

THE UNIVERSITY OF CALGARY

Foothills Medical Centre:

**An Empiric Review of the Unique Organizational Culture
of a Teaching Hospital at an Academic Medical Centre.**

by

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Chapter One - Introduction

This thesis explores the unique organizational culture of a teaching hospital at an academic health science centre and the effect of that culture on patients and staff. The missions of Canadian teaching hospitals combine commitments to clinical teaching, advancement of medical knowledge through research and delivery of excellent patient care. Attainment of these goals creates an organizational culture which is unique to teaching hospitals associated with academic health science centres (AHSCs). The tension produced by striving to meet these conflicting commitments creates an inordinately stressful environment for patients and caregivers alike.

The term academic health science centre in common usage is interchangeable with academic medical centre, teaching hospital, tertiary referral centre or tertiary and quaternary hospital (Association of Canadian Medical Colleges/Association of Canadian Teaching Hospitals paper I, April, 1995 [ACMC/ACTH I, 1995]).¹ The use of a particular term is generally a matter of style. These institutions sit at the top of the Canadian health care hierarchy, providing comprehensive inpatient and outpatient care from prevention (primary)

¹Health care services are generally described in terms of the frequency of their occurrence and the degree of technology and expertise required to deliver them. Primary and secondary are terms used to describe more basic, commonly required services. Tertiary and quaternary refer to the more technologically sophisticated, rarely required types of care that are only available (in Canada) in teaching hospitals affiliated with AHSCs.

to the most advanced treatment modalities available (quaternary) and everything in between. As stated in the above - noted paper,

Teaching hospitals differ from their community counterparts in the breadth and intensity of services they provide, in their investments in infrastructure to support education and research as well as clinical service, in the types of personnel recruited, in the overall and unit cost of their services.

(ACMC/ACTH, 1, 1995, p. 5).

As will be discussed in Chapter Three, Foothills Medical Centre (FMC) embodies all of the characteristics associated with teaching hospitals at academic health science centres. It is the tertiary and quaternary referral hospital for Southern Alberta and the primary partner in the academic health science centre that is formed by its alliance with the University of Calgary Medical School.

Some of the work for this thesis is empiric because the hypotheses advanced herein have arisen out of my own experience at FMC. The research involved a review of the literature surrounding academic health science centres in North America, a review of the ethical discourse surrounding technologically advanced treatments and approximately fifteen years of experience as an employee in a teaching hospital.

Originally, this thesis was planned as an historical review of academic health science centres in Alberta but the topic changed as my ideas evolved and I became more familiar with the literature. I found that the cultural and social

aspects of the Foothills were far more interesting than a straightforward historical review of its corporate development. Years of working at FMC led to the realization that it was plagued by organizational and cultural difficulties. Yet the specific questions drawn from my work experience regarding the internal workings of AHSCs were not addressed in the literature. My questions centred around the conflict I perceived between the teaching and patient care missions at Foothills.

As part of my research, I considered at one point asking bedside caregivers like myself about their attitudes regarding the effect of the FMC teaching mission on their own ability to provide good patient care. While I was under the impression from informal discussions with my co-workers that their experience mirrored my own, I found that in order to formalize the process in any way, I needed the permission of the FMC research office. I learned that even to survey anonymously a small number (10-12) of my peers I had to submit a formal research proposal, several pages in length, and a detailed application form to the Foothills research office. The application form required that every administrator and clinical leader who may be affected by this research (approximately 6-10 very busy people) sign off on it. This process alone, would require a minimum of six weeks to complete. Completed applications are then reviewed by a committee which can agree, make suggestions or deny the application. In the latter two instances, reapplication could be subjected to the same process.

The purpose of the above process is to protect the patient and the integrity of the institution from unscrupulous clinical research. I remain baffled as to who would need protection from the informal, anonymous interviews I had proposed. This convoluted and time consuming procedure was simply not feasible for an MA thesis although it may make sense for further study at another time.

The above experience with the FMC research office is typical of the bureaucracy and devotion to procedure displayed throughout the institution. This is the way it is done at Foothills. If I wanted to do it, it had to be this way. The research assistant I spoke to seemed puzzled when I suggested there might be an exception to the rule. In fact, she called another researcher who confirmed that there were never exceptions to the rule. Because I remain employed at FMC, I elected to conform to the rules and abandoned this approach to my research. However, it was apparent that my experience as an employee, coupled with a thorough literature review, provided ample material for an exploration of the issues arising from the organizational culture at Foothills.

Occupational and Academic Background

I have been employed as a respiratory therapist at Foothills Hospital for fifteen years. To become a respiratory therapist, I completed a twenty-four

month course composed of clinical (bedside) and didactic (classroom) training, culminating in a national registration examination. This course of study is comparable in length to other allied health professions such as nursing and diagnostic radiology. It is offered at colleges and technical schools across Canada and the United States. In the US, there are also many four year, university based programs in Respiratory Therapy which lead to a Bachelor of Science. Two universities in Canada (Dalhousie and University of Manitoba) have recently implemented post-diploma Bachelor of Science degrees for Respiratory Therapy.

At present there are approximately ninety respiratory therapists employed at FMC out of a total of over two thousand staff members. Only those patients who are heavy users of respiratory therapy services would be able to describe what a respiratory therapist does. Most of our patients are too critically ill to be aware of the personnel and activity around them. In a tertiary hospital such as Foothills Medical Centre, respiratory therapists operate life support equipment and provide diagnostic and therapeutic services to patients with a wide variety of cardiopulmonary disorders. In recent years, the role of the respiratory therapist at FMC has evolved to include more continuity of care and participation in the rehabilitation of recovering patients. However, the core of our work remains with patients who are, or have recently been, critically ill.

I have worked at the bedside as a staff therapist and been a Clinical Instructor in both the first and second years of the training programs for

respiratory therapists in both Edmonton and Calgary. I am presently employed as a Clinical Specialist (Supervisor) at the Foothills Medical Centre in Calgary. For the past nine years, I have attended university while continuing to work as a respiratory therapist.

An academic and professional interest in ethical and legal issues surrounding health care has led to my second term as a member of FMC's Ethics Consultation Service. This group is composed of health care practitioners, lawyers, ethicists, clergy and members of the general public. The ethics consultation service responds to requests from staff, patients, and families or friends of patients. The committee attempts to reflect the ethical dimension in health care decisions and provide advice on how to approach patient care dilemmas.

For the past three years I have also served as Registrar for the Alberta College and Association of Respiratory Therapists (ACART). ACART is the professional regulatory body which governs the practice of approximately seven hundred respiratory therapists currently registered to work in Alberta. ACART regulates the professional practice of respiratory therapy under the authority of the Health Disciplines Act (R.S.A. 1980, Ch. H-35) and the accompanying Respiratory Therapist Regulation (A.R. 328/85). As registrar of ACART, I am responsible for ensuring that Alberta's respiratory therapists comply with the legislative requirements for qualifications and practice. This involves formal and informal interactions with the Labour and Health Ministries of the Alberta

government, governing bodies of other professions in Alberta, regulatory and professional bodies from other provinces and national regulatory and professional governing bodies. The registrar is also responsible for investigating and resolving complaints about the professional practice of respiratory therapists. The primary mission of any registrar of professional practice in health care is to protect the public from incompetent or unethical practitioners.

My current position at Foothills involves supervising service delivery by respiratory therapists throughout the hospital. Staff in my area provide diagnostic and therapeutic services to inpatients on general medical and surgical wards and on specialty wards such as neurosurgery, neurology, plastic surgery, trauma, orthopaedic surgery, oncology (cancer), long-term care, palliative care, renal care and cardiology. We also see outpatients in specialty clinics such as the preoperative assessment clinic and the sleep disorders and respiratory disorders clinics. Respiratory therapists at FMC also spend a great deal of time in the Emergency Department assisting with advanced life support for victims of accidents, injuries and catastrophic illness.

Other respiratory therapists at FMC (not under my direct supervision) work in the adult intensive care units (multi-system failure, cardiac and cardiovascular surgery) and the neonatal intensive care and delivery rooms where they attend high risk births to resuscitate newborns. Some respiratory therapists work exclusively in the operating rooms where they assist in anaesthesia.

Respiratory therapists at FMC care for patients and provide service in virtually every area of the organization. Because we are required on an as-needed basis in so many different areas, we often function as consultants. Nurses, physiotherapists, physicians and other members of the health care team consult us when they think a patient requires our expertise. We provide both therapeutic and diagnostic services and, depending on the patient's needs, may follow his or her progress at regular intervals for a period of time.

The respiratory therapists' job consists of constant interaction with members of other departments and professions in every area of the hospital. We are not tied to one area like most caregivers. In order to provide efficient and effective patient care, respiratory therapists must be able to communicate and cooperate at a high level with patients and caregivers alike. We are the only professional group at FMC that may care for a patient in the emergency department, the intensive care units, the wards and the outpatient clinics after discharge. This gives us a unique perspective of the total patient experience.

Because respiratory therapists interact with so many professional groups and see patients all over the hospital, we must be represented on many patient care and operational committees at FMC. As a clinical specialist and supervisor I work on numerous committees and interact constantly with members of many other professions.

Examples of some of the committees I work on include the Adult Trauma Care Committee which considers operational and administrative issues related to the Injury and Trauma Program, the Emergency Department Patient Care Committee which has a similar mandate for the Emergency Department, the Crash Cart Committee which oversees the administration and operating of the cardiac arrest response team throughout FMC, the Transitional Ventilation Advisory Group which addresses the needs of patients who require mechanical ventilation outside the intensive care units, and the Tracheostomy Management Group which produces interdisciplinary guidelines for the care of patients with tracheostomies.

A large portion of my time is also spent in direct patient care or in consultation regarding patient care. I am the clinical consultant/contact for the patient care managers (nurses in charge of patient care areas) of nearly thirty inpatient units and several outpatient services as well. This also means that I function as the respiratory therapy contact for the medical directors and consultant physicians for these patient care areas. Liaison with my counterparts at other hospitals and health care agencies is also part of my job.

As a consequence of my past experience and current position, I am writing from the point of view of a frontline caregiver and practitioner. The point of view of physicians and medical educators is already well covered in the academic medicine literature. By viewing FMC from a less commonly represented point of view, I hope to present fresh insight into its culture. A large

proportion of people working at FMC share my perspective of bedside caregiver. However, because of the unique nature of the work of respiratory therapy, few caregivers share the breadth of my experience.

Through my work and professional activities, the unique atmosphere generated by the processes which form the personality of a large organization like FMC have become familiar to me. Conversation and consultation with other caregivers, patients and their families, and my colleagues has confirmed and helped to form my impressions of the institution.

Years of service at Foothills Medical Centre have led me to an in-depth knowledge of how the organization functions and a growing conviction that it can be a bad place for workers and patients. I do not mean by this that patients should fear for their safety. FMC does some things very well, and it is filled with talented, dedicated staff. I only submit that the very nature of the organization results in a difficult work environment for caregivers and staff and that, sometimes, this has detrimental effects on patients.

Caregivers and Medical Staff

Academic health science centres, like other large organizations, are small worlds unto themselves populated by specialist workers most of whose jobs are incomprehensible to the average person. Most patients or visitors in a large

teaching hospital are overwhelmed by the number of caregivers and workers they see each day. They are unaware of the qualifications or even the job descriptions of most of the staff they encounter. Contrary to public opinion, hospitals (particularly teaching hospitals) are not populated by just doctors and nurses, although these two groups are the largest and most visible in health care. In teaching hospitals, there is a multitude of therapists, technologists, technicians, aides and assistants (and other designations too numerous to list) that provides service both to the patient and to the organization.

Physicians, individually and as an occupational group, have a great deal of formal and informal influence in all hospitals, particularly in academic medical centres like Foothills. Sheer numbers, coupled with their expertise and traditional social standing, give physicians more influence on hospital operations than any other group. As noted by Simendinger and Moore,

Clearly, the significant influence of the medical staff is one of the unique features of hospitals. [Its] role as the determining factor of output (i.e., procedures, drugs, length of stay, and most all other items needed by the patient), its independent nature, and its sophisticated training makes this group unlike any other in any industry (1985, p. 85).

There are over four hundred physicians with admitting privileges and/or some other type of affiliation (consulting, teaching or research) at Foothills (M. Pow, Executive Assistant to Chief Medical Officer, FMC, 96/04/03, personal

communication). These physicians represent virtually every area of medical specialization. Staff (also referred to as “attending”) physicians have completed training and have admitting privileges at Foothills. There are also dozens of learning physicians (residents) in various stages of their training in every patient care area at FMC.

