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AN OUTPATIENT SURGERY CLINIC CENTRE: THE PROBLEM OF ORGANIZATION

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Provision surgery hospitals with modern equipment leads to the rapid rise in cost of the stationary bed. The only way to solve the problem of its rational use is expansion of outpatient care. One of these directions is day-surgery (outpatient surgery). The most difficulty in organizing outpatient care arises when creating a surgical outpatient centre in the clinic. By way of an example of such a successfully run centre, the optimal variant of its organization and rational activity in the most difficult stages are shown. Experience, which authors are guided on, based on the establishment of the centre, where more than seven thousand patients have received treatment. More than 60% of them have had stationary surgery intervention.

Keywords: outpatient surgery technology, day-surgery, polyclinic model, an outpatient surgery surgerry center, the problems of the organization

Оснащение хирургических стационаров современным оборудованием приводит к стремительному удорожанию стационарной койки. Единственный способ решить проблему ее рационального использования — расширение внебольничной помощи. Одним из этих направлений является хирургия одного дня (амбулаторная хирургия). Из существующих форм организации стационарозамещающей помощи в хирургии больше всего трудностей возникает при создании хирургического центра при поликлинике. На примере успешно работающего такого центра показан оптимальный вариант ее организации и рациональной деятельности на первых, наиболее сложных этапах. Опыт работы, на который опираются авторы, основан на создании центра, в котором получили лечение свыше 7 тыс. пациентов. Более 60% из них произведены типично стационарные хирургические вмешательства.

Ключевые слова: стационарозамещающие технологии, хирургия одного дня, поликлиническая модель, центр амбулаторной хирургии, проблемы организации

Objective necessity of constant perfection of the stationary care is connected with prompt growth of cost of a stationary bed that defines a development urgency of out-patient care technologies. This position for surgery - one of the most cost-based public health services branches is especially actual.

From existing forms of the organization of the out-patient care, in surgery a lot of complexities arises are con-

nected with creating of the out-patient surgical center at clinics.

Research objective: To generalize experience of the Center of out-patient surgery (COS), to mark-out high lights in the organization and to show an optimum alternative of rational activity of such center at an initial, most difficult stage.

Material and methods

We have analyzed an experience of the out-patient center successfully working at clinic within 9 years in which, with use of technology of surgery of one day, now is treated more seven thousand patients. More than 60% of them had typically stationary operations (hernias of an abdominal wall, varicose illness of veins of the bottom extremities, varicocele, etc.). There are two initial stages of the organization: preparatory and the activity. Both of them had the features and difficulties in the creation of the center.

Preparatory stage

Necessity of creation of the Center of out-patient surgery in quickly growing city of Surgut with the well enough organized medical aid has arisen with occurrence and growing of turn for planned operations. In «Concepts of development of public health services and a medical science in the Russian Federation», approved by the governmental order of the Russian Federation in November, 5th, 1997 №1387 in III. «Perfection of the organization of medical aid» is specified: « The basic directions in perfection of the organization of rendering of medical aid are development of the primary medicosanitary care based on municipal public health services, redistribution of a part of volumes of the help from stationary sector in out-patient ». Thereupon in 1999 as a variant of a solution of a problem of turns on planned operations, the board of Committee on public health services of administration of Surgut has considered the problem on creation of Center of out-patient surgery (COS) in the city. Taking into account the initiative of a management of a clinic №1 board has decided to organize it there. During this period the complete overhaul of clinic was carried out, and a part of premises have been reconstructed for the future surgical center. The committee on public health services has developed and confirmed regulations of the Center. The main task was the radical improvement of the selective surgery. The approvals of the Regulations become a basis for the further organization of the out-patient center adapted for local conditions. Further at the organization of the out-patient surgical center at the clinic a series of the major problems has been solved. From accounts of regulating orders and a private experience from them after end of reconstruction of premises we have allocated with the cores:

1. The approval of the principal.

The principal to whom was entrusted studying of experience of activity of the existing similar centers, the organization, control and coordination of all process of creation of COS. Surgeon with a long standing of practical activities and management experience in general surgery unit had been chosen. As there was no post of principal in the stuff of clinic at the moment, when the order on opening has issued, the necessary expert has been accepted in clinic staff on a post of the doctor of the surgeon, and all the favorable conditions for his successful work have been framed.

