

## Day surgery: banalisation and multiplication of surgical procedures, transfer or additional activity?

E. Guzzanti, F. Mastrilli, I. Mastrobuono\*, M.C. Mazzeo

*National Multidisciplinary Working Group for the Diffusion of Day Surgery, Agency for Regional Health Care Services (ARHCS) Rome, Italy*

*Keywords:* Day surgery; Healthcare changes

The health care systems in all countries of the European Community face similar problems, as reported in the study 'The future of European Health Care', elaborated by Andersen Consulting in co-operation with Burson-Marsteller and supported by the Hospital Committee of the European Community and the European Association of Hospital Managers [1].

Together with the movement towards greater European unity, these problems include:

- aging populations,
- changing disease patterns,
- new developments in diagnosis and treatment,
- increasing specializations and subspecializations,
- increasing citizen expectations.

These problems, which contribute significantly to the increasing of costs, concern all western countries, above all the USA, to which Europe refers, aware of the important influence of North American medicine on our continent.

In particular, the aging of populations will greatly influence the transformation of western health care systems and will contribute, together with new developments in diagnosis and treatment, to implementing the increase in the demand for services.

In Europe, in 1960, those 65 years old and over accounted for under 10% of the general population, but, by 1990, they formed over 15% (about 50 million of people).

Life expectancy has increased in the different European countries and nowadays is between 74.2 years for men and 80.2 for women in Sweden, 71.3 years for

men and 75.5 for women in France, 71.9 for men and 77.6 for women in Great Britain and 73.5 for men and 80.2 for women in Italy. Furthermore, in 1991, in this country the percentage of people 65 years old and over was 14.8% of the general population while those of 75 and over was 6.4%.

On the other hand, in the USA, where life expectancy is 71.3 years for men and 78.3 for women, people 65 years old and over accounted, in 1990, for 12.5% of the total population and those of 75 and over 5%.

Although these values are lower than those reported for Italy, people 65 and over represented 33.6% of patients discharged from hospitals and used 45.4% of hospitalization, with an average length of stay of 8.7 days against the 6.45 of general average (National Discharged Survey, 1990) [2].

People of 75 and over were 18.3% of discharged patients and used 26.4% of hospital stay while the average length of stay was 9.24 days.

In the same year, about 6 600 000 surgical operations, including cardiac catheterism, prostaticectomy, coronary by-pass, implantation of pace-makers, etc. were performed on patients 65 and over.

These data show how the potential of modern medicine together with prevention are increasing life expectancy in the oldest age groups extending the limit in which surgical and medical interventions can be successfully performed. Therefore, the 'absolute' aging of populations, influenced by the increase in life expectancy, and the 'relative' aging of populations, produced by a lower birth rate, have brought about an extensive transformation, in both quality and quantity, of hospital services, particularly surgical.

\* Corresponding author. Agenzia per i Servizi Sanitari Regionali, 00144 Roma. Piazza Guglielmo Marconi, 25, Italy.

In the last decade, the total number of hospital inpatient beds has declined while home care and ambulatory surgery have increased.

In 1991, the index of acute hospital beds was 7.2 per thousand in Germany, 6.9 in France, 6 in Belgium, 4.8 in Denmark, 4.6 in Sweden, 4.2 in Netherlands and Norway, 3.5 in Spain, 2.6 in England and 4.5 in Italy. According to the O.E.C.D. (Organization for Economic Cooperation and Development) [3] our country has shown the greatest decrease in hospital beds (169 198 units), the equivalent of 31.2% for the period 1980 to 1991.

Furthermore, the Tomlinson report 'An Inquiry into London's Health Service, Medical Education and Research' published in October 1992 by Sir Bernard Tomlinson recommended the reduction in number of inpatient beds in central acute hospitals, while, at the same time, increasing day care facilities, community based health services and home care.

The competition among hospitals and between hospitals and day-care facilities, which will increase in the next 5 years is another factor that will favour the decrease of acute hospitals beds.

Therefore, hospitals will strive to offer more outpatient and ambulatory services, in order to compete with ambulatory providers that threaten their ongoing viability and revenue base.

The constant increase in the demand for services is also due to the reappearance and changes in the patterns of many illnesses. In particular, there have been large increases in cancers, in chronic and infectious illnesses, above all AIDS, tuberculosis, and cardiovascular diseases that can be treated surgically both in neonates and patients over 80 years [4].

Thus the need, especially in surgery, of alternative organizational models to satisfy the increasing demand for services and, at the same time, guaranteeing quality and efficiency.

