting upon the recommendations of the maternity ward discharge letter,
- Carry out diet assessment – type and manner of feeding, number and schedule of meals, length of breastfeeding, position during breastfeeding, burping, vomiting, meal preparation, hygiene of feeding accessories (in case of formula feeding),
- Stool elimination assessment – number, timing and frequency, appearance, colour, quantity, consistency and odour,
- Urine elimination assessment – number of wet diapers, colour and odour of urine,
- Sleep assessment – number of sleeping hours, sleep and wakefulness ratio, sleep quality, bed and sleep position,
- Perform visual examination of the newborn
- Disinfect, warm your hands,
- Cleanse the umbilical cord stump.

4.4.1 Community nurse during the visit advises and/or demonstrates to parents or care giver:

- Benefits of natural nutrition,
- Breastfeeding techniques and possible breastfeeding problems,
- Cleansing of skin and mucous membranes of the newborn,
- Newborn scalp care,
- Wet wiping of the newborn,
- Maintenance of respiratory tract of the newborn,
- Diaper changing and proper dressing,
- Proper umbilical cord stump care,
- Proper holding and carrying of newborns,
- Visit to the paediatrician for the first examination,
- Rights and obligations in the field of health and social care.

4.5 The second and third visit of a community nurse to the newborn implies:

- Checking the adopted parent/guardian's knowledge of newborn care,
- Checking the newborn's vital functions (breathing, pulse, temperature),
- Measurement of the weight and length of the newborn,
- Measurement of head circumference and size of the fontanel, assessment of the neck (mobility), face symmetry, condition of scalp and eyes,
- Measurement of the circumference and symmetry of the chest,
- Control of appearance and symmetry of shoulders, back, and spine,
- Assessment of the abdominal wall tension,
- Assessment of skin condition (colour, turgor, integrity, humidity, temperature and skin changes),
- An overview of the genitals and anus (appearance, proportionality, condition of the prepuce, scrotum and testicles, condition of the labia, clitoris, presence of the discharge and appearance of the anus),
- Examination of the extremities (appearance, size, symmetry, position, flexibility, foot position and hip position),
- Inspection and consultation on the maintenance of the umbilical cord stump and, if necessary, perform cleansing,
- Neurological assessment (position and posture, muscle tone and condition, reflexes and state of consciousness),
- In case of observed pathological changes or suspicion, inform the paediatrician in charge and refer to him/her the parents/guardian and the child immediately,
- Remind parents/guardians of the importance of applying disease preventive measures (vaccination, screening tests).

4.6 Recommendations for community nurse:

- If circumstances permit, contact the parents/guardian of the newborn, check the address and announce the visit.
- Contact by telephone should be brief and concise, with presentation and compulsory congratulations, inform parents about the goal and purpose of the community nurse visit.
- The average visit time is 30 to 60 minutes.
- At the first home care visit to the newborn, you must always introduce yourself – show accreditation.
- You should be kind and patient with parents/guardians and family members.
- Answer the questions clearly and understandably.
- If necessary, in order to ensure the continuity of newborn care, the community nurse establishes communication with the social protection service or other institutions.

4.7 Records

From the documentation, the community nurse uses the Health Record of community nursing/home care to record the activities performed during a home visit.

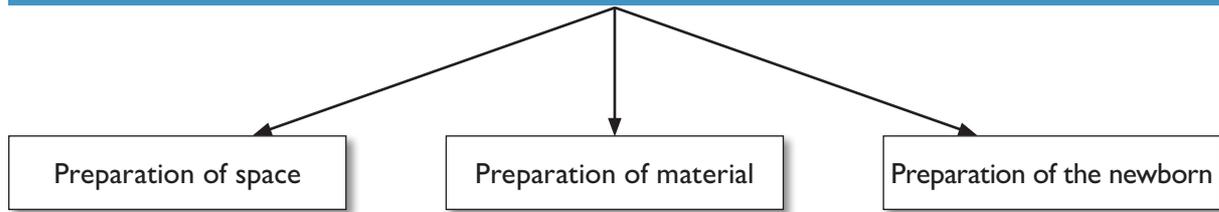
Community nurse records in the existing and valid medical documentation of the institution:

- General information of the newborn,
- Date and time of home care visit,
- Conducted activities,
- Signature of community nurse who visited,
- Signature of the parent or guardian.

