

UDC: 005

## CARE MANAGEMENT PROCESS IN APPENDECTOMY NURSING

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### **Abstract:**

The First appendectomy was made by Claudius Amyand, surgeon at Westminster and St. George's Hospitals, who operated in 1736 a 11 year old boy with a scrotal hernia fistulae. During the intervention he found a perforated appendix by a needle. He risked almost all the appendix, which resulted in the recovery of the patient. In 1755 *Heister* concluded that Appendix may be the site of a primary acute inflammation based on the dissection of a criminal.

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### **Introduction:**

Loyer-Villermay In 1824 introduced in the royal academy of medicine in Paris two cases with acute appendicitis that led to death. In both cases, the autopsy found black appendix while cecum was less affected. Three years later these observations were confirmed by Milier.Husson & Dance articles in 1827, Goldback 1830 and on all Dupuytren in 1935 that discovered the concept of an inflammation, developed by adipose tissue, which surrounds cecum.

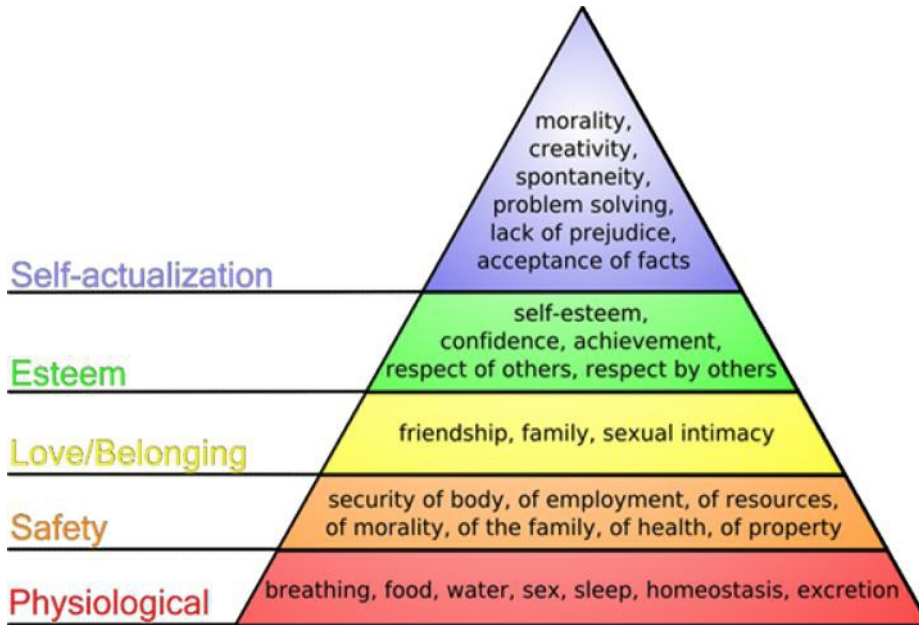
Bright and Addison in 1839 for the first time gave a clear logical description in detail of the disease pathological changes. He was also the first who used the term appendicitis. Evolution of surgical treatment of appendix made an important step forward when Hancock in London successfully operated a 30-year-old woman with a appendicle abscess in 1848.Parker in New York referred to the earliest database for appendicle abscessin 1867 and thereafter many such publications became really popular. Shepherd

referred in 1880 that Tait of Birmingham had operated a patient with a gangrenous appendix and healing came after the removal of appendicitis.

Tait, however, did not describe this case in 1890. So the credit for first publication of appendectomies went to Kronlein in 1886 although the 17 years old patient died two days after the intervention. In 1887 Marton from Philadelphia successfully diagnosed and made an *excision to the* acute inflamed appendix accompanied with the abscesses. Two years later in New York Mc Burney became the pioneer of early diagnosis and intervention, and also of the incision in his name. Important role in early treatment has also Murphy from Chicago. Both surgeons recommended intervention before perforation of appendicitis. Very soon it was realized that in advanced cases surgery had a higher mortality. So Ochsner and Sherren defended the idea of conservative therapy in advanced cases, in the early years of XX. The discovery of antibiotics fortunately resolved conflicts between conservative schools and those of active surgery.

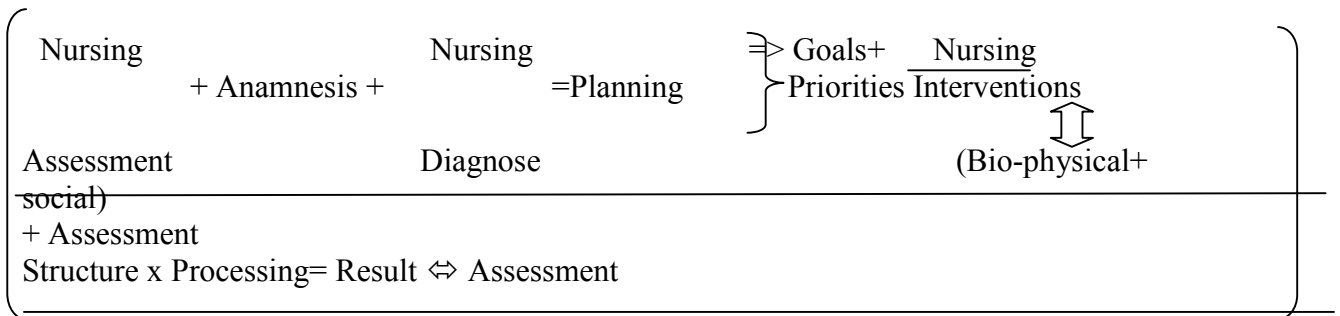
### **Nurse and her/his managerial role:**

It is obvious that the role of the medical staff relating to the service in health care is unique in its kind. Therefore should have seriousness, skills, capacity, and professionalism in this profession. Nurse is an important member that gives medical service, directly included in the relation with the patient; in an assessing and analytic position for the patient's needs and to give him the right care.



