University of Pécs, Faculty of Health Sciences

Nursing and Patient Care

Nursing major

Practical state exam topic list

1. Vital signs (body temperature, breathing) measurement

'A 39-year-old female patients arrived in the ward with fever (39.5°C) and chills, headache, space disorientation, dyspnoe (increased load), low blood pressure (89/51 mmHg), tachycardia (132/min), reduced SatO2 (87%), cyanosis, cough, rust-coloured sputum, plaqued tongue, loss of appetite and nausea. Her skin is dry, turgor is reduced, her muscles are weak, tired, has difficulty in sleeping, irritable during the day, falling asleep. Lab test results: CRP: 15mg/l, fvs: 15.6 giga/l, We: 20mm/h. Her urine amount is low (oliguria). Haemoculture sample result: S. pneumoniae. She is well-groomed, no known medicine allergy, hearing and vision are normal, consumes coffee 2 times a day, smokes (about 2 cans per day), does not use any medical aids. Please measure the patient's body temperature and count breathing."

Please describe the indications, contraindications, preparation and implementation of the procedure (places of temperature measurement in the light of the advantages and disadvantages, fever types, types of thermometers, physical fever reduction procedures, care of a febrile patient, haemoculture sampling, characteristics of normal breathing, pathological types of breathing, counting of breathing, care of a patient with dyspnoes), possible complications, client education, carrying out documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

2. Vital sign (blood pressure, heart rate) measurement

'A 65-year-old male patient with a rapid pulse, reoccurring neck pain (painful facial expression, defensive behavior, VAS 7), sweating, fatigue, dizziness, nausea, vomiting. Diagnosed with high blood pressure disease, arrived for therapy modification. His skin is normal, breathing is normal, no allergy to a known drug, hearing and vision normal, smokes (about 25 a day), no medical aid needed, sleep is normal The patient is currently taking an antihypertensive medicine for hypertension (Coverex-AS Komb 5 mg tablets/once) Please , perform a blood pressure and pulse test on the patient.'

Please describe and describe the indications, contraindications, preparation and implementation of blood pressure measurement and heart rate examination (normal heart rate values by age, places of heart rate measurement, devices, assessment of heart rate qualitiess, Valsalva manoeuvre and carotid massage care, categorisation of blood pressure values, blood pressure measurement techniques – palpation, auscultation, blood pressure measuring devices

and their operation – mercurial, gallium, aneroid, oscillometrics, standard blood pressure measurement), possible complications, client education, documentation tasks.
Prepare a complex care plan for a patient with high blood pressure (based on a 5-column care plan)! Please state what model of care would you use if the patient was being cared for and why?

3. Venous blood sampling

'An 18-year-old female patient with fever, vomiting, abdominal cramps, mucus, bloody frequent bowel elimination, loss of appetite and weight loss. According to her, she drinks little, her skin is dry, her turgor is reduced, she is weak, her muscles are weak, she has no energy for all daily activities, she is moody. She has difficulty to fall asleep. Her blood pressure is 106/67 mmHg, heart rate is 102/min, respiratory rate is 30/min, abnormal breathing sound inaudible, body temperature is 38.6°C. The patient has been treated for ulcerative Colitis for 2 years. No surgical intervention has been required so far. Since being diagnosed with the disease, she has been receiving steroid therapy. Pain on VAS is 7. The patient's consciousness is clear, space and time oriented, her behavior is agitated, nervous, her skin is well-groomed, her urine is normal. There is no known drug allergy, hearing and vision is normal, no medical aid is used. The attending physician orders a blood test.'

The patient's doctor ordered a venous blood collection (wbc, CRP, We, Htc, Hgb). Please prepare the necessary equioments and perform the procedure. Describe the indications and contraindications of the blood collection, the process of preparation and implementation (characterization of the blood collection tubes – capacity, description of anticoagulants, parameters tested per blood collection tube), possible complications, carrying out documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

4. Arterial Blood Gas (ABG) sampling: Preparetion for arterial and capillary sampling and implementation

'A 63-year-old female patient is being treated on a pulmonary ward diagnosed with a centrally located, bronchoconstricted adenocarcinoma. Her saturation is 91%, her consciousness is kept, she complains of strong dyspnoe, so we dispense oxygen on a simple mask with a flow of 8L per minute. Despite the therapy, her difficult breathing increases, she becomes more agitated and disoriented, she has a stridoric breathing, her saturation decreases (86%). The attending physician orders arterial blood gas sampling to monitor gas parameters.'