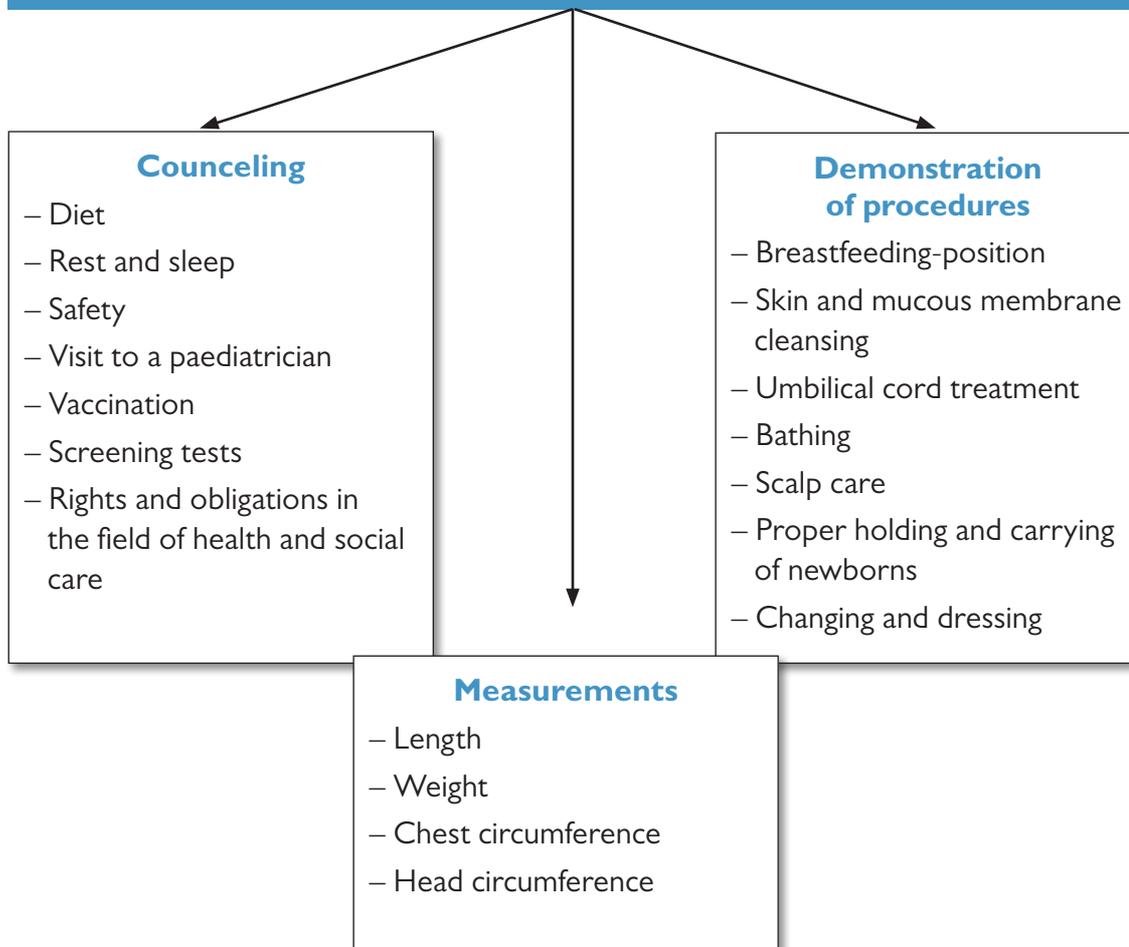
5 REVISION

The revision of this procedure is performed every three years or earlier if required.

COMMUNITY NURSE VISIT TO A NEWBORN



METHODOLOGY OF WORK OF COMMUNITY NURSE



Record the planned visits and implemented activities

42 COMMUNITY NURSE VISIT TO A PUERPERA

I GENERAL POLICY STATEMENT

Postpartum period (puerperium) is a period that starts after the childbirth and lasts about six weeks (postpartum period). Nursing care of a puerpera in postpartum period begins with the first home visit, assessment, and continues with the planning and implementation of measures for improving and protecting health. The key tasks of community nurse are to control and monitor physiological events in puerpera and to detect possible pathological changes.

The aim of the procedure is to conduct home visits to a puerpera in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

After a notice of puerpera leaving the maternity ward, the community nurse makes a home care visit to the puerpera within 24–48 h.

A community nurse/ during the visit should create a sense of trust in the puerpera's family, through his/her communication skills, expertise and competence.

4.1 Visit of community nurse

4.1.1 Preparation of material

In home care visit, bring a standardized community nurse's bag containing:

- Disposable gloves,
- Face mask,
- Disinfectant for hands,
- Wound treatment materials and accessories,
- Thermometer,
- Sphygmomanometer,
- Glucometer,
- Required documentation,
- Written promotional-preventive material.

4.1.2 Space

- The room in which a puerpera is staying should be illuminated, airy and warm (room temperature around 24 degrees Celsius),
- Ensure privacy during the home care visit (if there are several people staying in the house at that time).

4.1.3 Visit of community nurse to a puerpera

- Introduce yourself,
- Identify the puerpera,
- Explain the reasons of the visit,
- Take an anamnesis (how long was the pregnancy, whether she used any medication during pregnancy, whether she attended psycho-physical preparation courses for pregnant women, how was the delivery course, taking basic information from the discharge letter),
- Wash your hands and start the puerpera examination.

4.2 Examination, evaluation and counselling of the puerpera

A puerpera examination implies a comprehensive overview of the situation in which the puerpera is.

4.2.1 Breast examination

Act under the 'Procedure for breast examination of puerpera'.

4.2.2 Breastfeeding

As part of a comprehensive care for the health of a mother and the newborn, it is of particular importance to educate the mother about breastfeeding.

Assistance of community nurse consists of the following procedures:

- Help the puerpera to take a comfortable position, show her possible positions for breastfeeding,
- Check whether the newborn is well placed on the breast and whether he/she properly took the nipple,
- Track signs of successful breastfeeding,
- Patiently correct errors, allow the puerpera and family members to ask questions,
- Help and show ways of expressing breast milk,
- In case of milk stoppage in the breasts, advise placing warm packs 15–20 minutes before the breastfeeding,
- Help the puerpera to solve problems with nipples (nipple cracks),
- Explain that the breast-fed children have a need for frequent meals, about every 2–3 hours, sometimes even more often (in the first four weeks),
- Explain that the use of a bottle and adding any liquid can have a bad effect on breastfeeding.

4.2.3 Examine the height of the fundus – the bottom of the uterus

The second day after the childbirth, the bottom of the uterus is at the height of the navel. On the fifth day the bottom of the uterus is in the middle between the navel and the symphysis, and on the tenth day at the height of the symphysis.

4.2.4 Review of episiotomy

Episiotomy is a gynaecologic surgical cut on the perineum which facilitates the passage of the newborn through the birth canal and prevents tearing or laceration of the vagina.

- It is necessary to note to the puerpera that washing the anogenital area after each bodily waste elimination (urine and stool) prevents the infection of episiotomy and allows faster healing of the wound.
- It is recommended to maintain hygiene by showering with lukewarm water and never bathe in the tub. Use pH neutral agents for washing, which do not irritate the skin.
- It is recommended to use sanitary pads made of natural fibres and to change them regularly.
- Advise the puerpera to sit as little as possible due to pressure on the wound, in the case of severe pain, oedema and redness in the area of episiotomy, elevated body temperature, advice the puerpera to talk to the doctor in charge.

4.2.5 Wound dressing after the Caesarean section

If the puerpera dressing is performed in the house, the community nurse performs the following:

- Set the puerpera in the appropriate position,
- Release the lower part of the belly from the clothes,
- Wash your hands,
- Put on the sterile gloves,
- Carefully remove the plaster and remove the gauze from the wound,
- See whether the wound is red, inflamed, whether it is wetted,
- Dress the dry wound with a dry sterile gauze,

- In the case of any pathological changes occurring on the wound, refer the puerpera to a physician in charge.

4.2.6 Advice on puerpera's nutrition

- Puerpera's nutrition must be based on very diverse and varied choice of foods needed to meet the daily needs of puerpera and the newborn.
- Foods containing acids (canned fruits and vegetables), smoked meat products, carbonated beverages or excessive amounts of candies can cause disorders in the puerpera's digestive tract and the stool, and can cause colic in the newborn through breast milk. Advise the puerpera on sufficient fluid intake.

