HARVARD | BUSINESS | SCHOOL

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Shouldice Hospital Limited (Abridged)

Two shadowy figures, enrobed and in slippers, walked slowly down the semi-darkened hall of the Shouldice Hospital. They didn't notice Alan O'Dell, the hospital's managing director, and his guest. Once they were out of earshot, O'Dell remarked good naturedly, "By the way they act, you'd think our patients own this place. And while they're here, in a way they do." Following a visit to the five operating rooms, O'Dell and his visitor once again encountered the same pair of patients still engrossed in discussing their hernia operations, which had been performed the previous morning.

History

An attractive brochure that was recently printed, although neither dated nor distributed to prospective patients, described Dr. Earle Shouldice, the founder of the hospital:

> Dr. Shouldice's interest in early ambulation stemmed, in part, from an operation he performed in 1932 to remove the appendix from a seven-year-old girl and the girl's subsequent refusal to stay quietly in bed. In spite of her activity, no harm was done, and the experience recalled to the doctor the postoperative actions of animals upon which he had performed surgery. They had all moved about freely with no ill effects.

By 1940, Shouldice had given extensive thought to several factors that contributed to early ambulation following surgery. Among them were the use of a local anesthetic, the nature of the surgical procedure itself, the design of a facility to encourage movement without unnecessarily causing discomfort, and the postoperative regimen. With these things in mind, he began to develop a surgical technique for repairing hernias[1] that was superior to others; word of his early success generated demand.

[1] Most hernias, knows as external abdominal hernias, are protrusions of some part of the abdominal contents through a hole or slit in the muscular layers of the abdominal wall which is supposed to contain them. Well over 90% of these hernias occur in the groin area. Of these, by far the most common are inguinal hernias, many of which are caused by a slight weakness in the muscle layers brought about by the passage of the testicles in male babies through the groin area shortly before birth. Aging also contributes to the development of inguinal hernias. Because of the cause of the affliction, 85% of all hernias occur in males.

Professor James Heskett prepared the original version of this case, "Shouldice Hospital Limited," HBS No. 683-068. This version was prepared jointly by Professor James Heskett and Roger Hallowell (MBA 1989, DBA 1997). HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

Dr. Shouldice's medical license permitted him to operate anywhere, even on a kitchen table. However, as more and more patients requested operations, Dr. Shouldice created new facilities by buying a rambling 130-acre estate with a 17,000-square foot main house in the Toronto suburb of Thornhill. After some years of planning, a large wing was added to provide a total capacity of 89 beds.

Dr. Shouldice died in 1965. At that time, Shouldice Hospital Limited was formed to operate both the hospital and clinical facilities under the surgical direction of Dr. Nicholas Obney. In 1999, Dr. Casim Degani, an internationally-recognized authority, became surgeon-in-chief. By 2004, 7,600 operations were performed per year.

The Shouldice Method

Only external (vs. internal) abdominal hernias were repaired at Shouldice Hospital. Thus most first-time repairs, "primaries," were straightforward operations requiring about 45 minutes. The remaining procedures involved patients suffering recurrences of hernias previously repaired elsewhere.[2] Many of the recurrences and very difficult hernia repairs required 90 minutes or more.

In the Shouldice method, the muscles of the abdominal wall were arranged in three distinct layers, and the opening was repaired—each layer in turn—by overlapping its margins as the edges of a coat might be overlapped when buttoned. The end result reinforced the muscular wall of the abdomen with six rows of sutures (stitches) under the skin cover, which was then closed with clamps that were later removed. (Other methods might not separate muscle layers, often involved fewer rows of sutures, and sometimes involved the insertion of screens or meshes under the skin.)

A typical first-time repair could be completed with the use of preoperative sedation (sleeping pill) and analgesic (pain killer) plus a local anesthetic, an injection of Novocain in the region of the incision. This allowed immediate post-operative patient ambulation and facilitated rapid recovery.

The Patients' Experience

Most potential Shouldice patients learned about the hospital from previous Shouldice patients. Although thousands of doctors had referred patients, doctors were less likely to recommend Shouldice because of the generally regarded simplicity of the surgery, often considered a "bread and butter" operation. Typically, many patients had their problem diagnosed by a personal physician and then contacted Shouldice directly. Many more made this diagnosis themselves.

