

# ORGANIZATION OF AMBULATORY SURGERY - AN IMPERATIVE NECESSITY IN THE ROMANIAN SANITARY SYSTEM

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## REZUMAT

Punerea la punct a tehnicilor chirurgicale moderne ameliorarea metodelor de anestezie permit efectuarea unor intervenții chirurgicale mai scurte și recuperarea mai rapidă după anestezie. Aceasta permite, în condițiile dezvoltării unui sistem de asistență medicală la domiciliu, reducerea timpului de spitalizare și tratamentul unor boli în condiții de ambulator. În țările dezvoltate, chirurgia ambulatorie este încurajată și susținută de un cadru legal precis ce permite dezvoltarea unităților de chirurgie ambulatorie. Articolul de față rezumă amploarea sistemului de chirurgie ambulatorie în aceste țări și analizează posibilitatea aplicării lui în România.

**Cuvinte cheie:** ambulator, chirurgie, chirurgie de o zi

## ABSTRACT

The development of surgical techniques and important achievements in anesthesiology, shorten the operating time and favor quick recuperation after anesthesia. The development of some home medical assistance systems has led to shorter hospitalization and even ambulatory treatment. Organizational and legal conditions were created, especially in developed countries, to encourage ambulatory surgical units. This article is a summary of the level of ambulatory surgery development in these countries and an analysis of possible applications in Romania.

**Key Words:** ambulatory, surgery, day surgery

Since the oldest times, both patients and surgeons aspired to short operations, performed in comfortable and safe conditions, with the possibility to shorten to the maximum the hospitalization period and the work incapacity that follows. Technical progress allowed the fulfillment of these objectives without diminishing the quality of the surgical act and without endangering the safety of the patient. In the last decade, developed countries are willing to accept, after a period of understandable reticence (even fear) the concept of ambulatory surgery. The process of accepting the ambulatory surgery is complex and implies the whole

society: surgeons, patients, general practitioners, social security institutions and, not last, the political factors.

In the beginning, the ambulatory surgery gestures were performed in surgical departments. Step by step certain units were developed and adapted from organizational point of view to this type of surgery. They are the so called units of ambulatory surgery or “day surgery” units.

Ambulatory surgery performed in a well-organized and safe environment is cheaper than the same activities performed in classical hospitalization conditions.<sup>1</sup> This fact persuaded many countries to encourage the organization of ambulatory surgery units. It is a paradox that not the poor countries promoted this type of surgery, but the rich ones, among them being Australia and the North European countries. These countries have the most developed system of medical ambulatory assistance, backed by a proper legislation.

For example, in January 2000, Australia had 191 centers (most of them private), 326 hospitals and 774 public hospitals that performed ambulatory surgery

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(“day surgery”).<sup>1</sup> The development of ambulatory surgery in this country was mostly stimulated by the fact that the social security institution was giving bonuses to the surgeons that performed operations in the “day surgery” system. Nowadays the Australian law goes as far as to admit the hospitalization of the patients only if they have a certificate that proves that it is necessary from the medical point of view or because of the absence of an accessible center of ambulatory surgery. Ambulatory surgery is having such a success in Australia that the concept of Medi-Motel appeared, allowing the extension of post-operative surveillance with minimum costs.

Even from 1993 the German law (SGB V) committed all the hospitals and specialized cabinets to perform operations in the form of ambulatory surgery. Thus, the so called “day-clinics” appeared.<sup>2</sup> In the 1156 article, the SGB V law defines the structure, the technical endowment, hygienic-sanitary conditions and the required personnel and also the type of pathology authorized to be performed in the “day-surgery” system.<sup>3</sup> In France and Switzerland the public hospitals are committed to have departments of ambulatory surgery, with medium qualified personnel and proper organization, apart from the surgery departments.

After 1990, in Poland, 48 units of ambulatory surgery were created. In 2001 this country had 226 departments of ambulatory surgery, with a total amount of 2638 beds.

## **WHAT KIND OF OPERATIONS CAN BE PERFORMED IN AMBULATORY SURGERY CENTERS?**

In certain limits accepted in the ambulatory surgery, the complexity of surgical interventions depends on the centers’ endowment and the experience of the surgeon.

Nowadays the following operations (guide list) are performed in the “day surgery” centers:<sup>4</sup>

- all the simple interventions, from the “small surgery” category: simple wounds, tendons and muscles sections, damaged nails, evacuations of collections;

- incision and excision of pilonidal cysts;

- proctologic interventions: haemorrhoidectomy, incision of perineal abscesses or internal sphincterectomies;<sup>5</sup>

- surgery of abdominal wall: the cure of inguinal, umbilical and crural hernia, and even cure of eventrations;<sup>6</sup>

- excision of cutaneous and subcutaneous tumors (example: melanomas, ganglion biopsies);

- vascular operations: phlebectomies, internal and external saphenectomies, endoluminal dilatations, arterio-venous shunts for dialysis access or pacemaker implants.<sup>7</sup>

- mammal gland operations: sectorectomies, subcutaneous mastectomies, breast plasties (even with abdominal free-flaps), axial lymphadenectomies.<sup>8</sup>

- gynecological interventions: from curettage to laparoscopic hysterectomies

- ENT interventions: tonsillectomy, adenoidectomy

- Ophthalmologic interventions: cataract, surgery of lachrymal sack.

- Orthopedic interventions: arthroscopies, amputations, osteosynthesis, material ablations

- Rarely were reported funduplications for gastro-esophageal reflux,<sup>9</sup> thyroidectomies,<sup>10</sup> appendectomies,<sup>11</sup> cholecystectomies<sup>12</sup> and laparoscopic splenectomies.