4.2.7 Additional advice for puerpera

- The puerpera must have enough sleep, rest and family's support,
- It is necessary to wear the corset, even after the section,
- Advise the puerpera to do the Kegel exercises,
- Warn the puerpera not to use tampons for at least 6 weeks after childbirth.

4.2.8 Postpartum sadness (baby blues)

Baby blues occurs between 2 and 5 days after childbirth and lasts for up to one month; this condition, apart from psychological stress because of childbirth, is under the great influence of hormonal changes, fatigue, lack of sleep, pain and other problems of mother and baby.

The main features of baby blues are:

- Lack of energy,
- Weakness,
- Vulnerability,
- Mood swings,
- Feeling teary and confused.

It is important to note that this is a transient condition and does not require medical treatment because it will pass in several days. The puerpera needs a few days of rest, family and community assistance and support.

4.2.9 Postpartum depression (PPD)

PPD is a pathological disorder that occurs in women after childbirth and is manifested with symptoms of sadness, crying, irritability and helplessness, significantly reduced interest in the newborn and most life activities. The puerpera should be referred to the doctor in charge as soon as possible. The sooner the PPD is recognized, the more successfully it is treated.

4.3 Records

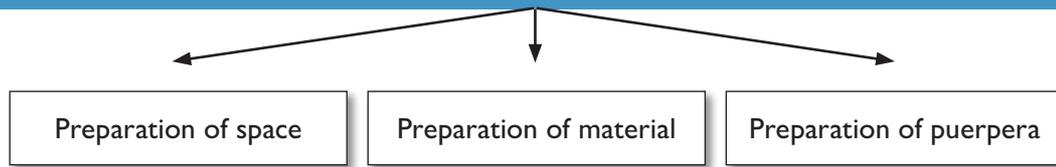
Upon completion of home care visit, community nurse records in the existing and valid medical documentation of the institution:

- General information of the puerpera,
- Date and time of home visit,
- Activities performed,
- Signature of community nurse who visited,
- Record in the Medical Record of nursing care the data obtained during assessment as well as the activities performed.

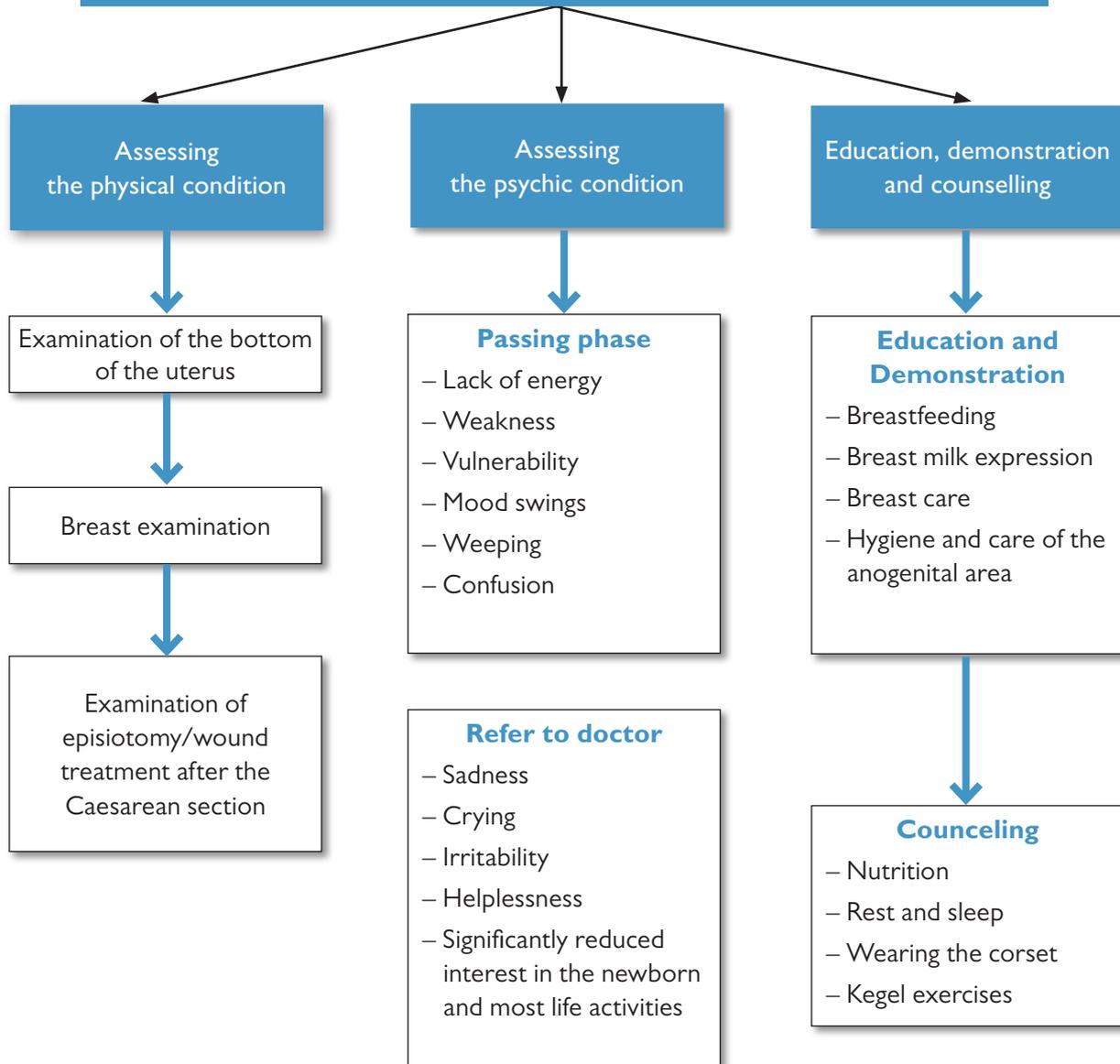
5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

COMMUNITY NURSE VISIT TO A PUERPERA



METHODOLOGY OF WORK OF COMMUNITY NURSE



Record the planned and implemented visits and activities

43 POSTNATAL BREAST EXAMINATION AT HOME

I GENERAL POLICY STATEMENT

Puerpera's breast examination is done by a community nurse during a home care visit.