2. Preparation of the list and purchase of the necessary equipment, instruments, expendable materials, medicamental agents, soft and firm stock.

Taking into account forthcoming effort, as much as possible full list of the equipment, instruments, expendable materials, medicamental agents, soft and firm stock has been made. It was necessary to provide all, to examine offers of various firms-manufacturers, to compare the prices and quality of offered assortment of the goods. Taking into account offers of firms of suppliers lists of necessary equipment changed and supplemented. From practical reasons in preference to the firms which are carrying out complex deliveries. In spite of the fact that the majority of firms with which were negotiations, on conditions of city competition haven't got to the list of suppliers, work with them was rather useful and as a result has allowed to buy on the allocated financial assets the most modern, qualitative equipment and toolkit. Many trifles at firms already known for the reliability, were bought already after Center opening.

3. Studying of legislative base and experience of the existing centers of out-patient surgery.

To study the experience of already available COS in details we have familiarized with work of the them in St.-Petersburg and Moscow. The principal of the center has been sent there on a workplace for these purposes. Besides it the analysis of the literature of the surgery of one day, the organization of activity of the out-patient surgical centers has preliminary been carried out. It was not possible to copy the received data in an invariable kind for work of our center for some reasons: orientation exclusively on planned surgery, compactness of residing of patients in the conditions of the small city, the limited dimension of the care at the first stages. However main principles of work have been borrowed from data received in the literature and experience of St.-Petersburg and Moscow. Detailed acquaintance on a workplace with activity of already existing centers of out-patient surgery, with the basic legislative base of their existence, has allowed simplifying and reducing the most difficult initial stage of activity of COS essentially.

4. Working out of the form of work COS.

With reference to local conditions the original form of work according to which the organization of COS activity was schematically represented to next images has been generated.

From city clinics, on the basis of the order of committee on public health services and the written references, the surveyed patients are referred on selection in COS. The decision of operative treatment of the patient in the out-patient center is accepted by the commission as a part of COS manager, the skilled therapist, the psychotherapist, other experts are involved if it is necessary. After that the patient is prepared by surgeon of clinic for the operation in the planned day. At decision-making on possibility of treatment in the conditions of COS the commission is guided by the known standard criteria:

— The general physical and psychological condition of the patient, presence of accompanying diseases, degree of indemnification of disturbances;

— The relation of the patient to operation in out-patient conditions;

— Social and marital status, possibility of participation of relatives;

— In postoperative observation, presence of the lift, phone.

In day of operation survey and necessary preoperative preparation of patients takes no more than 1 hour, depending on dimension of forthcoming operation, a kind of anesthesia, a condition of the patient. Postoperative stay in chamber — 3-4 hours, with as much as possible free impellent regimen under observation of medical and nursing staff. From a clinic the patient is delivered to apartment by transport of treatment-and-prophylactic establishments, accompanied by the medical worker. At home an impellent regimen is as free as much it painful sensations in the field of postoperative seams allow. With the same aim in the first days reception of analgetics even insistently is recommended at the insignificant pains limiting movements.

Postoperative observation and dressings happends in the center where the patient comes in the prescribed days and hours. During all postoperative period telecommunication «the surgeon — the patient» is supported. The first is obligatory «telephone detour» in the evening in day of operation during which the state of health of the patient is estimated, other arisen problems are solved, but the main - actual telephone contact with the patient and his relatives, important for effective postoperative observation is come into. In cases when during «telephone detour» there is a suspicion on complication, survey and a dressing are carried out domiciliary by the attending physician. The main task which we dare with «telephone detour» and a whole bilateral telecommunication is as much as possible complete control over a current of the postoperative period, granting to the patient of comfortable sensation of constant participation of the operating surgeon in his treatment. Thereupon «telephone detours» are obligatory and regular, are spent to the terms defined by a clinical situation. After a removal of sutures, in case of favorable current of the postoperative period, patients leave under observation of the surgeons conducting reception in clinics of a city. Besides surgical methods in COS, conservative treatment of patients with chronic arterial and venous insufficiency of the bottom extremities in volume to 15% from all treated patients are planned. At the usable 6 beds of a day hospital the load is planned about 12 places for patients in day.