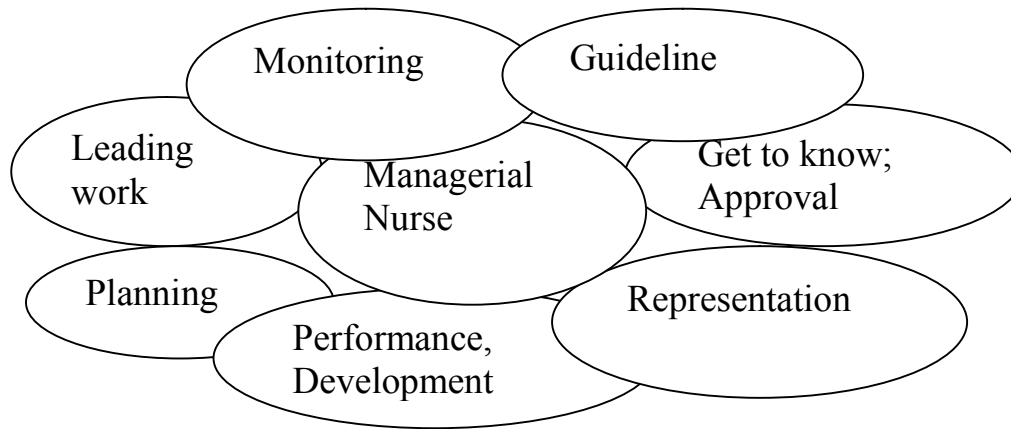
**Maslow Hierarchy:**

Based on the patient needs she/he schedules her/his work-Nursing Process!



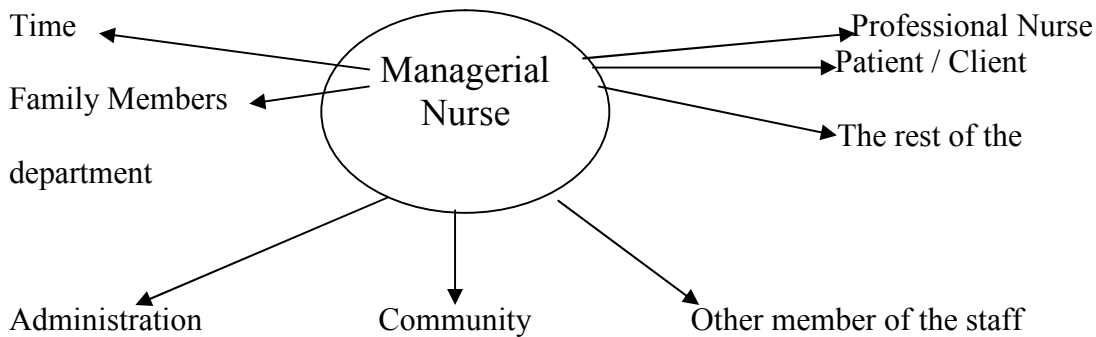
**Nursing process:**

Nurse in a privileged way is known and helps in resolving health problems of the patient; without forgetting the fact that some of the problems cannot be totally resolved. However he should know how to manage every situation; therefore naturally raises the question: *What makes a person an effective manager?* Above all there is “leading work”, which is considered as one of the main principle in effective management of a person, concretely of Nurse. Other components together with the “leading work” who would accomplish the nurse and its managerial role in a systemic way would be:



**Managerial Nurse:**

1. Takes responsibility and directs the team work;
2. It's an active participant in planning team work from the moment of taking responsibility and further on.
3. Take appropriate measures to guide staff members about how should it be done;
4. Facilitate and encourages the progress of work of each staff member;
5. Monitors their work by taking care of them for maintaining quality and proper productivity;
6. Is known, reformulates (if necessary), approves the achievement of this quality and productivity;
7. Managerial Nurse has administrative role.



Managerial Nurse is a person which works for the other, among the others and with others help.

*A more concise and practical vision of a nurse managing and as much effective as possible is described below:*

**A – Leader (leading jobs) ...**

1. Have you made a list a verification of managerial nurse list?
  - Be responsible for the development and performance of your job?
  - To benefit from your knowledge and skills sufficiently?
  - Be critical?
  - Use proper communication?

- To know and comply with different goals?
- To use your energies in the right way?
- 2. *Can you pay the right attention based on your managing responsibilities from both human and financial side?*

**B - Planning...**

1. Did you have time for planning?
2. Do you manage your time according to
  - Necessary emergencies and crisis?
  - Well defined schedule on how you will spend your time?
  - Needed help giving to your staff for better management of time?
3. *Is it your working plan actual and does it put in consideration:*
  - Priorities?
  - Succession?
  - Deadline?
  - The intention of organizing?
  - The ability of group work?
  - Work Features?
4. Is your plan acceptable to the future of your department?