The community nurse provides support to mothers starting and continuing breastfeeding, by offering information, advice and breast examination and monitoring of breastfeeding process, as well as suggestions for addressing breastfeeding problems.

The purpose of the procedure is to perform a puerpera's breast examination in a uniform and safe manner.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

Puerpera's breast examination is performed to assess the condition of glandular tissue and any pathological changes.

4.1 Preparation of the puerpera

- The community nurse, after identification of the puerpera, should explain the examination procedure and the cooperation expected of her,
- Is recommended to examine the breasts after breastfeeding, when the breasts are emptied,
- The puerpera is placed in a sitting, standing or lying position.

4.2 Preparation of space

- The room must be bright, airy, and warm,
- Ensure privacy of the puerpera.

4.3 Preparation of the community nurse

- The community nurse washes his/her hands with lukewarm water and soap and warms them.

4.4 Examination of puerpera's breasts

Take a detailed anamnesis (childbirth date, number of breastfeeding, method of placing the baby on breast, length of breastfeeding, puerpera's diet, puerpera's previous diseases and her general condition).

Wash or disinfect your hands and warm them by rubbing your hands together.

4.4.1 Visual breast examination

Inspecting breasts, determine their shape, symmetry, deformations, colour, venous drawing, swelling, redness, nipple condition.

Problems that may be observed by inspection:

- Breast engorgement – breast enlargement and oedema that occurs when milk production is increased, typical for 3–4 days, breast skin is tense, translucent and shiny, painful, and the puerpera may have:
 - Slightly elevated temperature,
 - Nipple cracks– cracks on the skin of nipples,
 - Blister – plugged milk ducts on the nipple – white, translucent, yellowish and/or red,
 - Retracted or flat nipples – serious breastfeeding problem,
 - Fungal infection of the nipples and the areola – often associated with oral infection of the baby (shiny areola, nipple with possible scales),
 - Flaky nipple – followed by circulatory disorders,

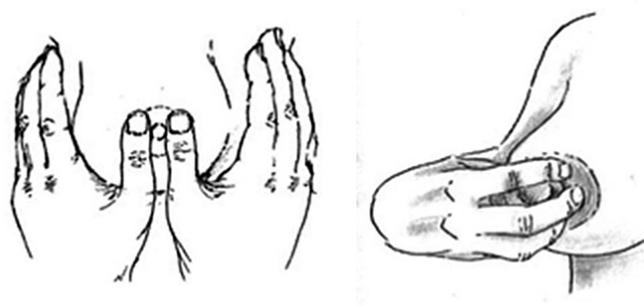


Figure 1 Manual breast examination

- Blocked breast milk ducts – due to accumulation of milk in alveoli – can be localized or generalized, temperature and pulse rise, fever occurs, painful and red spots on the breast,
- Mastitis – breast tissue inflammation (red, swollen, painful, unilateral or bilateral),
- Abscess of the breast – consequence of poorly treated mastitis (abscess is a local inflammatory disease that can develop in subcutaneous breast tissue).

4.4.2 Manual breast examination

- Manual breast examination is performed with both hands in order to evaluate breast milk production, and includes both breast and nipples examination,
- Breast examination is performed when the puerpera is in a sitting or upright position, with her arms lowered (leaned on the hips) and then placed over her head and in a lying position (determine which position is best for the puerpera),
- The lying position of the puerpera is the most favourable for examination because it allows the breast tissue to 'diffuse' over the chest wall, the height of the glandular breast tissue is reduced, making it easier to examine, especially when the breasts are voluminous and hypertrophic,
- Gently perform the examination,
- After breast examination, community nurse helps the puerpera to get dressed,
- Washes and dries his/her hands.

4.4.3 Counselling the puerpera

- Before and after breastfeeding, wash the nipples with lukewarm water and dry them,
- If the newborn has not emptied the breast, perform manual expressing of milk or use a breast pump,
- Wear a matching size bra (which does not tighten).

4.5 Records

Upon completion of home care visit, community nurse records in the existing and valid medical documentation of the institution:

- General information of the puerpera,
- Date and time of home visit,
- Activities performed,
- Signature of community nurse who visited,
- Record in the Medical Record the data obtained during assessment as well as the activities performed.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

44 COMMUNITY NURSE VISIT TO A CHRONICALLY ILL PATIENT

I GENERAL POLICY STATEMENT

The most common chronic patients in the care of community nurse suffer from diabetes, hypertension, after myocardial infarction, cerebrovascular diseases, alcoholism, kidney diseases, chronic respiratory diseases, malignant diseases, mental illness, musculo-skeletal system diseases, etc.

The aim of the procedure is to conduct a home care visit of the nurse to a chronic patient in a safe and uniform way.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The first visit of the community nurse to a chronic patient is performed on the basis of a family medicine doctor's order, and each subsequent according to the assessment of the community nurse. It is necessary to plan and arrange the visit at a time appropriate for both the patient and the community nurse.

The number of visits depends on the type and stage of the disease.

4.1 Preparation of space

The room in which a home visit is conducted should be illuminated, airy and with comfortable temperature.

4.2 Preparation of material

In a home visit to a chronic patient, bring a standardized community nurse bag with complete content.

4.3 Patient preparation

- Introduce yourself (show identification card-accreditation),
- Identify the patient,
- Explain the reasons of home visit,
- Provide the patient privacy.

4.4 Home care visit activity for a chronic patient implies:

- Getting acquainted with the patient's health condition,
- Taking anamnestic data,
- Insight into the general conditions of life,
- Checking knowledge, attitudes and practices related to illness,
- Health education activities,
- Providing assistance in collaboration with the community,
- Data entry into medical records.

4.5 Methodology of work of community nurse:

- Assessment of health and functional status of the patient,
- Making the plan and program of home visits,
- Implementing the plan and program of home visits,

- Evaluation of the activities carried out and assessment of the fulfilment of the plan and program.
- 4.5.1 Assessment of general condition of the patient is the procedure where the community nurse collects in detail the data on the health condition of the patient, life conditions and risk factors in the first home visit. The community nurse collects the information from the medical documentation of the patient in the institution/team where the patient is registered and at the patient's home – by interviewing the patient and his/her family/community, by observing the patient (inspection), by measuring. With the collected data he/she defines the nursing anamnesis – a set of data on the physical, psychological and socio-economic aspects of past and present health condition and patient behaviour.
- 4.5.2 Creating a plan – based on the collected data the community nurse analyses and identifies the problems and needs of the patient, sets up nursing diagnoses, creates the plan and program of home care visits. The plan and program of home care visits defines interventions, activities, goals and time frames for the implementation of community nursing. These activities are carried out together with the patient and his/her family, emphasizing the importance of their participation in the definition, acceptance and application of the above activities.

