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## Guidelines for teaching clinical skills at the practical skills center (using the execution algorithm)

Specialty: 5B130100 "General medicine" Discipline: Obstetrics Course: 4 Department: Obstetrics and gynecology Compiled By: Kulbayeva S. N., Junussova R. K.

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## Considered at the meeting of the Department of obstetrics and gynecology

**Protocol** <u>№ 01 « 28 » 08 2022y.</u>

Head of the Department, PhD, Ass.Doctor, Professor

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S. N. Kulbayeva

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1. Clinical skills title: "Emergency care for eclampsia".

**2.Training objectives**: to teach to practice the knowledge of obstetricians and gynecologists in order to provide emergency care in the diagnosis of eclampsia.

**3.Time for demonstration of skills on a preliminary briefing and a dummy**-5 minutes.

### 4. Time to master skills-10 minutes

**5.The necessary theoretical knowledge to master the skills:** know step-by-step steps to provide emergency care for eclampsia.

6.Llist of models, simulators, mannequins, simulators: Noelle simulator for practical skills.

7.The list of medical instruments and equipment: a list for emergency screening for eclampsia.8. The execution of skills:

| № | Step-by-step actions (in the absence of a doctor)              | executed | Not      | notice |
|---|--|----------|----------|--------|
|   |  |          | executed |        |
| 1 | Lay the patient on the left side                               |          |          |        |
| 2 | Protect from damage, but do not actively restrain.             |          |          |        |
|   | Ensure the patency of the airways (if necessary, use a mouth   |          |          |        |
|   | expander, tongue holder, air duct). In case of respiratory     |          |          |        |
|   | failure, provide oxygen supply (use an Ambu bag).              |          |          |        |
| 3 | Install an IV catheter (No. 14-16)                             |          |          |        |
|   | Inject a solution of magnesium sulfate at a loading dose of    |          |          |        |
|   | 25% - 20.0 ml with an interval of 10-15 minutes,               |          |          |        |
|   | with repeated convulsions 25% - 10.0 ml i / v                  |          |          |        |
|   | With persistent convulsions, diazepam IV slowly at 10 mg (up   |          |          |        |
|   | to 20 mg)  |          |          |        |
| 4 | In the absence of effect - IVL.                                |          |          |        |
|   | Continue the maintenance dose of magnesium sulfate dry         |          |          |        |
|   | matter 1.0-2.0 grams / hour (based on 320 ml of saline 80.0 ml |          |          |        |
|   | 25%: 11 drops per minute -1.0 grams, 22 drops per minute -     |          |          |        |
|   | 2.0 gram).   |          |          |        |
|   | Bladder catheterization.                                       |          |          |        |
|   | With persistent hypertension 160/110 mm Hg. Art. carrying      |          |          |        |
|   | out magnesium therapy according to the clinical protocol for   |          |          |        |
|   | diagnosis and treatment, additionally prescribe                |          |          |        |
|   | antihypertensive drugs.  |          |          |        |
| 5 | Simultaneously carrying out the following laboratory research  |          |          |        |
|   | methods:   |          |          |        |
|   | 1. Interpretation of the complete blood count (platelets)      |          |          |        |
|   | 2. Determination of protein in urine                           |          |          |        |
|   | 3. Monitoring of vital organs                                  |          |          |        |
|   | 4. Bilirubin, ALT, AST, creatinine                             |          |          |        |
|   | 5. Ultrasound + doplerometry of umbilical vessels, CTG         |          |          |        |
|   | 6. Blood clotting time   |          |          |        |
|   | 7. Hemostasiogram  |          |          |        |
| 6 | Treatment in the intensive care unit.                          |          |          |        |
|   | Establish a connection with a vein (insertion of a catheter) - |          |          |        |