The process experienced by Shouldice patients depended on whether or not they lived close enough to the hospital to visit the facility to obtain a diagnosis. Approximately 10% of Shouldice patients came from outside the province of Ontario, most of these from the United States. Another 60% of patients lived beyond the Toronto area. These out-of-own patients often were diagnosed by mail using the Medical Information Questionnaire shown in **Exhibit 1**. Based on information in the questionnaire, a Shouldice surgeon would determine the type of hernia the respondent had and whether there were signs that some risk might be associated with surgery (for example, an overweight or heart condition, or a patient who had suffered a heart attack or a stroke in the past six

[2] Based on tracking of patients over more than 30 years, the gross recurrence rate for all operations performed at Shouldice was 0.8%. Recurrence rates reported in the literature for these types of hernia varied greatly. However, one text stated, "In the United States the gross rate of recurrence for groin hernias approaches 10%."

months to a year, or whether a general or local anesthetic was required). At this point, a patient was given a operating date and sent a brochure describing the hospital and the Shouldice method. If necessary, a sheet outlining a weight-loss program prior to surgery was also sent. A small proportion was refused treatment, either because they were overweight, represented an undue medical risk, or because it was determined that they did not have a hernia.

Arriving at the clinic between 1:00 P.M. and 3:00 P.M. the day before the operation, a patient joined other patients in the waiting room. He or she was soon examined in one of six examination rooms staffed by surgeons who had completed their operating schedules for the day. This examination required no more than 20 minutes, unless the patient needed reassurance. (Patients typically exhibited a moderate level of anxiety until their operation was completed.) At this point it occasionally was discovered that a patient had not corrected his or her weight problem; others might be found not to have a hernia at all. In either case, the patient was sent home.

After checking administrative details, about an hour after arriving at the hospital, a patient was directed to the room number shown on his or her wrist band. Throughout the process, patients were asked to keep their luggage (usually light) with them.

All patient rooms at the hospital were semiprivate, containing two beds. Patients with similar jobs, backgrounds, or interests were assigned to the same room to the extent possible. Upon reaching their rooms, patients busied themselves unpacking, getting acquainted with roommates, shaving themselves in the area of the operation, and changing into pajamas.

At 4:30 P.M., a nurse's orientation provided the group of incoming patients with information about what to expect, including the need for exercise after the operation and the daily routine. According to Alan O'Dell, "Half are so nervous they don't remember much." Dinner was then served, followed by further recreation, and tea and cookies at 9:00 P.M. Nurses emphasized the importance of attendance at that time because it provided an opportunity for preoperative patients to talk with those whose operations had been completed earlier that same day.

Patients to be operated on early were awakened at 5:30 A.M. to be given preop sedation. An attempt was made to schedule operations for roommates at approximately the same time. Patients were taken to the preoperating room where the circulating nurse administered Demerol, an analgesic, 45 minutes before surgery. A few minutes prior to the first operation at 7:30 A.M., the surgeon assigned to each patient administered Novocain, a local anesthetic, in the operating room. This was in contrast to the typical hospital procedure in which patients were sedated in their rooms prior to being taken to the operating rooms.

Upon the completion of their operation, during which a few patients were "chatty" and fully aware of what was going on, patients were invited to get off the operating table and walk to the post-operating room with the help of their surgeons. According to the director of nursing:

> Ninety-nine percent accept the surgeon's invitation. While we use wheelchairs to return them to their rooms, the walk from the operating table is for psychological as well as physiological [blood pressure, respiratory] reasons. Patients prove to themselves that they can do it, and they start their all-important exercise immediately.

Throughout the day after their operation, patients were encouraged to exercise by nurses and housekeepers alike. By 9:00 P.M. on the day of their operations, all patients were ready and able to walk down to the dining room for tea and cookies, even if it meant climbing stairs, to help indoctrinate the new "class" admitted that day. On the fourth morning, patients were ready for discharge.