5. Preparing and the approval of the list of staff.

Based on regulating orders and planned bulk of work the list of staff is generated and confirmed in these way: the manager, the surgeon, the anesthesiologist, the head nurse, the instrument nurse, the procedural, dressing nurse, nurse-anesthetist, the operational hospital attendant and the hospital attendant of unit.

6. Carrying out of competition and selection of personnel.

The personnel having experience in the out-patient surgical center, presently is the big rarity. Because of this reason at selection of personnel for the future center the preference was given to those who had sufficient experience in a hospital and had interfacing specialties.

Testing of accepted employees for psychological compatibility has been held, with the view of prevention of future conflicts in new-framed collective.

The importance of this action has been confirmed in the most difficult initial stage of activity of the center: its employees worked amicably and harmoniously that has in many respects defined success of formation a new collective.

7. Working out and the approval of functional duties for employees.

Taking into account specificity of activity functional duties for each employee are developed and confirmed. Complexity of this work is bound by fact that specificity of activity in COS don't repeat functions of the medical personnel neither in a hospital, nor in a clinic. Their feature consists in necessity of possession and combination of several interfacing specialties:

— Functions of the operational staff nurse include a part of duties of the head operational staff nurse;

— Duties of the bedside staff nurse enter into functions of the procedural staff nurse;

— Duties enter into functions of the dressing staff nurse on transportation of patients home and dressings domiciliary;

— Duties of the staff nurse of a reception partially enter into functions of the head nurse.

— Taking into account a small nursing staff each of them is obliged to change absent in case of need.

8. Working out lacking registration-forms of account documentation.

In connection with absence of a part necessary for COS registration forms of the documentation confirmed by Ministry of Health, it was necessary to develop them independently. First of all a dossier, being on treatment in COS. As a basis the form 003.У with the standard consent to operative treatment and preoperative epicrisis is taken.

9. Carrying out of information-explanatory work with surgeons of city clinics.

For the organization of a stream of patients in the Center one order of Committee on public health services is not enough. It was necessary to make explanatory work with surgeons of clinics, to give them the information on surgery of one day. The situation in practical public health services is that the majority of doctors has doubts about out-patient conditions possibility to carry out a significant surgical interventions. The reasons of that are a very few number of the information in the periodic medical editions, the special literature on the organization of work of the centers of out-patient surgery. Because of that the necessary information for surgeons of out-patient departments had been issued in the information sheets.

10. Carrying out sanitary-educational work with the people.

All regions took root this form of work have faced a problem of psychological impreparation of the population to operations in out-patient conditions. Its decision — a problem with many components. One of them — information security of the population. Considering impreparation of public opinion, has been developed for the future patients with participation of psychologists advertising leaflet, there are prepared television and radio performances also articles in local periodicals are published.

11. Preparing for work of the received equipment, apparats and toolkit and development of skills of work with them.

Value of this work is difficult to overestimate. Recieved modern expensive equipment demands in work of strict performance of instructions on its operation, besides, it is necessary to use all its possibilities. With purpose of that the point of training of the personnel of working with the equipment has been included in duties of suppliers under the contract. This work in the subsequent has played the positive value, the bought equipment functioned regularly and with a full load.

12. Veneering according to regulating orders of the registration-accounting documentation, marks of necessary stock.

Results of own researches

As a whole, excepting time spent for reconstruction of premises, all preparatory period has occupied 18 months. In August, 2001 the Committee on public health services issued the order on the Center creation, the similar duplicating order is published by clinics management.

From this day the staff has been accepted and work on preparation for reception of the first patients on which one more month was finished.

In September, 2001 the Center of out-patient surgery was opened, and the first operation has conducted. Till the end of the year there had 80 patients been treated, 55 operations of 17 names, including operations concerning inguinal and umbilical hernias, varicose illness of veins of the bottom extremities, a chronic hemorrhoids and others had been executed.

The initial stage of activity of the polyclinic center of out-patient surgery was the most difficult and responsible. Thereupon it's extremely necessary to define the center at this stage of the organization. So, we have allocated the following:

First, absence in clinic of such structures as the round-the-clock hospital, resuscitation and an intensive care imposes on activity of the surgeon and all collective in the conditions of COS special responsibility in all cases, but at the activity initial stage this responsibility repeatedly increases.