Day surgery is the model that best responds to such needs by diversifying the flow of patients. However, day care must not be considered less important than traditional surgical care in terms of quality, efficiency and reduction of risk for patients. Day surgery will therefore allow traditional methods to provide assistance to a smaller number of patients, who will be affected by more complex pathologies. A future consequence could be an increase in the average length of stay in relation to the increasing demand for emergency care.

For these reasons day surgery must be considered as additional to inpatient care, which leads to the following considerations:

(a) day surgery is a different organizational model with important consequences on the function, management and expenditure of the facilities in which it operates. The development of day surgery may influence the allocation of human and technological resources both in hospitals and community care [5];

(b) day surgery must be performed by experienced medical and nursing staff in order to achieve optimal results in terms of fewer complications and satisfying patient expectations;

(c) day surgery increases and improves the overall surgical activity and for this reason must operate in both large and small hospitals. In the case of large hospitals, day surgery can be more effectively carried out in separate facilities, functionally connected to the main structure but autonomous from an administrative, organizational and economical point of view. In the case of small hospitals, especially in rural areas, day surgery can be part of a more general program of rationalizing services and staff activities in order to provide the local population with the care most frequently guaranteed by larger hospitals. This third point requires further consideration: a consequence of the diversification of patient flow may cause in Europe, the overall increase in the amount of surgery performed with a consequent reflection on the cost of health care as has already happened in the USA. In this regard some explanations are necessary. Medical practice in European countries is not exclusively private, as confirmed by the smaller number of surgical operations performed in Europe as compared to the USA [6].

As an example, for a population of 47 500 000 in 1990 in England, 3 176 983 surgical operations were performed, while in the USA, 22 million operations were performed for a population of 245 million [7].

On the other hand, in the United Kingdom, as in Italy, the scheme for financing health care activities included in the national health service foresees a limit to annual expenditure, while this concept has never been introduced in the USA.

This is why the reform of the European health care systems will induce 'controlled' competition amongst providers of health care services and create a market for buying and selling health care services [8].

The simultaneous start of programs for internal and external control should result in the activities of diagnosis and care being carried in a correct and coordinated manner, without the competition necessarily bringing about an uncontrolled increase in hospital care, including surgery.

In conclusion, as a consequence of aging populations and new developments in technology, in all industrialized countries, there is an increase in the demand for services and above all surgery. It is necessary to guarantee the diversification of the flow of surgical patients so that through rationalized surgical activity, an improvement of services given to both minor and major surgical patients can occur.

While traditional inpatient units will continue to provide care for those having major surgery and the elderly, patients having 'minor' surgery will increasingly be dealt with in alternative care units.

Day surgery is a health care and organizational model that is well suited to this need, as it provides a service to appropriately selected patients on the basis of a high turnover rate. The acute hospital beds that become available can be used to provide better care to severely ill or complicated patients.

The commitment of various European countries to promote this health care model could be in vain without serious policies for training and updating all those operating in the context of health care, that is to say the regional organs of the hospital administrations, the management staff, as well as medical and nursing personnel.

At the same time, it will be necessary to inform the public that this health care model will be adopted not only to rationalize and contain expenses, but to better meet their increasing needs, in terms of reducing the waiting lists and providing psychological and social support.

## References

- [1] Andersen Consulting. The Future of Europe Health Care: A Study by Andersen Consulting in cooperation with Burson-Marsteller. Supported by: Hospital Committee of the European Community and European Association of Hospital Managers, Andersen Consulting, 1993.
- [2] Statistical Abstract of the United States 1990. U.S. Department of Commerce, Bureau of the Census: The National Data Book.
- [3] O.E.C.D. Health Care Systems in Transition. The Search for Efficiency. Paris: O.E.C.D., 1990.
- [4] Hosking MP, Warner MA, Creig M. Outcomes of surgery in patients 90 years of age and older. *J Am Med Assoc* 1989; 261.
- [5] Guzzanti, E. Relazione introduttiva. L'ospedale verso il 21° secolo: evoluzione del ruolo, dell'organizzazione e della struttura per una integrazione nella rete dei servizi assistenziali. Rome: Second European Conference on Hospitals, 17-19 November 1993.
- [6] Burke M. New surgical technologies reshape hospital strategies. *Hospitals* May 5, 1992.
- [7] Outpatient acceleration; 1992 survey traces continued ambulatory care growth. *Hospitals* May 5, 1993.
- [8] Ambulatory encounter systems: implications for payment and quality. *J Ambul Care Manag* 1993; 16: 33-49.