During their stay, patients were encouraged to take advantage of the opportunity to explore the premises and make new friends. Some members of the staff felt that the patients and their attitudes were the most important element of the Shouldice program. According to Dr. Byrnes Shouldice, son of the founder, a surgeon on the staff, and a 50% owner of the hospital:

> Patients sometimes ask to stay an extra day. Why? Well, think about it. They are basically well to begin with. But they arrive with a problem and a certain amount of nervousness, tension, and anxiety about their surgery. Their first morning here they're operated on and experience a sense of relief from something that's been bothering them for a long time. They are immediately able to get around, and they've got a three-day holiday ahead of them with a perfectly good reason to be away from work with no sense of guilt. They share experiences with other patients, make friends easily, and have the run of the hospital. In summer, the most common after-effect from the surgery is sunburn.

The Nurses' Experience

34 full-time-equivalent nurses staffed Shouldice each 24 hour period. However, during non-operating hours, only six full-time-equivalent nurses were on the premises at any given time. While the Canadian acute-care hospital average ratio of nurses to patients was 1:4, at Shouldice the ratio was 1:15. Shouldice nurses spent an unusually large proportion of their time in counseling activities. As one supervisor commented, "We don't use bedpans." According to a manager, "Shouldice has a waiting list of Nurses wanting to be hired, while other hospitals in Toronto are short-staffed and perpetually recruiting."

The Doctors' Experience

The hospital employed 10 full-time surgeons and 8 part-time assistant surgeons. Two anesthetists were also on site. The anesthetists floated among cases except when general anesthesia was in use. Each operating team required a surgeon, an assistant surgeon, a scrub nurse, and a circulating nurse. The operating load varied from 30 to 36 operations per day. As a result, each surgeon typically performed three or four operations each day.

A typical surgeon's day started with a *scrubbing* shortly before the first scheduled operation at 7:30 A.M. If the first operation was routine, it usually was completed by 8:15 A.M. At its conclusion, the surgical team helped the patient walk from the room and summoned the next patient. After scrubbing, the surgeon could be ready to operate again at 8:30 A.M. Surgeons were advised to take a coffee break after their second or third operation. Even so, a surgeon could complete three routine operations and a fourth involving a recurrence and still be finished in time for a 12:30 P.M. lunch in the staff dining room.

Upon finishing lunch, surgeons not scheduled to operate in the afternoon examined incoming patients. A surgeon's day ended by 4:00 P.M. In addition, a surgeon could expect to be on call one weekday night in ten and one weekend in ten. Alan O'Dell commented that the position appealed to doctors who "want to watch their children grow up. A doctor on call is rarely called to the hospital and has regular hours." According to Dr. Obney:

> When I interview prospective surgeons, I look for experience and a good education. I try to gain some insight into their domestic situation and personal interests and habits. I also try to

find out why a surgeon wants to switch positions. And I try to determine if he's willing to perform the repair exactly as he's told. This is no place for prima donnas.

Dr. Shouldice added:

> Traditionally a hernia is often the first operation that a junior resident in surgery performs. Hernia repair is regarded as a relatively simple operation compared to other major operations. This is quite wrong, as is borne out by the resulting high recurrence rate. It is a tricky anatomical area and occasionally very complicated, especially to the novice or those doing very few hernia repairs each year. But at Shouldice Hospital a surgeon learns the Shouldice technique over a period of several months. He learns when he can go fast and when he must go slow. He develops a pace and a touch. If he encounters something unusual, he is encouraged to consult immediately with other surgeons. We teach each other and try to encourage a group effort. And he learns not to take risks to achieve absolute perfection. Excellence is the enemy of good.

Chief Surgeon Degani assigned surgeons to an operating room on a daily basis by noon of the preceding day. This allowed surgeons to examine the specific patients that they were to operate on. Surgeons and assistants were rotated every few days. Cases were assigned to give doctors a non-routine operation (often involving a recurrence) several times a week. More complex procedures were assigned to more senior and experienced members of the staff. Dr. Obney commented:

> If something goes wrong, we want to make sure that we have an experienced surgeon in charge. Experience is most important. The typical general surgeon may perform 25 to 50 hernia operations per year. Ours perform 750 or more.