Tertiary hospitals like Foothills are also home to numerous groups of specialized non-physician practitioners. The discussion that follows is not exhaustive; it is meant simply to give an idea of the types of employees in a teaching hospital like FMC. For the purpose of this work, I refer to professional groups that are educated and licenced or registered to practice, that have regular contact with patients in the delivery of care, as practitioners or caregivers. In this classification are grouped nurses (registered, psychiatric and licenced practical), respiratory therapists, social workers, physiotherapists, dieticians and other therapists. Fiscal restraints in health care have also changed the face of caregivers at the bedside. Workers designated as caregivers by the Foothills also include patient care assistants who are un-licenced workers with only a few weeks training. Patient care assistants are not included in the group referred to as caregivers in this work.

Other hospital employees such as laboratory technologists, nuclear medicine technologists, diagnostic sonographers and radiology technologists are referred to as diagnostic personnel. These workers are trained and licenced or registered, but they do not, as a rule, carry out therapeutic procedures or deliver

personal patient care. They operate diagnostic and therapeutic equipment and obtain specimens for diagnostic testing. All the rest of the people who work in a hospital are referred to as workers. These include housekeeping staff, food preparation workers, security and maintenance staff. Their jobs are vital to the safe operation of the hospital and thus to the patient, but they do not have direct patient contact.

Academic Health Science Centres

Academic health science centres, like the one Foothills is part of, consist of a university medical school and the various patient care institutions with which they are affiliated (ACMC/ACTH I, 1995). Canada has approximately 105 teaching hospitals (out of a total of approximately 1054 hospitals) located in or near urban centres and affiliated with one of sixteen medical schools (Fried, Pink, Baker and Deber, 1994). Of these affiliated teaching hospitals, 61 are acute general teaching hospitals like the Foothills and they account for 26 percent of the total time spent in hospital by Canadians and 37 percent of the total operating expenses for Canadian hospitals (Fried et al., 1994 p. 175). Because these institutions account for a significant portion of all Canadian hospital care, anyone who has been or knows someone who has been seriously ill has been touched by one of Canada's teaching hospitals.

As noted by Valberg, Gonyea, Sinclair and Wade in a 1994 commentary on the future of Canadian AHSCs, these organizations were first contemplated in a 1910 report entitled Medical Education in the United States and Canada by Flexner (p. 1). Widespread adoption of the recommendations of this report has led to the North American system of academic medical centres, comprised of university based medical schools affiliated with teaching hospitals. Valberg et al. also note that Canadian AHSCs have evolved more slowly than their American counterparts but that their development has resulted in similar structure and function with one notable exception: the constituent institutions of Canadian AHSCs remain independent with separate governing bodies while in the US about half the AHSCs tend to have common governance and management (1994, p. 6).

This parallel development allows for the American literature on AHSCs to be instructive, in some instances, in the Canadian case. Specifically, because of similarities in development and structure, the American literature is useful when discussing the culture and atmosphere of AHSCs.

The Organizational Nature of AHSCs

In my observation there are two general realms of problems which result in Foothills being a difficult place to work or be a patient in. The first set involves

system problems associated with the complex organizational structure of these entities and the second set is related to the challenges posed by the presence of large numbers of learners. By system problems I mean difficulties inherent in the overall structure and administration of large teaching hospitals which are part of academic health science centres. Many of these problems, as discussed in subsequent chapters, are well documented in the Canadian and American literature on academic medical centres.

In Canada, all hospitals and thus all AHSCs are subject to provincial statutory requirements for their operation. This is in keeping with the provinces' constitutional responsibility for hospital care.

In Alberta, the statutory requirements for the organization and operation of hospitals are contained in the Hospitals Act (R.S.A., 1980, Ch. H-11), the Provincial General Hospitals Act (R.S.A., 1959, Ch. 64) and the newer, Regional Health Authorities Act (R.S.A., 1994, Ch. R-9.07) and their accompanying regulations. These statutes establish standards for patient care, give guidelines for hospital organization and operation and describe the conditions of the relationship between physicians and hospitals. The Foothills, like any other hospital, must submit documentary evidence of compliance with these statutory requirements to the Ministry of Health.

Foothills Provincial General Hospital was established under the Provincial General Hospitals Act (R.S.A., 1959, Ch. 64). Section 9(3) of this Act required

the establishment of Bylaws for the governance, administration and operation of hospitals. It also called for Bylaws governing the relationship between hospitals and their medical staff. Hospital Bylaws are the basic tools whereby government requirements for hospital operation are met. The Hospitals Act (R.S.A. 1980) (s. 28 and s. 32) has similar requirements for the establishment of Bylaws governing administration of non-provincial hospitals and relations with medical staff in these institutions. The Regional Health Authorities Act (R.S.A. 1994), (s. 28(a)) which repeals most of the Hospitals Act (R.S.A. 1980), specifically allows for the continuance of governing Bylaws.

In addition to the organizational requirements imposed by legislation, the organizational and operational characteristics of AHSCs combine to create very complex institutions. Even many of the people who actually work in teaching hospitals and University Faculties of Medicine are unaware of the intricate relations which form the academic health science centre. Fried et al. note that teaching hospitals, "... are unique from general hospitals; they have significantly more complex funding arrangements and their teaching role complicates their relationships with other organizations and ministries of health" (1994, p. 175). The complex nature of AHSCs requires a bureaucracy to handle the complicated relationships which must be forged between the university medical school and the hospital and all their multiple constituents.

Simendinger and Moore, in a book about organizational burnout in hospitals, note that:

While hospital executives are confronted with many of the same tasks and responsibilities that confront executives in business corporations, the power and authority structures in hospitals are substantially different. This difference significantly influences and complicates the role of those in top administration (1985, p. 119).

Administrators (and everyone else) in AHSCs must be experts at creating consensus among very different interest groups (Fried et al. 1994). As stated by Sheps, AHSCs are made up of independent organizational units with substantial power and competing objectives (1985, p. 180). Because of this, very few (if any) decisions can ever be made without time consuming, widespread internal and external consultation. For example, if the chief operating officer of FMC wanted to introduce or remove a service, he or she would have to consult with all the departments and external groups which may be affected by the change even if their involvement is peripheral and minimal.

According to the current organizational chart for FMC (Appendices D and E) those who may have to be consulted on a decision such as the example given above include patient care managers of affected units, physicians who are consultants or directors of the affected service, other allied health professionals and caregivers and the physician directors of associated medical or academic departments. Under the terms of the current affiliation agreement with the University of Calgary, the dean of the Faculty of Medicine must also be consulted regarding program or service changes which may affect physician training(1992,

p. 9). To fund a change in service the chief operating officer has to negotiate externally with the Ministry of Health, the Regional Health Authority, private funding sources and the University of Calgary in addition to seeking consensus among internal stakeholders.

The organizational structure of AHSCs like Foothills may be superficially similar to other large corporations but their missions and culture separate them from other entities which may be comparable in size or similar in function. The fact that AHSCs are engaged in the provision of sophisticated health care and that life and death dramas are part of their daily activity sets them apart from other large businesses. Furthermore, the fact that AHSCs are affiliated with a university medical school and are engaged in teaching and research on a grand scale sets them apart even from other hospitals.

The organizational structure of Foothills is similar to AHSCs throughout North America. Like other AHSCs, FMC has overlapping areas of responsibility and authority within and between the teaching hospital and the University of Calgary. The complex nature of FMC in particular is readily illustrated in its organizational charts (reproduced in Appendices A-E). Because of this it is often unclear which organizational unit has authority in a given situation. The implications that this complicated structure has for patient care at FMC are discussed in detail in Chapters Three and Four of this work.

The administrative complexity which characterizes FMC has recently been compounded by the Alberta government's creation of Regional Health Authorities (RHAs). Regionalisation is intended to reduce the confusing jumble of hundreds of hospital and health agency boards to one regional governing body. This process (discussed in greater detail in Chapter Three) was begun in 1994. The consolidation and rationalization of services across the Calgary region is still in the early stages. The long term effects of regionalisation on Foothills cannot be predicted at present.

Education and Patient Care

In addition to system problems attributable to its size and complexity, the second set of factors which affects the culture of FMC is the prevalence of learners. The effects which learners have on the operation of teaching hospitals are discussed in the academic medicine literature, but not in the way I plan to discuss them, and certainly not specifically from the point of view of the caregivers in teaching hospitals.

The needs of learners and clinical education dictate the infrastructure requirements and policies of teaching hospitals. A paper written for a joint committee of the Association of Canadian Medical Colleges and Association of

Canadian Teaching Hospitals notes the "... significant infrastructure [required] to support teaching and research..." and that,

Teaching hospitals must have a higher degree of tolerance for the degree of inefficiency inevitable when students learn new things - longer operative times and lengths of stay, additional laboratory tests and other investigations, less efficiency in the use of supplies and drugs, etc. (ACMC/ACTH paper I, 1995, p. 6).

The above - noted paper also discusses the studies done in the US, Canada and Great Britain which have demonstrated the higher costs associated with teaching hospitals. MacKenzie, Willan, Cox and Green, in a 1991 study out of Queen's University, also showed that indirect costs of teaching in Canadian hospitals are not solely attributable to the greater severity of illness seen there. They also found a positive correlation between number of resident physicians and cost per patient-day (p. 151).

It is important to note that, while student physicians learn, they are in charge. This means that a first year resident with perhaps four months of clinical experience with patients will find him or herself, at 3 A.M., in charge of a ward populated with twenty or more acutely ill patients. More to the point, this resident will also have medical authority over all other clinical personnel on this ward. The charge nurse with twenty years of experience, the radiology technologist with five and the respiratory therapist who has seen thousands of patients in ten

years will all have to defer to this inexperienced person in all medical decisions. This system tends to create a great deal of conflict between physicians and other caregivers at FMC.

The system of graduated clinical responsibility ("see one, do one, teach one") is an accepted method of learning in the health professions (Stack, 1995 p. 4). Medical academic Dr. D. Sinclair summarizes the advantages of this system as follows,

Students in the health professions gain experience by watching their clinical teachers do exemplary work and being supervised and guided as they learn skills and clinical judgement (1993, p. 154).

Robert Zussman, in a field study conducted in two intensive care units, also noted that the "case centred" method of teaching was "hit and miss" but that it seemed to work as a "...method of transmitting skills." (1992, p. 46). He goes on to a lengthy discussion of the incredible "burden of responsibility" placed on resident physicians who are responsible for every aspect of patient care (1992, p. 53).

Gradually increasing clinical responsibility works when it remains gradual and the learner is closely supervised. This thesis argues that the introduction of clinical responsibility at Foothills is not so carefully delineated. It further posits that burdening resident physicians with overwhelming responsibility leads to

conflict and tension between them and other caregivers and may be detrimental to patients.

“The Conspiracy of Excellence”

The body of literature on AHSCs and teaching hospitals falls into three categories. There is an academic medicine literature which mainly deals with governance, structure and funding of AHSCs. There also exists a small personal and professional literature which focuses on the experiences of physicians in training. There is also a body of work, composed of patient narratives and the ethical discourse surrounding hospital care, which concentrates on the experience of illness. None of this literature focuses specifically on the tension created by the conflicting missions of teaching and patient care, although some of it is applicable to the situation at FMC.

At the most basic level, the organizational difficulties in AHSCs seem to stem from a split among mission, policy and practice. The care of patients is noted in all documentation (mission statements, policies, etc.) to be the most important thing in a hospital. But, in practice, patients are not allowed to have meaningful input into their care or the operation of AHSCs. As is discussed in subsequent Chapters, patients are viewed as inputs in teaching hospitals. Their presence in AHSCs is vital to the conduct of teaching and research but they are

not generally considered to be active and equal participants in their own health care.

This thesis discusses how the organizational culture and structure of Foothills Medical Centre produces a conflict between the goals of education and those of patient care and the effects of the ensuing tension on patients and caregivers. Chapter Two lays the groundwork for this discussion by reviewing the relevant literature on academic health science centres. In Chapter Three, the culture and organization of Foothills are discussed in detail. Chapter Four compares the literature on AHSCs with my experiences at FMC in a discussion of its unique social and cultural environment. Specifically, I argue that the structure of Foothills and the traditional approach to medical education creates a “conspiracy of excellence” whereby caregivers effect exemplary patient care in spite of the system, not because of it.

Chapter Two - Literature Review: Academic Health Science Centres

There is a subtle assumption that we (who work in AHSCs) must do everything we can for every patient, regardless of the odds of success. This assumption results from the complex mix of features that set AHSCs apart from general community hospitals. In AHSCs, there is an unwritten and unspoken feeling that “the patient is here for us”; allowing us to apply our knowledge and skills to their condition. In order to satisfy the educational mandate, every patient encounter is approached as a chance to maximize the learning opportunity.

