

MINISTRY OF HEALTH OF UKRAINE
ODESA NATIONAL MEDICAL UNIVERSITY

Faculty Medical №1

Department of simulation medical technologies

CONFIRMED by
Vice-rector for scientific and pedagogical work



Eduard BURYACHKIVSKY

September 1, 2023

METHODICAL RECOMENDATION
FOR ACADEMIC DISCIPLINE

**«SIMULATION TRAINING BY DIRECTIONS FAMILY MEDICINE, INTERNAL
DISEASES, PEDIATRIC»**

Faculty, course: International, 4 year

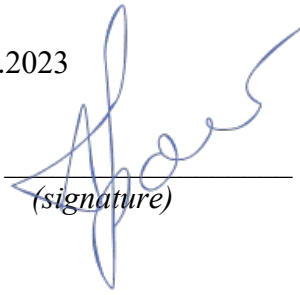
Educational Discipline: Simulation training by directions family medicine, internal diseases,
pediatric

Approved:

The methodical recommendation was approved at the meeting of the department of simulation medical technologies

Protocol No. 1 of 28.08.2023

Head of the department



(signature)

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PRACTICAL TRAINING

Practical classes No. 1 — 3

Topic: Simulation scenarios of the most common emergency conditions in the practice of a general practitioner — family medicine.

Purpose: To form, master and practice professional skills in providing emergency care for the most common emergency conditions in the practice of a general practitioner — family medicine.

To learn the ability to independently use knowledge and skills in the diagnosis and treatment of the most common emergency conditions in the practice of a general practitioner — family medicine.

C to form a clear idea of the sequence of actions in the algorithm for providing emergency care for the most common emergency conditions in the practice of a general practitioner — family medicine.

To form the competence of professional communication in the team when providing emergency aid .

Basic concepts: Diagnosis and assistance in emergency situations: Convulsions, Anaphylaxis, Diabetic coma, asthma attack.

Equipment: HAL S3201, oxygen tank, computer with monitor and dummy software, mixing console, single-channel wireless system receiver , headset microphone, gooseneck microphone, single-channel wireless system receiver , broadcast video camera, projector (large screen), bag Ambu, pulse oximeter , functional bed, tripod, glucometer , equipment for neurological examination, peak flow meter , latex gloves, medical masks, syringes, solutions for injections.

Plan:

1. Organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).

2. Control of the reference level of knowledge (frontal survey) :

— requirements for students' theoretical readiness to perform practical classes (know nosology and their treatment protocols);

— questions (clinical situations) to check basic knowledge on the subject of the lesson:

For the following conditions of patients (Convulsions, Anaphylaxis, Diabetic coma, BA attack) know:

1. Differential diagnosis.
 2. Examination.
 3. Making a preliminary diagnosis.
 4. Providing emergency care according to protocols.
 5. Adherence to the algorithm of actions.
3. Formation of professional skills and abilities:
- mastering skills:
 1. Quick recognition of an emergency in a patient.
 2. Be able to quickly give and receive commands to medical personnel depending on the critical situation (teamwork).
 3. To be able to quickly carry out a differential diagnosis of an emergency.
 4. Examination (physical methods, measurement of blood pressure, BP, heart rate, SpO₂, thermometry, capnometry - graph , glucometry , peakflowmetry , drawing up a plan of laboratory and instrumental studies).
 5. Determination of the treatment scheme based on theoretical knowledge of protocols obtained at previous departments.
 6. Assistance (introduction of IV injections and a catheter, oxygen supply, use of a functional bed, ECG recording and interpretation).
 7. Communication skills with staff and relatives in an emergency patient situation.

- task content:
For each topic nosology:
 1. Briefing.
 2. Conducting a clinical simulation scenario.
 3. Debriefing . _

- recommendations (instructions) for performing tasks:
 1. It is mandatory to have theoretical knowledge on the topic obtained while attending classes at previous departments.
 2. Acquaintance with the methodical recommendations of the department before the class.
 3. Completion of the elective course of the department of simulation medical technologies "Professional communication skills in extreme situations".

- requirements for work results and control materials for the final stage of the lesson:
Passing a clinical scenario with a positive result for a simulated patient.

4. Summary:

After completing the lesson on the topic " Simulation scenarios of the most common emergency conditions in the practice of a general practitioner-family medicine", students should:

To have formed and practiced professional skills in providing emergency care for the most common emergency conditions in the practice of a general practitioner-family medicine doctor.