It is connected with absence of skills of work as at separate employees, and as a whole collective, and therefore any insignificant deviation in a condition of the planned patient obliges repeatedly to be reinsured in the actions.

It brings excessive intensity in collective's daily work, and it became a reason of undue fatigability at the work initial stages, but to pass this period of development is impossible. It's important to know about it and adequately plane the daily work. With accumulation of the experience all arising problems are perceived much easier, more adequately, don't keep collective in suspense, as at the initial stages.

How to meet the patient, how to organize his survey and observation, it is possible to allow to dilate an impellent regimen to the patient? A lot of the questions should be solved during the first hours, days, months of work. In the center there is no accident ward, the patient arrives on a post of nurse. The part of functions of the staff nurse is assigned to the head sister of COS.

How to organize work in such a situation? Who is responsible for a condition of the operated patient? In functions of stuff it is obligation of nurse and nurse-anesthetist. But the last, as a rule, is occupied in the operational. With experience all the problems in the work organization, thanks to the creative approach of all collective, were eliminated.

It is important, that all members of collective already having the big practical experience in a hospital, had possibility (let and in certain frameworks) to take the initiative. The huge coordinating role of head sister and managing the center is doubtless.

Thirdly, the limited value of surgical activity at the initial stage which is defined by:

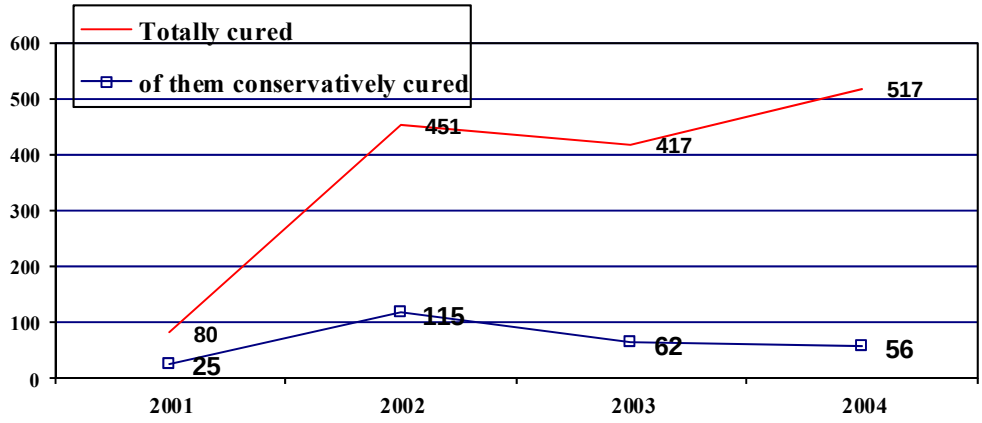
Absence of experience in new conditions, Necessity of rigid selection of patients on purpose to avoid unpleasant and objectively natural complications in any surgical activity. Such complications, at their occurrence at treated in COS patients at this stage will cause an inadequate negative public resonance as a whole about a method and as can become the reason of uncertainty in the actions of the medical personnel. Unevenness of entering of patients from various clinics of a city also compels to correct work value constantly. Despite so hard work, the new form of rendering of the surgery has been apprehended by surgeons with the big vigilance, and the stream of patients from clinics was generated far not at once. It was necessary to take into account impreparation of public opinion to the new form of treatment. There was well-known by personnel surgical hospitals and patients with the big vigilance concerned treatment prospect in the out-patient center. For making a positive opinion about a new method of treatment, taking into account a small city on population, some years of excellent job are required. It is why main principle of work the first months was a very strict selection of patients and a pathologies, demanding planned surgery.

Table 1

Some factors of COS work in 2001-2004

Facts		2001 year (3 mon.)	2002 year	2003 year	2004 year
1	Planned quantity of patients	40	200*	400	400
2	Real quantity of patients	80	451	417	517
8	Average duration of observation of patients in a COS	12,2	9,6	9,2	10,5
12	Operated patients	55	343	356	448
15	% of postoperative complications	0	0,9	0,7	0,4

**Calculation was conducted on 6 beds in shift, the next years – on 12.*



Pic.1. Number of treated patients in COS in 2001-2004 (n-1466)

Taking into account last two objective circumstances in a city the center initially with small number of work (Tab.1, Pic.1) and staff has been organized.