According to the ACMC/ACTH paper of April, 1995,

The culture of the teaching hospital is, or should be, characterized by an atmosphere of commitment to excellence, innovation and enquiry, a commitment heavily reliant on the values of the members of its staff, especially its cadre of academic physicians (p. 6-7).

It can be surmised that the attitude of the staff in AHSCs (described above) arises from the spirit of inquiry and learning which permeates every aspect of care in a teaching hospital. Furthermore, it is compounded by the sense of scientific and professional superiority which is acquired by nearly every person who works in an AHSC. It can be speculated that this aura of superiority stems not only from the academic imperatives of teaching and research but also from

the fact that AHSCs represent the pinnacle of Canadian medical care; they are often the patient's last hope for treatment or cure.

In order to construct the internal world of Foothills Medical Centre, this chapter reviews the literature on academic health science centres, their goals, organization, structure and funding. Much of the literature is American but, as noted in Chapter One, US and Canadian AHSCs are similar enough that the US literature is often applicable to the Canadian case.

Definition and Description of AHSCs

The entity that is described as a Canadian Academic Health Science Centre is of a curious nature. No one decides to construct AHSCs - they evolve and come to life as alliances are formed between university faculties of medicine and hospitals which provide sites for clinical teaching and research (ACMC/ACTH II, 1995). AHSCs are literally "knit" together by formal and informal affiliation agreements, a web of complex funding arrangements and partial consensus on goals and strategies which the member organizations may share.

The basic definition of an academic health science centre is that it is comprised of a school of medicine and one or more teaching hospitals with which it is affiliated (Barondess, 1991, Stack, 1995, ACMC/ACTH I, 1995). But the reality of academic health science centres is much more convoluted than this

basic description conveys. J. Barondess of the New York Academy of Medicine accurately describes the academic health science centre as comprising:

A massive complex that has largely supplanted our medical schools and that has come to incorporate a great research establishment; patient care of an increasingly complex, costly, and desperate nature; and the education and training of a large array of health care workers (1991, 962).

This description can be applied to Canadian as well as American AHSCs.

As noted in Chapter One, the evolution of AHSCs in North America can be traced to the Flexner Report of 1910. Flexner was a study of medical education in the US and Canada sponsored by the Carnegie Foundation. The report recommended (among other things) that medical education be professionalized by formal affiliation between university medical schools and teaching hospitals (Lewis and Sheps, 1983 p. 47). Over the intervening decades, the present system - medical education and research conducted in university medical schools affiliated with teaching hospitals - has evolved. The US now has approximately 123 academic medical centres in 44 states and Canada (as discussed below) has sixteen in eight provinces (Iglehart, 1993 p. 1052).

Academic health science centres in both countries have similar structures, funding and governance. AHSCs obtain the majority of their funding from various levels of government (local, state, provincial and federal) in the form of grants for health care and education (Valberg et al., 1994, Schroeder, Zones and

Showstack, 1989). Schroeder et al. also note that AHSCs in the US (like those in Canada) rely primarily on funds from public sources regardless of whether they are privately or publicly owned (1989, p. 803-804). Canadian and American AHSCs also rely on billings to third party payers (i.e. health insurance companies) for patient service for a significant portion of their operating funds. As the major source of funding, various levels of government, as well as the major partners (universities and medical schools) are significant external stakeholders in AHSCs.

Heyssel (referring to US AHSCs) discusses the challenge of managing "...the complex of institutions engaged in different businesses that make up an academic medical centre." (1984, p. 165). The university medical school and affiliated hospitals each have individual goals but they are dependent on each other for the resources to fulfill them. Barer and Stoddart, in a review of the challenges facing academic medicine, found that problems associated with the complex structure of AHSCs feature prominently in the academic medicine literature in both the US and Canada (1991).

Part of the complexity of AHSCs stems from their convoluted sources of funding. Universities and medical schools are funded by provincial ministries of advanced education, while hospitals (teaching or otherwise) are funded by provincial ministries of health. These institutions are not generally funded in reference to each other but they definitely do fund activities related to each other (Valberg et al., 1994). For example, universities and hospitals each provide

stipends for jointly appointed faculty and hospitals provide infrastructure money to support programs of clinical education.

As noted above, the “unstable and chaotic” funding of academic health centres is well known and widely addressed in the Canadian and American literature (Barer and Stoddart, 1991). Authors have highlighted similar difficulties in US academic medical centres, including a lack of clear governance structures, variable and unstable funding and a growing reliance on the clinical earnings of academic appointees to fund the activities of the AMC (Lewis and Sheps, 1983, Heyssel, 1984, Sheps, 1985 and Barondess, 1991).

Barer and Stoddart found that industry members pointed to disorganization and a lack of clearly defined roles and authority in academic health science centres as a primary problem with the Canadian system of medical education. They list the causes of this situation as follows:

- ▶ There exists no mechanism for partners in AHSCs to develop and agree upon a social contract for AHSCs. They exist as separate institutions with some shared goals but no over-riding sense of purpose toward the community.
- ▶ Operating funds are not received or disbursed in a coordinated fashion. Control over sources and allocation of funds are fragmented between university and hospital.

- ▶ A significant portion of basic infrastructure funding comes from unstable sources such as clinical earnings (fee-for-service billings) of academic physicians and competition for research grants. Decreased funding from ministries of health and education has increased reliance on clinical earnings.
- ▶ Fee-for-service incentives are incompatible with the goals of academic medical centres. Fee-for-service encourages physicians to see more patients while academic goals may require a more methodical approach to enhance student learning.

(Barer and Stoddart, 1991, p. 12, Stoddart and Barer, 1992, p. 1921-2 and Fried et al., 1994, p. 180-2).

Canada's sixteen academic health science centres are, by definition, all associated with university faculties of medicine (ACMC/ACTH I, 1995). There is one medical school in each of British Columbia, Manitoba, Saskatchewan, Nova Scotia and Newfoundland, two in Alberta, five in Ontario and four in Quebec. The medical schools and their affiliated hospitals together form Canada's academic health science centres. There are approximately eighty-one active and twenty-four associate teaching hospitals associated with Canada's sixteen academic health science centres (Fried et al., 1994).

Active teaching hospitals have an affiliation agreement with a university and participate in research and the education of physicians and other health care

practitioners. Teaching hospitals provide about ten percent of Canada's hospital beds (Fried et al., 1994). Despite this, teaching hospitals consume much more than ten percent of health care resources. Using 1992 data from the Canadian Hospital Association, Fried and his colleagues found that teaching hospitals consume thirty seven percent of all health care resources spent on hospitals and that the average cost per patient day in teaching hospitals was thirty five percent higher than in non-teaching hospitals (1994, p. 175). Similarly, Wade, in a paper submitted to the Ontario Ministry of Health, noted that, while teaching hospitals accounted for ten percent of Ontario's hospital beds, they were allocated forty percent of that province's hospital transfer payments (1991, p. 9).

The reason for increased operating costs in teaching hospitals can be found in their mandates. Teaching hospitals must provide a breadth and depth of care from primary to quaternary which require a greater investment in technology and specialized staff. They have sicker patients whose care and treatment are more costly, they need more infrastructure in order to support teaching and research, and they are more inefficient in their operation due to the presence of students who order more diagnostic tests and utilize more resources per patient (Lewis and Sheps, 1983 and ACMC/ACTH I, 1995).

The Missions of AHSCs

There is general agreement in the literature that academic health science centres (in both the US and Canada) have a classic, tripartite mission including clinical education, research and patient care². As Sinclair notes, these three goals are inextricably intertwined (1993). Education of health care practitioners and the conduct of clinical research both depend on the availability of patients to practice on. Provision of sophisticated medical services requires qualified clinical staff who are difficult to attract in the absence of an academic focus. Particularly in Canada, which is sparsely populated, concentrating qualified staff and advanced technology in urban centres is the most efficient way to ensure that clinical and academic expertise is available to students and patients.

As noted by Barondess (1991) and in the ACMC/ACTH paper (I, 1995) the educational mandate of academic health science centres includes the training of all types of future health care professionals: physicians, nurses, therapists and technologists. In addition to physicians in training, virtually every patient care area and department of a teaching hospital is home to some type of teaching program and its students.

In teaching hospitals at academic health science centres, teaching and patient care are assumed to occur simultaneously (Iglehart, 1993, Stack, 1995).

² See, in general, Lewis and Sheps, 1983, Heyssel, 1984, Relman, 1984, Schroeder, Zones and Showstack, 1989, Barondess, 1991, Iglehart, 1993, or Lewis, J.E., 1995.

Sinclair further notes that, "Health professional education of all kinds is dependent on the concurrent provision of clinical service." (1993, p. 1544). The education of health professionals is arranged around the teaching hospital's routines and the hospital's patient care routines reflect the needs of learners. For example, at FMC each patient care unit organizes patient care in such a way that the patients and caregivers are available for teaching rounds with the resident and staff physicians. The exact schedule may vary but every unit has provision for some type of formal or informal teaching rounds.

The other academic mission of AHSCs is to conduct laboratory and clinical research. Again, as noted above, this objective is intertwined with the educational mandate and reliant on the patient care focus. The research mandate of AHSCs could not be carried out without a stable and diverse patient population and the sophisticated research and patient care technology available in Canada's teaching hospitals.

An academic focus is also necessary in order to attract qualified clinicians and researchers to hospitals (ACMC/ACTH, I, 1995 and Sinclair, 1993). The reputation of academic medical centres depends upon their ability to provide leadership within the health care industry by conducting basic and clinical research leading to the enhancement of medical knowledge. This includes bench research (laboratory based or animal trials) and clinical (those that involve patients) trials of new drugs, procedures and equipment. Both the educational and research mandates of AHSCs rely upon the patient population they serve.

Provision of excellent patient care is usually listed last in the missions of AHSCs but that does not mean that it is unimportant. The consensus in the Canadian and US literature is that patient care is "... critical as the foundation for clinical research and teaching." (Stack, 1995 p. 5). The wording of the foregoing speaks to the relative importance accorded each mission. Patient care is perceived to be the result of an academic focus and crucial to the education of health professionals. Academic medical centres usually consider education and research as their primary missions and assume that exemplary patient care flows from the accomplishment of these two (Relman, 1984). This is discussed in more detail below but, in short, patient care is viewed as the means whereby AHSCs fulfill their teaching and research missions.

The apparent lack of emphasis on the patient care mission may arise from the firmly held belief (in academic medicine) that the organization which provides an atmosphere suitable to the conduct of outstanding clinical education and leadership in research, will automatically provide peerless patient care (Dr. D. Megran, Director of Medical Education, Department of Medicine, Foothills and Calgary General Hospitals 96/08/28, personal communication,). The encouragement of academic and research excellence is assumed, by those involved in medical education, to provide an environment most conducive to outstanding patient care (Lewis and Sheps, 1983, Sinclair, 1993 and Stack, 1995).

What the literature seems to show is that teaching hospitals may emphasize their teaching and research duties in order to set themselves apart from other health care institutions which identify patient care as their primary mission. The objectives of teaching and research are what set the University of Alberta Hospitals and Foothills Medical Centre apart from other Alberta hospitals. Their status enables them (and is necessary) to attract top-notch specialists and compete successfully for government funding for premiere programs such as cardiovascular surgery and transplantation. Identification as the sole deliverer of unique, high profile programs such as trauma, burn or high risk neonatal care also attracts donations to the hospital. In some cases these donations represent a significant contribution to the operation of a patient care program, usually in the form of capital equipment purchases.

Structure and Organization of AHSCs

The constituent agencies of an AHSC all contribute money and effort to accomplish their roles within the association. At the end of the day, though, the chief executive officer of the teaching hospital and the president of the university are not responsible to each other but to their respective boards and constituencies. As both Sheps (1985) and Barer and Stoddart (1991) found, a lack of clear-cut lines of responsibility and authority tends to result in tenuous connections that are easily influenced by political manoeuvring within each

organization. This thesis argues that it also results in a lack of clinical supervision of house staff compounded by blurred lines of authority where patient care is involved. In short, everyone is in charge and no one is in charge when it comes to patient care (and other) issues in academic medical centres.

The literature on academic health science centres is more concerned with global governance and financing issues than with internal organizational culture and its effects on the inmates (both caregivers and patients) in teaching hospitals. There is a body of literature which addresses the general organizational culture of hospitals but it is mostly limited to addressing the challenges facing hospital administrators and does not focus on patient care issues.³ North American scholarly writing of the last ten years is almost exclusively aimed at addressing governance, financing and organizational difficulties facing AHSCs in times of fiscal restraint.⁴ This body of literature does highlight the fact that the organization of AHSCs is inseparable from the funding and governance challenges they face.