**C - Guidelines...**

1. Do you clearly communicate to the staff?
  - What do you expect of them?
  - How should they do the job?
  - Did you make this non-threatening for people?
2. Do you make sure that everyone has a job description?
3. Do you make a plan which is?
  - Nice and enough for each person?
  - Developed by taking into account the suggestions of staff?

**D - Monitoring...**

1. Do you monitor?
  - Care provided by your staff?
  - Individual performance of each member of the staff?
  - Budget?

2. Do you monitor in a systematic way?
3. Do you use various monitoring, formal and non formal methods?

### **E - Motivations**

- 1-Do you use a variety of prices, positive as well as negative?
- 2-Do you use pricing to reinforce desirable work, and not for a less desirable job or behavior?

### **F - Development ... / performance...**

1. Do you encourage job performance of your staff?
  - Reward it?
  - Made various options available?
  - Support for the implementation of what has been learned?
2. Do you have support in your profession for developing and improving it?

### **G - Representation...**

1. In the representation of each member of staff and staff as a whole, do you put yourself in order to...?
  - A lawyer?
  - Coordinator?
  - Promoter?
2. Do you support administration actions and do you present them in a satisfactory way to your staff?
3. Have you strengthened administrative security?
4. When an action in the administration or security does not work properly in some respects, do you make anything to change them?
5. When you encounter dissatisfaction among staff and administrate, do you negotiate to reach an acceptable solution?

And now a question from me:

- Can you in every day practice answer to every question?

### **General knowledge over acute appendicitis:**

#### **Acute appendicitis.**

Differently known as: "Abdominal Tonsil" because it has a similar size and sensitiveness to infections.

| Data over the cause, physic-pathology and anatomy-pathological changes in acute appendicitis.  |  |  |
|--|--|--|
| CAUSE:   | MECHANISM:   | ANATOMICAL PATHOLOGY:  |
| a- Nutrition factors;<br>b- parasite;<br>c- fecaloide and foreign troops ;<br>d- constipation;<br>e- traumas;<br>f- family presuppositions ;<br>g- various infections. | - Blocking space inside appendix;<br>- Rapid multiplication of its microbes;<br>- Strain of appendix;<br>- Increased venous pressure and compromised blood supply;<br>- Edema of the mucosa;<br>- Influx of bacteria and thickening of appendicitis;<br>- Bulge above the norm;<br>- Perforation;<br>- Kind of well in the abdominal area;<br>- Peritonitis. | Appendicitis:<br><u>a - KATARAL:</u><br>- It presents edematous and hypervascularity<br><br>b - FLEGMONOZ:<br>- Too much edematous and with thick paretis<br><br>c - GANGRENOZ:<br>- - Perforation in peritoneal cavity;<br>- - Thick well with heavy smell. |

*1<sup>st</sup>/Chart*

### Complications in acute appendicitis:

- a - Acute Peritonitis (peri-appendicitis);
- b - Abscesses: peri-appendicular;
- c - Peritoneal Abscesses:
  - In cases of retrocaecal appendicitis;
  - Well among intestine cecum;
- d - Peritonitis diffuse:
  - In perforated cases;
- e - Abscesses subphrenic;
  - Well under diaphragm
- f - Thrombophlebitis
  - Of mezzo appendicitis:
    - Provokes thromboemboli or phlebitis
    - Hepatic abscess formation
- g - Appendicle empyema:
  - Due to the cicatricial blocking the proximal part of appendicitis
- h - Hydrops or mucocele of appendicitis, vermiform process

### **Anatomo – Imunno – Physiology**

In human anatomy, the vermiform process is a blind tube, based on the end of cecum. Its length varies from 2-20cm, but the average is 10cm. A rare case is encountered in Zagreb, Croatia where the length of the removed appendicitis went to 26 cm. Diameter varied from 7-8 mm. Appendix is located in the right iliac fossa. Its position corresponds to a point in the abdominal surface known as the Mc Burney point. Positions where appendix can be found are:

- Retrocecal;
- Pelvic Position;
- Appendix:subhepatic;
- Located in hernia sacus;
- Appendix on left side (situs inversus).

### ***What is the function of human appendicitis?***

For years, appendix is considered as a formation without specific physiological function, whereas today it is known that it plays a role in the fetus as well as in adults. Endocrine cells, which produce amines, peptides and hormones, compounds that help in controlling various biological mechanisms, are putted in fetus since from the eleventh week of pregnancy. Regarding adults, appendix plays role in immune function. Lymphoid tissue starts to accumulate in it, between second and third decades of life, and practically starts to fade after a person is sixty years old. Its function is maturity of B lymphocytes and production of immunoglobulin A (Ig A) – anti troop. So he responds by promoting a local immunity. This local immune system plays a vital role in the physiological response and in controlling of food, drug, microbial or viral antigens. In the last decade has been noted that he could successfully be transplanted into the urinary tract to rebuild a functional cocoon. And he also has a significant function in the treatment of diarrhea.