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|    | maintenance dose - 25% - 4.0-8.0 ml / h of magnesia sulfate        |  |  |
|----|--|--|--|
|    | (1-2 g dry matter/hour). In the absence of a dispenser -           |  |  |
|    | magnesium sulfate 25% - 60-80 ml per 340.0-320.0 ml of             |  |  |
|    | physical. sodium chloride solution at a rate of 6-12 drops.        |  |  |
|    | /min during the day.   |  |  |
|    | Magnesium sulfate administered at a maintenance dose at            |  |  |
|    | labor and postpartum or after the last convulsions within 24       |  |  |
|    | hours  |  |  |
| 7  | Symptomatic therapy is carried out according to the                |  |  |
|    | appointment of narrow specialists. Infusion therapy is used        |  |  |
|    | only as a carrier medium for pharmacological drugs 80.0 ml /       |  |  |
|    | hour under the control of diuresis (diuresis more than 50 ml       |  |  |
|    | per hour).   |  |  |
| 8  | Pain management: for uncomplicated eclampsia: regional             |  |  |
|    | anesthesia is preferred for anesthesia of caesarean section, for   |  |  |
|    | unstable conditions and complications, total intravenous           |  |  |
|    | anesthesia and mechanical ventilation                              |  |  |
| 9  | When indicated for prolonged mechanical ventilation, it must       |  |  |
|    | be planned no more than $12 + 24$ hours.                           |  |  |
|    | Note: indications for caesarean section:                           |  |  |
|    | Unprepared birth canal   |  |  |
|    | - when the general condition is stabilized. Retinal disinsertion.  |  |  |
|    | Eclamptic coma. Hemorrhagic stroke.                                |  |  |
|    | HELLP - Syndrome.  |  |  |
| 10 | Eclampsia is not an absolute indication for immediate              |  |  |
|    | delivery,  |  |  |
|    | - it is necessary to stabilize the condition of the pregnant       |  |  |
|    | woman.   |  |  |
|    | -delivery after stabilization of the condition for 12 hours,       |  |  |
|    | taking into account the readiness of the birth canal.              |  |  |
|    | - Treatment in the intensive care unit after delivery for at least |  |  |
|    | 48 hours.  |  |  |

# 9.Tasks: diagnosis, demonstration of skills of acceptance of normal childbirth, filling partogram.

#### 10. Materials for assessment on the topic of the lesson

1. Tatyana, 30 years old, pregnant for the first time. Gestational gestational age is 36 weeks. Blood pressure 130/85 mm Hg. At the first visit, blood pressure was 100/70 mm Hg. There are edema on the lower extremities; I gained 18 kg during my pregnancy. The protein content in the urine is 0.15 g/l. The height of the uterine fundus is 34 cm. Preliminary diagnosis:

- a) Pregnancy-induced hypertension
- b) Mild preeclampsia
- c) Severe preeclampsia
- d) Pregnancy-induced edema with proteinuria
- e) Pregnancy-induced hypertension with proteinuria

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2. Rita, 22 years old. Gestational age is 36 weeks. She has no health complaints. There is moderate swelling of the lower extremities. Blood pressure 150/100 mm Hg. The content of protein in the urine - 0.1 g / l. Rita feels the movements of the fetus well. The height of the uterine fundus is 34-cm. Preliminary diagnosis:

a) Pregnancy-induced edema with proteinuria

b) Pregnancy-induced hypertension

c) Severe preeclampsia

d) Mild preeclampsia

e) Pregnancy-induced hypertension with proteinuria

3. Svetlana, 31 years old. Gestational gestational age is 31 weeks. He has no health complaints. Blood pressure 150/100 mm Hg. The protein content in the urine is 0.5 g/l. The height of the uterine fundus is 29-cm. Preliminary diagnosis:

a) Mild preeclampsia

b) Pregnancy-induced edema with proteinuria

c) Severe preeclampsia

d) Pregnancy-induced hypertension

e) Pregnancy-induced hypertension with proteinuria

4. Alena, 20 years old. Gestational gestational age is 34 weeks. Alena complains of headache, nausea, pain in the epigastric region. Blood pressure 180/110 mm Hg. Protein content in urine 1.0 g/l. weakly feels the movement of the fetus. Provisional diagnosis:

a) Severe preeclampsia

b) Pregnancy-induced edema with proteinuria

c) Mild preeclampsia

d) Pregnancy-induced hypertension

e) Pregnancy-induced hypertension with proteinuria

5. Pregnancy 35 weeks. Mild preeclampsia. The estimated weight of the fetus is 2350 g. The degree of maturity of the cervix according to Bishop is 7 points. The absence of diastolic blood flow according to Doppler was stated. Twice with an interval of 1 hour - severe violations of the state of the fetus on CTG. Against the background of treatment it is necessary:

a) Repeat dopplerometry, CTG in dynamics

b) Amniotomy, labor induction by intravenous administration of oxytocin

c) Proceed to the preparation of the cervix

d) Prolong pregnancy for 1 week in the interests of the fetus

e) Perform an emergency delivery by caesarean section

6. A multi-pregnant woman was admitted to the perinatal center with a gestational age of 37 weeks. BP 150/90 mmHg proteinuria 2.64 g/l, on the anterior abdominal wall, on the arms and lower extremities, there is swelling on the face. Fetal ultrasound at 32 weeks. Your diagnosis:

a) Mild preeclampsia. IUGR IIt.

b) Severe preeclampsia. IUGR III.

c) Mild preeclampsia. IUGR I-II

d) Severe preeclampsia IUGR IIt.

e) Pregnancy-induced hypertension with Proteinuria, IUGR II stage.

7. The most effective, recognized and safe method of therapy for the correction of preeclampsia / eclampsia:

a) dopegyt 10 mg twice a day

b) treatment with prostaglandins

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c) treatment with  $\beta$ -blockers

d) magnesium therapy

e) myotropic vasodilator, initial dose 0.25 mcg/kg/min

8. Gestational hypertension is:

a) pre-existing hypertension complicating pregnancy and childbirth

b) hypertension occurring in the first trimester of pregnancy

c) multiple organ syndrome, manifested by an increase

blood pressure and proteinuria

d) the state when the diastolic pressure is greater than or equal to 110 mm Hg. with a single measurement

e) hypertension that occurs after 20 weeks of pregnancy, blood pressure normalizes within 6 weeks of the postpartum period

9. Loading dose for magnesium therapy:

a) 5 grams of dry matter or 20 ml of 25% MgSO4

b) 320 ml fiz. solution 80 ml 25% MgSO4

c) 2 grams of dry matter or 10 ml of 20% MgSO4

d) 250 ml 25% MgSO4

e) 40 mg per 500 ml saline solution

10. A pregnant woman came to an obstetrician-gynecologist with a gestational age of 32 weeks. Complaints of headache, nausea, single vomiting. BP 160/110 mm Hg

The fetal heartbeat is rhythmic, 136 beats per minute. In the urine - protein 0.66 g / l. Tactics of conducting a pregnant woman according to order No. 239 of the Ministry of Health of the Republic of Kazakhstan:

a) start therapy with magnesium sulfate and antihypertensive treatment

b) outpatient monitoring with an adequate assessment of the pregnant woman's condition and the implementation of the doctor's recommendations

c) to be hospitalized by ambulance to a level III institution after stabilization of the condition on the spot

d) hospitalization in a level II institution after stabilization of the condition on the spot

e) does not require treatment, only careful observation

#### 11. Performance evaluation criteria

1. completed the task completely.

2.completed the task in full or in part.

3.the specified task is not fully completed.

#### **12. Literature: basic and additional**

Clinically hettema of hypertension in pregnancy R DSM 27.12.2017 well. No. 36

2. SRC order dated 01.09.2010 № 691 "On approval of the algorithms of action in case of emergency".

#### 13. Standard of correct answers based on materials for evaluation Test tasks:

- 1 D
- 2. B
- 3. C
- 4. A
- 5. E
- 6. B

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7. D

8. E

9. A 10.C

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