As noted above, Barer and Stoddart, in a 1991 report on medical resource policies to the Federal/ Provincial/ Territorial conference of Deputy Ministers of

³ See for example: Marguiles and Adams, 1982, Boss, 1989, Hasenfeld, 1992 or Andrews, Cook, Davidson, Schurman, Taylor and Wensel, 1994.

⁴ Canadian examples include: Wade, 1991, Sinclair, 1993, Valberg et al., 1994, ACMC/ACTH papers I and II, 1995 and Stack, 1995. American examples include: Lewis and Sheps, 1983, Heyssel, 1984, Schroeder et al., 1989, Barondess, 1991, Iglehart, 1993 and Lewis, 1995.

Health, identified the following two key problems facing Canadian academic medical centres: "The roles of academic medical centres are poorly defined.[and] The funding of academic medical centres is unstable, chaotic, and inconsistent with their roles." (p. 12). Barer and Stoddart's work was based on a survey of nearly one hundred members of the Canadian health care industry.

The authors identified some general causes for organizational problems in academic medical centres. They relate most of the difficulties in AHSCs to a lack of unified direction or goals compounded by fragmented administrative and fiscal control (1991, p. 12). An example of fragmented control is the fact that medical schools and teaching hospitals are funded separately for shared functions, such as joint faculty appointments. The subject of a joint appointment does not have to answer clearly to either body. Situations such as this result in a great deal of administrative uncertainty. The lack of clear direction and control in AHSCs is what allows the conflict between teaching and patient care to occur.

Noela Inions, a Canadian nurse and lawyer, in discussing quality assurance in hospitals, addresses some of the unique qualities these organizations possess and the difficulties they pose to administrators and caregivers alike. She enumerates the multiple, unrelated tasks which must be accomplished for hospitals to function and the complex nature of hospital missions. She notes the extreme fluctuations in workload, the urgent and varied nature of patient requirements and the extreme division of labour required due to the specialized nature of tasks (1990, p. 37). The foregoing characteristics,

combined with the complicated administrative structure required to manage multiple constituencies in academic medical centres, result in an organizational culture that is characterized by Torrance as an “advanced bureaucracy” with a great degree of complexity (1987, p. 489-90).

Faculties of medicine and teaching hospitals are themselves comprised of multiple interest groups with varying degrees of power and influence within the system. Each constituent agency has different organizational structures which exert an effect on the functioning of the AHSC. The ongoing task of finding consensus contributes to the complex nature of relationships in these institutions (ACMC/ACTH, 1995, II). However, it is the organizational culture of teaching hospitals that has the greatest effect on the academic health science centre because it is there that the largest part of the AHSC’s activities take place.

Teaching Hospitals

Teaching hospitals in academic health science centres are literally a world unto themselves. As noted by both Frank (1991) and Zussman (1992), to patients, hospitals can present a forbidding image. In the eyes of patients and visitors, caregivers and workers in teaching hospitals are cloaked in the impenetrable garb of the insider. The daily rhythms of activity in teaching

hospitals seem frightening and strange to patients but constitute a familiar routine to employees in these massive complexes.

Along with the dread that being sent to a specialist in a large hospital may incur, patients often display a naive confidence that wonders can be performed there. In rural Alberta and British Columbia, where I grew up, everyone knew that a person had to be extremely ill or horribly injured in order to merit treatment in Vancouver, Edmonton or Calgary. Even Cranbrook, Red Deer, Lethbridge and Medicine Hat, which serve as secondary referral centres for outlying communities, are considered a step up from the care available in hospitals in smaller communities. The accepted wisdom is that the bigger the hospital you are in, the sicker you must be.

A 1991 version of the Foothills Hospital Mission Statement acknowledges this role for itself by stating "Hospitalization is generally reserved for patients with severe or complex illness." (p. 7). This statement also reflects the trend in the 1990's toward reducing health care costs by moving patients back into the community as soon as they are no longer acutely or seriously ill. Hospital care is hugely expensive and the more advanced a hospital is, the more costly it becomes. Due to fiscal constraints and philosophical shifts in the health care sector, common knowledge has become fact; only the seriously ill are admitted to tertiary referral centres.

The plaque affixed to the front of Foothills Medical Centre contains a line which speaks volumes about the mystery and apartness which characterize the modern hospital. "Within these walls, life begins and ends" is a simple statement which speaks to the modern development of hospitals in the Western world and the societal role they have assumed in caring for the sick and injured. The ill are no longer tended to by family and friends in the home, they are surrendered to the ministrations of professionals in buildings designed and operated for that sole purpose. Sickness has become sequestered from everyday life; it is surrounded by an air of mystery for most people in the western world.

Schneiderman and Jecker, in their book about the modern problem of persistence in futile medical treatments, note that,

One of the realities of contemporary society is that medicine has for the most part replaced religion as a source of spiritual meaning and consolation and miraculous expectation (1995, p.20).

Nowhere is the modern mystery of the treatment of illness and injury more evident to the layperson than in the teaching hospital which is part of an academic medical centre. Here, armed with drugs and technology that may have seemed fantastic only a decade ago, enigmatic physicians and their legions of students and subordinates labour against diseases and injuries to which humans have succumbed for thousands of years. The more successful this

process and the players who enact it become, the more they are set apart from the everyday world of the patients.

Media portrayals of hospitals and health care workers also contribute to public perceptions and expectations for care and caregivers. Investigative reporters, television dramas and movies portray the innermost workings of the medical world with varying degrees of accuracy. In the 1990's the general public has access to more information about sophisticated health care but it is not necessarily better educated about how it works. Media representations of miraculous cures often lead to unrealistic expectations on the part of patients. My colleagues and I cringe when we watch the inaccuracies portrayed in "hospital dramas" much the same way as police and lawyers cringe at "crime dramas".

The reality of academic health science centres is that they are convoluted organizations and this compounds the aura of mystery surrounding their activities. The internal culture of AHSCs is a result of the combination of their organizational structure, their academic missions and the fact that medical care itself is a mystery to laypeople.

Organizational Culture of Academic Health Science Centres

The atmosphere of teaching hospitals in AHSCs can be traced to the organizational environment in which they operate. This structure and culture are the results of the different influences of the academic and clinical partners in AHSCs. The literature gives two concepts which are useful in describing the organizational culture of AHSCs; political economy (Hasenfeld, 1992) and quasi-firm (Luke, Begun and Pointer, 1989).

The term “political economy” employed by Hasenfeld in an article entitled *Theoretical approaches to human services organizations*, best describes the general organizational culture of AHSCs (1992). This theory, although formulated for all types of human service organizations, can be readily applied to AHSCs as it takes into account the multiple internal and external environments in which the AHSC must function. Political economy theory stresses the political and economic resources which the organization must acquire and employ in order to meet its goals.

In Canada, AHSCs are dependent on government for funds; ministries of health and advanced education are the most significant sources. Political economy theory accounts for the influences of provincial ministries of health and advanced education on the operation of AHSCs. Successful administrators of AHSCs in Canada must establish legitimacy with these ministries in order to maintain and attract funding to the organization.

Political economy theory can also be applied to the internal workings of academic health science centres. There is a constant manoeuvring by constituents and departments for funds and programs and the stature that goes with them (Heyssel, 1984 and Sheps, 1985). In AHSCs, the acquisition of funds for a program of care or research enhances the reputation of those associated with the project and can result in more funds in future.

The relationship between the partners in academic medical centres is best described as a "quasi-firm". This concept, as it relates to health care organizations, was developed by Luke, Begun and Pointer in a 1989 article in the Academy of Management Review. They define a quasi-firm as the relationship formed when two or more organizations which are not formally united (there is no relation of ownership) join expertise or resources in order to pursue common strategic goals. This organizational structure has evolved out of necessity in AHSCs. By definition, academic health science centres are comprised of independent organizations (university faculties of medicine and teaching hospitals) which must collaborate to pursue the shared goals of education, research and patient care.

In Canada, the relationship between the university and the teaching hospital is complicated, partially governed by a legal contract (affiliation agreement) but held together more by the common interests of each partner in the agreement. In the US, the relationship between medical school and teaching hospital may be one of ownership or informal and formal affiliation (Lewis and

Sheps, 1983). As previously noted, less than one-half of American AHSCs are structured so that the university medical school actually owns the teaching hospital with which it is affiliated (Iglehart, 1993 p. 1052). In general, US teaching hospitals and medical schools form AHSCs in a relationship which is similar to their Canadian counterparts.

Academic health science centres evolve as connections of mutual needs and benefits are forged between universities and teaching hospitals. Provincial governments are responsible for the provision of both health care and education, yet, at present, governments do not explicitly acknowledge the existence of academic medical centres nor do they fund them as such (ACMC/ACTH, papers I and II, 1995). The same is true in the US where governments fund colleges and hospitals independently of each other (Sheps, 1985).

Practically speaking, the common interests between medical schools and teaching hospitals revolve around issues of people (patients and practitioners) and money. As introduced above, the teaching hospital and medical school, as independent partners in the quasi-firm formed in the AHSC, are inextricably interdependent on each other for fulfilment of their shared missions (Sinclair, 1993 and Luke et al., 1989). This entails a system in which the hospital supplies a patient population and the university contributes to the salaries of physicians who act as clinical teachers and provides house staff in the form of medical students and residents (physicians who have completed medical school and are now in clinical training). To put it bluntly, the conduct of medical research and

education require a diverse and steady supply of patients. Specialist physicians are needed to direct the care of these complex patients. Residents and student physicians perform the majority of hands-on medical work in teaching hospitals as part of their learning.

The organizational structure of AHSCs which has evolved over the years results in an atmosphere and culture which is unique to them. What the literature seems to show (but not explicitly state) is that there are several ways of conducting business (be it the business of patient care or of running the hospital) which are characteristic of AHSCs. These characteristics may also exist in other large organizations but their combination and application is unique to AHSCs. These include fairly rigid adherence to policy and procedure, one group (physicians) with more influence than any other and the difficulties imposed by working with multiple, disparate interest groups.

There exists in AHSCs a great devotion to policy and procedure that probably results from the lack of clarity regarding authority and responsibility. (Sheps, 1985 and Barer and Stoddart, 1991) The lines connecting and dividing the university medical school and the teaching hospital are so vague and convoluted that there is a great deal of room for interpretation (Sheps, 1985, Barer and Stoddart, 1991, Fried et al., 1994). This is compounded by the fact that the members of the medical staff are not employees of the hospital. Physicians operate in a separate administrative structure as independent

consultants appointed to provide medical care to the hospital's patients
(Hospitals Act AR 247/90 s. 31-33).

At the bedside, physicians are in charge and may make any decision that is medically defensible regardless of established hospital policy. What this means is that any policy or procedure, regardless of how carefully it was thought out, may be revised or ignored by the physician at the bedside. Because of this, chronic administrative uncertainty and increased bureaucracy are generally the hallmarks of academic medical centres.

Barer and Stoddart, in the background document to their 1991 report on Canadian medical resource policies, note that "semi-autonomous" physician department heads and division chiefs wield a great deal of power in hospitals (p. 6B-48). The result of this, while not stated explicitly in the literature, seems to be that because no one is in charge, everyone is in charge, and there are some who make decisions which can have a great impact on patients and caregivers alike . These people include many physicians, especially department or division chiefs, and very few non-physician administrators and department heads.

The majority of non-physician clinical department heads were also practitioners in their chosen field before becoming administrators. To be fair, physicians and non-physician practitioners are expected to make snappy, life and death decisions in their clinical work. When the expectation has always been that a person will make a rapid assessment of any clinical situation and

then intervene correctly and immediately, it is not unreasonable to expect that they may apply similar techniques to their administrative tasks.

Fried et al., in an article about the management of teaching hospitals, note that successful managers need advanced human relations skills in order to deal with the problems posed by managing multiple constituencies (1994). Organizational complexity and lack of clear direction in American AHSCs are also noted by several authors (Heyssel, 1984, Sheps, 1985, Schroeder et al., 1989 and Iglehart, 1993).

Valberg et al. summarize the deficiencies in organization which are common to Canadian AHSCs as follows:

- ▶ Planning is difficult because of the complexity of the relations among the many groups.
- Policy development and implementation are constrained because such decisions rest, largely, with external agencies that provide funding.
- ▶ Lines of responsibility and authority are blurred.
- Accountability is almost impossible to discharge, because funding arrives at the operational site in such a complicated fashion.

(1994, p. 6)

What the authors do not say is that the combination of administrative uncertainty and the take-charge personalities of many caregivers results in a kind of controlled anarchy in AHSCs like FMC. In my experience, if the right person is approached to make a decision, the task may be accomplished with blinding speed. But, there are also many instances where the path of least resistance is taken to avoid administrative complexity which could involve approaching several people or committees for a decision.