Analyzing some indicators, it is necessary to consider that within four years of work, forms of calculation of a load annually changed. And because there is no specifications, confirmed by the ministry, annually changed the approach to calculation of this indicator. Visually this position is shown on an example of change of the plan by quantity of the treated patients. Because of this it's not obliviously possible to compare the bound indicators for different years. And still, from year to year the number of the treated patients, number and complexity of the executed operations enlarged. Operative activity was enlarged, the quantity of complications decreased. Average duration of stay (more precisely, observations) in COS had been changed.

It is bound up with augmentation of quantity of difficult operations (a making prosthetic appliance hernioplasty, a venectomy) in this connection at the beginning there was a necessity of augmentation of term of their observation. The complicated current of the early postoperative period in COS from the very beginning of activity is very rare, infectious complications for weigh the work period wasn't in general. The reason of it is well-known — absence of conditions for formation of a hospital infection. It is necessary to note, that the character of complications is essentially distinct from those in a hospital at similar operations. For all the period of work any patient hasn't been translated in a round-the-clock hospital.

Discussion of the received results

As a result of the decision of some the major problems of the preparatory period, generated on the basis of regulating orders and a private experience, the account of the major factors defining activity of the center on preparatory and the initial stage of the organization of the center, certain results are received:

— the technology of reception and conducting patients at all stages of treatment is developed, experience of the personnel in specific conditions of COS is saved up.

— missing forms of the medical documentation, the textbook of methodic, an instruction for patients and surgeons are created. Methodical references for students of the medical faculty of SurSU are published; methodical references for practical doctors in the co-authorship are published. Less traumatic technologies are mastered-a basis of technology of surgery of one day: at treatment of varicose illness of veins of the bottom extremities Müller's technique is used, a technique of a latex ligation at a chronic internal hemorrhoids, not clamping methods of treatment of hernias of an abdominal wall. It is developed and began to be used widely an original not clamping hernioplasty at umbilical hernias.

— the possibility of successful treatment of 80-90 patients in a month in practice at operative activity of 80-85% on 6 beds of day hospital in COS is proved.

— owning to successful work of COS collective, was generated the positive public opinion about possibilities about out-patient surgery, constantly increasing stream of patients and the numerous polls spent among patients provide it.

— the Main output of the initial stage of activity was the fact, the stored positive experience has formed the convincing basis for our further development. The principal's decision of public health services about working out of the program of the further development of out-patient surgery in a city became the first step to it. In 2003 is organized an ENT-care, based on COS. Additional surgery block and chamber of a day hospital are opened.

Since 2006 power of the center has been enlarged more than twice, its staff was enlarged to 28 employees, there are developed two surgery and two ENTs blocks, 5 chambers on 3 beds in everyone. The quantity of the treated patients has increased to 1,5 thousand in a year.

Since 2008 the quantity of planned adult hernioplasties made in COS, exceeds their quantity in municipal hospitals.

Direct economy of public health services of Surgut for 5 years only on three groups of the patients operated in the Center: hernias, a chronic hemorrhoids, varicose illness has made more than 7 million roubles. Townsmen had an opportunity to receive the highly skilled surgical help, at the big list of the diseases which number annually increases, without hospitalization.

There also have been admited some errors. We have allocated main of them:

We haven't provided possibility of replacement in case of breakage extremely necessary apparatus. There were few variants: purchase the similar equipment for surgical offices in clinics, other services or offices. We also have corrected this error.

At selection of personnel we haven't provided possibility of replacement of such a narrow experts, like the instrument nurse, the sister-anesthetist. Their absence at work could paralyze work of COS, break the schedule of operations which was prepeared for weeks forward. But we have solved this problem, preparing duplicating structure of these experts from the employees.

Conclusions

The analysis of experience of the Center of outpatient surgery shows, that:

1. Real possibility of the organization of the outpatient surgical center, successfully using technology of surgery of one day in treatment of the big list of surgical diseases at the clinic.

2. High lights in the organization and an optimum variant of activity of such a center at an initial, most difficult stage, are:

— as much as possible full account of all the necessary spadework, based on regulating documents and experience in local conditions.

— accurate realization of tasks in view on preparatory and the initial stage

— the Reasonable account of the factors defining in dynamics value and character activity of the center, among them impreparation of public opinion to the new form of the surgery.