4.5.3 Implementing the plan and program of home care visits

4.5.3.1 Administering of the prescribed therapy

During each visit it is required:

- To control the accuracy of drug taking,
- To educate the patient and family members about the necessity of taking medication according to doctor's recommendation,
- To provide written information on disease, therapy, complications of therapy,
- To check the regular conduct of diagnostic and therapeutic controls.

4.5.3.2 Diet

After evaluation, if necessary, together with patient and family:

- Make a diet plan,
- Provide assistance in planning your daily menu,
- Indicate how to prepare food (stewing, cooking, baking in foil and the like),
- Indicate the significance of the intake of foods appropriate for a particular disease,
- Advise on the harmfulness of drinking alcoholic beverages, use of artificial sugars, salts,
- Provide written information and educational material.

4.5.3.3 Physical activity

- Planned and moderate physical activity contributes to the preservation and enhancement of functionalities and abilities.
- Recommend the use of physical activity, tailored to the activities, capabilities and needs of the patient.

4.5.3.4 Assessment of risk factors for fall in house:

- The assessment of the risk factors for the fall in the house is of great importance for the health and safety of the patient. Risk factors from the patient's environment may make it difficult to move and lead to falls and injuries of the patient (poor lighting, mess, sliding floor, stairs, etc.).
- Advise the patient on ways of eliminating or reducing the effect of risk factors from the environment to the safety and health of the patient.

4.5.3.5 *Assessment of risk factors for health and assessment of disease complications*

Community nurse during each visit to the patient evaluates:

- Risk factors for health (smoking, alcohol, improper diet, improper and inadequate physical activity),
- Incidence of disease complications,
- Advises the patient and family members about the ways of eliminating or reducing and preventing the negative effect of risk factors on the health and safety of the patient,
- Educates the patient and family members about the causes, the recognition and the course of complications to prevent them and to prevent negative effects on the health and condition of the patient.

4.5.3.6 *Education*

When conducting any home care visit, educate the patient, evaluate the type, manner and amount of information the patient can understand, check how much patient has adopted and how well he/she uses the information received.

The education, counselling and informing the patient and the family members should be carried out on:

- Diseases, mode of treatment, reasons for conducting certain diagnostic and therapeutic procedures.
- Independent drug administration, assistance in mastering the whole therapy administration (dose, timing, etc.), with a purpose of understanding and accepting therapeutic measures and procedures.
- Mastering the self-care skills in accordance with the goals of treatment, such as independent measurement of temperature, pulse, blood and urine sugar values, arterial pressure, noticing the oedema, skin colour change, self-care management, reading and interpretation of results, with self-control diary.
- Recognition of symptoms and self-help in conditions of abnormal range of blood sugar values, arterial pressure, temperature.
- Complications of the disease and the side effects of the therapy to enable the patient to recognize and timely tackle them. In case of their occurrence consult the physician.
- Regular examinations and checks by the doctor in charge.
- The importance of personal and oral hygiene, hygiene of the environment.
- The ways to avoid unnecessary and excessive stress.
- The need to deal with some hobby in which the patient relaxes, dedicates to something he/she likes and thus feels more satisfied.
- The rights to certain forms of health and social assistance (orthopaedic supplies, care supplies, care and assistance allowance, etc.).
- Introduce, recommend, and encourage the patient to establish communication, collaboration, participation and membership in the work of associations, clubs and other community services and institutions.
- It is necessary to work on health education not only of the patient, but of his/her entire family, in order to understand the condition and to provide support to the patient.

4.5.4 Evaluation of the activities carried out – assessment of the fulfilment of the plan and program.

- During the visit, the community nurse performs a control assessment of the patient's condition by all parameters and determines the results of the application of the agreed and

adopted measures, interventions and activities, or the contribution of the measures taken to maintain, improve or exacerbate the condition of the patient.

- Based on patient assessment, he/she plans further home care visits – interventions, activities, goals and time frames of execution.
- He/she assesses the need for home-based treatment of patients, which is reported to the physician in charge.
- After the patient assumes control over his/her illness, the visits of community nurse become less frequent and serve to check the acquired knowledge and skills and to assess the health and functional status of the patient.
- It is necessary to notify the physician in charge on all major changes related to the control of the disease and recommend the patient to visit the family medicine practitioner.