Please describe the indications and contraindications of the procedure, process of preparation and implementation (description of the parameters examined, determination of the normal values of the sample taken (pH, CO2, O2, HCO3, Base Exces, SO2), possible complications, carrying out documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

5. **Giving injection (subcutaneous injection), Injekciózás (subcután injekció), Trombosis profilaxis – application of an elastic bandage**

'A 32-year-old female patient admitted to the vascular surgery clinic for limb pain (VAS 5). His history included mild, tensile, convulsive lower limb pain after a 12-hour flight and anticoagulant therapy. During the physical examination, skin was tight and shining on the lower extremities; oedema and pressure sensitivity were observed. The circumference of the lower limb has increased. In addition, Homans- sign were positive. Her doctor sent her for a venous duplex scan. The imaging procedure confirmed deep vein thrombosis and the D-dimer test was positive (1500 ng/ml). Admission status: blood pressure: 132/73 mmHg, HR: 93/min, respiratory rate: 19/min. Patient's consciousness is clear, space and time oriented, her behavior is agitated, nervous, her skin is well-groomed, her urine is normal, her stool is normal, her appetite is reduced. He has a known drug allergy to penicillin, her hearing and vision is normal, he does not use any medical aids, she sleeps poorly, so she is somnolence during the day. Smokes (2 cans per day), consumes coffee (1x a day). Prepare and inject the 0.6 ml of Fraxiparin ordered by your doctor.'

Please describe the indications, contraindications, preparation and implementation of the procedure (description of the equipments– description of needle sizes, absorption of injections, list of possible places of insertion, implementation of injections, description of the most commonly used subcutaneous injections, types of PEN, structure and application, prophylaxis of thrombosis, description of the main aspects), possible complications, client education, documentation tasks to carry out the work.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

6. **Giving injection (intramuscular injection)**

'A 30-year-old woman, CAVE: unknown. Known and treated schizophrenic patient. Her family accompanied her to the psychiatric hospital for medication modification because her symptoms had worsened recently. She is plagued by hallucinations and delusions, her disease acceptance is low. The history revealed that the patient is not taking her medication regularly. During a recent psychotic episode, the patient fell, hitting her head. The wound resulted in heavy bleeding, which led the family to take him to the ER, where her injury was treated, and contusion and intracranial bleeding were ruled out. The family realised that the patient needed psychiatric care again. The psychiatrist ordered IM depo containing flufenazine. Injectiob should be repeated every 25 days. The family and the patient were informed about possible complications and rules related to medication. She will spend the next few days in the institution for observation. Blood pressure this morning: 121/78 mmHg, HR: 98/min, T: 36.8ºC. Skin is dry, turgor is reduced, tongue coated. He also complained of difficulties in sleeping. Pain: NAS: 3'

Please describe the indications, contraindications, preparation and implementation of the procedure (description of the device system -description of needle sizes-; absorption of injections; possible locations of insertion and measurements –delta muscle, ventrogluteal, dorsoglutealis, rectus femoris, vastus lateralis, advantages and disadvantages of each injection site, amount of solution to be used per injection site, implementation of injection), possible complications, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

7. Giving injection (venous injection, intradermal injection)

'A 69-year-old male patient, has no known sensitivity to drugs. The patient arrived at the clinic for St. p. CABG + ablation, we are on the second postoperative day. Space and time oriented, excitable, memory is good. He has clear conscious, his appetite has decreased, he consumes an average of 1500 ml of liquid per day. His diet is normal, his teeth are incomplete, he has no difficulty in swallowing or chewing. In recent days, he has been sleeping poorly, has problems to fall asleep and to sleep over. His stool and urine is normal, his vision is impaired, but he does not use any aids, his communication is understandable, according to his age. GERD disease is known. The surgery was postponed due to UTI. Blood pressure this morning: 101/68 mmHg, HR: 88/min, T: 37.2ºC. Pain: NAS: 4.'