The 10 full-time surgeons were paid a straight salary, typically $144,000[3]. In addition, bonuses to doctors were distributed monthly. These depended on profit, individual productivity, and performance. The total bonus pool paid to the surgeons in a recent year was approximately $400,000. Total surgeon compensation (including benefits) was approximately 15% more than the average income for a surgeon in Ontario.

Training in the Shouldice technique was important because the procedure could not be varied. It was accomplished through direct supervision by one or more of the senior surgeons. The rotation of teams and frequent consultations allowed for an ongoing opportunity to appraise performance and take corrective action. Where possible, former Shouldice patients suffering recurrences were assigned to the doctor who performed the first operation "to allow the doctor to learn from his mistake." Dr. Obney commented on being a Shouldice surgeon:

> A doctor must decide after several years whether he wants to do this for the rest of his life because, just as in other specialties—for example, radiology—he loses touch with other medical disciplines. If he stays for five years, he doesn't leave. Even among younger doctors, few elect to leave.

The Facility

The Shouldice Hospital contained two facilities in one building—the hospital and the clinic. On its first-level, the hospital contained the kitchen and dining rooms. The second level contained a large, open lounge area, the admissions offices, patient rooms, and a spacious glass-covered Florida

[3] All monetary references in the case are to Canadian dollars. $1 US equaled $1.33 Canadian on February 23, 2004.

room. The third level had additional patient rooms and recreational areas. Patients could be seen visiting in each others' rooms, walking up and down hallways, lounging in the sunroom, and making use of light recreational facilities ranging from a pool table to an exercycle. Alan O'Dell pointed out some of the features of the hospital:

> The rooms contain no telephone or television sets. If a patient needs to make a call or wants to watch television, he or she has to take a walk. The steps are designed specially with a small rise to allow patients recently operated on to negotiate the stairs without undue discomfort. Every square foot of the hospital is carpeted to reduce the hospital feeling and the possibility of a fall. Carpeting also gives the place a smell other than that of disinfectant.
>
> This facility was designed by an architect with input from Dr. Byrnes Shouldice and Mrs. W. H. Urquhart (the daughter of the founder). The facility was discussed for years and many changes in the plans were made before the first concrete was poured. A number of unique policies were also instituted. For example, parents accompanying children here for an operation stay free. You may wonder why we can do it, but we learned that we save more in nursing costs than we spend for the parent's room and board.

Patients and staff were served food prepared in the same kitchen, and staff members picked up food from a cafeteria line placed in the very center of the kitchen. This provided an opportunity for everyone to chat with the kitchen staff several times a day, and the hospital staff to eat together. According to O'Dell, "We use all fresh ingredients and prepare the food from scratch in the kitchen."

The director of housekeeping pointed out:

> I have only three on my housekeeping staff for the entire facility. One of the reasons for so few housekeepers is that we don't need to change linens during a patient's four-day stay. Also, the medical staff doesn't want the patients in bed all day. They want the nurses to encourage the patients to be up socializing, comparing notes [for confidence], encouraging each other, and walking around, getting exercise. Of course, we're in the rooms straightening up throughout the day. This gives the housekeepers a chance to josh with the patients and to encourage them to exercise.

The clinic housed five operating rooms, a laboratory, and the patient-recovery room. In total, the estimated cost to furnish an operating room was $30,000. This was considerably less than for other hospitals requiring a bank of equipment with which to administer anesthetics for each room. At Shouldice, two mobile units were used by the anesthetists when needed. In addition, the complex had one "crash cart" per floor for use if a patient should suffer a heart attack or stroke.

Administration

Alan O'Dell described his job:

> We try to meet people's needs and make this as good a place to work as possible. There is a strong concern for employees here. Nobody is fired. [This was later reinforced by Dr. Shouldice, who described a situation involving two employees who confessed to theft in the hospital. They agreed to seek psychiatric help and were allowed to remain on the job.] As a result, turnover is low.
>
> Our administrative and support staff are non-union, but we try to maintain a pay scale higher than the union scale for comparable jobs in the area. We have a profit-sharing plan that

is separate from the doctors'. Last year the administrative and support staff divided up $60,000.

