ANAESTHESIA FOR DAY-CARE SURGERY: A SYMPOSIUM (I)*

DAY-CARE SURGERY IN CANADA: EVOLUTION, POLICY AND EXPERIENCE OF PROVINCES

CHANDRAKANT P. SHAH

ABSTRACT

Day-care surgery is a good alternative to conventional inpatient surgery. In Canada, all the provinces have day-care surgery programmes and British Columbia has a highly developed province-wide programme accounting for about 27 per cent of all operations; approximately 44 per cent of all operations in British Columbia could be done in day-care. Extrapolation of these figures nationally for the year 1975 indicates that Canadians could have saved approximately \$209 million in hospital care by day-care surgery for all operations of the 25 procedures most commonly done in day-care. Further, if five other procedures which are suitable for day-care surgery had been so managed, there would have been a further potential of saving \$62 million in Canada. Apart from economic justification, day-care surgery provides high quality care and is acceptable to patients and providers.

DURING THE PAST DECADE, interest in day-care (out patient) surgery has been renewed; surgical centres have opened in the United States, and a number of articles, and even a journal, have appeared on this subject.¹⁻¹⁰ Day-care surgery for minor procedures is now an established alternative to conventional inpatient surgery, but little has been written about provincial policies concerning day-care surgery or the extent of its use in Canada.¹¹⁻¹³ This paper outlines the evolution of day-care surgery in Canada, present policies and experiences in various provinces, and implications for hospital costs.

Before the widespread existence of hospitals, day-care surgery was the only form of care available for many minor procedures. In 1909, 8,988 outpatient operations were performed on children in Glasgow and all patients recovered well.¹⁵ These successful results led the author to comment that the "experience of herniotomy, abdominal section, and other operations in young children treated as outpatients is gradually reconciling me to the view that we keep similar

cases in adults too long in bed." At The Hospital for Sick Children, Toronto, day-care surgery was first reported in 1910: over the next five years (1910-1914), 83.1 per cent (4,576) of all operations (5,507) were done in day-care; of these, 3,583 (78.0 per cent) were for tonsillectomy.¹⁶ One often hears anecdotes of tonsillectomies done on a kitchen table 30 or 40 years ago—a form of day-care surgery.

As more attention was paid to antisepsis and asepsis in surgery and with newer anaesthetic techniques, morbidity and mortality associated with surgery were reduced dramatically. As a result physicians began using more hospital facilities, and shifted some of their office practice to the hospital. By the early thirties and forties private health insurance provided some coverage for hospital care in all provinces; universal hospitalization plans were introduced in Saskatchewan by 1947 and in British Columbia and Alberta shortly afterwards. These insurance plans further promoted this shift to hospital care and provided disincentive for day-care surgery, which they covered only partly or not at all. The federal government's National Health Grant-Aid programme (1948) funded construction of hospitals in provinces which met certain criteria, resulting in a great increase in the number of hospital beds in Canada. Further, in 1957 the Federal Government enacted "The Hospital Insurance and Diagnostic Service Act", by which the cost of universal comprehensive hospital coverage was shared with the provinces. For services provided by the Act, the Federal Government reimbursed the provinces half their hospitalization costs and

*Presented as a Panel at the Annual Meeting, Canadian Anaesthetists' Society, June 1979.

Chandrakant P. Shah, M.D., M.R.C.P. (Glas.), F.R.C.P.(C), M.Sc. (Hyg.). Associate Professor, Department of Preventive Medicine & Biostatistics, and Department of Health Administration; Assistant Professor, Department of Pediatrics, University of Toronto; Staff Physician, The Hospital for Sick Children, Toronto.