Please prepare and perform the procedure. Describe the indications, contraindications, preparation and implementation of intravenous injections (description of the equipments - description of needle sizes; injection absorption; procedure of vein selection, implementation of injection, location of insertion), possible complications, carrying out documentation tasks. Please describe the indications, contraindications, preparation and implementation of intradermal injections (description of the equipment - description of needle sizes- injection absorption; injection execution, location of insertion), possible complications, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

8. Capillary sampling to evaluate blood sugar level

'A 32-year-old 16th-week pregnant woman with third pregnancy - admitted to the clinic for an OGT testing. Her history includes two previous births:
Partus 1: 39th gestational week spontaneous vaginally, living, mature, healthy girl child, 3870 gr Partus 2: 37th gestational week sectio caesare, living, mature, healthy boy child, 4560 gr. During the second pregnancy, gestational diabetes was diagnosed and besides a 200 CH diet and 3x daily insulin treatment sectio caesare was performed at week 37 due to severe praeeclampsia. During her current pregnancy, a stressed blood glucose test is permormed now. It is necessary to determine the fasting blood glucose value before testing.'

Please describe the indications and contraindications of the procedure, the process of preparation and implementation (use of the blood glucose measuring device, normal blood glucose values, description of the process of OGTT), possible complications, client education, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

9. Use of bedside monitor system, pulsoxymetry

"A 69-year-old male patient arrived at the medical facility with rapid superficial breathing, paroxysmal nocturnal dyspnoea, chest pain, cyanosis, palpitation feeling, weakness, plum-coloured sputum, fear of death. Blood pressure: 90/60 mmHg, pulse 145/min, respiratory rate 32/min. On its ECG: high R-waves and signs of atrial fibrillation are visible. He is known for his history of hypertension, atrial fibrillation and acut myocardial infarction-right coronary artery stenosis. Medicines: ACE inhibitor, beta-blocker, syncumar. After the examination, an electrical cardioversion was performed. He is currently receiving oxygen therapy through a mask of 50 with a flow of 8 l/min."

Please describe the indications, contraindications, types of monitoring systems, electrode systems, points of applications, description of the observable and adjustable parameters, the process of preparation and implementation, possible complications, carrying out documentation tasks.
Please perform physical examinations on the mulage. Describe the indications and contraindications of the intervention, the course of preparation and implementation (Examination of breathing and heart sounds. Performing percussion, palpational and auscultational tasks).

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

10. Determination of blood groups

'A 59-year-old male patient, his occupation is vitreous. During his work, one of the piece of glass fell on his arm, causing significant bleeding. His colleague called the ambulance and applied a pressure bandage to the injured area until the ambulance arrived. After the primary patient examination, the diagnose of radial artery injury with large amount of blood loss was established. Professional medical pressure bandage was applied over the site. The patient's vital parameters are: blood pressure: 93/73 mmHg, heart rate: 50/min, respiratory rate: 10/min, body temperature 36°C. "O2sat: 84%. The patient's limbs are cool, cyanotic, he is somnolent. He was transported to the clinic for further management.'

Please describe the indications and contraindications of the intervention, the physiological basis of blood group systems, the process of preparation and implementation (AB0 and Rh blood group determination with Serafol test, basics and performance of the biological test,

description of the most commonly used blood products), possible complications, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

11. Insertion and care of a peripheral short cannula

'A 78-year-old male patient who has been in the intensive care unit for 2 weeks. Mechanical ventilation - CMV ventilation with positive end-expiratory pressure. He has a central venous cannula that has been inserted 2 weeks ago, the puncture channek and its surroundings are lobed and inflamed, so your physician has decided that this cannula will be removed and a peripheral short cannula will be inserted. He is fed by nasogastric tube, using bolus feeding. He also has a bladder catheter and an arterial cannula that was inserted at the time of admission. His body temperature is 39.3°C, his blood pressure used to be 135/80 mmHg on average, now his blood pressure is 65/40 mmHg besides 300 µg/h Arterenol administration. Laboratory: CRP: 257 mg/l, wbc: 14 G/l, blood sugar: 8.9 mmol/l (so far was in the normal range, 4.4-5.3 mmol/l).'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (description of the applied device system, description of possible insertion sites, the procedure of vein selection, acessories, cannula closure, main aspects of cannula care, used dressings, ensuring cannula patency), possible complications, performing documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