If work needs to be done, people pitch in to help each other. A unique aspect of our administration is that I insist that each secretary is trained to do another's work and in an emergency is able to switch to another function immediately. We don't have an organization chart. A chart tends to make people think they're boxed in jobs.[4] I try to stay one night a week, having dinner and listening to the patients, to find out how things are really going around here.

Operating Costs

The 2004 budgets for the hospital and clinic were close to $8.5 million[5] and $3.5 million, respectively.[6]

The Market

Hernia operations were among the most common performed on males. In 2000 an estimated 1,000,000 such operations were performed in the United States alone. According to Dr. Shouldice:

When our backlog of scheduled operations gets too large, we wonder how many people decide instead to have their local doctor perform the operation. Every time we've expanded our capacity, the backlog has declined briefly, only to climb once again. Right now, at 2,400, it is larger than it has ever been and is growing by 100 every six months.

The hospital relied entirely on word-of-mouth advertising, the importance of which was suggested by the results of a poll carried out by students of DePaul University as part of a project (**Exhibit 3** shows a portion of these results). Although little systematic data about patients had been collected, Alan O'Dell remarked that "if we had to rely on wealthy patients only, our practice would be much smaller."

Patients were attracted to the hospital, in part, by its reasonable rates. Charges for a typical operation were four days of hospital stay at $320 per day, and a $650 surgical fee for a primary inguinal (the most common hernia). An additional fee of $300 was assessed if general anesthesia was required (in about 20% of cases). These charges compared to an average charge of $5,240 for operations performed elsewhere.

Round-trip fares for travel to Toronto from various major cities on the North American continent ranged from roughly $200 to $600.

The hospital also provided annual checkups to alumni, free of charge. Many occurred at the time of the patient reunion. The most recent reunion, featuring dinner and a floor show, was held at a first-class hotel in downtown Toronto and was attended by 1,000 former patients, many from outside Canada.

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[4] The chart in **Exhibit 2** was prepared by the casewriter, based on conversations with hospital personnel.

[5] This figure included a provincially mandated return on investment.

[6] The latter figure included the bonus pool for doctors.

Problems and Plans

When asked about major questions confronting the management of the hospital, Dr. Shouldice cited a desire to seek ways of increasing the hospital's capacity while at the same time maintaining control over the quality of service delivered, the future role of government in the operations of the hospital, and the use of the Shouldice name by potential competitors. As Dr. Shouldice put it:

> I'm a doctor first and an entrepreneur second. For example, we could refuse permission to other doctors who want to visit the hospital. They may copy our technique and misapply it or misinform their patients about the use of it. This results in failure, and we are concerned that the technique will be blamed. But we're doctors, and it is our obligation to help other surgeons learn. On the other hand, it's quite clear that others are trying to emulate us. Look at this ad. [The advertisement is shown in **Exhibit 4**.]
>
> This makes me believe that we should add to our capacity, either here or elsewhere. Here, we could go to Saturday operations and increase our capacity by 20%. Throughout the year, no operations are scheduled for Saturdays or Sundays, although patients whose operations are scheduled late in the week remain in the hospital over the weekend. Or, with an investment of perhaps $4 million in new space, we could expand our number of beds by 50%, and schedule the operating rooms more heavily.
>
> On the other hand, given government regulation, do we want to invest more in Toronto? Or should we establish another hospital with similar design, perhaps in the United States? There is also the possibility that we could diversify into other specialties offering similar opportunities such as eye surgery, varicose veins, or diagnostic services (e.g. colonoscopies).
>
> For now, we're also beginning the process of grooming someone to succeed Dr. Degani when he retires. He's in his early 60s, but at some point we'll have to address this issue. And for good reason, he's resisted changing certain successful procedures that I think we could improve on. We had quite a time changing the schedule for the administration of Demerol to patients to increase their comfort level during the operation. Dr. Degani has opposed a Saturday operating program on the premise that he won't be here and won't be able to maintain proper control.

