

**Methodological guidelines for teachers on teaching clinical skills in The center of practical skills
(using action algorithms)**

Specialty: General Medicine

Discipline: Pediatric surgery

Course: 4th course

Department: Pediatrics 1

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Considered at a meeting of the Department of Pediatrics-1

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1. Name of clinical skill: Siphon enema

2. Learning objective: To train students to perform a siphon enema for Hirschsprung's disease

3. Pre-training and time to display the skill on the dummy: 15 min

4. Time to master the skill: 10 hours.

5. Theoretical knowledge required for mastering skills:

- Anatomy and physiology: know the anatomy and physiology of the pelvic organs;
- General surgery: master the rules of the procedure ;
- Distinguish between a siphon enema and a cleansing enema;

6. A list of trainers, simulators, mannequins models:

- mannequin of a 5-year-old boy;

7. The list of medical products and equipment:

- vaseline or sterile oil;
- gloves, gastric tube;
- Janet's syringe or Esmarch's mug;
- hypertonic solution
- dishes (bucket, basin) for liquid

8. Algorithm of execution skills

№	Algorithm of execution skills	Execution		
		Yes	No	Note
1.	Explain to the patient's parents the essence of the method.			
2.	The child is placed on his back with his legs brought to his stomach and a slightly raised pelvis.			
3.	In the presence of fecal stones, mechanical kneading is used in a bimanual way, followed by the removal of fecal masses in parts.			
4.	An elastic rubber tube (gastric tube) pre-lubricated with vaseline oil is inserted into the rectum.			
5.	Following the tube, an index finger is inserted into the intestine and the end of the tube and sigma are carried out under control, with Hirschsprung's disease above the aganglionic zone			
6.	After establishing the end of the tube in sigma, the bends of the latter are overcome by changing the position of the child, turning the child to one side or another and lifting by the legs			
7.	Observe the rule - the amount of injected liquid (1%			

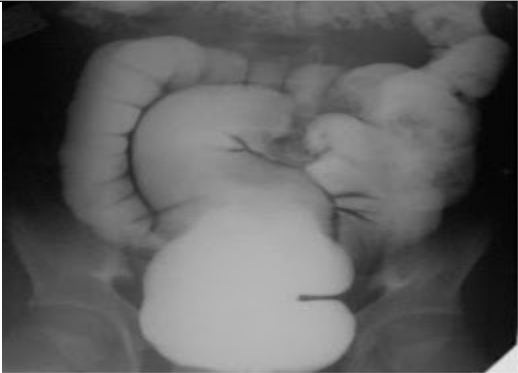
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	NaCl) must correspond to the amount of output.			
8.	The procedure continues until complete laundering, i.e. approximately 15-30 minutes. The volume of liquid consumed is up to 5 liters			
9.	After the enema, the exhaust pipe is left for 15-20 minutes. to evacuate the remaining liquid.			
10.	They wash their hands and finish the procedure			

9. Tasks: 1) A 2-year-old child was examined by a pediatric surgeon in a polyclinic. The child's mother complains of weakness, lack of a chair, the chair only comes out after the enema. From anamnesis: the above complaints have been bothering since birth, the last 3 days of cleansing enemas have not helped. The general condition is satisfactory. The skin and visible mucous membranes of the usual color. The tongue is covered with a white coating, there is no redness in the throat. Breathing is normal. Auscultation: there is no wheezing in the lungs. The heart tones are clear. The abdomen is swollen, participates in the act of breathing. When palpating the abdominal cavity on the right, muscle compaction is noted, with deep palpation, soreness is noted, doubtful. When pressing the anterior wall of the abdominal cavity, finger marks remain, the symptom of "clay" is painless, the symptom of abdominal irritation is negative.

Preliminary diagnosis:	
Interpret laboratory and instrumental examinations:	
General blood test: Hemoglobin - 105 g/l Erythrocytes - 4,Zh1012/l Leukocytes - 9,5x10 ⁹ /l ESR - 10 mm/sag.	
General urine analysis: Volume - 30ml Color – Sarah Ud. weight - 1010 Protein – otr	

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Irrigography		
Clinical diagnosis:		
Prescribe a treatment plan:		

10. Materials for evaluation on the topic of the lesson:

1) The child is 3 years old, complains of weakness, frequent vomiting, lack of independent defecation from the moment of birth, only after an enema. On examination, the volume of the abdomen increased. When pressing on the anterior abdominal wall, fingerprints remain. a symptom of "clay". Your prognostic diagnosis:

- | Hirschsprung's disease +
- | anorectal defects
- | dolichosigma
- | chronic constipation
- | intestinal obstruction

2) A one-year-old child was admitted to the emergency department. According to the mother, the child suffers from constipation from birth, the abdomen is enlarged. Cleansing enemas are ineffective. The effectiveness of these measures:

- | overview radiography of the abdominal cavity
- | biopsy of the small intestine wall
- | Ultrasound of the abdominal cavity
- | coprogram
- | irrigography+

3) Chronic constipation in children ... occurs in the presence of

- | Hirschsprung's disease+
- || dysbiosis
- | bile duct dyskinesia
- | ascariasis
- | sticky disease in the intestine

4) A 6-year-old child was more prone to constipation and the last 2 days were observed during the act of defecation discharge with an admixture of red blood. Your preliminary diagnosis:

- | rectal polyp+
- | rectal tumor
- | intestinal tuberculosis
- | dysentery
- | intestinal invagination

5) A 6-year-old child was more prone to constipation and the last 2 days during the act of defecation and discharge with an admixture of red blood were observed. Actions to establish the diagnosis:

- || overview radiography of the abdominal cavity, esophagoscopy
- | contrast radiographs of the esophagus and stomach
- | colonoscopy, finger examination of the rectum+
- || fibrogastroduodenoscopy, ultrasound
- || esophagoscopy, colonoscopy

11. Evaluation criteria:

№	Execution	Evaluation criteria
1	Completed	All steps are taken into account when performed correctly.
2	Half completed	It is counted for small errors during execution in 3 steps
3	Did not fulfill	Makes mistakes during execution by more than 3 steps.

12. Literature:

Basic:

- 1) Сборник клинических протоколов по профилю педиатрия, разработанных в 2014 году. 1 том- Астана, 2015ж- 616 бет.
- 2) Сборник клинических протоколов по профилю педиатрия, разработанных в 2014 году. 2 том- Астана, 2015ж-667 бет.
- 3) Г.А. Баиров. Детская травматология. –С-Пб-2000г.
- 4) В.Ю. Юмашев Детская ортопедия М. 1991г.

Additional:

- 1) Джумабеков Т.А., Ормантаев К.С., Курманбеков Г.К., Элиас Р.И. Анестезия и интенсивная терапия при тяжелой черепно-мозговой травме у детей.// метод.рек. Алматы. – 1996г.

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2) Ашкрафт, К.У. Детская хирургия / К.У. Ашкрафт, Т.М. Холдер. Санкт-Петербург, 1997. В 3-х томах ISBN 5-90131-10-30

3) Под рук. Ю.Ф. Исакова. Хирургические заболевания детского возраста 2004 г. Учебник в 2-х томах

13. Standards of correct answers for the assessment material:

Answers: 1-A; 2-E; 3-A; 4-A; 5-A; 6-C;