Reprint address: Department of Preventive Medicine & Biostatistics, 4th Floor, McMurrich Building, 12 Queen's Park Crescent, University of Toronto, Toronto, Ontario, M5S 1A8.

the hospitals' budgets were based on patient-days. Some ambulatory care services were included and provinces were free to add any services for which they were prepared to pay full cost. This arrangement meant that hospitals would have suffered financially if they introduced day-care surgery. Between 1961 and 1971, the number of hospital beds in Canada increased twice as rapidly as the population (33 vs 18 per cent),¹⁷ rising from 5.9 per 1,000 population in 1948 to 7.0 in 1974.¹⁸ This ratio was, and is, higher than in many other western nations. In 1966 the Parliament of Canada passed legislation, implemented in 1968, providing cost-shared universal medical care.

Factors contributing to increased use of day-care surgery

Cost of health care. During 1960 to 1976 the cost of health care increased substantially: in 1960, 5.5 per cent of the Gross National Product was spent on health care, compared with 7.3 per cent in 1971 and 6.9 per cent in 1975.¹⁷ More than half these costs were related to hospital care. Increased hospital expenditures result principally from the increase in manpower in the early 1960s and in wage levels of hospital workers in the late 1960s and 1970s.¹⁷ Also, expenditure was increased by the introduction of national medicare in 1966. This rising cost of health services concerned governments at all levels. Several reports during this period, including that of the Task Force on Cost of Health Services in Canada, identified hospitals as major cost-generators.^{19,20} Among their recommendations was increased use of day-care surgery.²⁰

Attitudes towards hospitalization

At the same time, health professionals became concerned about the psychological effects of hospitalization on patients, particularly on children. In 1964 a series of 734 children who had undergone operations as outpatients was reported: there had been no deaths or serious complications and day-care surgery was strongly endorsed.²¹ Further reports increased acceptance of the concept, and considered the needs of outpatient anaesthesia.²² By 1969, Robinson, *et al.*²³ reported that 40 per cent of children admitted to Health Center for children in Vancouver for surgery were suitable candidates for day-care surgery. Shah, *et al.* reported a study indicating that parental response to proposed day-care surgery was positive,²⁴ and that day-care surgery was as safe as inpatient surgery, and was gener-

ally an acceptable alternative in random clinical trials of children undergoing certain procedures.²⁵

Other factors

Double-digit inflation and restraint on government spending also led to renewed interest in day-care surgery in the 1970s. Provincial governments have halted construction and even closed hospitals or eliminated beds, and implemented hospital funding which does not depend entirely on patient-days. This strategy provided an incentive for hospitals to provide more efficient care. Also in 1977 the Federal Government's "New Financing of Health Care Programme" changed the financing to provide incentives for provinces to develop alternatives to inpatient care. Day-care surgery has been one alternative.

Provincial Day-care Surgery Policies

During early 1979, all Provincial Ministries or Departments of Health were surveyed regarding certain aspects of their policies toward day-care surgery and the number and types of procedures performed. Their response rate was 100 per cent (Table I).

Although some hospitals in each province have had day-care surgery programmes throughout this century, there was no concentrated effort to promote this until 1968. At present, financing of day-care surgery in most provinces is part of the hospitals' global budget, except for British Columbia, Ontario, and Newfoundland, which have special, annually revised rates. No province financially supports independent surgi-centres as developed in the United States. All of the provinces demand separate statistics on day-care surgery.

Manitoba and New Brunswick indicated that their programmes have evolved over the years and they cannot determine a definite starting date. British Columbia and Quebec have had programmes since 1968; in other provinces these have evolved since 1976. However, Quebec's programme seems geographically limited (i.e. mainly in Quebec City and the Montreal area), whereas in British Columbia the programme has been province-wide since its inception. The percentage of hospitals participating in a programme varies in different provinces and many hospitals have only a very small number of day-care cases. Ontario includes all renal dialyses, blood transfusions for certain chronic conditions and cancer chemotherapy as day-care surgical cases, but data for those procedures were excluded to allow