12. Insertion of a nasogastric probe, placement patency, feeding and giving medication

'A 77-year-old male patient has been in the intensive care unit for 2 days, with amechanical ventilation (assisted ventilation), size 8 tube fixed at 21 cm. Laboratory values: arterial blood gas: HCO3: 42 mmol/l, pH:7.9; creatinine: 300 µmol/l, bilirubin: 450 µmol/l. Stage 3 encephalopathy is confirmed. Her skin color is yellow, her skin is sweaty, warm to the touch, his stomach is bloated. Abdominal US confirmed an enlarged liver. It has a liver-smelling breath (foetor hepaticus). Heart rate: 123/min; blood pressure: 75/45 mmHg; body temperature: 38.5°C; O2 sat: 95%, body weight: 67 kg. He has an abundant respiratory secretion that it cannot empty spontaneously. He has a bladder catheter through which macroscopically visible "beer brown" urine is excreted. He is fed through a nasogastric tube, using bolus feeding. He has a central venous catheter in the jugular vein and an arterial cannula in the radial artery for 2 days.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (description of the used device system, possible types of feeding, basic rules of medication therapy), possible complications, implementation of documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

13. Giving an enema and skybalum removal

'A 43-year-old female patient visited her GP with a complaint of progressive constipation of 3 months. While she used to have regular bowel movements once per day, she defecates now in every 3-4 days. Her stool is brown, hard and difficult to empty. Recently she gained weight, does sedentary work, does not have time to do exercises, has no hemorrhagic complaints, has not experienced bleeding, consumes 2 liters of fluid a day. Sometimes she feels cold in a heated home as well. She was referred due to hypothyrosis and medication therapy modification. He does not have stool on the 4th day of treatment, therefore the doctor prescribes an enema. In her family history endocrine or tumor is not mentioned. She is not aware of any medication allergy. She smokes (for 20 years, app. 10/day), drinks caffeine, alcohol rarely. BMI is 26.2 kg/m2, BP: 136/80 mmHg, P: 78/min.'

Please describe the indications and contraindications of the procedure, the process of preparation and implementation (patient positioning options, description of different enema fluids and enema types), possible complications, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

14. Preparation and implementation of gastric lavage on an alert patient

'A 22-year-old man with antidepressant poisoning. He is confused but not unconscious. During a suicide attempt at home, he took a leaf of antidepressants and then called an ambulance to deliver him to the emergency department. Non-invasive ventilation support and iv line patency has happened. His blood pressure is: 100/60 mmHg, heart rate: 123/min.. Elapsed time indicates gastric lavage.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (positioning of the patient, description of the device system, the process of sampling), possible complications, performance of documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

15. Care of a tracheostoma

'A 14-year-old girl, was hit by a car on her way home from school 3 years ago. After an acute intensive care, her rehabilitation treatment was started. Her mother is supported by a home-care service during the girls management. Her condition is getting better and better day by day, emotionally can be contacted using eye contact and "face speech". She has a tracheostomy. Feeding happens through a PEG, but also has stable oral swallowing. GCS: 6.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (indication of the stoma, parts of the stoma cannula and their cleaning, possibilities of removing airway secretions), possible complications, client education, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