Alan O'Dell added his own concerns:

> How should we be marketing our services? Right now, we don't advertise directly to patients. We're even afraid to send out this new brochure we've put together, unless a potential patient specifically requests it, for fear it will generate too much demand. Our records show that just under 1% of our patients are medical doctors, a significantly high percentage. How should we capitalize on that? I'm also concerned about this talk of Saturday operations. We are already getting good utilization of this facility. And if we expand further, it will be very difficult to maintain the same kind of working relationships and attitudes. Already there are rumors floating around among the staff about it. And the staff is not pleased.

The matter of Saturday operations had been a topic of conversation among the doctors as well. Four of the older doctors were opposed to it. While most of the younger doctors were indifferent or supportive, at least two who had been at the hospital for some time were particularly concerned about the possibility that the issue would drive a wedge between the two groups. As one put it, "I'd hate to see the practice split over the issue."

Exhibit 1 Medical Information Questionnaire

FAMILY NAME (Last Name)	FIRST NAME	MIDDLE NAME
STREET & NUMBER (or Rural Route or P.O. Box)	Town/City	Province/State
County	Township	Zip or Postal Code	Birthdate: Month Day Year
Telephone Home ..... Work ..... If none, give neighbour's number	Married or Single	Religion
NEXT OF KIN: Name	Address	Telephone #

INSURANCE INFORMATION: Please give name of Insurance Company and Numbers.	Date form completed
HOSPITAL INSURANCE: (Please bring hospital certificates) O.H.I.P. Number ____ BLUE CROSS Number ____	OTHER HOSPITAL INSURANCE Company Name ____ Policy Number ____
SURGICAL INSURANCE: (Please bring insurance certificates) O.H.I.P. Number ____ BLUE SHIELD Number ____	OTHER SURGICAL INSURANCE Company Name ____ Policy Number ____

WORKMEN'S COMPENSATION BOARD Claim No.	Approved Yes No	Social Insurance (Security) Number

Occupation	Name of Business	Are you the Owner? Yes No	If Retired – Former Occupation

How did you hear about Shouldice Hospital? (If referred by a doctor, give name & address)

Are you a former patient of Shouldice Hospital? Yes No Do you smoke? Yes No

Have you ever written to Shouldice Hospital in the past? Yes No

What is your preferred admission date? (Please give as much advance notice as possible)

No admissions Friday, Saturday or Sunday.

FOR OFFICE USE ONLY

Date Received	Type of Hernia	Weight Loss lbs.
Consent to Operate ☐ Heart Report ☐	Special Instructions	Approved
Referring Doctor Notified		Operation Date

SHOULDICE HOSPITAL

7750 Bayview Avenue
Box 370, Thornhill, Ontario L3T 4A3 Canada
Phone (416) 889-1125

(Thornhill - One Mile North Metro Toronto)

MEDICAL INFORMATION

Patients who live at a distance often prefer their examination, admission and operation to be arranged all on a single visit – to save making two lengthy journeys. The whole purpose of this questionnaire is to make such arrangements possible, although, of course, it cannot replace the examination in any way. Its completion and return will not put you under any obligation.

Please be sure to fill in both sides.

This information will be treated as confidential.

(continued on next page)

Exhibit 1 (continued)

THIS CHART IS FOR EXPLANATION ONLY

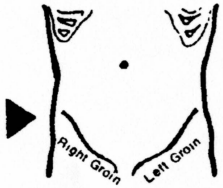
Ordinary hernias are mostly either at the navel ("belly-button") - or just above it

or down in the groin area on either side

An "incisional hernia" is one that bulges through the scar of any other **surgical operation** that has failed to hold - wherever it may be.

THIS IS YOUR CHART – PLEASE MARK IT!

(MARK THE POSITION OF EACH HERNIA YOU WANT REPAIRED WITH AN "X")



APPROXIMATE SIZE . . .

Walnut (or less)	☐	☐
Hen's Egg or Lemon	☐	☐
Grapefruit (or more)	☐	☐

ESSENTIAL EXTRA INFORMATION

Use **only** the sections that apply to **your** hernias and put a ✓ in each box that seems appropriate.