TABLE I
DAY-CARE SURGERY IN EACH PROVINCE - 1977

Province	No. of surgical procedures	Day-care surgical procedures	Acute-care hospitals	
			No.	No. participating in day-care surgery
British Columbia	275,171	76,180 (27.7%)	101	86
Alberta	167,669	20,851 (12.4%)	124	13
Saskatchewan	69,255	10,760* (15.5%)	132	13
Manitoba	197,689	108,412 (54.8%)	80	37
Ontario	806,572†	280,957† (34.8%)	222	197
Quebec	461,170	104,569 (22.7%)	133	52
New Brunswick	81,285	18,720 (23.0%)	34	12
Nova Scotia	57,369	Not available	48	12
Prince Edward Island	9,710	1,578 (16.3%)	8	4
Newfoundland	59,334	13,685 (23.1%)	34	10
Totals	2,185,224	635,712 (29.1%)		

*Projected from three months' data.

†Excluding renal dialysis, blood transfusions and cancer chemotherapy.

comparison with other provinces (Table I). No data were available for types of procedures for Alberta and New Brunswick. The most commonly performed procedures in the remaining provinces were: dilation and curettage, cystoscopy, therapeutic abortion, dental restoration, endoscopy, local excision of skin lesion, myringotomy, vasectomy, breast biopsy and tubal ligation. The different emphasis in utilization of day-care surgery between provinces could be attributed in part to government policies of financing day-care surgery, lack of facilities, and resistance or inertia by surgeons/anaesthetists and/or administrators.

The type of statistics (information system) available for day-care surgery also varies among provinces and is non-existent in some. British Columbia seems to have a highly developed system and other Provinces would be well advised to follow suit.

Ten years of day-care surgery in British Columbia²⁶

During the first year of day-care surgery in British Columbia (1968) only 64 of 92 acute-care hospitals participated. Of those, 16 hospitals did more than 100 procedures each per year. In 1977, 86 of 101 hospitals participated in the programme and 58 hospitals performed more than 100 procedures per year. Day-care surgical procedures increased from 13,450 in 1968 (7.4 per cent) to 78,180 in 1977 (27.7 per cent) (Table II). The rate per 1,000 population also increased from 6.7 in 1968 to 30.5 in 1977.

For each of the 10 years the 25 operations most

commonly performed on outpatients (Table III) constituted over 80 per cent of all outpatient surgery. In 1968 these 25 procedures accounted for 74,086 operations, of which only 11,214 (15.1 per cent) were in day-care; in 1977, 61,944 (51.1 per cent) of 121,215 such operations were performed on outpatients. Although the percentage of patients undergoing day-care surgery for these procedures has increased steadily, nearly half (48.9 per cent) of these procedures are done on inpatients.

During 1977 approximately 13.4 per cent of patients undergoing day-care surgery were aged 0-14 years, 55.5 per cent were aged 15-44 years, and 25.8 and 5.3 per cent were 45-69 and 70+ years old respectively. The age-specific rates for these age groups per 1,000 population were 17.4, 36.5, 33.2, and 25.0, respectively. Although more than half the population resides in metropolitan areas (Vancouver and Victoria) (56.3 per cent in 1972, 52.9 per cent in 1977) rate of day-care operations was lower (18.5 and 28.3 per 1,000 population in 1972 and 1977 compared to 21.0 and 32.5 in the rest of British Columbia).

In 1977, 25 operations contributed about 81.3 per cent of all day-care surgery procedures (Table III). The greatest overall increase was for therapeutic abortion: in 1969, when this procedure was decriminalized in Canada, only two abortions were done in day-care, but in 1977, 7,654 were performed (67.8 per cent of the 11,285 therapeutic abortions done that year), accounting for 12.4 per cent of all day-care surgical procedures.