Hasenfeld, in a article entitled, *The nature of human service organizations*, points out the contradictions inherent in them as follows. " To the recipients of their services these organizations are expected to embody the values of caring, commitment to human welfare, trust, and responsiveness to human needs." (1992, p. 3). He goes on to note that service requirements and the environment of government and professional regulation result in organizations that are "... formidable bureaucracies burdened by incomprehensible rules and regulations, and where services are delivered by rigid and occasionally unresponsive officials." (1992, p.3). The foregoing are accurate descriptions of the atmosphere of academic health science centres. The bureaucratic requirements imposed by stakeholders (government, university, professional bodies, physicians and caregivers) pose challenges to the compassionate, timely delivery of patient care.

AHSCs are complex organizations composed of disparate interest groups with multiple missions. Teaching hospitals are the most influential partners in the

academic health science centre. The bureaucratic requirements imposed by the academic focus and the patient care mission result in a combination of organizational characteristics which is unique to these entities. The next Chapter describes the inner workings of Foothills Medical Centre and how it fits into the mould of AHSCs in general.

Chapter Three - Foothills Medical Centre

In order to understand the processes which create the organizational culture of Foothills Medical Centre, this chapter discusses its history and development as an academic health science centre. To gain insight into the problems facing academic health science centres, both the official and unofficial cultural processes must be explored. The current organizational structure under regionalisation is compared to those of the past and caregivers and their routines of patient care are described. The sources for this chapter are FMC documents including policy manuals, organizational charts and internal publications as well as my own impressions of the culture formed over fifteen years as an employee.

Development of Foothills as an Academic Health Science Centre

The Foothills Hospital opened in 1966 as a seven hundred bed general hospital. Foothills was intended as a teaching institution from the beginning. From the outset it was touted in the press as “The Mayo Clinic of Southern Alberta”, so it was no surprise when the Canadian Medical Association granted permission for fourteen interns to begin clinical rotations in 1968 (A Shelter from the Winds of Illness [Shelter], 1991).

By 1973, the University of Calgary Medical School building was open on the Foothills site; the first class of medical students graduated the same year.

The university building continues to house the medical school and library and the University of Calgary Medical Clinics (UCMC), a group of outpatient clinics operated by specialist physicians associated with Foothills Medical Centre.

In 1981, the Special Services Building (SSB) opened on the site (Shelter, 1991). Today the SSB houses the Tom Baker Cancer Centre (TBCC), the Provincial Laboratory of Public Health, the Auxiliary Hospital and various outpatient clinics. The TBCC includes several outpatient cancer therapy areas and one acute inpatient oncology unit. The Auxiliary units are home to patients requiring long-term care, mostly the elderly or chronically ill. In the SSB there are also two inpatient psychiatry units, outpatient psychiatry programs, the renal dialysis service and an inpatient rehabilitation unit for patients with neurological deficits. Other outpatient clinics include an abortion service, a dental clinic for patients whose underlying medical conditions place them at high risk for complications and the sleep disorders testing laboratory.

In 1987, when the Heritage Medical Research Building (HMRB) (housing laboratory research facilities) opened, also on the Foothills site, the pieces were all in place. Foothills Medical Centre possessed all the components of an academic health science centre, with facilities and personnel to combine teaching, basic and clinical research and the full spectrum of advanced patient care on one site.

In addition to the services located in the Special Service, University and Heritage Medical Research Buildings, the main building at Foothills houses approximately twenty-five inpatient and outpatient care units. These include surgical, medical and speciality services such as intensive care, cardiac surgery and neonatal intensive care. FMC boasts several new, state-of-the-art facilities including the recently renovated Emergency Department, Intensive Care Unit, Coronary Care Unit, Neonatal Intensive Care Unit and Operating Rooms, all completed in the last two years.

The formal and informal ties of the Foothills to the University of Calgary and the Tom Baker Cancer Centre are embodied in the Special Services, University of Calgary and Heritage Medical Research buildings. The breadth and depth of patient services and academic facilities, all located on the Foothills Medical Centre site, combine to define it as an academic health science centre.

External Stakeholders

By definition (as discussed in Chapter Two), teaching hospitals at academic medical centres are composed of multiple constituencies which have differing mandates and wield varying degrees of power within the organization. Foothills Medical Centre is no exception. External stakeholders that have a significant effect on the operation of FMC include the provincial government (and

to lesser extent the federal and municipal governments), other hospitals and affiliated institutions in the region and professional bodies which provide accreditation of operations and programs.

As noted in Chapter Two, hospital care is the responsibility of provincial governments. The Alberta government lays out requirements for the safe operation of hospitals in legislation. This legislation includes the Regional Health Authorities Act (R.S.A., 1994) (which repealed most of the Hospitals Act (R.S.A., 1980) and the Provincial General Hospitals Act (R.S.A., 1959)) and their accompanying regulations.

Legislative requirements for Alberta hospitals include everything from ministerial approval of planning and construction to detailed instructions on how to keep patient records and who can assist in surgery (AR 247/90 s. 3, s. 13, s. 18). In addition to conditions imposed by legislative and ministerial directions, FMC also has affiliation agreements with some of the partners that share the site. These include the Alberta Cancer Board and the University of Calgary.

The Alberta Cancer Board operates the Tom Baker Cancer Centre on the Foothills site. This is a full service building that houses several patient care units and shares services and staff with FMC. The relationship between the Alberta Cancer Board, the university and FMC is also governed by an affiliation agreement which is similar to the agreement between Foothills and the University of Calgary.

The formal relationship between FMC and the University of Calgary is laid out in a contract (affiliation agreement) which is fairly standard to all AHSCs. The current agreement was signed in 1992 but is, of course, currently being renegotiated between the University and the Calgary Regional Health Authority. The new agreement will likely mirror the present one in all important particulars. The present agreement lays out, in general terms, the rights and responsibilities of the two major partners in the academic health science centre: Foothills Hospital and the University of Calgary (Affiliation Agreement, 1992).

The agreement begins by stating , "... the basic tenet that teaching and research are integral parts of high quality care..." (1992, p.1). As noted in the agreement, the university has responsibility and authority for all training and educational programs for its students which take place in the hospital (p. 5). The University is also required to ensure that its students follow hospital rules and regulations and to keep the hospital informed of any program plans that may affect hospital operations (Affiliation Agreement, 1992, p. 6 and 7). There is also a provision that the university submit faculty appointments to the hospital for approval (Affiliation Agreement, 1992 p. 7).

The acquisition of "... first-rate facilities and competent personnel..." is a responsibility of the hospital under the agreement (Affiliation Agreement, 1992 p.9). Being an academic health science centre is an expensive commitment. In order to attract the case-mix and patient population required to provide adequate learning material for students in the Faculty of Medicine, the hospital must

undertake to provide a broad range of sophisticated services. This entails large outlays in capital equipment and supply purchases and similar investments in qualified personnel.

Under the Affiliation Agreement, the hospital agrees to accept such students as the Faculty of Medicine chooses to send (1992, p. 8). There is also a provision whereby the hospital can refuse to accept student or faculty appointments but instances of this occurring are rare (1992, p. 8). Medical student learning is specified to include: "... care of both ambulatory and inpatients,... assessment and follow-up of patients and their care and...participation in and performance of supervised procedures, in a manner permitting increasing responsibility in accordance with supervised experience." (Affiliation Agreement, 1992, p.8).

What the agreement allows for is the time-honoured tradition of medical learning known as "see one, do one, teach one". The system of graduated clinical responsibility is discussed in greater detail in the section entitled Patient Care and Teaching Routines in this Chapter and again in Chapter Four. Graduated clinical responsibility means that medical students and residents are allowed to order patient care and perform procedures with minimal supervision.

In my experience (and that of many of my colleagues), the amount of supervision varies with the attending physician. Some attending physicians follow closely the work of residents in their charge while other attendings appear

much more relaxed and informal as preceptors, supervising residents' work by telephone consultation or case review after the fact. The literature and hospital documents do not directly address the amount of supervision that a physician preceptor must provide to residents. For example, the Foothills Medical Staff Bylaws do not even mention resident supervision and the Department of Medicine Residents Manual (DMRM) says only that "A philosophy of independent self-directed learning underlies the curriculum" and that assessments are completed at the end of each rotation (1996, s. II, 2).

As is the case with other AHSCs, the affiliation agreement between FMC and the University of Calgary has nothing to say about service delivery issues (ACMC/ACTH II, 1995). The details of the agreement are mostly confined to general education and research issues and the joint appointment of medical staff. These agreements do not specify how students will conduct patient care or what type of supervision they require. These details are generally left to the clinical departments and divisions (FHH Medical Staff By-laws, 1993).

Besides adhering to legislated standards and the conditions of affiliation agreements, Foothills, like other AHSCs, seeks to validate its operation through external accreditation processes. Accreditation is a voluntary process which is meant to ensure that minimum national standards for health care are established and adhered to by hospitals and other health care agencies (Inions, 1990). The Canadian Council on Health Services Accreditation is an organization, independent of government, which "...provides... a means whereby health care

organizations can assess their level of performance against a set of nationally applied standards.” (1995 Program Survey Guide [CCHSA, 1995], p. 5).

Participation in the accreditation process is voluntary but in Alberta the Operation of Approved Hospitals Regulation (247/90) of the Hospitals Act (R.S.A. 1980) requires that all hospitals “...strive to meet...” the CCHSA guidelines (s. 34(1)).

Accreditation by external independent bodies is the most influential and widely used method of external quality assurance in Canadian hospitals (Inions, 1990). CCHSA accreditation encompasses health care facilities and programs of patient care. Other bodies, including the Canadian Medical Association, the Royal College of Physicians and Surgeons of Canada, the Canadian Nurses Association and the Canadian Society of Respiratory Therapists collaborate to provide accreditation of educational and training programs for health care practitioners. Academic medical centres like Foothills consider compliance with the standards of accreditation a vital part of their quality assurance programs.

Organizational Structure and the Impact of Regionalisation

The organizational structure of Foothills Medical Centre follows the pattern of other academic health science centres in that it is hierarchical and has separate, parallel structures for medical and administrative authority. The following discussion derives from organizational charts which were in effect from

1988 to 1994, when FMC had its own board of governors; 1994, the first year under the Calgary Regional Health Authority (CRHA); and 1995 to the present.

From 1988 to 1994 the organizational charts for FMC remained fairly static. The general chart and the medical staff organizational chart for this time period are reproduced as Appendices A and B. These charts show the Chief Executive Officer (CEO) reporting to the Board of Management (BOM) with the medical staff and five vice-presidents reporting to the CEO (Appendix A). Clinical, technical and service departments have managers who report to one of the four (non-physician) Vice-Presidents. Line supervisors and staff report to the department managers of their respective areas.

The medical division chiefs and department heads are shown as reporting to the medical vice-president (Appendix A and B) but the medical staff, unlike other caregivers, also have direct access to the board through the CEO. As noted above and discussed below, the medical staff is organized independently of the administration of the hospital but it overlaps and parallels it in many ways.

With the advent of regionalisation, the 1994 CRHA organizational chart (Appendix C) is dramatically different from the preceding FMC charts (Appendices A and B). The 1994 interim chart documents the complete change in organizational philosophy which regionalisation has occasioned. Previously, the organizational chart reflected only activities which took place at FMC. After regionalisation, the organizational focus shifted from service departments and

patient care units at Foothills to regional patient care programs across all sectors and sites.

The 1994 interim CRHA chart makes no mention of specific sites or buildings. Responsibility for patient service programs (regardless of physical location) lies with Senior Operating Officers (SOO's) who report to the regional board through a CEO. There is also provision for a regional medical staff which reports directly to the CRHA board but the details of this have yet to be formalized between the CRHA and its medical staff.

The 1995 version of the CRHA organizational structure builds on the philosophy typified in the 1994 version. There is no mention of sites or buildings, only of patient programs (Appendices D and E). It is clear, though, especially to those employed by the CRHA, that every high profile program is primarily located at FMC. These include Injury and Trauma, Heart Health, Neurosciences, High Risk Maternal and Newborn Services, Critical Care and the Southern Alberta Renal Program, to name a few (Appendix E).

In taking on the role of academic health science centre for itself, FMC espouses the classic three pronged mission of AHSCs (as described in Chapter 2) in its 1991 Mission Statement which declares, in part:

The Mission of Foothills Provincial General Hospital is to achieve excellence in our programs of *patient care* so as to provide the maximum health benefit to the people we serve. As southern Alberta's university

hospital, we have mandates for *education* and *research* which are directed toward improved methods of diagnosis, treatment and patient service (p.2)[*emphasis added*].