16. Care of a colostoma, ileostoma, urostoma, types of stool sampling techniques

'A 45-year-old female patient, who had initially abdominal complaints of uncertain origin, which intensified during meals. She said she ate an extremely large amount of homemade Hungarian food at a family event yesterday afternoon. Her complaints began in the evening hours, and became unbearable for tge morning. According to her, weakness, tiredness and a characteristic increase in the intestinal gas during the night occured. Nausea, vomiting happened several times. Circumscribed pressure sensitivity is marked in the abdomen. Blood stool appeared 2 weeks ago (black, tar-like stools), indicated a double contrast X-ray examination, followed by a CT scan. Tumor was diagnosed in the small intestine. She was admitted to surgery and is awaiting surgery.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (designation of the stoma site, description of stoma bags, different types of drainage systems, bag replacement procedure, special monitoring tasks of the nurse, stool sampling equipment system), possible complications, clients tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

17. Infusion therapy, use of a syringe pump

'A 51-year-old male patient arrives to the out-patient care. He complains of difficulty swallowing and epigastric pain, and reports that he has lost 6 kg in the past 2 months, which was an unplanned weight loss. A gastroscopy with biopsy was performed, showing the presence of easophageal tumor. At the time of admission, the patient is confused, disoriented, his mood is changeable, irritated, his mucous membranes are dry and his tongue is coated. His vital signs are: blood pressure is 125/74 mmHg, heart rate is 85/min, respiratory rate is 18/min, SatO2: 95%, BT: 36.6°C. Pain on NAS is 10. Infusion therapy and analgesia in a syringe pump is prescribed by a physician. Waiting for esophageal resection.'

Please describe the indications and contraindications of the procedure, the process of preparation and implementation (basics of syringe pump function, parameters to be set, types of infusion solutions, description of infusion sets, infusion set-up, drug delivery to stock solution, drop number determination), possible complications tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

18. ECG examination. Performing 12- lead standard and acessory (dorsal, paravertebrsal leads, right-side ECG)

'His wife is transporting a 45-year-old male patient to the Emergency Department who has had intense tight chest pain for 3 days, which has been increasing day by day. The pain radiates to his left shoulder and arm and he also reports numbness in isr left little finger. Similar complaints have been onset for longer period, primary occurred during physical work but later detected at rest and lasted longer and longer as well. The patient's skin is cool, damp, has low blood pressure. The complaints suggest a disturbance in the blood supply of the heart muscle, so the doctor decides to have a 12-lead ECG.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (description of the leads and their location, the steps of ECG analysis), possible complications, the performance of documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

19. Administration of medication per os, nasal, sublingual way, process of ophtalmological, otological, transdermal and rectal treatments

'Chronic illness of a 51-year-old male patient was not known before. He does not take medication regularly. His sensitivity to medication is unknown. Substances: smoking (20/day), occasionally consumes alcohol for 25 years. Working in an office. Last night his eye started to bleed. He has no other complaints, no vision problems, no blurred vision, no double vision, no headache, no dizziness, no sound, no tinnitus, no speech problems, no limb weakness, no numbness, no awkwardness, no chest complaints, no choking, no shortness of breath, no appetite loss. Urination and defecation is normal. Nycturia is not characteristic, his legs do not swallow. He has no febrile disease recently. Noted: Left conjunctival haemorrhage. Body weight: 102 kg, height: 171 cm, BMI: 34.88 kg/m2. BP: 174/104 Hgmm HR: 86/min, SpO2: 98%, Control BP (after 10 minutes of observation, conversation): 170/101 Hgmm HR: 82/min He said he had no similar complaints before, but had previously been screened indicated that his blood pressure was high, no further action was taken at that time. Medication: Immediately 1 puff Cordaflex followed by oral combination therapy. Applying eye drops.'

Drug dose calculations. Demonstration of drug applications and drug calculations in clinical practice using practical examples (insulin, adrenaline, morphine, dobutamine, propofol, heparin). Basic aspects of each mode of medication, indications and contraindications for the intervention, the process of preparation and implementation (rules, advantages and disadvantages of each mode of medication), possible complications, client education, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

20. **Bladder chateterization. Preparation and implementation on mulage, weaning process, examination with chemical dipstick method, urine sampling and collecting methods, urine incontinence**