To learn the ability to independently use knowledge and skills in the diagnosis and treatment of the most common emergency conditions in the practice of a general practitioner-family medicine doctor.

Have a well -formed and clear idea of the sequence of actions in the algorithm for providing emergency care for the most common emergency conditions in the practice of a general practitioner-family medicine doctor.

To have the competence of professional communication in the team when providing emergency care .

5. List of recommended literature:

Main:

1. Emergencies in the practice of a therapist and family doctor / under the editorship Yepishyna A.V. – ISBN: 978-966-673-122-0. Ukrmedknyga 2019p. 380 pages .
2. Mechanical Ventilation in Emergency Medicine . by Susan R. Wilcox & Ani Aydin & Evie G. Marcolini . ISBN 978-3-319-98409-4 ISBN 978-3-319-98410-0 (eBook).
<https://doi.org/10.1007/978-3-319-98410-0/2019> . 122 pages .
3. Acute Medicine : A Practical Guide that the Management of Medical Emergencies , 5th Edition / David C. Sprigings (Editor), John B. Chambers (Editor) - ISBN: 978-1-118-64428-7. July 2017 Wiley-Blackwell , 784 Pages .

Additional:

1. The Complete First Aid Pocket Guide . by John Furst / ISBN 9781507208892 - Adams Media , 2018. 190 pages .
2. Manual of emergency medicine / editor , G. Richard Brian . — 6th ed . ISBN: 978-1-60831-249-8. May 23, 2011. 704 pages .

Electronic information resources:

1. <https://zakon.rada.gov.ua/laws/show/z0356-22#n42>

2. https://courses.prometheus.org.ua/courses/NMU/Cardiology101/2017_T1/course/
3. <https://emergencymanual.stanford.edu/downloads/>
4. <https://www.coursera.org/learn/infarction>
5. <https://www.coursera.org/learn/managing-asthma-allergies-diabetes-and-seizures-in-school>
6. <https://www.futurelearn.com/courses/critical-care>
7. <https://www.medscape.org/viewarticle/964673>
8. <https://www.medscape.org/viewarticle/964201>
9. <https://www.medscape.org/viewarticle/965140>
10. <https://www.c-tecc.org/news/ukrainian-tecc-guidelines>

Practical lessons No. 4 — 5

Topic: Simulation scenarios of the most common emergency conditions in the practice of a pediatrician.

Purpose: To form, master and practice professional skills in providing emergency care for the most common emergency conditions in the practice of a pediatrician.

To learn the ability to independently use knowledge and skills in the diagnosis and treatment of the most common emergency conditions in the practice of a pediatrician.

C to form a clear idea of the sequence of actions in the algorithm of providing emergency care for the most common emergency conditions in the practice of a pediatrician.

To form the competence of professional communication in the team when providing emergency aid .

Basic concepts: Diagnosis and assistance in emergency situations: Respiratory distress , Infectious diseases, Convulsions, Anaphylaxis.

Equipment: PediatricHAL 5 years , oxygen cylinder, computer with monitor and software from a mannequin, mixing console, single-channel wireless system receiver , headset microphone, gooseneck microphone, single-channel wireless system receiver , broadcast video camera, projector (large screen), Ambu bag for children, pulse oximeter , functional bed, tripod, glucometer , equipment for neurological examination, peak flow meter , latex gloves, medical masks, syringes, solutions for injections.

Plan:

1. Organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (frontal survey) :
 - requirements for students' theoretical readiness to perform practical classes (know nosology and their treatment protocols);
 - questions (clinical situations) to check basic knowledge on the subject of the lesson:

For the following conditions of patients (Respiratory distress , Infectious diseases, Convulsions, Anaphylaxis) know:

1. Differential diagnosis.
2. Examination.
3. Making a preliminary diagnosis.
4. Providing emergency care according to protocols.
5. Adherence to the algorithm of actions.

3. Formation of professional skills and abilities:

- mastering skills:

1. Quick recognition of an emergency in a patient.
2. Be able to quickly give and receive commands to medical personnel depending on the critical situation (teamwork).
3. To be able to quickly carry out a differential diagnosis of an emergency.
4. Examination (physical methods, measurement of blood pressure, blood pressure, heart rate, SpO₂, thermometry, capnometry / graphy , glucometry , peakflowmetry , plan of laboratory and instrumental studies).
5. Determination of the treatment scheme based on theoretical knowledge of protocols obtained at previous departments.
6. Assistance (introduction of IV injections and a catheter, oxygen supply, use of a functional bed, ECG recording and interpretation).
7. Communication skills with staff and relatives of the patient in the emergency of the patient.