4.6 Records

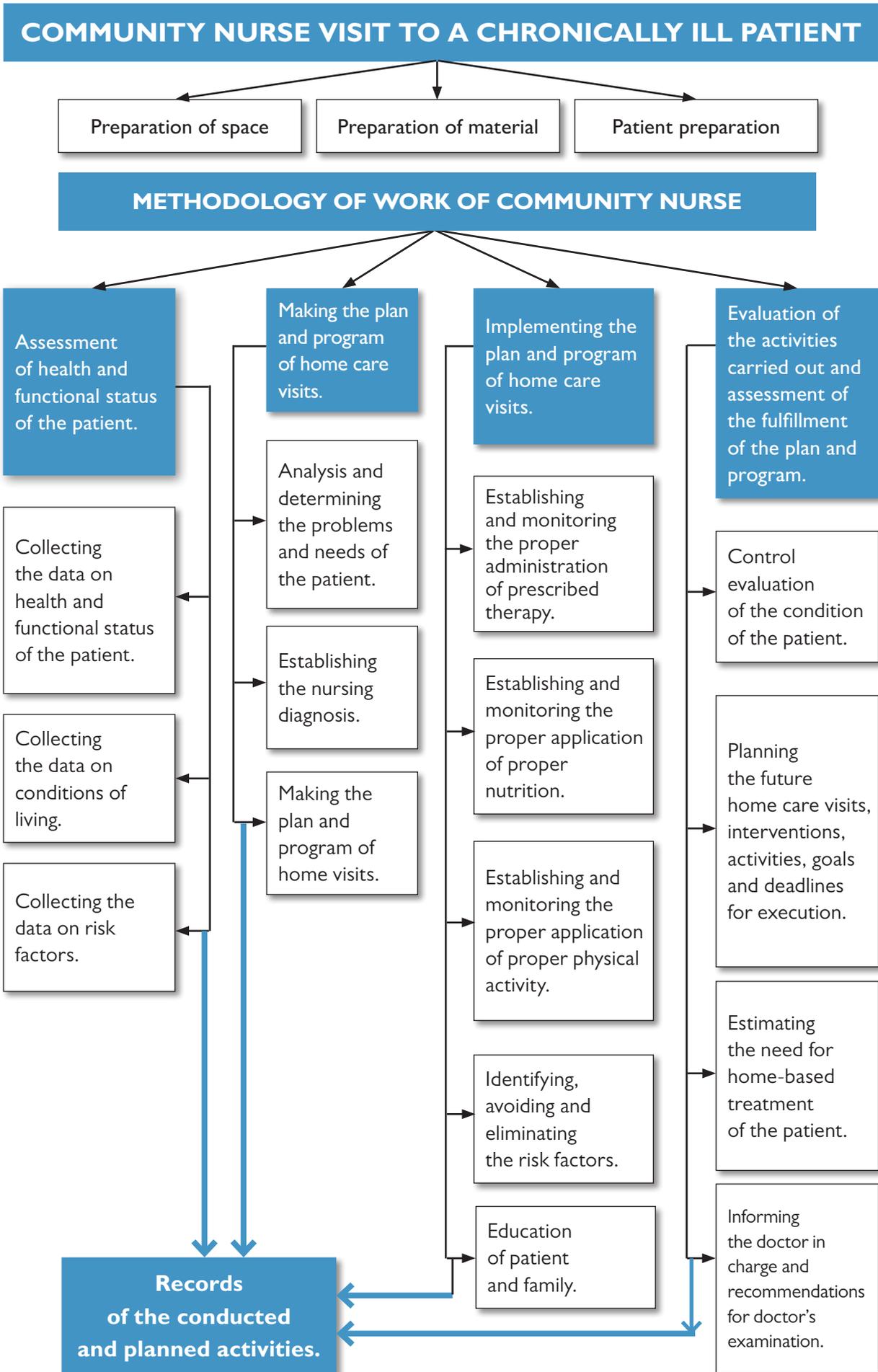
From the documentation, the community nurse uses the Medical Record of community nursing care to record the activities he/she has spent in a home visit.

Upon return to the institution, the community nurse records in the existing and valid medical documentation of the institution:

- General patient information,
- Date and time of home care visit,
- Conducted activities,
- Signature of community nurse who visited,

5 REVISION

The revision of this procedure is performed every three years or earlier if required.



45 DECUBITAL ULCER RISK ASSESSMENT AND PREVENTIVE MEASURES

I GENERAL POLICY STATEMENT

The most common nursing diagnosis in long-bedfast patients is 'Risk of decubitus ulcer.' Decubitus ulcer is a localized injury to the skin with or without subcutaneous tissue damage, of varying degrees, as a result of prolonged pressure, or combination of pressure, shear force and/or friction. Usually, it is the pressure of the body on the substrate but also any other prolonged **pressure** can cause decubitus ulcer. Because of the pressure, the circulation is weakened and consequently the oxygen and nutrient intake is lower, making the skin first red, then very pale or purple-blue, then brown, hard and painless (necrotic), eventually developing the ulcer.

This procedure defines the procedure for risk assessment for decubitus ulcer formation as well as preventive measures. The procedure is used to ensure a uniform and safe approach to every patient who is at risk of decubitus ulcer.

2 APPLICATION FIELD

3 DISTRIBUTION AND SUPERVISION

4 PROCEDURE

The community nurse, during a home visit to all patients who are immobile or poorly mobile, performs an assessment of the risk of decubitus ulcer. It is important to spot early signs and take appropriate preventive measures timely. Will the patient get a decubital ulcer depends on a number of factors that contribute to the emergence.

Internal factors: motor deficit, immobility, sensory deficit, consciousness disorder, urinary and stool incontinence, nutritional disorder (protein and vitamin deficiency), malnutrition, anaemia, cardiovascular diseases, CNS diseases, dehydration, bone protrusions, weakened perfusion.

External factors: pressure, friction, excessive moisture or dryness of the skin, cold, heat, chemical agents, radiation, inappropriate bed, immobilizers, nasal probe.

4.1 Risk assessment

There are several scales to assess the risk of decubitus ulcer (Braden, Norton, Knoll).

4.1.1 Risk assessment using Braden scale

The first step in decubitus ulcer prevention is the identification of a patient with a risk of developing a decubitus ulcer. Braden scale is a tool for the risk assessment of decubitus ulcer. The community nurse enters in the form the patient's details and rates each data. The sum of points on a scale determines the risk for the formation of decubital ulcer. The points range from 6 to 23. A smaller score represents a higher degree of risk for decubitus ulcer formation.

After the estimation on Braden scale, each patient with a score of 18 and less needs measures for the prevention of decubitus ulcer.

Important – always assess the patient on the same scale.

4.2 Preventive measures

4.2.1 Skin examination – The procedure involves daily examination of susceptible body parts with prominent bone elements exposed to pressure and/or friction and/or present maceration. The examination is performed by a community nurse at each visit, and in the meantime an examination is performed by the care giver after training and demonstration.

4.2.1.1 Patient preparation

- Explain to the patient/family/care giver the purpose of the examination of the skin,
- Explain the procedure,
- Ask for cooperation,
- Remove the clothes from the parts of the body that are being assessed.

4.2.1.2 Procedure

As part of the inspection, the community nurse, using inspection, palpation and finger pressure, evaluates the skin's condition at the susceptible body parts in order to detect and monitor any changes in time.

With examination, it is possible to observe	Classification of change	Activities
Redness fading upon pressure	Level I	Preventive measures + monitoring + education
Redness not fading upon pressure	Level I	Preventive measures + monitoring + education
Skin paleness – discoloration	Level I	Preventive measures + monitoring + education
Localized oedema + redness	Level II	Inform the doctor + treatment + preventive measures
Bullae, erosions + redness + heat	Level II	Inform the doctor + treatment + preventive measures
Hardening (induration)	Level III	Inform the doctor + treatment + preventive measures
Wound that covers all layers of skin, with or without a necrosis	Level III	Inform the doctor + treatment + preventive measures
Wound with destructive processes involving muscles and bones	Level IV	Inform the doctor + treatment + preventive measures
Extremely deep life-threatening defects of all tissue layers with present infection and necrosis.	Level V	Inform the doctor + treatment + preventive measures

Table I – Classification of changes with activities

Record the observed changes (type, classification and location) in the nursing documentation and inform the FM physician.