Foothills' place as Southern Alberta's AHSC has been further cemented by the process of health care regionalisation which was begun in 1994.

When the Regional Health Authorities Act (R.S.A. 1994) was enacted it placed all health care agencies in Calgary under the governance of a single board. This put Foothills at the centre of a storm of resentment over its overbearing presence in Calgary health care. This controversy is so well entrenched in the culture of the city that Calgary Herald writer William Gold addressed it in his July 21, 1994 column. He admitted that his evidence was "anecdotal ...nothing scientific" but that the resentment against the Foothills by virtually everyone that did not work there was universal. He was also of the opinion that, "[in] Alberta's new health care system Foothills is the hands-down 'winner' " and that "Certain other players in the game are bitter". By this he implies that medical staff and caregivers at other hospitals in Calgary resent the standing accorded to FMC.

Mr. Gold merely confirmed what insiders in Calgary's health care system knew; for reasons unknown or undiscovered, the Foothills was seen as a marauding presence in Calgary health care. Before 1994, the Foothills competed with the Holy Cross and the Calgary General for premiere programs and the

prestige and funding that went with them. It is understandable that people from these institutions would resent the emergence of FMC as the victor seemingly at the stroke of a regional bureaucrat's pen. The surprising and painful part for people at Foothills was that (according to Mr. Gold) apparently our patients felt the same way about us as our competitors.

The newly formed Calgary Regional Health Authority adopted a new mission to be shared by every health care agency in the region, including FMC.

The Calgary Regional Health Authority is committed to excellence in providing an accessible, accountable and integrated community-based health system which promotes shared responsibility for improved health (CRHA Business Plan, 1994).

An enormous entity like the CRHA cannot afford to have specifics in its mission and value statements and the one given above is no exception. There is no more reference to the constituent parts of the CRHA, only to the region as a whole. This new mission appears to have no room for one organization to be the leader in academic excellence and the provision of tertiary and quaternary care. Foothills Medical Centre, however, continues to act the part.

Foothills Hospital continues its leading role as the jewel in the crown of the Calgary Regional Health Authority rather than an independent entity. In 1994, with the formation of the CRHA, administrative responsibility for all health services in the Calgary region was concentrated with the regional board. As is

shown by the 1995 organisational charts, individual institutional boards were dissolved and regional program leaders with responsibilities crossing institutional lines replaced competitive, institution-based leadership (Appendices D and E).

The chaos of health care regionalisation may have come to Calgary but the Foothills continues on as the academic and research flagship of the CRHA and home to all of its high profile programs. It also follows that the academic characteristics of FMC, which set it apart from other hospitals in Calgary, continue to form its special culture and atmosphere.

The factors given above likely contribute to the resentment against FMC. Now that so many staff have moved with patient programs to the Foothills from the closed sites (Holy Cross and Calgary General) this resentment is more noticeable. I have heard many expatriate staffers from the Holy Cross and Calgary General hospitals refer scornfully to FMC as “Foothills Mayo Clinic” as a comment on what they perceive as the overbearing egotistical aspirations of the hospital and (presumably) its staff.

Foothills Medical Centre's academic characteristics, its sheer size and the loss to regionalisation of the other two Calgary hospitals which were comparable in stature, are all factors which contribute to the organizational culture at Foothills. All of Southern Alberta's premiere medical programs are now located on one site and the organizational structure imposed by regionalisation seems to ensure that it will stay that way. The foregoing conditions enhance the emphasis

on an academic focus at FMC which continues to entrench the conflict between patient care and teaching at the bedside.

Medical Staff, Caregivers and Patients

As noted in Chapter One, Foothills is populated with many different occupational groups in addition to the physicians and patients. This section discusses some of the effects that physicians and other health professionals have on the organizational culture at FMC.

Because physicians are independent contractors of services to hospitals, administrative structures continue to reflect their role accordingly. In all three versions of the organizational structure (pre-1994, 1994 and 1995) there are separate structures in place for medical staff (Appendices A-E). This is the usual method of delineating medical staff involvement in North American hospitals, particularly teaching hospitals. As Simendinger and Moore note,

The medical staff is responsible for organizing itself. Structurally, the organization is completely separate and independent from the hospital organization. From an authority standpoint, which in itself is ambiguous, physicians are responsible only to the director of their medical department, the chief of staff, the hospital board, and, of course, their patients. (1985, p. 93).

As noted in the Foothills Bylaws (1993), appointments to the medical staff are made by the hospital (now regional) board on the recommendation of the medical advisory committee (1993, s. 30.2.01). This means that the medical staff is made up of semi-autonomous independent practitioners appointed by their peers, not of employees hired by the hospital or university.

The Foothills Medical Staff By-Laws (1993) give clinical department heads responsibility and authority for all medical care delivered by their members. The by-laws empower department heads and division chiefs to "... make recommendations concerning... staff, space, supplies, instruments and equipment needed for patient care, teaching and research in his particular department, and [to] see that utilization of such resources is effective." (1993, s. 50.2.05 p. 27) These powers are the cornerstone of the considerable influence of physicians at FMC. The influence of physicians also derives from the fact that the vast majority of activity in any hospital is still driven by physicians. They see patients, order diagnostic tests, prescribe treatment and perform procedures.

In addition to the statutory powers conferred upon physicians in hospitals, what can be drawn from the literature is the fact that AHSCs are populated with physicians at the top of their fields, with a demonstrated drive to lead and excel (Wade, 1991, ACMC/ACTH, I, 1995 and Stack, 1995). In my experience, what this translates into is a group of physicians who will brook no opposition. They like to have things done their way and it is very difficult for non-physician staff to implement policies or procedures without physician approval. As noted by Lewis

and Sheps (1983) and Barer and Stoddart (1991), the structure of the academic health science centre (which has physicians as clinical department heads) lends itself to a relationship of unequal power between physicians and caregivers.

Unfortunately, the unchallenged position of physicians at the top of the health care hierarchy can result in a lack of input from anyone else. As noted by Zussman, it is extremely common for non-physician practitioners to withhold suggestions or constructive criticisms relating to patient care because they are unwilling to challenge a physician (1992, p. 66-7). In my view, the power gulf between caregivers and physicians can also lead to inexperienced student physicians making mistakes because their preceptors do not set the example of listening to experienced non-physician caregivers. This is again borne out by Zussman's work where he found that nurses resented having to take sometimes incorrect orders from residents who were less experienced than they were (1992, p. 67). This problem is discussed in greater detail in Chapter Four.

As noted in the organizational charts, at FMC there are also non-physician administrators and department managers responsible for various programs of patient care and service departments. There are also clinical department heads, who are physicians, for approximately twelve medical departments including anaesthesia, surgery and radiology and several speciality divisions such as respirology and cardiovascular surgery. There are now medical leaders in each program (e.g. Injury and Trauma) in addition to the medical department and division heads noted above (Appendix E). How physician and

non-physician leaders and administrators will interrelate and who is in charge of whom and what remains as unclear as it was before regionalisation.

It is interesting that all other caregivers must answer to physicians but, as noted in the 1993 Medical Staff Bylaws, physicians answer only to each other. Even this occurs rarely. I have seen many arguments between physicians but I can not recall ever seeing one staff physician compel another do something. On the contrary, I and my colleagues often end up treating the patient in a way that we feel is less than optimal because the resident or staff physician insisted upon it and no other physician could be prevailed upon to intervene.

To the uninitiated, the foregoing discussion may seem foolish. People (especially physicians) assume that it is best for all caregivers to defer to physicians in every medical decision. Physicians, it can be argued, are better educated than other practitioners and have years more experience built into their training. The answer to this argument is that the field of health care is far, far too big for anyone to know and understand all aspects of diagnosis and treatment of injury and disease. The proliferation of specialized physicians and other practitioners is a result of the explosion of medical knowledge and technology which has occurred over the last several decades. No single practitioner, even a physician, can know it all anymore. In an academic health science centre, the safety of the patient depends on the expertise and knowledge of many people. Physicians order care; they do not, with the exception of surgery and other selected invasive procedures, carry it out.

Despite the foregoing, even departments (such as mine, Respiratory Therapy) that do not have medical directors, are responsible to physicians in all the clinical areas where we provide service. For example, in my current job, I must regularly respond to conflicting demands of physicians from the Emergency Department, Department of Surgery and the Department of Medicine (to name but three). The medical staff is "...entrusted with... the responsibility for the quality of medical care in the hospital" by the board of management (Foothills Medical Staff By-laws (1993) preamble). This translates into all non-physician staff having to defer to physicians (even residents) on most issues. There is no policy which requires a physician to answer caregivers' questions, let alone listen to his or her point of view regarding patient care.

Non-physician caregivers form the other group which has significant impact on the organizational culture at FMC. The different occupational groups which form the staff at Foothills were delineated in Chapter One where caregivers were defined as those who were trained and then licenced or registered to deliver bedside care to the patient. Caregivers can be further differentiated by their professional affiliations. Unions, professional associations and professional regulatory bodies all influence the practice and work of hospital staff.

Unions, due to the size of their membership and the control they have over working conditions, can have a great effect on the functioning of FMC. As I wrote this, the United Nurses of Alberta were threatening illegal strike action

which could cause the FMC to grind to a rapid halt. Collective bargaining by labour unions influence patient care and the operation of hospitals by dictating working conditions for staff (Inions, 1990). For example, union contracts specify the length and timing of breaks, the skill and education level of workers and how supervisory responsibility is assigned. These types of issues have an obvious effect on how patient care is conducted.

Other large collective bargaining groups at FMC include the Health Sciences Association of Alberta, which negotiates on behalf of approximately one hundred different professional and technical groups, and the Alberta and Canadian Unions of Public Employees, which negotiate on behalf of non-professional and technical workers in such areas as housekeeping, maintenance and laundry.

Professional regulatory bodies such as the College of Physicians and Surgeons of Alberta, the Alberta Association of Registered Nurses, and the Alberta College and Association of Respiratory Therapy, by mandating standards of practice for their members, also have an effect on how FMC functions. Professional bodies and unions have a great deal to say about how their members practice and work. These bodies prescribe standards of professional practice, codes of conduct and ethical guidelines to which their members must adhere when delivering patient care.

After physicians and caregivers, (last but not least) patients are the most significant group in hospitals. It seems odd that the patients do not spring to mind as the first influential group at the FMC. After all, at any given time, there are several hundred of them physically on site. In 1994, the Annual Report of Foothills Hospital reported 26,647 inpatient admissions and 406,766 outpatient visits. Even more dissonant is the fact that the whole building was built for one purpose - to treat the sick. It always amazes me that entire discussions, meetings and reports can take place at FMC without a patient ever being mentioned.

Arthur Frank refers to the fact that physicians have been accorded a position in society whereby they are expected to take control and manage the illness of patients (1991, p. 58). In light of this type of perception, it becomes less surprising that physicians attempt to control every aspect of health care. In my view, the patient is left out because AHSCs like FMC do not see the patient as a partner in the operation. The patient is seen as one of the inputs into the operation of an AHSC. The fact that patients are the "raw material" upon which hospitals work is noted by Hasenfeld to be one of the characteristics that set them apart from other industries (1992, p. 4). This position is not espoused openly; in fact, the official motto at FMC has long been, "The patient, his problem and his time... what we care about most." (Foothills Provincial General Hospital, Mission Statement, 1986). I believe (and FMC declares) that patients and the

public are vital constituents in the academic health science centre. However, practice does not always match policy in this area.

At Foothills there is an office/person responsible for responding to patient complaints and a newly published brochure on "Patient's Rights and Responsibilities" which outlines the process whereby patients may voice concern or complaints about their care. The CRHA has also set up a consumer "hotline" for patients to use to access information about health care services.

The above efforts are evidence that FMC is trying to include the patient as a constituent in its operation. The difficulty seems to be in overcoming the patriarchal attitudes of caregivers toward patients. Most physicians and caregivers still practice from the assumption that they always know what is best for the patient. To view the patient as an active and equal participant in health care is a notion which remains alien to many hospital staff. Lack of communication between health care practitioners and patients and the difficulties which this causes are discussed in greater detail in Chapter Four.

Patient Care and Teaching Routines

Many authors note that the routines of teaching hospitals are organized to be convenient for the doctors and staff rather than the patient.⁵ This is definitely

⁵ See, for example, Bulger, 1990, Frank, 1991 or Zussman, 1992.

true at FMC where actual patient care is squeezed in between the visits of doctors and appointments for the patient in various diagnostic and therapeutic areas. Although all the patient care units have a different clinical focus, most have similar routines for patient care and all are subject, to some extent, to the general teaching focus of FMC.