### **Clinic:**

Symptoms of acute appendicitis are various, immediate, and different from one person to another. It starts with discomfort as a result of a pain that starts in the umbilical area becomes more stressed in the FID and then spreads throughout the stomach. This pain lasts 4-6 hours and becomes more stressed by cough, moves and attacks from the



opposite side. As a consequence of this pain the patient is passive and breathes with difficulty. Change of pain from one patient to another would be:

|                        |   |
|------------------------|---|
| Positive Blumberg Sign | Speaks:<br>- Inflammatory process of peritoneum, pain during palpation on Iliac Fosse Dexter (IFD)  |
| Rovsing Sign           | Present-not specific:<br>- Pressure on the left side- reflection of pain in IFD (consequence of gas relocation from the left settlement of the cecum)                                       |
| Psoasi Sign            | From the extension of the right thigh: when?<br>- Patient lying on the left.<br>Inflamer Appendicitis: where?<br>- Over the psoas muscle.   |
| Lasege Sign            | (appendicitis-where?- retroperitoneal = Inflaming Process in iliopsoas muscle = shows signs = obliged antalgic position of right leg – coxofemoral flexion                                  |
| Obturator Sign         | In the patient in supine position and passive rotation of the right thigh flexion.  |
| Krimov Sign            | Consequence?<br>- Exploration of the right lingual canal: speaks?<br>- Peritoneal Inflammation in this area and skin hyperesthesia near to anterior superior iliac spine on right position. |

*2<sup>nd</sup>/Chart*

### **Diagnosis:**

Acute appendicitis has a variety of clinical forms that make the diagnoses to be determined on the basis of:

- Age;
- Sex;
- Physiological condition
- Acute appendicitis positions (retrocecal, pelvic, subhepatic, ilioinguinal);
- Anatomic pathologic forms;
- Psycho-social situation.

### **Nursing diagnosis in acute appendicitis:**

- Pain in umbilical area that becomes more stressed in the IFD and then spreads throughout the stomach.
- Limited mobility due to pain.

- Nausea, vomiting, anorexia.
- Disordered breathing due to pain and temperature.
- Strong pulse and increasing frequency.
- Fever due to infection.
- Dehydration due to temperature.
- Risk for decubitus ulcer as a result of inactivity and dehydration.
- Anxiety due to the current physiological state.
- Fear of the following result.

### **Principles of nursing care:**

*Nurse-patient relations are better if they are based on these principles:*

- Treats every patient as a special person.
- Respect his feelings.
- Tries to ensure him a good physical, emotional, social and spiritual state.
- Encourages him to actively participate in solving problems that may arise and not be completely passive.
- To communicate with the patient in language and terms that he understands.
- During the nursing care she shouldn't do a routine job, but a job that should be specific and appropriate to the problem that the patient has.
- To enter into the life of the patient as many people possible able to facilitate him the difficult moment.
- For any patient for whom it cares, should use behavioral techniques that match with his physical condition, culture or habits.

### **Care phases:**

Relations with a patient usually last only for a while.

*This is because our goal as a nurse is:*

To improve his health and keep it in good condition. Therefore, the relation should continue just for the period that the patient is in need of service.

*Nursing care is performed in three periods:*

- 1 - Preparatory Period.

2 - The period of nursing care process.

3 - The final period.

-In the first period, the patient and nurse study each other and patient's health needs are determined. In order to begin this work properly and the nurse to get confidence of the patient, it should show courtesy. So treat him politely and with courtesy and should be also an attentive competent listener.

-In the second period, work plan is scheduled and implemented. During this period by serving the patient, the nurse should not interfere in his independence. Trying to do too much is just as harmful as doing less.

-In the last period relations are more limited. The patient can be improved and is able to care for himself or may pass to another service.

### **Acute appendicitis treatment:**

Part of the treatment is management and nursing care, divided into two stages:

a) Pre-operator

b) Post-operative

#### *Pre-operative period*

Pre-operative period starts when the patient presents to the emergency service until his entrance in operatory room.

*Nurse in pre-operative period applies these procedures:*

1- Measures vital parameters (Respiratory Frequency, Cardiac Frequency, Blood Pressure and Temperature) and marks them in nursing file. Vital parameters are measured since from the moment of arrival in hospital until the day of leaving it. This is done to determine the patient's condition and to give him the necessary assistance.

2- Takes responsibility for applying all the necessary tests as:

- Complete Blood: where nursing by establishing a vigo, not only takes blood for examination, but uses it as a route for the administration of various drugs;

- Urinary analysis: where the nurse gives the patient a small sterile bottle and recommends him not to urinate in it the first portion of urine, but the middle portion.

3- Decides nursing diagnoses.

4- Explains to the patient for the operation;

a -Explains him the possible consequences of the operation in acute appendicitis as e.g.: pain.

b-Pays attention to reducing anxiety and fear. (Tells to him about other patients who have performed the same operation and have had good results).

c-Makes possible spiritual care (if necessary).

5-Agrees with the patient and then he signs the approval for the operation that is going to make.

6-While stops him from getting him any food or beverage.