NAVEL AREA (AND JUST ABOVE NAVEL) ONLY

	Yes	No
Is this **navel** (bellybutton) hernia your FIRST one?	☐	☐

If it's NOT your first, how many repair attempts so far? ☐

GROIN HERNIAS ONLY

	RIGHT GROIN		LEFT GROIN	
	Yes	No	Yes	No
Is this your FIRST GROIN HERNIA ON THIS SIDE?	☐	☐	☐	☐

How many **hernia** operations in this groin already? Right ☐ Left ☐

DATE OF LAST OPERATION ☐

INCISIONAL HERNIAS ONLY (the ones bulging through previous operation scars)

Was the **original** operation for your Appendix? ☐, or Gallbladder? ☐, or Stomach? ☐, or Prostate? ☐, or Hysterectomy? ☐, or Other? .....

.....

How many attempts to repair the hernia have been made so far? ☐

Exhibit 1 (continued)

PLEASE BE ACCURATE!: Misleading figures, when checked on a admission day, could mean postponement of your operation till your weight is suitable.

HEIGHT . ..... ft..... ins. **WEIGHT** ..... lbs. Nude or just pyjamas Recent gain? ..... lbs. Recent loss? ..... lbs

Waist (muscles relaxed) ..... ins. **Chest** (not expanded) .....ins.

GENERAL HEALTH

Age ..... years Is your health now GOOD ☐, FAIR ☐, or POOR ☐

Please mention briefly any **severe past illness** – such as a "heart attack" or a "stroke", for example, from which you have now recovered (and its approximate date) .....
.....

We need to know about other present conditions, even though your admission is NOT likely to be refused because of them.

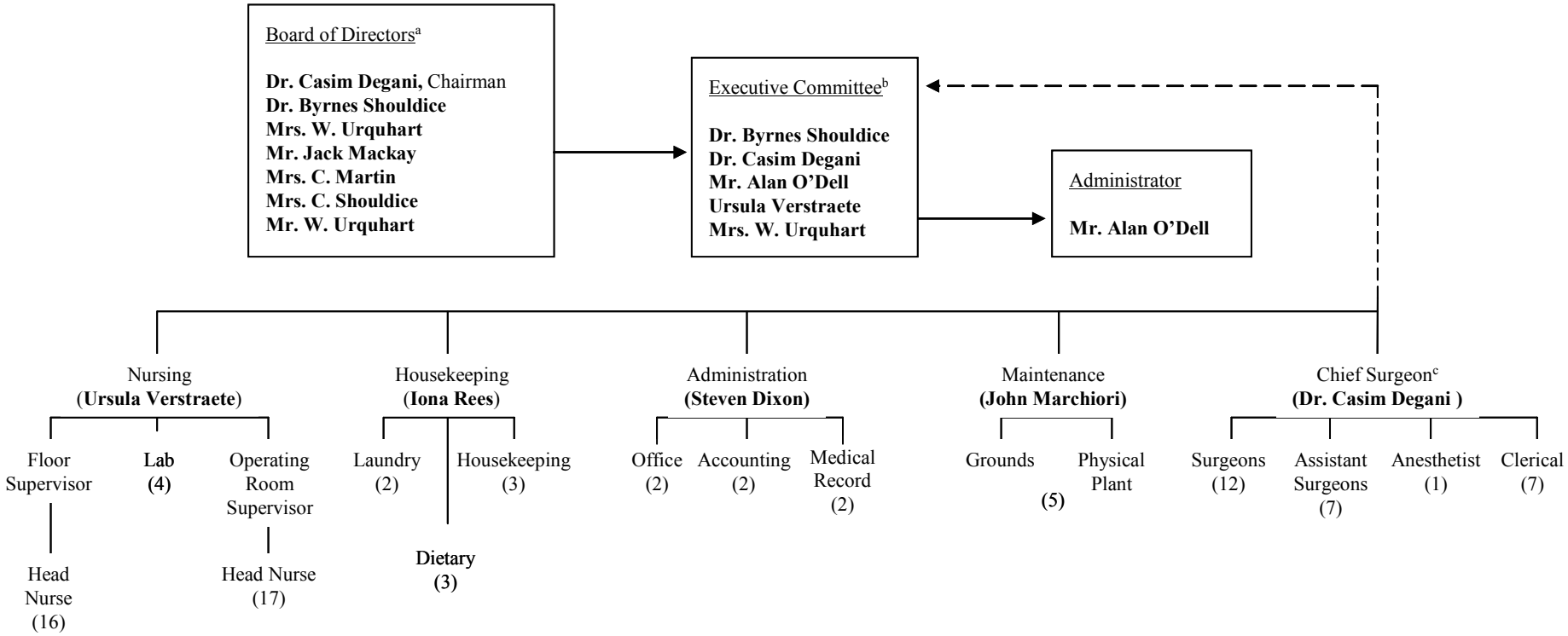
Please tick ☑ any condition for which you are having **regular treatment:**