At Foothills, the medical teaching units are not very different from the surgical teaching units. The speciality units such as nephrology, oncology or plastic surgery may have routines specific to the needs of their patient population but all patient care units have residents and other students as part of their routine. Lewis and Sheps capture the essence of patient care at academic medical centres in the following passage:

In the teaching hospitals the emphasis is upon the thoroughness of the 'work-up' of the patient. Involving a great deal of testing and measurement, such work-ups often use more technology than many clinical experts would think needed to make appropriate decisions about the diagnosis and management of the individual patient. The conventional wisdom in academia is that this approach is good for teaching because it emphasizes completeness and scientific precision, and that even when patently irrelevant, unnecessary, and wasteful, it represents the kind of mistakes students must be allowed to make as a learning exercise (1983, p. 134-5).

The description in the foregoing passage is confirmed and defended by those involved in medical teaching at FMC. Dr. D. Megran, the Director of Medical Education for the Department of Medicine at FMC, acknowledges a pressure to teach cost - effective care, but he also defends the use of more diagnostics by students as necessary for complex patients with a high severity of illness (96/08/28, personal communication).

Bernard Lo, referring to the impositions on patients in teaching hospitals in a book about medical ethics accurately states that, "Learning clinical skills may present inconvenience, discomfort or even risk to patients" (1995, P. 320). The fact that many diagnostic tests are exhausting, uncomfortable and even painful to the patient is not usually a consideration when they are being ordered. The irrelevant and wasteful part is seldom addressed at the bedside either. Caregivers can and do address this type of issue but at their peril. I have been and have watched others be severely reprimanded for questioning a physician's judgement regarding any aspect of patient care. Lo further acknowledges that residents may hesitate to ask for help or advice because they fear that their preceptors, peers and caregivers may judge them incompetent or reluctant to assume responsibility (1995).

An academic health science centre like Foothills is home to every medical subspecialty possible. As is discussed in greater detail in Chapter Four, the result of overspecialization is that a holistic vision of the patient is sacrificed to specialized expertise. In the course of his or her stay a patient may see a

nephrologist and genitourinary surgeon for his or her kidney stones, a cardiologist for heart failure, a respirologist and infectious disease practitioner for pneumonia and a plastic surgeon for the ulcer on his or her leg! This is by no means an exaggerated list of consultants for a patient at FMC. He or she may be seen by this many consultants in a single day in the Intensive Care Unit. The internist or family physician who may be responsible for this patient's overall care must have a hard time keeping up with the several different care plans proffered by consultants.

As noted by Schneiderman and Jecker, specialist physicians tend to concentrate on the body system for which they were consulted to the exclusion of the overall well-being of the patient (1995, p. 135). At FMC, this fragmented system of care results in conflicting care plans and impossible schedules of tests and treatments which the other caregivers must struggle to comply with. It is a challenge to find a single, responsible physician for a patient on a teaching unit despite the fact that hospital policy dictates that every patient must have a responsible physician of record (Foothills Hospital Administration Manual, 1996, Policy 10-06). Part of this problem also stems from the attitude that specialist physicians do not like to intrude in other areas that belong to other specialties. Even in the intensive care unit (ICU), which is far more regimented than other units, the staff physicians change every week and a different physician takes call each night shift.

Foothills' official policy on how patient care, education and research are to be conducted concurrently was published as its Principles of Education and Research in the 1991 Mission Statement. As is discussed in greater detail in Chapter Four, there seems to be a significant split between policy and practice as regards the conflict between education and patient care. The mission statement refers to education and research as "...important mandates, complementary to [its] primary mission of patient care"(1991, p. 9). It also declares that FMC will "respect the right of any patient to refuse student participation in their [sic] care or involvement in research" and that FMC "regularly reviews the needs of learners and their impact on patients and staff to ensure a balanced emphasis which improves patient care." (P. 9-11). Foothills Hospital is further identified as "...the principal patient-based research resource for the University of Calgary Faculty of Medicine." (P. 11). In practice it is difficult to enforce the foregoing policies and, in my experience, it is often not even attempted.

The Foothills policies described above seem to place the patients' needs before the demands of education and research. However, this is an area where practice is different than policy. Again, Bernard Lo notes that many staff physicians feel that, by entering a teaching hospital, patients give "implied consent" to have students care for them (1995, p. 321). While the above notion of implied consent seems clearly wrong, other authors have also found that it seems to be common practice for learning physicians to not disclose their status

as students to patients (Cohen, McCullough, Kessel, Apostolides, Alden and Heiderich, 1987).

In order to meet its teaching and research commitments, FMC must have patients that participate by letting students care for them and by signing up for research studies. Patients often are unable to distinguish between residents and staff physicians and I cannot say I have ever heard a resident or student tell a patient that this is one of the first times they have performed a procedure. The application of the above noted policies is where the process fails the patient.

It is policy that residents and medical students identify themselves as such to patients (FMC, Department of Medicine, Residents Manual, 1996 s. II, 15, 1 [DMRM, 1996]). It is also incumbent upon staff physicians to inform patients that residents and medical students will participate in their care (DMRM, 1996). The Foothills, up until 1996, had students of all types (except resident physicians) wear distinctively coloured name tags. Residents and medical students have no obvious distinguishing characteristics that would enable patients to tell them from a staff physician although their name tags do identify them as resident physicians. In my experience, students (of any program) do not routinely introduce themselves as such to patients. Even if residents did introduce themselves as such, their name tags identify them as a doctor, and, to most patients, a doctor is a doctor.

It is difficult for a patient to refuse treatment or a procedure carried out by a student if they are unable to identify them as such. The usual group of patients who do ask about student status and request a more experienced person are those who are health care workers themselves. It is rare for a patient to refuse admission to the medical teaching units because he or she wants to be a non-teaching patient (Dr. D. Megran, 96/08/28, personal communication). Most patients in teaching hospitals understand that there will be students involved in their care but the number of staff members they encounter is simply too large and confusing for most patients to keep track of. Patients often do not understand the educational hierarchy in a teaching hospital despite having it explained to them (Dr. D. Megran, 96/08/28, personal communication).

The standards for conducting clinical research are quite different than those for having learners care for patients. The requirements to conduct research involving patients are well established and stringent. Enrolling patients in clinical studies requires full disclosure of the research and details of treatment to the patient and his or her next of kin. However, the guidelines about disclosing the extent of student involvement in patient care are less clear. Having a first year resident place an intravenous line in a patient's jugular vein requires informed consent but this does not usually include disclosure of how experienced that resident is or how experienced the resident supervising him or her is.

A compounding factor in the conflict between teaching and patient care at FMC is that it is common for residents to be supervised by other residents only

one year ahead of them in training. The senior resident reports to the attending physician or even to another (more senior) resident. The patient can be at Foothills for days without ever seeing a staff physician. The result of this system is that the patient may be deprived of the benefit of the staff physician's experience and expertise with adverse results.

At Foothills, it seems there is a basic conflict between the attending physician's obligation to provide learning opportunities for students and his or her duty to the patient. This idea is echoed by Bernard Lo where he acknowledges that student physicians are torn between their desire to learn and their responsibility to the patient (1995). Allowing a first year resident to perform an invasive procedure for the first time is not great for the patient but how else are students to learn? The tension produced by these types of conflicts between teaching and patient care at FMC is the subject of Chapter Four.

Chapter Four - "The Conspiracy of Excellence"

The real work and basic function of hospitals is to enhance or restore the health of patients. This thesis argues that, in an AHSC like Foothills, this goal can get lost or subordinated to the organizational and educational needs of the institution. The paradox of teaching hospitals like FMC lies in their multiple missions - a basic conflict between good learning and good patient care. As discussed in the preceding three chapters, this statement would likely be hotly contested by those involved in medical education who assume that good patient care is the spontaneous product of an atmosphere conducive to teaching and research. But, simply put, I argue that exemplary patient care can not arise spontaneously from the unsupervised work of students. Furthermore, I maintain that good patient care may result from the meticulous work of carefully supervised learners but that this is not the usual scenario in teaching hospitals.

The preceding three chapters have attempted to build the world of the teaching hospital that is part of an academic health science centre and to place Foothills Medical Centre into this context. As described in Chapter Three, FMC is a complex institution which shares all of the organizational and cultural difficulties of AHSCs that prepare the ground for a conflict between the educational mandate and the obligations of patient care. In my experience, the foregoing characteristics are what make FMC a difficult place to be for both patients and bedside caregivers.

My view that FMC represents a “conspiracy of excellence” comes from my several years experience with that institution. The term is both a play on one of the official slogans at FMC - that it is a Centre of Excellence - and a comment on the difficulties caregivers at FMC face in meeting patients’ needs. The conspiracy of excellence at Foothills is the exemplary patient care which caregivers struggle to deliver in spite of the system, rather than because of it.

In order to illustrate the circumstances which create problems at FMC, the next section describes the journey of a fairly typical patient. This patient’s experiences are drawn from my own observations over the years and do not refer to any particular person. This case is not an exhaustive recitation of every situation patients at Foothills may encounter, it is merely a representation of some common occurrences.

The Hypothetical Patient

Mr. Deck is a 44 year old man who was involved in a motor vehicle accident. He sustained a moderately severe brain injury, several broken bones and some internal injuries. Mr. Deck had initial x-rays and laboratory tests and was stabilised in the Emergency Department. He was transferred to the Diagnostic Imaging Department for further scans and tests and then taken to the operating room. He arrived in the Intensive Care Unit (ICU) about six hours after

his accident. His initial treatment required four separate surgeries in the first few days of his stay. These operations were completed by a neurosurgeon, a plastic surgeon, an orthopaedic surgeon and a general surgeon. To this point Mr. Deck has been examined and/or treated by approximately seven different staff physicians and even more residents and medical students, as well as many non-physician caregivers.

Due to the severity of his injuries, Mr. Deck spends the first few weeks at FMC in the ICU where his primary physician is one of the intensive care physicians who is on call. In ICU two staff physicians are on duty each day and a different one is on call (with a resident) at night. Additionally, each patient will be assigned to one of the residents rotating through ICU who will be responsible for his overall care under the supervision of an intensivist. If his condition requires it, Mr. Deck will probably be seen by more consultants who are sub-specialist physicians in such fields as infectious diseases, nephrology or cardiology.

When Mr. Deck is stable enough to leave the ICU, he will be transferred to a ward and, depending on which injury or condition is prevalent, one of the above listed physicians will assume responsibility for his care. As discussed in Chapter Three, FMC policy requires that a responsible physician be designated for every patient (Foothills Hospital Administration Manual, Policy 10-06). In practice this physician (as in Mr. Deck's case) may have very little to do with the patient's ongoing care.

If, for example, a neurosurgeon assumes Mr. Deck's care because his head injury overshadows his other injuries, the caregivers will still have to refer any problems that are not neurosurgical to another physician. But, because caregivers cannot directly consult physicians, the neurosurgeon, as the responsible physician, must give permission to consult another doctor and this often results in delays in consultation, diagnosis and treatment.

As previously discussed, the structure of medical care and responsibility for patient care in AHSCs is very fragmented. Unclear lines of authority and responsibility which result from the administration of multiple unrelated constituencies in AHSCs tend to result in interruptions in the continuity of care at the bedside level. In addition to the complexity associated with the sheer numbers of physicians who have a part in Mr. Deck's care, it is important to note that all these physicians will not always agree on the best course of action or treatment for a patient. Medicine is an inexact science and there are many "right" ways to approach problems in patient care. Because of this and the fact that each specialist will view Mr. Deck primarily in terms of his or her field of expertise, care plans can change with each new consultant.

It is not unusual for physicians to give contradictory orders or care plans. Schneiderman and Jecker note that this uncertainty can be very stressful for the caregivers as they struggle to carry out conflicting orders or plans (1995, p. 140). The confusion created by fragmented care can also be extremely difficult for

families and patients who get mixed messages about their condition from different specialists and caregivers.

For continuity, Mr. Deck and his family will have to rely on the caregivers at his bedside, mostly nurses but also the other members of the allied health care team who were described in Chapter One. Patients and families look to the bedside caregivers for information and reassurance because their interaction with physicians is, at best, episodic. Patients, families and bedside caregivers at FMC usually see physicians in relation to a specific problem or question; even general rounds do not usually involve all physicians and caregivers who interact with the patient.