Tonsillectomy and/or adenoidectomy in day-

TABLE II
DAY-CARE AND INPATIENT SURGERY IN BRITISH COLUMBIA - 1968-77

Year	All surgery		Day-care surgery		25 operations most commonly performed in day-care				
	No. of operations	Rate per 1,000 pop-ulation	No. of operations	Percentage of all operations	Rate per 1,000 pop-ulation	No. of operations	No. done as in patient surgery	No. done in day-care	Percentage of day-care operations
1968	180,817	90.0	13,450	7.4	7.7	74,086	62,872	11,214	83.4
1969	188,220	91.0	21,496	11.4	10.4	75,120	57,449	17,671	81.2
1970	209,901	98.2	32,177	15.3	15.1	82,126	55,799	26,327	81.8
1971	223,005	102.0	39,577	17.7	18.1	90,723	57,751	32,972	83.2
1972	230,410	102.5	44,092	19.1	19.6	95,766	59,192	36,574	82.9
1973	239,154	103.3	49,841	20.8	21.5	97,184	56,217	40,967	82.2
1974	250,302	104.5	55,340	22.1	23.1	100,991	56,282	44,709	80.8
1975	254,981	103.8	60,978	23.9	24.8	104,074	55,182	48,892	80.2
1976	258,772	104.9	65,672	25.4	26.6	112,269	58,097	54,172	82.5
1977	275,171	110.1	76,180	27.7	30.5	121,215	59,217	61,944	81.3

TABLE III
THE TWENTY-FIVE SURGICAL PROCEDURES MOST COMMONLY PERFORMED IN DAY-CARE - 1977

ICDA-8 codes*	Procedures	Cases
1. 70.2, 70.3 70.4, 70.9	Dilation and curettage of uterus	12,095
2. A4.6, A9.1	Cystoscopy and urethroscopy, retrograde pyelogram	7,938
3. 74.6-74.9	Therapeutic abortion	7,654
4. 99.3, 99.4 99.6, 99.9	Restoration of teeth	5,285
5. A4.2-A4.5	Endoscopy	4,634
6. 92.0, 92.1	Incision or excision of lesion of skin and subcutaneous tissue	2,912
7. 17.0, 17.9	Myringotomy	2,877
8. 60.1	Vasectomy	2,474
9. 65.2, A2.3	Biopsy of breast	2,459
10. 68.2, 68.5	Tubal ligation	1,936
11. 88.2	Excision of lesion of muscle tendon and fascia	1,734
12. 19.0-19.7	Nasal surgery	1,621
13. 88.9	Other operations on muscle, tendon, fascia and bursa	849
14. 80.8, 81.6	Removal or application of fixation device without manipulation for reduction	800
15. 13.6	Photocoagulation of retina	737
16. 78.1	Dilation and curettage after delivery or abortion	727
17. 83.0, 83.3 84.0, 84.4	Closed reduction of fracture of: wrist, elbow, knee or shoulder	696
18. A1.8	Biopsy of stomach and intestines	686
19. 57.1, 57.5	Meatotomy; dilation of urethra	658
20. 61.2	Circumcision	652
21. 56.1	Local excision and destruction of lesion of bladder	613
22. 21.1-21.3	Tonsillectomy and/or adenoidectomy	591
23. 92.4	Removal of nail, nailbed or nailfold	473
24. A5.3	Peritoneoscopy	459
25. 92.2	Wide or radical excision of lesion of skin	384
Total		61,944

*International Classification of Diseases, Adapted, 8th edition.

TABLE IV

POTENTIAL EFFECT OF DAY-CARE SURGERY ON CASES, DAYS OF HOSPITAL CARE, NUMBER OF BEDS AND COST IN ACUTE GENERAL AND ALLIED SPECIAL HOSPITALS IN CANADA FOR THE YEAR 1975²⁶

	Cases		Days of hospital care		Potential savings	
	No.	%	No.	%	No. of beds	Dollars
Total separation	3,677,274	100.0	40,924,511	100.0	—	—
Separation after operation	1,898,008	51.6	16,343,958	40.0	—	—
Separation for procedures most commonly done in day-care in British Columbia 1977	620,708	16.9	2,790,008	6.8	8,992	209,362,200.00
Five other procedures commonly done in day-care	120,934	3.3	830,671	2.0	2,677	62,333,551.00
Total					11,669	271,695,751.00

care can be very safe and is one of the 25 most commonly done procedures, but in British Columbia only a small proportion being handled this way.^{27,28}

The British Columbia experience indicates that age and geographic location are not barriers to day-care surgery and surgeons and anaesthetists consider it a good alternative to in patient surgery.