'A 77-year-old male patient has been in the intensive care unit for 2 days, with amechanical ventilation (assisted ventilation), size 8 tube fixed at 21 cm. Laboratory values: arterial blood gas: HCO3: 42 mmol/l, pH:7.9; creatinine: 300 µmol/l, bilirubin: 450 µmol/l. Stage 3 encephalopathy is confirmed. Her skin color is yellow, her skin is sweaty, warm to the touch, his stomach is bloated. Abdominal US confirmed an enlarged liver. It has a liver-smelling breath (foetor hepaticus). Heart rate: 123/min; blood pressure: 75/45 mmHg; body temperature: 38.5°C; O2 sat: 95%, body weight: 67 kg. She has an abundant respiratory secretion that it cannot empty spontaneously. She has a bladder catheter through which macroscopically visible "beer brown" urine is excreted. He is fed through a nasogastric tube, using bolus feeding. She has a central venous catheter in the jugular vein and an arterial cannula in the radial artery for 2 days.'

Please describe the indications and contraindications of the procedure, the process of preparation and implementation (description of the equipment of the procedure, possibilities of asepsis-antisepsis, positioning of the patient during the procedure, urine collection procedures and special nursing tasks), possible complications, performing documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

21. **Endotracheal intubation, trachea suctioning, extubation**

'A patient with cranial injury arrived to the Neurosurgery clinic. The patient is concious, however, has a really intense headache, vomiting, so a cranial CT scan was prescribed but became unconcious before the CT, no contact. Examination of the conciousness happened, GCS is 2, so immediate ET intubation started to manage free airways.

Indications and contraindications for endotracheal intubation, process of preparation and implementation (types of endotracheal tubes, aspects of patient preparation, description of the used device system, description of special intubation techniques, implementation of mask-balloon ventilation, main aspects, process of extubation). Indications and contraindications for aspiration of airway secretions, preparation and implementation (removal of secretions during various airway procedures (endotracheal tube, tracheostomy), description of open and closed suction devices, characterization of suctioning catheters, removal of mechanically ventilated patient's secretions), tool system), possible complications, client education, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

22. Management of pressure ulcers in different stages

'A 82- year old woman after stroke was admitted to the neurology subacute department due to progressivity. Right- side hemiplegia, confusion and the development of a 3rd stage sacral pressure ulcer was diagnosed. The ulcer has a cavity, smelly, secreting, slightly bleeding wound. The patient is in poor general condition, no adequate answers are given. Her son came with her, also in generally bad condition. According to him, her mother did not have the wound at the sacral area, was developing during the transportation.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (description of the stages of pressure ulcer, treatment algorithm, knowledge of dressings for wet and dry wound treatment, significance of prevention, algorithm of care during prevention, knowledge of special care tools related to prevention, possible complications, performing documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

23. Oxygentherapy, inhalation therapy and airway management

'A 67 years old man, CAVE: unknown. His strain is significantly reduced, resting inspirational dyspnoea occurs. The patient coughs productively. Due to DCM decompensation, drug therapy is recommended. The patient is space and time oriented, calm, in a clear state of consciousness. Appetite is normal, teeth are incomplete. He consumes 1000-1200 ml of fluid daily. He periodically has constipation. Urination is physiological. His mobility is age-appropriate. His sleep is shortened, he wakes up at dawn. His skin is dry and his turgor is reduced. His tongue is coated. He has no decubitus or other wounds, his vision is reduced, he uses glasses. His speech is well understood, his hearing is normal. The patient is cooperative and informed about his illness. Blood pressure: 97/73 mm Hg, HR: 89 / min, RR: 14 / min., SatO2: 94% (with mask 50), T: 36.2°C.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (forms of intervention, low and high flow systems, preparation of necessary devices, characteristics of drugs to be administered, safety rules, configurable flows and FiO2 values for each input device, description of different airway safety devices (oropharyngeal, nasophrayngial, supraglottic devices advantages-disadvantages)), possible complications, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

24. Insertion of a central venous device, process of assistance, CVP measurement, care of the cannula, total parenteral feeding, cannula removal