- task content:

For each topic nosology:

1. Briefing.
2. Conducting a clinical simulation scenario.
3. Debriefing . _

- recommendations (instructions) for performing tasks:

1. It is mandatory to have theoretical knowledge on the topic obtained while attending classes at previous departments.
2. Acquaintance with the methodical recommendations of the department before the class.
3. Completion of the elective course of the department of simulation medical technologies "Professional communication skills in extreme situations".

- requirements for work results and control materials for the final stage of the lesson:

Passing a clinical scenario with a positive result for a simulated patient.

4. Summary:

After completing the lesson on the topic " Simulation scenarios of the most common emergency conditions in the practice of a pediatrician", students should:

Have formed and practiced professional skills in providing emergency care for the most common emergency conditions in the practice of a pediatrician.

To learn the ability to independently use knowledge and skills in the diagnosis and treatment of the most common emergency conditions in the practice of a pediatrician .

Have a well -formed and clear idea of the sequence of actions in the algorithm of providing emergency care for the most common emergency conditions in the practice of a pediatrician.

To have the competence of professional communication in the team when providing emergency care .

5. List of recommended literature:

Main:

1. Emergencies in pediatrics: study guide (University I-II year) / R.I. Potsyurko , L.S. Leskiv, M.M. Monastyrskya and others; under the editorship R.I. Rat _ — 6th ed., revised . and added _ Year: 2017, Number of pages: 200 + 2 color. incl ., ISBN: 978-617-505-557-1
2. Pediatric Emergency Medicine , Second edition , illustrated clinical cases , © 2019 by Taylor & Francis Group , LLC / International Standard Book Number-13: 978-1-4822-3029-1 (Paperback) 978-1-138-34649-9 (Hardback). 436 pages
3. Mechanical Ventilation in Emergency Medicine . by Susan R. Wilcox & Ani Aydin & Evie G. Marcolini . ISBN 978-3-319-98409-4 ISBN 978-3-319-98410-0 (eBook). <https://doi.org/10.1007/978-3-319-98410-0> 2019 . 122 pages
4. Acute Medicine : A Practical Guide that the Management of Medical Emergencies , 5th Edition / David C. Sprigings (Editor), John B. Chambers (Editor) - ISBN: 978-1-118-64428-7. July 2017 Wiley-Blackwell , 784 Pages

Additional:

1. The Complete First Aid Pocket Guide . by John Furst / ISBN 9781507208892 - Adams Media , 2018. 190 pages
2. Manual of emergency medicine / editor , G. Richard Brian . — 6th ed . ISBN: 978-1-60831-249-8. May 23, 2011. 704 pages

Electronic information resources:

1. <https://zakon.rada.gov.ua/laws/show/z0356-22#n42>
2. <https://emergencymanual.stanford.edu/downloads/>
3. [https://www.coursera.org/learn/emergency-care-pregnancy-infants-children ?](https://www.coursera.org/learn/emergency-care-pregnancy-infants-children)
4. <https://www.coursera.org/learn/managing-asthma-allergies-diabetes-and-seizures-in-school>
5. <https://www.medscape.org/viewarticle/972440>
6. <https://www.medscape.org/viewarticle/976576>
7. <https://www.c-tecc.org/news/ukrainian-tecc-guidelines>

Practical classes No. 6 — 7

Topic: Simulation scenarios of the most common emergency conditions in the practice of a therapist.

Purpose: To form, master and practice professional skills of providing emergency care for the most common emergency conditions in the practice of a therapist.

To learn the ability to independently use knowledge and skills in the diagnosis and treatment of the most common emergency conditions in the practice of a therapist.

C to form a clear idea of the sequence of actions in the algorithm for providing emergency care for the most common emergency conditions in the practice of a therapist.

To form the competence of professional communication in the team when providing emergency aid .

Basic concepts: Diagnosis and assistance in emergency situations: Exacerbation of CHD, Stroke, Pain syndrome, Hypertensive crisis.

Equipment: HAL S3201, oxygen tank, computer with monitor and dummy software, mixing console, single-channel wireless system receiver , headset microphone, gooseneck microphone,

single-channel wireless system receiver , broadcast video camera, projector (large screen), bag Ambu, pulse oximeter , cardiograph, defibrillator , functional bed, tripod, glucometer , equipment for neurological examination, peak flow meter , latex gloves, medical masks, syringes, solutions for injections.