7-Advises the patient to perform exercises to prevent post-operative complications, such as:

a - diaphragmatic breathing;

b - lower limb exercises (like riding a bicycle);

c - To cough, and

d - To move the legs.

8-Assist in performing personal hygiene, if he needs:

a-Takes care for the patient to wash his mouth in order to eliminate food waste which can risk to be absorbed during anesthesia.

b-Care for nails, hair.

-Nails: Anesthetic controls frequently for cyanosis on the face, lips, nails as well. Therefore it is necessary their cleaning by removing manicure and artificial nails, if any.

-Hair: Every kind of hair pin should be removed any the patient should be provided with a pin similar to the nurses. (The last one is done, before they enter the operatory room).

c-Makes cleaning and catheterization of enema. Both of this are done to facilitate the doctor during the intervention, and to not force him to break the rules of hygiene during intervention; to have a post-operative period as calm as possible for the patient.

d-Prepares skin in the operatory area.

- Shaves the area that is going to be operated though it may cause skin irritation. Therefore is recommended t use of depilation creams. Then the skin is washed and dried with sterile gauze.

e-Helps the patient to remove any prosthetic that he has.

f- Recommends him to also take off glasses or contact lenses, because during general anesthesia cornea dries and may suffer Abrasion.

g- Helps the patient to get dressed for the operation.

9- Hears the patient if he has any request or desire (including care for things of value that the patient might have).

10- It applies pre-medication: atropine and valium. It is needed that before the application of pre-medication to be measured FC, FR and data should be recorded on the file. While the nurse informs the patient that after 20-30 minutes, he will feel his mouth dried as a result of atropine and will feel sleepy due to valium. Therefore it should not get up from the bed, because it might fall.

11- The patient leaves to operating room in a wheelchair.

12- Meet with his relatives. Clarifies to them the patient's condition, as well as gives information on the operation.

Note! When intervention is urgent nature, the patient should be prepared for surgery as soon as possible, so many of above described phases are skipped, especially in peritonitis as a result of acute appendicitis.

#### *Post-operative period*

Begins when the patient goes into the awakening room until the anesthesia ends, where the patient can stay for a time of in-tube. This period may be longer for a patient, and less in another, and this depends on many factors, such as:

- Age;
- Associated diseases;
- The duration of anesthesia;
- Type of operation performed (in our case: appendectomy), and
- His nutritional status.

Nursing service, depends on the patient's status

Immediately after the operation, when the patient wakes up in he is brought from the anesthetist, who informs the nurse about the patient's condition and how he spent the intra-operative period, and if there was any problem, what are the nurse's specific tasks. Starting from the patient arrival in the anesthetizing room these actions are applied:

- It connects to devices, Drainage associated with oxygen set, is seen whether there is cyanosis or not and assess awareness situation.
- Record of vital parameters: Cardiac Frequency, Blood Pressure, Respiratory Frequency and Temperature.
- Inspected tubes, drainage, controllers' perfusion and their frequency.

In the first 24 hours can occur such complications as:

1 - Hemorrhage: risk of bleeding sometimes depends on the place rather than quantity. Thus the flow of blood from drainage is a consequence of internal bleeding that continues. It's very dangerous, so should be notified the surgeon immediately. The task of the nurse is to not change any gauze or aspiration system without a doctor's order, but to reduce patient anxiety.

2 - Shock: Is caused by a number of factors: loss of blood, fluids, electrolytes, trauma, anesthesia and pre-medication. The nurse and doctor's role is to not leave the patient alone even for an instant, as his situation may change and intervention must be immediate and energetic.

Treatment: - Depending on the shock.

Attention! In the state of shock should not be prescribed preparations narcotic medicine, because they can enhance it.

3 - Hypoxia: Caused by:

a-anesthetic preparations, taken before and during operation.

b-secretions collected in the bronchi.

c-language decline.

d-Overdose of sedative preparations such as morphine.

Patients with hypoxia are held in respiratory until the elapse of this situation and noted a good oxygenation of the blood and the patient to be active and able to commit himself good ventilation.

4 - The vomiting and aspiration: Cause can be medications given during anesthesia or from the operation itself. Temporarily stop taking fluids from mouth and add the amount of fluid administered intravenously. We can use medications against vomiting. These vomiting, along with the secretions can be aspirated by the patient himself. Therefore,

whenever the nurse sees that the secretions are added aspirates them through the aspiratory engine.

There are times that for various reasons post-operative condition of the patient does not allow removal of the endotracheal tube, because he is not able to ventilate good. This happens especially in the elderly, who can be kept in-tube even for weeks. Tube is connected to a device that does an automatic artificial respiration until the patient takes awareness and is able to swallow and cough.

Problems that a nurse should follow with priority are:

|                            |   |
|----------------------------|---|
| Cardiovascular System      | Measures, observes<br>- Pulse and Blood Pressure, every 5-15 min = comparison with the pre-operative period. Takes care of Vigo |
| Pain                       | Preparations are given strictly as prescribed by the doctor in the file.  |
| Correction of fluid volume | Are supplied perfusions.<br>ATTENTION! Giving blood is decided by the doctor by making the respective notes in the file.        |

*3<sup>rd</sup>/Chart*

**Post-operative care of the nurse as follows:**

- 1 - Breathing and keeping its routs free.
- 2 - Complications in the veins: thrombophlebitis and phlebothrombosis.
- 3 - Giving the patient fluids and food.
- 4- Overview of the skin and movement.
- 5 - Care of the wound opening.
- 6 - Hypo and hyperthermia.
- 7 - Sleep.
- 8 - Hiccup.
- 9 - Caring for yourself.
- 10 - Constipation and diarrhea.
- 11-Acute dilatation of stomach.
- 12 - Urinating.
- 13 - Infection.