Potential effect of day-care surgery on hospital beds and costs

To determine the effect of day-care surgery on patient-days and number of separations from hospital, data were obtained from Statistics Canada for the most recent reported year (1975, Table IV).²⁹ If, throughout Canada, all cases of the 25 procedures most commonly performed in day-care surgery in British Columbia and the other five procedures often managed in day-care surgery (operations for non-recurrent inguinal hernia, varicose veins, haemorrhoids, cataracts and pilonidal sinus,³⁰⁻³⁵) were done in day-care, separations from hospital could be reduced by approximately one-fifth, or 8.8 per cent of hospital bed-days would be saved. Furthermore, as we know from British Columbia's experience other cases also can be handled in day-care.

Day-care surgery has short- and long-term cost implications. In the short-term, day-care surgery is less expensive than in patient surgery.^{1,9,36} Possible savings in number of beds and dollars, extrapolated from the total number of hospital bed-days used for the 30 procedures mentioned earlier (Table III), are seen in Table IV. The number of hospital beds saved equals the total hospital-days for these procedures, divided by the number of days in a year (365), multiplied by

the occupancy factor in general hospitals (0.85). Savings were calculated using the data of Evans, Kinnis and Robinson³⁶ which indicated that day-care surgery costs only a third as much as in patient surgery; hence, 67 per cent of hospitalization cost would be saved. Savings in dollars in 1975 would have equalled 0.67 of total hospital days for the procedures, multiplied by the per diem rate for acute-general and allied special hospitals (\$112). Therefore, if all operations in Canada involving those 30 procedures had been done in day-care in 1975, and the extra in patient beds closed, the Canadian taxpayer could have saved 11,000 beds and \$271 million (Table IV). When hospital administrators and Boards realize the extent of savings possible in day-care surgery, they will be more interested in these programmes, especially in hospitals now on global budgets. The surplus of beds released by day-care surgery could be used for chronic and extended care. Long-term implications of day-care surgery result mainly from reduced capital-construction costs to meet future bed needs.

Acceptability of day-care to providers and recipients of care

Day-care surgery is quite acceptable to surgeons and anaesthetists, as is evident from their widespread use. Procedures not previously attempted in day-care (e.g., liver biopsy, femoral arteriography, arthroscopy) are now being undertaken.³⁷⁻⁴⁰ The main advantage of day-care surgery to surgeons is the reduction of waiting time for elective surgery and of the number of postoperative visits; this increases productivity. The major disadvantage has been the fear of litigation if a postoperative complication occurs at home. However, good pre- and postoperative as-

assessments minimize postoperative problems. Most studies report that approximately five per cent of postoperative patients are admitted to hospital, usually because a more extensive procedure was done than had been anticipated, or the patient experienced more than usual postoperative complications.^{1,11,25}

Several studies have indicated that parents of children undergoing day-care surgery consider this preferable to conventional in-patient surgery, mainly because it reduces the psychological trauma associated with hospitalization.^{11,21,25} Most adult patients and their families also responded favourably to this form of surgery, citing the comfort of recovering in a familiar atmosphere.