Plan:

1. Organizational activities (greetings, verification of those present, announcement of the topic, purpose of the lesson, motivation of higher education seekers to study the topic).
2. Control of the reference level of knowledge (frontal survey) :
 - requirements for students' theoretical readiness to perform practical classes (know nosology and their treatment protocols);
 - questions (clinical situations) to check basic knowledge on the subject of the lesson:

For the following conditions of patients, Exacerbation of CHD, Stroke, Pain syndrome, Hypertensive crisis, know:

1. Differential diagnosis.
2. Examination.
3. Making a preliminary diagnosis.
4. Providing emergency care according to protocols.
5. Adherence to the algorithm of actions.

3. Formation of professional skills and abilities:

- mastering skills:
 1. Quick recognition of an emergency in a patient.
 2. Be able to quickly give and receive commands to medical personnel depending on the critical situation (teamwork).
 3. To be able to quickly carry out a differential diagnosis of an emergency.
 4. Examination (physical methods, measurement of blood pressure, blood pressure, heart rate, SpO2, thermometry, capnometry - graph , glucometry , ECG, plan laboratory and instrumental studies).
 5. Determination of the treatment scheme based on theoretical knowledge of protocols obtained at previous departments.
 6. Assistance (introduction of IV injections and catheter, oxygen supply, use of a functional bed, ECG recording and interpretation, defibrillation).
 7. Communication skills with staff and relatives in an emergency patient situation.

- task content:

For each topic nosology:

1. Briefing.
2. Conducting a clinical simulation scenario.
3. Debriefing . _

- recommendations (instructions) for performing tasks:

1. It is mandatory to have theoretical knowledge on the topic obtained while attending classes at previous departments.
2. Acquaintance with the methodical recommendations of the department before the class.
3. Completion of the elective course of the department of simulation medical technologies "Professional communication skills in extreme situations".

- requirements for work results and control materials for the final stage of the lesson:

Passing a clinical scenario with a positive result for a simulated patient.

4. Summary:

After completing the lesson on the topic " Simulation scenarios of the most common emergency conditions in the practice of a general practitioner", students should:

Have formed and practiced professional skills in providing emergency care for the most common emergency conditions in the practice of a therapist.

To learn the ability to independently use knowledge and skills in the diagnosis and treatment of the most common emergency conditions in the practice of a therapist.

Have a well -formed and clear idea of the sequence of actions in the algorithm of providing emergency care for the most common emergency conditions in the practice of a therapist.

To have the competence of professional communication in the team when providing emergency care .

5. List of recommended literature:

Main:

1. Emergencies in the practice of a therapist and family doctor / under the editorship Yepishyna A.V. – ISBN: 978-966-673-122-0. Ukrmedknyga 2019p. 380 pages .
2. Mechanical Ventilation in Emergency Medicine . by Susan R. Wilcox & Ani Aydin & Evie G. Marcolini . ISBN 978-3-319-98409-4 ISBN 978-3-319-98410-0 (eBook).
<https://doi.org/10.1007/978-3-319-98410-0/2019> . 122 pages
3. Acute Medicine : A Practical Guide that the Management of Medical Emergencies , 5th Edition / David C. Sprigings (Editor), John B. Chambers (Editor) - ISBN: 978-1-118-64428-7. July 2017 Wiley-Blackwell , 784 Pages

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1. The Complete First Aid Pocket Guide . by John Furst / ISBN 9781507208892 - Adams Media , 2018. 190 pages
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Electronic information resources:

1. <https://zakon.rada.gov.ua/laws/show/z0356-22#n42>
2. https://courses.prometheus.org.ua/courses/NMU/Cardiology101/2017_T1/course/
3. <https://emergencymanual.stanford.edu/downloads/>
4. <https://www.coursera.org/learn/infarction>
5. <https://www.coursera.org/learn/managing-asthma-allergies-diabetes-and-seizures-in-school>
6. <https://www.futurelearn.com/courses/critical-care>
7. <https://www.medscape.org/viewarticle/964673>
8. <https://www.medscape.org/viewarticle/964201>
9. <https://www.medscape.org/viewarticle/965140>
10. <https://www.c-tecc.org/news/ukrainian-tecc-guidelines>