**1) Care of patient breathing and keeping respiration ways free:**

Nursing takes care that the patient:

- Be able to draw itself secretions, on the contrary makes their aspirations;
- Encourages cough and deep breathe every 1-2 hours;
- Changes the position of the patient every 2 hours;
- Gives the patient a spirometer and encourages its use;

**2) Prevention of thrombophlebitis and phlebothrombosis:**

Nurse recommends the use of elastic bandage and socks where:

Bandage should be changed and reset every 6-8 hours, and socks once or twice a day. A maneuver that puts in work all the muscles of the lower limbs, their movements in bed are as he is riding the bike.

**3) Giving the patient fluids and nutrition:**

In patients treated with appendectomy is not permitted taking fluids by mouth or swallowing, not even their swallow therefore the nurse wets patient's lips by placing a saturated gauze or move a small piece of ice on his/her lips, to avoid their drying Fluids along with the food is given gradually when peristalsis of intestines begins .

**4) The totality of the skin and movement:**

In patients who had appendectomy performed, the nurse insists on getting out of bed early, since it is an important therapeutic measure ,although painful but it helps the patient:

- To prevent complications;
- To create confidence;
- To fit into society despite some equipment such as:
  - Drainage, Catheter.

(But some patients do not have possibility to a early mobility. Here we have the risk of forming decubitus ulcera, thus for preventing them every two hours the patient is moved frequently on the left or right side)

**5) Hypo and hyperthermia:**

Usually, after the operation, is the reduction of body temperature as a result of taking perfusions which have low temperature. In this case the nurse:

- Preheats the environment where the patient is;



- Give a warm perfusion;
- Covers him with blankets;
- Does the movement of hands and feet, because physical activity helps to turn the temperature to normality and measures it every 4 hours. When the temperature is high, should be made usage of:
- Medications such as Analgesic according to the doctor prescription;
- In case of an infection, antibiotics are used;
- As well as cold compresses.

Temperature is an important indicator of operating performance, and therefore its dynamic tracking has special attention in post-operative period.

#### **6) Sleep:**

Sleep is also an integral part of treatment. But for a patient to have good sleep should be avoided:

- Noise;
- Pain;
- Anxiety;
- Strong light.

To have a good sleep at night, nurse encourages the patient to sleep less during the day.

#### **7) Hiccup:**

Hiccup (singultus) is due to occasional contractions of the diaphragm. It is not only unpleasant, but creates cramps and discomfort in the operation wounds. It may occur when:

- Opening of the wound;
- Lack of appetite;
- Nausea or vomiting;
- General weakness;
- Hydro electrolytic balance disorders.

In this case the nurse informs the doctor.

**8) Self-care:**

What it should be understood with this term is the patient to be able to take food himself, also to do himself personal washing, shaving etc. Early activation of the patient impacts positively on his psychological side.

**9) Constipation and diarrhea:**

In some patients with appendectomy we can see signs of constipation or diarrhea as the result of diet and analgesics. The role of the nurse in this case is to encourage the patient to perform different movements. If the situation is aggravated doctor should be notified.

**10) Acute dilatation of stomach:**

Occurs when stomach accumulated fluids cannot pass through gastro-duodenal sphincter. The condition can be aggravated that it can result into a shock.

To prevent this we place a nasogastric tube, and take it off when peristalsis intestine starts.

**11) Urination:**

It's more than normal for the operated patients to have urination difficulties, especially when surgery is performed in the bottom part. This is due to trauma to tissues near the urinary bladder, which can temporarily diminish sensitivity to urinate, or fear of pain to the patient. Patients are placed a urinary catheter by taking care to prevent infection.

**Wound management:****1. Primary healing wounds:**

This includes those whose wound lips fully comply and are without tension, not contain secretions and are without drainage. These heal quickly, leaving a linear mark and less visible.

**2. Secondary healing wounds:**

These include those wounds whose lips sores not fully comply, often because the drainage of their different subjects, it's caused by the presence of infection. Their healing is slower and often leaves a greater mark.

Often used for these wound drainage is used in order to favor healing. These wounds treated several times a day.

| <b>DUTIES AND RESPONSIBILITIES PERFORMED BY NURSE SUPERVISOR<br/>&amp; NURSE</b> |
|--|
| The approval of the necessary material   |
| Supervision and equipment control  |
| Informing the patient over procedure   |
| Assessment of the surgical wound   |
| Procedure Application  |

*4<sup>th</sup>/Chart*

### **Post-operative measures**

Treating nurse should be considering:

a) Treatment (cladding) is needed:

- Protect the wound from microorganisms and various traumas that can slow healing;
- To absorb wound exudates;
- To contribute keeping wound lips dried;
- To allow the wound to be permeable to air so that it oxygenate in order to allow the granulation process;
- Do not create adhesions with the wound in order not to cause reopening of the wound at the time of its conversion.

b) Inflammatory sings:

- Tumor: swelling.
- Rubor: rash.
- Calor: warmth.
- Dolor: pain.