'A 75 years old male patient, CAVE: Penicillin. The patient came to the Emergency Department with an ambulance. The CT was requested urgently, reviewed an ruptured aneurysm in the infrarenal aorta. Preoperatively a CVC was inserted, 3 U of chosen blood product and 4 U of FFP was ordered, 18 CH Foley catheters and 16 CH nasogastric probes were derived. Monitorization of continuous, arterial blood pressure measurement, urgent ABG and laboratory examination, blood grouping was performed. During surgery, hemodynamic instability was attempted with massive volume and blood replacement with FFP. 1400 ml of own blood reperfusion was performed using the 'cell-saver' techinique. The operation was performed from a total median laparatomy and left inguinal dissection. The surgical description includes resection of aneurysm aortic abdominal, interposition, aortobiliac bypass. The surgical incision is 30 cm long, closed with node sutures, on the left side 2 drain leads, which containing 50-120 ml of blood. After surgery, the ventilated patient was placed on an ICU. Today is the first postoperative day. BP: 98/72 Hgmm, HR: 96 / min., BT: 37,2 ºC. In addition to surgical wounds, there is no visible wound on his skin, turgor decreased, his tongue is coated.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (main aspects of patient preparation, description of the device system, preparation, the course of assistance during the procedure; significance of the measurement, its usefulness in therapy; main aspects of care, dressings, ensuring cannula permeability; TPN device system, characterization of solutions), possible complications, performing documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

25. Insertion of an arterial cannula, invasive blood pressure monitorization, care of the cannula, removal of the cannula

'A 39- year old female patient, temperature is 39,5°C. With chills, headache, spatial disorientation, dyspnoea (increases for exercise). Blood pressure: 89/51 mmHg, heart rate: 132/min, O2sat.:87%, respiratory rate: 35/min. She was admitted with cyanosis, cough, rusty sputum, plaque, anorexia, and nausea 5 days ago. The patient's skin was dry, turgor decreased, her muscles were weak, she is weak, tired, she could not sleep well, she was irritable during the day, easily fell asleep. Despite the medication, the symptoms did not improve, his respiratory failure worsened, so she was given intensive care. The physician ordered the insertion of an arterial cannula to measure invasive arterial blood pressure.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation (main aspects of patient preparation, description of the device system used, preparation, the course of assistance during the procedure; significance of the measurement, its usefulness in therapy; main aspects of care, applied dressings, cannula patency), possible complications, documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

26. Wound care, management, preparing a cover dressing, care of a fixatuer externe

'A 40-year-old male patient arrived with the ambulance. He fell with the bicycle and had an open tibial fracture on his right leg, which was swollen, and a hematoma developed. His pain on a scale of 10 was 9, he could not stand. Physical examination showed crepitation and abnormal motility, and the x-ray image showed a joint fracture of the tibia and fibula. The patient's consciousness is clear, space and time oriented, his behavior is relatively calm, he is a little anxious, he has normal skin, he is not allergic to known drugs. Vision is fine, occasionally smokes and drinks alcohol, does not consume coffee. Surgical fracture fixation - medullary nailing. We are on postoperative day 2.'

Please describe the indications and contraindications of the procedure, the course of preparation and implementation (description of wound parameters, stages of wound healing, wound healing disorders, their possible causes, principles of wound care. Surgical wound care, main types and characteristics of surgical infections (aerobic, anaerobic), sampling, preparation for suture collection, the procedure of its implementation, the description of the most commonly used bandages, the types of drains, their application possibilities, the provision of fixateur externe, the process of skewer care), possible complications, the performance of documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