REFERENCES

1. REED, W.A. & FORD, J.L. The Surgicenter: an ambulatory surgical facility. *Clin. Obstet. Gynecol.* 17: 217 (1974).
2. CLOUD, D.T., REED, W.A., FORD, J.L., LINKNER, L.M., TRUMP, D.C. & DORMAN, G.W. The Surgicenter: a fresh concept in outpatient pediatric surgery. *J. Pediatr. Surg.* 7: 206 (1972).
3. ARMITAGE, E.N., HOWAT, J.M. & LONG, F.W. A day-surgery programme for children incorporating anaesthetic outpatient clinic. *Lancet* 2: 21 (1975).
4. SMITH, B.L. & YOUNG, P.N. Day stay anaesthesia. A follow-up of day patients undergoing dental operations under general anaesthesia with tracheal intubation. *Anaesthesia* 31: 181 (1976).
5. PATTERSON, J.F., JR., BECHTOLDT, A.A. & LEVIN, K.J. Ambulatory surgery in a university setting. *J.A.M.A.* 235: 266 (1976).
6. KROOVAND, R.L. & PERLMUTTER, A.D. Short stay surgery in pediatric urology. *J. Urol.* 120: 483 (1978).
7. EPSTEIN, B.S., COAKLEY, C.S. & LEVY, M.L. Outpatient surgery: guidelines for organization of unit for selection of patient and surgical procedure. *Hospitals* 47(17): 80 (1973).
8. RUCKLEY, C.V., MACLEAN, M., LUDGATE, C.M. & ESPEY, A.J. Major outpatient surgery. *Lancet* 2: 1193 (1973).
9. SALTZSTEIN, E.C., SULLIVAN, C.B., PATTERSON, E.M. & HILLER, J.A. Ambulatory surgical unit, alternative to hospitalization. *Arch. Surg.* 108: 143 (1974).
10. SAME-DAY SURGERY, Atlanta, Ga. 1(1) (1977).
11. DAVENPORT, H.T., SHAH, C.P. & ROBINSON, G.C. Day surgery for children. *Can. Med. Assoc. J.* 105: 498 (1971).
12. DECHENE, J-P. Anaesthesia for ambulatory surgery. *Canad. Anaesth. Soc. J.* 25: 512 (1978).
13. STEWARD, D.J. Outpatient pediatric anesthesia. *Anesthesiology* 43: 268 (1975).
14. SHAH, C.P. & ROBINSON, G.C. Day-care surgery in British Columbia: a 7-year experience (1968-1974). *Can. Med. Assoc. J.* 116: 1031 (1977).
15. NICOLL, J.H. The surgery of infancy. *Br. Med. J.* 2: 753 (1909).
16. THE HOSPITAL FOR SICK CHILDREN, Toronto, Ontario. Annual Reports 1910-1914.
17. VAYDA, E., EVANS, R.G. & MINDELL, W.R. Universal health insurance in Canada: history, problems, trends. *J. Community Health* 4: 217 (1979).
18. SODERSTROM, L. The Canadian Health System. London: Croom Helm p. 26 (1978).
19. GOVERNMENT OF QUEBEC. Health: Report of the Commission of Inquiry on Health and Social Welfare. Part II: The Health Plan. Quebec, 1970.
20. GOVERNMENT OF CANADA, DEPARTMENT OF NATIONAL HEALTH & WELFARE (Committee on Costs of Health Services) Task Force Reports on the Cost of Health Services in Canada: Summary. Ottawa, Information Canada, Cat. No. H32-170 (1970).
21. LAWRIE, R. Operating on children as day-cases. *Lancet* 2: 1289 (1964).
22. COHEN, D.D. & DILLON, J.B. Anesthesia for outpatient surgery. *J.A.M.A.* 196: 1114 (1966).
23. ROBINSON, G.C., SHAH, C.P., ARGUE, C., KINNIS, C. & ISRAELS, S. A study of the need for alternative types of health care for children in hospitals. *Pediatrics* 43: 866 (1969).
24. SHAH, C.P., PAPAGEORGIS, D., ROBINSON, G.C., KINNIS, C. & ISRAELS, S. A study of the need for alternative types of health care for children in hospital: parental attitudes towards day care. *Pediatrics* 44: 338 (1969).
25. SHAH, C.P., ROBINSON, G.C., KINNIS, C. & DAVENPORT, H.T. Day care surgery for children: a controlled study of medical complications and parental attitudes. *Med. Care* 10: 437 (1972).
26. GOVERNMENT OF BRITISH COLUMBIA, MINISTRY OF HEALTH (Hospital Programs, Research Division) Report on Day Care Surgery (1977).
27. CHIANG, T.M., SUKIS, A.E., & ROSS, D.E. Tonsillectomy performed on an outpatient basis: report of a series of 40,000 cases performed without a death. *Arch. Otolaryngol.* 88: 307 (1968).
28. T & A's spark varied opinions among otolaryngologists. *Same-Day Surgery* 1(6): 79 (1977).
29. GOVERNMENT OF CANADA, STATISTICS CANADA (Health and Welfare Division, Public Health Section). Surgical procedures and treatments. (A Report on surgical operations and nonsurgical procedures performed on inpatients in Canadian hospitals.) Ottawa, Information Canada, Cat. No. 82-208, 4-2304-554 (1974).
30. RUSSELL, I.T., DEVLIN, H.B., FELL, M., GLASS, N.J. & NEWELL, D.J. Day-case surgery for hernias and haemorrhoids; a clinical, social, and economic evaluation. *Lancet* 1: 844 (1977).
31. Editorial. Outpatient treatment of haemorrhoids. *Br. Med. J.* 2: 651 (1975).
32. GARRAWAY, W.M., CUTHBERTSON, C., FENWICK, N., RUCKLEY, C.V. & PRESCOTT, R.J. Consumer acceptability of day care after operations for hernia or varicose veins. *J. Epidemiol. & Community Health* 32: 219 (1978).
33. WILLIAMSON, D.E. Outpatient cataract-implant surgery compared with outpatient cataract-standard surgery. *Ann. Ophthalmol.* 10: 957 (1978).
34. WILLIAMSON, D.E. One thousand consecutive outpatient cataract extractions. *Eye, Ear, Nose & Throat Monthly* 54(2): 37 (1975).