Functio laesa: loss of functionality.

c) Early complications:

- Allergies caused by antiseptic substances or materials used in wound covering.
- Wound Infection.
- Bleeding of the wound.

**Attention!** In order to prevent wound infections, treatment should begin by following these steps: In patients with clean wounds, with suspicious wounds and at the end with infected wounds.

### Scheme of the organizational procedure

| Where  | When   | To whom  | How  | With which equipment                           |
|--|--|--|--|--|
| In the treatment room or patient room in the surgical ward | <p><b>Simple treatment</b><br/>Primary healing wounds<br/>Changed once a day, in a longer or shorter time depending on the localization and wound healing speed</p> <p><b>Secondary healing wounds</b><br/>May need to be changed several times within 24h</p> | Patients who underwent to surgical intervention. | <p>By providing a suitable environment</p> <p>By providing all the necessary material.</p> | Look at the needed materials for the treatment |

*5<sup>th</sup>/Chart*

#### The needed materials for treatment:

- Sterile Gloves, non sterile gloves;
- Packaged sterile surgical instruments (individual);
- Sterile set for wound treatment (standard or specific to the type of surgery);
- Garza, compresses, strapping,;
- Povidone-iodine/ Betadine in solution acuquosa fl.100ml;
- Hydrogen peroxide 150ml fl;
- Saline;
- Containers for the disposal of contaminated materials;
- Alcoholic Solutions for rapid decontamination of hands;
- Decontamination solution containing containers for surgical instruments used;
- One use scalpel;
- Sterile suture;
- Syringes, age;
- Local anesthetic;
- Drainage standard/per cutan.

### Wound treatment without dren

| Interference  | Motivation  |
|---|---|
| After standing for 24-48 hours covered the clean wounds should be treated once a day (if indicated) or at short intervals or longer depending on the wound and of the speed healing process | Changing of the wound can also favor contamination and frequent changing can damage new formed cells, by damaging its healing |

|  |   |
|--|---|
| <i>If the wound covering is wet, contaminated, or partially restored and a new one should be putted, non-reinforcing the first one</i>   | Humidity caused by the wound secretions and warmth favor the growth of bacteria |
| 1) Preparation of patient:<br>The patient is informed about the procedure that will be applied   | Reduction of the patient's anxiety  |
| 2) Hands washing   | The treatment procedure requires hands washing to prevent cross infections      |
| 3) Patient should be prepared and positioned by providing a better exposure of the wound without revealing the other part that is not part of the procedure.   |   |
| 4) Wearing non-sterile gloves  | Protection of the operator  |
| 5) Plasters are removed with delicacy and in case there are difficulties in removing we can wet them with saline or special solvents and pulling towards the wound with quick and short movements  |   |
| 6) Shifts are taken off and if it is adjacent to the wound we should wet it with sterile saline. Then wound contaminated linen and gloves are thrown in the special containers   | Avoids granulated tissue damage   |
| 7) We should observe the wound and assess its condition for signs of inflammation / infection, the integrity of the suture, leaving the lips of the wound  |   |
| 8) 6) The container of the equipments should open for such equipment as pliers, clammer and their sterility is maintained. Sterile gloves are worn for "touch" technique or non-sterile gloves for the "no touch" technique, for manipulation. |   |
| 9) If clammer comes into contact with material or contaminated areas (contaminated) should be replaced with another  | Avoids transfer of microorganisms from one patient to another                   |
| 10) With pliers you take a gauze and wet it in ether, then go with it through the area around the wound  | Removes adhesive plasters waste   |
| 11) Take a gauze, wet it in saline (or peroxide if there is presence of constant hematic remains) and go over the wound by starting from the suture and continuing to the outer side of the wound without returning                            |   |
| 12) Is taken back by using a sterile gauze and is wet with antiseptic material (iodine-povidone)   |   |
| 13) The wound is disinfected by starting from the  | Do not return in wounds   |

|  |   |
|--|---|
| suture and continuing towards the outside part of the wound without returning again to the sutures   | microorganisms removed from it and should be avoided that microorganisms around it contaminate the wound      |
| 14) The same procedure is repeated again with another gauze  | Such a procedure is necessary to ensure that the used anti-septic acts throughout the whole area of the wound |
| 15) We place sterile gauze over the wound of appropriate size depending on the wound surface   |   |
| 16) Gauzes are fixed with plasters and assess the possibility of allergy by plasters is assessed, plasters used in this case should be hypo allergic |   |
| 17) Instruments used in appropriate containers are re-placed to be cleared   | Isolation of the instruments used for the wound treatment so to avoid contamination                           |
| 18) Procedures followed and observations made are registered in the nursing chart  |   |