4.2.1.3 *Family/care giver education* on the importance and manner of examining the susceptiblesites. Advise on a daily overview of susceptiblesites.

4.2.2 Changing the position, positioning and repositioning

- The time spent in one position should be limited to a period of up to 2 (two) hours.
- When changing the patient's position, advise on raising, not pulling (demonstrate).
- Minimize the pressure on the bone spurs of the body and avoid placing the patient on the existing decubitus ulcer.
- Instruct the patient, if possible, to change independently or at least to a lesser extent, the position when sitting or standing, or to shift the centre of gravity from one side to the other.
- Do not elevate the head for more than 30°, as the pressure is increased and skin shears on the tailbone (avoid Fowler's position).



Figure 2 Setting the supporters

4.2.3 Aids and supporters

The aids are used for specific pressure distribution on the support points of the body (antidecubital mattresses, cushions and foam mattress covers).

As a supporter, use towels, small pads, etc. Alternately place supporters below shoulders, hips, heels, etc.

- When lying on the hip, put the pillow between the knees, behind the back, and under the heels.
- When lying on the back, put the pillow under the heels, elbows and blades.

4.2.4 Hygiene – wash the skin with mild soap and water, well dry with a soft towel (not rubbing), use moisturizing agents for intact skin care.

- Prevent skin maceration by changing diapers regularly.
- Do not use powder.
- Massage of the skin above the bone bulks is contraindicated.
- Regularly change linen that has to be tight and without folds.
- There must not be any foreign objects (pencil, coin, paper, crumbs) in the bed.

4.2.5 Nutrition and hydration – recommend foods high in proteins, vitamins C and A, as well as oligoelement zinc (if not contraindicated). Consume sufficient liquid.

4.3 Records

From the documentation, the community nurse uses the Medical Record of community nursing care to record the activities he/she has performed during a home visit.

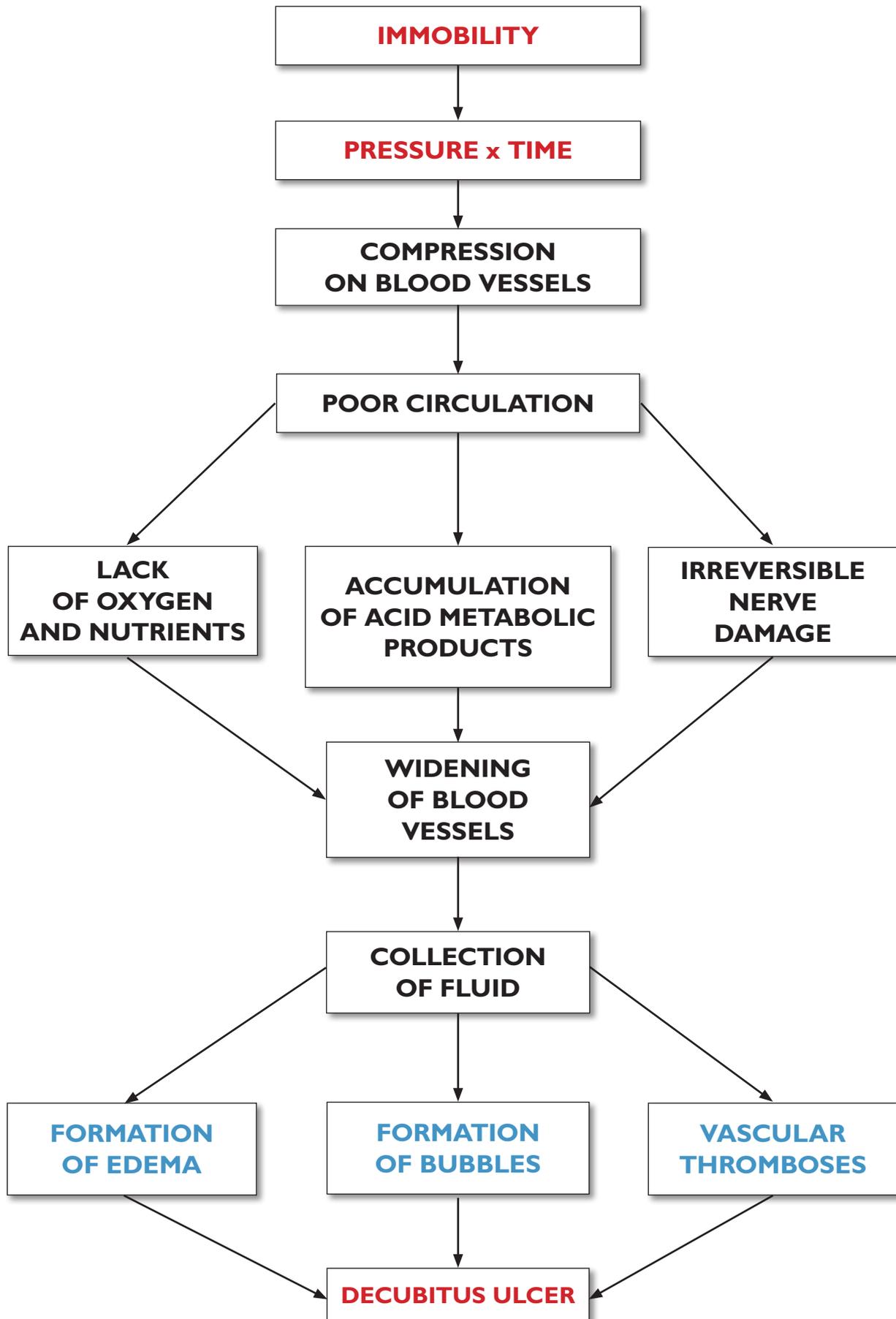
Community nurse records in the existing and valid medical documentation of the institution:

- General patient information,
- Date of service provided,
- Type of service (risk assessment for decubitus ulcer formation, demonstration of repositioning procedure, patient/caregiver training on preventive measures),
- Signature of the community nurse who provided the service.

5 REVISION

The revision of this procedure is performed every 3 years or earlier if required.