27. Preparation and assistance at chest tube insertion

"A 46-year-old man arrived with his wife on 5 February 2016 for elective surgery in the thoracic surgery department. Medical diagnosis: tumor pulmo suspension. Underlying disease, medical history: No medication therapy, not treated for chronic disease. In 2013, renal tumor was diagnosed and the right kidney was resected. Reconstructive surgery for hernia umbilicalis was performed in 2005. Chest X-ray was performed on a control examination, it revealed two round shadows in the right lung, which were enlarged lymph nodes. Nursing anamnesis: car repearman, lives in a family. Does not consume alcohol. Consumes coffee regularly. Does not smoke. Blood type 0Rh negative. Does not know about drug sensitivity. Diets on a special diet of low gluten, lactose, fructose. Weight: 85 kg, height: 175 cm, BMI: 27,76 kg/m2. His teeth is normal, no use of medical aids. General appearance: normal. Self-sufficient. Circulation, urination, digestion, sleep quality, perception is normal. His ability to cooperate is good. Emotional state: calm. Space and time oriented. Vital parameters: BP: 134/80 mmHg, HR: 85/min, temperature: 36.2°C, SpO_2: 99%. Tests: respiratory function, chest x-ray, laboratory parameters, ECG. Norton Scale: 20 points. Second postoperative day. Surgical incision was performed on the right side with axillary thoracotomy. Stitch type: knotted. The incision is 15 cm long. Cover dressing is applied, wet wound treatment. The dressing was secreted in 25%. Wound healing phase: inflammation. The thoracic, intermittent Bülau suction drain (30 ml of bloody serum secretion), permanent catheter (300 ml), and arterial cannula were removed today. Control x-ray was performed. His pain on a Likert scale is 5, moderate on a categorical scale. He didn't have stool today. Cooperative, oriented. His emotional state is calm. His wife visits him every day.'

Indications and contraindications for chest tubing, the course of preparation and implementation, possible complications, client training, documentation tasks. Please describe the main steps of drainage care, the process of replacing the drain bottle, possible complications, and performing documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

28. Preparation and assistance for chest draining

'A 61-year-old male patient who came to the health facility with fast, superficial breathing, dyspnoea, chest pain, cyanosis, palpitation feeling, weakness, plum-like sputum and fear of death. Blood pressure: 90/60 mmHg, heart rate 145/min, respiration rate 30/min. He has a history of hypertension, atrial fibrillation, and acute myocardial infarction with right coronary stenosis. Permanent drugs: ACE inhibitor, beta-blocker. After the examination, exceeded fluid amount was diagnosed, indicated a chest draining.

Please describe the indications and contraindications of the intervention, the process of preparation and implementation, possible complications, and the performance of documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

29. Preparation and assistance for lumbar punction

'A 58-year-old man arrived to the ER with weakness, fever, and headache. The laryngeal council commented on otitis media, oral Augmentin treatment was started. 15 hour after admission, he had fever (39.2 ° C), headache, nausea, vomiting, confusion, lethargy, delirium, urgent psychiatric and neurological consultation happened. During examination meningeal signs (positive Kernig and Brudinsky signs) were developed, CSF examination showed elevated cell count and total protein count. ICP: 15 mmHg, Liquor: xanthrochrome, broken, cell number 176/3 segment, 796/3 ly, total protein: 2.917, Sugar: 2.2 (Blood sugar: 5.6) - Cranial MR: There is a size of 1 cm right-sided "vascular lesion", there is no Gadolinium (contrast dye) accumulation in the meninex. Patients with suspected meningitis are transferred to Infectology.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation, possible complications, and the performance of documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

30. Preparation and assistance for paracentesis (ascites removal)

"A 67-year-old male patient came to the department with fever (38.9°C), chills, sweating, dyspnoea, increased abdominal fluid and abdominal pain. He said he had been struggling with fatigue, weakness and anorexia for several days. He recently gained 10 kg weight, but he eats less. He has little energy for everyday tasks, he feels weak, he is disturbed by the stomach full of fluid, so his social connections have narrowed, he tries to hide it. His skin is tight and shiny. BP: 156/78 mmHg, HR: 98/min, Breathing rate 24/min. Laboratory test results: albumin: 28 g/l, GPT: 102 U/L, GOT: 50 U/L The patient's consciousness is clear, space and time oriented, his behavior is excited, nervous, his skin is well-groomed, his urination is normal, his defecation is normal. He is not allergic to any known medicine, his hearing and vision are normal, he is not using a medical device.'

Please describe the indications and contraindications of the intervention, the process of preparation and implementation, possible complications, and the performance of documentation tasks.

Prepare a complex 5-column care plan based on the specific case! Please state what model of care would you use if the patient was being cared for and why?

Valid from: 28/07/2021