- Blood Pressure ☐
- Excess body fluids ☐
- Chest pain ("angina") ☐
- Irregular Heartbeat ☐
- Diabetes ☐
- Asthma & Bronchitis ☐
- Ulcers ☐
- Anticoagulants (to delay blood-clotting or to "thin the blood") ☐
- Other .....

Name of any prescribed **pills, tablets** or **capsules** you take regularly: –

Did you remember to MARK AN "X" on your body chart to show us where each of your hernias is located?

Exhibit 2 Organization Chart



[a]Meets three times a year or as needed.
[b]Meets as needed (usually twice a month).
[c]Informally reports to Executive Committee.

Exhibit 3 Shouldice Hospital Annual Patient Reunion Data

Direction: For each question, please place a check mark as it applies to you.

1. Sex — Male 41 (95.34%); Female 2 (4.65%)

2. Age — 20 or less ___; 21-40 4 (9.30%); 41-60 17 (39.54%); 61 or more 22 (51.16%)

3. Nationality

Directions: Please place a check mark in nation you represent and please write in your province, state or country where it applies.

Canada 38 Province 88.32%
America 5 State 11.63%
Europe ___ Country ___
Other ___

4. Education level

Elementary 5 (11.63%)
High School 18 (41.86%)
College 13 30.23%
Graduate work 7 16.28%

5. Occupation _____

6. Have you been overnight in a hospital other than Shouldice before your operation? Yes 31 No 12

7. What brought Shouldice Hospital to your attention?

Friend 23 (53.49%) Doctor 9 (20.93%) Relative 7 (16.28%) Article ___ Other 4 (Please explain) 9.30%

8. Did you have a single 25 (58.14%) or double 18 (41.86%) hernia operation?

9. Is this your first Annual Reunion? Yes 20 (46.51%) No 23 (53.49%)

If no, how many reunions have you attended? ___

2-5 reunions - 11 47.83%
6-10 reunions - 5 21.73%
11-20 reunions - 4 17.39%
21-36 reunions - 3 13.05%

10. Do you feel that Shouldice Hospital cared for you as a person?

Most definitely 37 (86.05%) Definitely 6 (13.95%) Very little ___ Not at all ___

Exhibit 3 (continued)

11. What impressed you the most about your stay at Shouldice? Please check one answer for each of the following.

		Very Important	Important	Somewhat Important	Not Important
A.	Fees charged for operation and hospital stay	10	3	6	24
B.	Operation Procedure	33 (76.74%)	9 (20.93%)	1 (2.33%)	—
C.	Physician's Care	31 (72.10%)	12 (27.90%)	—	—
D.	Nursing Care	28 (65.12%)	14 (32.56%)	1 (2.32%)	—
E.	Food Service	23 (53.48%)	11 (25.59%)	7 (16.28%)	2 (4.65%)
F.	Shortness of Hospital Stay	17 (39.53%)	15 (34.88%)	8 (18.60%)	3 (6.98%)
G.	Exercise; Recreational Activities	17 (39.53%)	14 (32.56%)	12 (27.91%)	—
H.	Friendships with Patients	25 (58.15%)	10 (23.25%)	5 (11.63%)	3 (6.98%)
I.	"Shouldice Hospital hardly seemed like a hospital at all."	25 (58.14%)	13 (30.23%)	5 (11.63%)	—

12. In a few words, give the MAIN REASON why you returned for this annual reunion.

Exhibit 4 Advertisement by a Shouldice Competitor