ALGORITHM OF FORMATION OF DECUBITUS ULCER



Appendix: Decubitus ulcer risk assessment form

BRADEN SCALE FOR PREDICTING PRESSURE SORE/DECUBITUS ULCER RISK

Patient's name and surname:						Date of assessment	
						Score	
I	SENSORY PERCEPTION	I Completely limited Unresponsive to painful stimuli, limited ability to feel pain over most of body surface.	2 Very limited Responds only to painful stimuli. Reacts by moaning and restlessness, or due to a sensory impairment has limited ability to feel pain.	3 Slightly limited Responds to verbal commands but cannot communicate the need to turn and react.	4 No impairment Responds to verbal commands. Has no sensory deficit, can voice pain or discomfort.	1	1
II	MOISTURE	I Constantly moist skin Almost constantly. It is detected every time patient is turned.	2 Often moist skin Often but not always.	3 Occasionally moist skin Linen is changed once a day.	4 Rarely moist skin Skin is usually dry. Linen is changed at routine intervals..	1	1
III	ACTIVITY	I Bedfast Confined to bed.	2 Chairfast Ability to walk severely limited or non-existent.	3 Walks occasionally Walks occasionally during day, for very short distances, with or without assistance. Spends majority of day in bed or chair.	4 Walks frequently Walks outside the room at least twice a day and inside room at least 2 hours during the day.	1	1
IV	MOBILITY	I Completely immobile Does not make in body or extremity position without assistance.	2 Very limited Makes occasional slight changes in body or extremity position.	3 Slightly limited Makes frequent slight changes in position independently.	4 No limitations Makes major and frequent changes in position without assistance.	1	1
V	NUTRITION	I Very poor Never eats a complete meal. Eats 2 servings or less of protein, takes fluids poorly (liquid diet or infusion).	2 Probably inadequate Rarely eats 1/2 of meal. Protein intake includes 3 servings, receives less than optimum amount of liquid diet or tube feeding.	3 Adequate Eats over half of most meals.	4 Excellent Eats most of every meal. Never refuses a meal, eats between meals.	1	1
VI	FRICITION	I Problem Requires big assistance in moving. Complete lifting without sliding against sheets is impossible. Frequent repositioning. Spasticity, contractures, or agitation always lead to friction).	2 Potential problem Moves feebly or requires assistance. During a move, skin probably slides against sheets. Occasionally slides down.	3 No apparent problem Moves in bed and in chair independently and lifts up completely independently. Maintains good position in bed or chair.		1	1
Final score							

Signature of med. nurse/technician

1. _____ date _____

2. _____ date _____

3. _____ date _____

Calculating risk by Braden scale:

Score ranges from 6 to 23.

Points in categories I–VI are summed up to final score.

Smaller score represents a higher level of decubitus ulcer risk

19-23	No risk
15-18	Present risk
13-14	Moderate risk
10-12	High risk
9 and less	Very high risk

46 COMMUNITY NURSE VISIT TO A PATIENT IN THE TERMINAL (PALLIATIVE) PHASE OF DISEASE

I GENERAL POLICY STATEMENT

According to the World Health Organization (WHO, 2002), palliative care is the active total care of patients whose disease is not responsive to curative regimen. The purpose of home care visit by a nurse within the multidisciplinary approach is to provide palliative care to the patient, as well as counselling of family members and caregivers in order to achieve the best possible quality of life and the dignified death of the patient. The aim of this procedure is to define in a safe and uniform way the procedures in the care of patients who are in the terminal stage of the disease.

2. APPLICATION FIELD

3. DISTRIBUTION AND SUPERVISION

4. PROCEDURE

A visit to the patient in the terminal stage of the disease is performed by a community nurse based on a doctor's order. Before arriving in a patient's home, it is necessary to inform the patient (see medical records), arrange arrival time and prepare the bag for a home care visit.

The bag contents include:

- Diagnostic equipment (sphygmomanometer, stethoscope, pupil examination lamp, thermometer, glucometer with associated strips, disposable spatula, airway),
- Accessories for the administration of drugs in ampoules,
- Standard equipment for protection against infections (gloves, masks),
- Accessories for wound treatment and dressing (if required),
- Aspiration equipment (if required),
- Catheterization set (if required),
- Scissors,
- Kidney dish,
- A container for sharp waste,
- The bag for infectious waste,
- Forms (nursing documentation).

Depending on the indication for a home visit, the bag can be supplemented with medications and nursing preparations.

4.1 Assessment and planning of care needs

Upon arrival at the house it is necessary to introduce yourself, show accreditation, identify the patient and explain the reason for the arrival.

When taking anamnestic data (interview), the patient should be allowed to express his/her feelings, which may range from anger to helplessness and fear. Answer him/her all the questions as sincerely as possible.

4.1.1 Assessment of the need for health care includes:

- Assessment of vital functions of the patient,
- Assessment of the level of consciousness of patient (Glasgow Coma Scale),
- Mobility (walking, standing, sitting, lying, rotation in bed),

- Nutrition assessment,
- Assessment of hygiene conditions,
- Assessment of elimination (stool, urine),
- Pain assessment (pain scale 1–10),
- Fall risk assessment,
- Decubitus ulcer risk assessment,
- Family support assessment.

4.1.2 Care plan

The design of the care plan depends on the assessment and the priorities.

The plan implies:

- Providing care,
- Administering prescribed therapy,
- Preventive procedures (decubitus ulcer and constipation etc.),
- Family or caretaker counselling on the way of providing care,
- Showing understanding and providing comfort to the terminally ill patient and family,
- Providing information on access and rights to health and social services,
- Coordination between different services and persons (neighbours, family members, social workers, religious communities, etc.),
- Adapting the environment to the patient's condition,
- Preparing the family for mourning,
- Keeping the nursing records.

4.2 Implementation and evaluation

Implementation of planned activities (interventions) should focus on eliminating symptoms, especially pain, difficult breathing, and recognizing symptoms and signs of agonal condition. In the evaluation process, the task of the community nurse is to constantly assess and adjust the activities to the condition of the patient.

4.3 Records

From the documentation, the community nurse uses the Medical Record of community nursing care to record the procedures he/she has performed during a home care visit.

Upon return to the institution, the community nurse records in the existing and valid medical documentation of the institution:

- General patient information,
- Date and time of home care visit,
- Conducted procedures,
- Signature of community nurse who visited.

5 REVISION

The revision of this procedure is performed every three years or earlier if required.

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