In order to have a more precise idea on the content of ambulatory surgery activity I will quote as an example “Fundacion Hospital Alcorcon” from Madrid, whose experience was synthesized by P Hernandez-Granadas and A Quintanus Rodriguez. It is a multidisciplinary hospital in which each surgical specialization has its own compartment of “day surgery”. Since March 1998 till October 2000, in this hospital were performed 9331 surgical interventions of which 4694 (50,3%) in ambulatory. The distribution of operations in ambulatory was as follows: 75% of ophthalmologic operations, 52% vascular operations, 48% general surgery and 16% urological ones. In the case of general surgery, 1695 operations were performed in the regime of ambulatory surgery, from which 464 inghinal hernia, 400 dialysis shunts, 376 pilonidal cysts, 94 ano-peryneal interventions, 90 ombilical hernias etc. Local anesthesia was performed in 53% of cases, regional anesthesia in 30% and the general anesthesia in 17% of the cases. G Botta from the Center of Phebolymphologic Research, University of Siena, Italy, says that more than 90% of phlebologic interventions can be performed in the system of “day surgery”.<sup>13</sup>

From these data results that the amount of ambulatory surgery activity is consistent in the developed countries. Unfortunately, in nowadays Romania we cannot speak of an organized ambulatory surgery at national level.

## **ECONOMIC ASPECTS OF AMBULATORY SURGERY**

Per ensemble, ambulatory surgery costs the society less than the same operations performed in hospitals.

The costs reduction comes from the smaller operation costs and also from the reduction of post operational surveillance costs, of which the accommodation had an important percentage.

Concerning the cost of the operation it is interesting to notice that the same operation costs less in ambulatory than in hospital. For example, a study made by M. Goss from Torino showed that the same hernioplasty costs 948,298 euro in the ambulatory and 1399,029 euro in the hospital setting.<sup>14</sup> This was also noticed in the case of other operations.

As far as the total costs of ambulatory surgery are concerned, in comparison with the cost in hospitalization conditions, a study made in Southern France (E. Vernes, Clinic University Hospital from Nimes) is significant, if we take into account the opinions of general doctors and the patients and the effective cost of ambulatory surgery. In tables 1 and 2 we show the results of this study, as they appear in the papers of the International Ambulatory Surgery Congress in Geneva, April 2001.<sup>15</sup>

**Table 1.** The results of ambulatory surgery

Interviewed persons	Good (%)	Medium (%)	Poor (%)	No opinion
Family doctors interviewed	80,1	12,1	0,7	7,1
Patients	78,8	14,5	0,3	6,4

**Table 2.** Effective cost of ambulatory surgery in comparison with hospital surgery

Cost per patient	More expensive (%)	The same (%)	Less expensive (%)	No opinion
Patient	6,0	20,3	60,4	13,3
Social security Institution	0,6	1,3	90,8	7,3
Ambulatory Center	5,7	13,0	60,4	20,9
Society	0,9	1,6	88,6	8,9

This study showed without a doubt that ambulatory surgery is very well appreciated among doctors and patients. Also, ambulatory surgery is cheaper for all social factors: patients, social security, sanitary units. From the interviewed family doctors, 68,7% wanted to send more of their patients to an ambulatory surgery center.

In order to respond to this request, ambulatory surgery must be organized and performed after precise criteria along the medical act: patient selection, pre-operational investigations, surgical act and post-operational surveillance until the patient is cured.

## **ORGANIZATION OF AMBULATORY SURGERY**

As follows we will present the criteria and the principles that must be fulfilled by the ambulatory practice.

a). Selection of patients is performed alongside family doctor and, if necessary, anesthesia doctor. Experience showed that the patient's confidence in ambulatory surgery is very important. It is ideal that the patient and doctor try solving of the problem in the ambulatory. Reserved patients must be excluded and also the patients with higher operational risk than ASSA I and ASA II and those that live alone, do not have a phone or live far.

b). Pre-operational anesthetic consult is necessary when it is the case of regional and general anesthesia.<sup>16</sup>

c). Pre-operational investigations are the same as in the regime of hospitalization.

d). Family doctor and nurse must see the patient in the days before the ambulatory operation. Ambulatory surgery does not mean the lack of post-operational surveillance, but the transfer of this activity to the patient's social and medical entourage, with permanent and fast access to the surgeon's services.

e). Organization and endowment of the ambulatory surgery unit must correspond to technical and security laws. The countries where this type of surgery is performed have already legal regulations in this field, continuously improved as the practice goes along. There are also accreditation standards made by ambulatory surgery associations together with the social security system and medical authorities.<sup>17</sup> For the safety of the patients and clarification of the legal responsibility of the personnel, these standards must state the endowment of the center and the types of operations authorized on the basis of the experience of the medical team. It must be prepared to take responsibility in the case of incidents related to the medical act, without forgetting that even in the hospital units such events may occur.

In Romania there are currently no ambulatory surgery centers. The Ministry of Health, The Health Insurance Company, The Medical Doctors Association and the Society of ambulatory surgery must elaborate a legal frame for the ambulatory activity. Without this legal frame ambulatory surgery will develop slow and will be performed in primitive conditions, not secure for the medical team (surgeons, anesthetists, and nurses).

The main purpose of this material was to direct the medical public opinion attention to the necessity of the development of ambulatory surgery centers, because of the comfort offered to the patient and the cost effectiveness. We think that in the present economic conditions the sanitary authorities must encourage, support and guide the establishment of ambulatory surgery centers. This is not a luxury, but a necessity, especially for poor and not well-developed countries.

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