6<sup>th</sup>/Chart

### Operatory wound treatment with drainage

| Intervention   | Motivation  |
|--|---|
| Open drainage:<br>The exit point of Drain should be changed (cured) by following aseptic procedure and separated from the treatment of the wound and in some cases even more frequently than the wound | The presence of relation between a cavity that drains and external environment increases the possibility for infections |
| Closed drainage:<br>Collector of drained secretions must be sterile, closed and located below the wound  | To avoid reflux of drained secretions which are much more quickly colonized   |
| Preparation of the Patient<br>Informing him about the procedure that is going to be applied  | Reduction of patient anxiety  |
| Washing Hands  | Medication Procedure needs washing hands to prevent crossed infections  |
| Prepares patient by positioning him in a comfortable way and insuring a good exposure of the wound without revealing other parts not needed for the procedure  |   |
| Wearing non sterile gloves   | Protection of the operator  |
| Plasters are removed with delicacy and in case of difficulty in removal may be wetted with saline or   |   |

|   |  |
|---|--|
| special solvents and pulling towards the wound by quick and short movements   |  |
| Dirty underwear is taken off and if it's adjacent to wound it should be moistened with sterile saline. Vest of contaminated wound are thrown away and gloves also in the respective containers            | Avoids damaging the granulated tissue  |
| The wound should be observed its condition should be observed and for signs of inflammation / infection, the integrity of the suture, removing wound's lips   |  |
| We open the container like pliers, clammer and be careful for their sterility. Sterile gloves are worn for "touch" technique or non-sterile gloves for the "no touch" technique for manipulation.         |  |
| If clammer comes into contact with material or contaminated areas (contaminated) should be replaced with another  | Avoids transfer of microorganisms from one patient to another  |
| It is taken with pliers in a gauze and saturated in ether, then is passed in the area around the wound.   | Removes adhesive waste of the plaster  |
| Is taken a gauze, wetted in saline (or peroxide if there is consistent hematice waste) and passed over the wound starting from the suture and continuing on the outer side of the wound without returning |  |
| Is taken again by using a sterile gauze and sutured with antiseptic material (iodine povidone)  |  |
| Disinfect wound starting from the suture and continuing towards the outside part of the wound without returning again to the sutures  | Do not return in the wound removed organisms from it and should be avoided that microorganisms around it contaminate the wound |
| During this procedure drainage can be taken off   |  |
| If drainage has shifted can be necessary to fix it with a suture  | this avoids drainage slide   |
| It's done a second disinfection of the area around drainage   |  |
| A gauze in Y form is placed around drainage   |  |
| It's done fixation of the covering and drainage with plaster in the "tie" form  | This reinforces drainage stability   |
| Used instruments used are replaced in appropriate containers for cleaning   | Isolation of the used instruments for the wound treatment to avoid contamination   |
| Is recorded the followed procedure and observations made in the nursing file  |  |

7<sup>th</sup>/Chart

**Discussion:**

Acute appendicitis is the most common disease in abdominal emergency and appendectomy most frequent surgery (87.3% of emergency operations are Acute Appendicitis). With an almost equal distribution of M / F with a very light predominance by women (52.2% F / M 47.8%). Mostly affected are young people (15-24 years old), but should not be forgotten elderly (17.4%) where even though occurs rarely it often happens with an atypical anamnesis and in advanced stages, that increases morbidity and mortality in these age. In pregnant women also anamnesis and objective examination are not perfect due to changes in anatomical placement of appendicitis during different periods of pregnancy and physiological changes that occur to women in this period.

Patient history and physical examination are basic in the diagnosing of acute appendicitis. Helping role plays leukocytosis and ultrasonography, the last one not only in the differential diagnosis or treatment. Abdominal scan regardless of its cost is needed in complicated appendicitis and post-operative complications. It is worth noting that negligence and delay of patients at the doctor leads to a late diagnosis and increased appendicitis complicated cases. After diagnosis and hospitalization of patients, the second important moment is their treatment, which depends on the evolutionary stage of appendix and the patient's accompanying diseases.

In every hospitalized patient antibiotic therapy is important (prophylactic antibiotic therapy in uncomplicated appendicitis which reduces the incidence of post-operative infection and the curative antibiotic therapy in complicated cases). Post-operative preparation and antibiotic therapy reduces post-operative complications and mortality.

*Chosen Treatment is: Apendektomia.*

**Conclusion:**

1. All patients with the main symptom pain in FID are suspected for acute appendicitis.
2. Patient's diagnosis is determined according to:
  - Patient illnesses history (anamnesis)
  - objective examination



laboratory examination

- imagery examination
- leukocytosis is almost always present, which makes it very significant.
- ultrasonography is the examination of "routine" choice examinations among imagery examination.
- Antibiotic therapy is the main weapon in combating infections in acute appendicitis.
- Most used treatment: Appendectomy.
- Nurse has a very important role in quality service and reducing post-operative complications. This means that nursing care does not end only with the pre and intra-operator act, but it continues even in the post-operator period.
- A satisfactory work of nurse as a person or part of a group makes him/her be an effective manager.

### **Recommendations:**

- Awareness of nursing staff in the management of patients with Acute Appendicitis;
- Nursing staff should not neglect any proceedings for no reason at all, during the treatment of disease;
- Nursing staff to exercise special care in the prevention of nosocomial infections;
- Nursing should first of all not forget that in a hospital environment is a human being in the service of human being based on the status and nurse code .

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