35. RICKLES, J.A. Ambulatory surgical management of pilonidal sinus. *Am. Surg.* 40: 237 (1974).
36. EVANS, R.G., KINNIS, C. & ROBINSON, G.C. A cost-analysis of alternatives to traditional inpatient care in a children's hospital - Surgical day care and care by parent. Final Report. Vancouver, B.C., University of British Columbia, Department of Economics and Division of Population Paediatrics, Department of Paediatrics, December (1978).
37. PERRAULT, J., MCGILL, D.B., OTT, B.J. & TAYLOR, W.F. Liver biopsy: complications in 1,000 inpatients and outpatients. *Gastroenterology* 74: 103 (1978).
38. WILDE, W.L. Femoral arteriography in outpatients. *Am. J. Surg.* 129: 606 (1975).
39. MCGINTY, J.B. & MATZA, R.A. Arthroscopy of the knee. Evaluation of an out-patient procedure under local anesthesia. *J. Bone Joint Surg. [Am]* 60-A: 787 (1978).
40. MERCIER, C., PAGE, A., VERDANT, A., COSSETTE, R., DONTIGNY, L. & PELLETIER, L.C. Outpatient management of intercostal tube drainage in spontaneous pneumothorax. *Ann. Thorac. Surg.* 22: 163 (1976).

RÉSUMÉ

La chirurgie d'un jour est une alternative valable à la chirurgie conventionnelle du malade hospitalisé. Au Canada, toutes les provinces ont des programmes de chirurgie ambulatoire et la Colombie Britannique a un programme provincial qui représente 27 pour cent de toutes les opérations et environ 44 pour cent de toutes les interventions de cette province pourraient être effectuée selon ce mode. En extrapolant ces chiffres à tout le pays, on peut dire que pendant l'année 1975, les canadiens auraient économisé environ 209 million de dollars dans les coûts des soins hospitaliers en recourant à la chirurgie d'un jour pour les 25 interventions les plus courantes. De plus, si cinq autres interventions possible en chirurgie ambulatoire avaient été ajoutées, on aurait pu économiser 62 million de dollars de plus. En plus de cette justification économique, la clinique d'un jour procure une haute qualité de soins et est acceptable aussi bien par les usagers que par ceux qui rendent ce service.