The crux of the problem of fragmented care lies in the way medicine is practised in AHSCs. The patient has indirect access to the finest minds and talents that medicine has to offer but, at the same time, his or her overall plan and welfare is lost in the shuffle. What Schneiderman and Jecker refer to as the “balkanization” of body parts is the view of the patient as a collection of barely related body systems that results from the specialization of medicine (1995, p. 135). They note another manifestation of overspecialization in the “... emphasis on outcomes of discrete parts rather than on the success of the whole.” (1995, p. 4). Both of these situations, as can be seen in Mr. Deck’s case, are readily demonstrable in the daily routines of FMC. The various divisions of medicine are practised almost as separate sciences, making it increasingly difficult for any practitioner to retain a global view of the patient.

Education and Patient Care

In an AHSC, there is virtually no way for a patient to completely avoid being treated by learners. As discussed in Chapters Two and Three, the majority of physicians' work in teaching hospitals is performed by residents and medical students. Patients who request to be "non-teaching" can have their care ordered by their primary physician but each time the primary physician requests a consultant or the patient requires a specialized procedure, a resident is usually the one who does the work. Unless they are very vigilant and insistent, patients will still be subject to the care of residents and students of other professions. As Lo reports, student physicians may fear that the patient will refuse to undergo a procedure if he or she is informed of the doctor's status as a learner (1995, p. 321). This tends to result in a lack of disclosure of student status to patients because the students fear a learning opportunity may be lost if patients are given the choice to refuse treatment by a learner.

The bulk of actual physician consultation at FMC, as at all teaching hospitals, is carried out by residents. Renee Fox, in an article about the problems with North American medical education, notes the literature which attests to the lack of guidance residents and medical students receive from their clinical preceptors (1990, p. 207-8). Her findings accord with my own experience that residents are left on their own a great deal by staff physicians who are busy

attending meetings, doing research (or filling out grant applications) and seeing patients of their own in order to bolster their clinical earnings.

At FMC, a prominent part of the resident physician's job is also to supervise and teach other residents and medical students (DMRM, 1996). As noted in Chapter Three, most of the clinical supervision of junior residents is done by senior residents and junior residents supervise medical students. If caregivers have a question about the care of a patient such as Mr. Deck, they must usually start by asking the most junior resident, then the senior, who may or may not refer the question to the attending physician. Solutions to patient care problems are often delayed because of this convoluted system of consultation.

Although the literature is not explicit on this issue, the consultation process at FMC is probably very similar to that of any North American teaching hospital. If the bedside nurse raises a concern about a patient and gets the responsible physician (or his or her resident) to agree to consult another doctor, the actual consultation is usually performed by a resident. The resident performing the consultation may be working in his or her eventual area of expertise or may simply be completing a required rotation.

For example, if nephrology is consulted by surgery for Mr. Deck's renal failure, the resident who comes to do the consult may very well be a junior surgery resident doing an elective rotation in nephrology. He or she will examine the patient, share this assessment with his or her supervisor (probably a more

senior resident) who in turn relates the findings to the attending nephrologist. The staff consultant then approves the plan of action proposed by the resident or lays out his or her own plan to address the problem which necessitated the consult. For the most part, residents then carry out the plan of care for the patient. At any point in this process, the residents or staff physicians are very likely to order more diagnostic studies in order to better define the problem.

While the above is going on the patient may be in pain, his condition may deteriorate and he is probably being subjected to assessments by other consultants. Patient, family and bedside caregiver are left hanging as to what is best to be done for the patient in the intervening time. There is often a great deal of waiting for physicians and cross consultation among physicians from various specialities that goes on before patient care issues are addressed at FMC. This accords with Arthur Frank's experiences as a cancer patient wherein he describes the patience required to be a patient because so much time is spent waiting for doctors and their decisions (1991, p. 56).

Another dilemma which illustrates the tension between education and patient care occurs when residents give orders that the caregiver thinks are wrong or may have a detrimental effect on the patient. Referring to the effects on nurses of participating in futile treatments, Schneiderman and Jecker highlight the "cognitive and moral dissonance" which causes "moral distress" in caregivers (1995, p 139-40). In my experience, what Schneiderman and Jecker describe is similar to the distress which caregivers feel over being caught between what they

think is best for the patient and their own inability to intervene effectively in the patient's care.

This feeling is echoed by nurses in Zussman's interviews who expressed frustration at having to take orders from residents who knew less than the nurses did about how patient care should proceed (1992, p. 67). The caregiver must struggle to find the best course of action for the patient without insulting the resident and his or her supervising staff physician. Caregivers must be careful to couch their suggestions and concerns appropriately in order to avoid being viewed as overly aggressive by their peers and physicians.

In the course of caring for someone like our hypothetical patient, a situation like that described above is very likely to occur. Mr. Deck may, once he is on the neurosurgery ward, be under the care of a very junior resident. At 3 AM when Mr. Deck begins to have trouble breathing, that resident may be faced with this set of symptoms for the first time in his or her career. The bedside caregivers have likely seen something like this many times but they are not in charge; the resident is. What starts out as a patient care crisis may become a tricky interdisciplinary negotiation as the caregivers try to get the resident to order the right tests, call the senior resident or staff physician for help or to prescribe appropriate treatment.

The resident may or (more likely) may not appreciate being guided by the caregivers. As Zussman found, residents are expected to be able to take

responsibility for their patients' care; their physician preceptors expect that they will take charge of the situation and ask for help only as appropriate (1992, p. 53). This finding is echoed by Wu, Folkman, McPhee and Lo in a survey of resident physicians regarding mistakes they had made (1991). The residents in this study ascribed their errors in 38% of cases to a failure to ask for advice (1991, p. 2092). Wu and his colleagues further found that residents who were afraid to ask for advice because they did not want to be perceived as weak or incompetent, did make mistakes for which patients suffered (1991).

Bulger further notes that student physicians are not taught the value and practice of teamwork in health care (1990, p. 90). If residents do not see staff physicians valuing the input and work of caregivers they are unlikely to view non-physician caregivers as vital partners in the delivery of health care. In my experience, some attending physicians have learned to appreciate the knowledge and talents of caregivers but they generally do not broadcast it by teaching their residents to defer to the greater experience of bedside caregivers. The adage that physicians stick together seems to hold true. The literature is generally silent on this issue but, in my experience, physicians, no matter how good their working relationship with a caregiver is, would rarely take the part of a caregiver over that of a resident.

I have been told by some attending physicians to call them at any time should the need arise. In fact, I have heard more than one physician state that he or she expects the bedside caregivers to alert the physician to problems with

patients. But rarely (and never publicly) do staff physicians explicitly state that I should call if I think the resident is over his or her head. To me, the sub-text to that instruction is that the attending physician is uneasy about the resident's skills and trusts the caregiver just enough to know when something is wrong. The staff physician often expects one of the caregivers will alert him or her to problems with the patient if the resident does not.

Conversations among staff physicians and bedside caregivers about the abilities (or lack thereof) of the residents never take place in the resident's, or anyone else's, hearing but the expectation that experienced caregivers will alert the attending physician to patient care problems is routine at FMC. The foregoing does not mean that the input of caregivers is welcomed or even acknowledged by many attending physicians but they do rely on the bedside caregivers because they must.

Zussman found that inexperienced residents did not look to more experienced nurses for guidance in the intensive care unit. Instead, he found that residents felt very alone with their responsibility despite the fact that they were surrounded by nurses with a great deal of expertise (1992). Again, this is not an issue which is explicitly addressed in the literature but, in my view, experienced bedside caregivers are, in effect, there for residents to fall back on when the attending physicians are not present.

Resorting to calling the staff physician or senior resident because they are unsure that the resident is competent to handle a given situation is a risky undertaking for any caregiver. The caregiver who calls for help is as likely to be censured as praised by the attending physician. I have been reprimanded both for not calling when the attending physician felt I should have and for calling when he or she did not think the situation warranted intervention. The expectation is always there that the caregiver will try to resolve the issue with the resident on the scene because that resident is in charge and he or she is there to learn.

As noted in Chapter Three, the amount of supervision that residents receive varies with the attending physician responsible for their work. At FMC, some staff physicians watch the work of their residents very closely while others take a more hands-off approach. Educational policies regarding the degree of supervision of residents which attending physicians are expected to provide are vague (DMRM, 1996). It seems that the amount and character of supervision is left mostly to the discretion of the attending physician. The system of graduated responsibility is meant to allow the residents as much freedom as possible because it is felt that this is the best way for them to learn their trade (Downie, Charlton, Calman and McCormick, 1992 and DMRM, 1996).

As discussed in Chapter One, resident physicians, regardless of their relative experience, are in charge of all the other health care workers caring for the patient. In the hierarchy of the teaching hospital, the resident falls below only

staff physicians and more senior residents. Because the physician supervising the resident is ultimately responsible for patient care, all other practitioners must defer to the physician's judgement or risk censure.

It has been found (unsurprisingly) that the responsibility residents are burdened with can cause extreme stress but that, at the same time, an inability to meet these overwhelming demands is often viewed as a failure by resident physicians' peers and superiors (Wu et al., 1991 and Zussman, 1992). Robert Zussman in the field study noted above, interviewed residents, interns, nurses, attending physicians and patients about their experiences in two intensive care units (1992). To Zussman, residents expressed feelings of overwhelming responsibility and incredible pressure to perform associated with their intensive care experience (1992 p. 50-52).

It seems remarkable, and yet is not surprising to me, that residents in an intensive care unit, where the supervision by attending physicians is probably the closest of any unit in the hospital, should feel this way. Residents are expected (by their peers, preceptors and caregivers) to take charge and produce the correct response in any scenario. This unrealistic expectation often prevents residents from asking for advice or assistance. Unfortunately, as previously noted, patients may suffer the results of mistakes made by learners who are too burdened or intimidated by the situation and their preceptor to ask for help (Wu et al., 1991).

Communication

Throughout Mr. Deck's stay at FMC he will be assessed and treated by several different staff and resident physicians; his nurse will change at least every eight to twelve hours; he will have daily therapeutic and diagnostic procedures performed by a multitude of therapists, technologists and technicians; other workers will clean his room, bring his meals and push his wheelchair or bed. It is entirely possible that Mr. Deck and his anxious loved ones will hear a different message about his condition and prognosis from each one of the people listed above. It is also quite likely that Mr. Deck and his family are still unsure of the extent of his injuries and whether or not therapy will be able to restore him to normalcy. The Deck family may have had half a dozen conversations with some of Mr. Deck's physicians but it is unlikely that he or his family have even met all the physicians involved in his care.

The patient narrative and ethical literature makes many references to the lack of communication between practitioners and patients. Schneiderman and Jecker make the case that the very structure of hospitals and the delivery of medical care result in bad communication. They argue that overspecialisation and reliance on technology have led to caregivers who watch the patient's numbers because that is all they have time to do and it is less emotionally draining than providing intimate personal care and support to patients and their families (1995). This finding accords with Arthur Frank who, as a patient, was

disappointed at the lack of depth and honesty displayed by physicians and caregivers communicating with him and his family (1991). Lo also notes the lack of open communication between physicians, caregivers and patients as the main cause of most ethical dilemmas in health care (1995).

In the fragmented world of teaching hospitals like Foothills, no one has time to keep track of everything about a given patient. Nurses, as primary caregivers, may try to fill this void but often they face an insurmountable task in gathering and assimilating accurate information from various physicians and others caregivers. Zussman found that physicians remain the gatekeepers for the flow of information to and about the patient (1992, p. 71). The fact that physicians retain control over communication among themselves, patients and caregivers has two significant consequences.

The first result of physicians' control over knowledge about the patient is that bedside caregivers are usually not in possession of all information pertinent to the patient. Various physicians have knowledge about the part of the patient they are treating but, unless a physician or resident documents meticulously in the patient's chart, and the caregivers subsequently notice it and read it, information often goes unnoticed. Second, caregivers continue to defer to the physician in terms of what the patient and family should be told. Sometimes, caregivers are not allowed to give patients or their family information that the doctor wants withheld. The traditional method of waiting for the doctor to give information to caregivers, the family or the patient still holds true in most cases.

Communication is further retarded by the fact that, for a multitude of reasons, some health care workers fail to establish open and honest relationships with their patients. This circumstance is noted both in the academic medicine literature (e.g. Fox, 1990 and Schneiderman and Jecker, 1995) and in patient narratives (e.g. Frank, 1991). Caregivers and physicians often do not have the time to initiate careful dialogue with patients because they are too busy meeting the patient's immediate physical needs. This circumstance is exaggerated in the fast-paced environment of a teaching hospital where patients are very ill and require a great deal of specialized care.

In addition to the demands of patient care in teaching hospitals, many health care workers also fear that connecting emotionally to patients will lead to frustration and burnout. Renee Fox argues that, for physicians, creating emotional distance between themselves and patients is a mechanism for coping with the emotional stress imposed by the nature of the medical training experience (1990). She contends that physicians in training are not given emotional support from their teachers so they are unable to provide it for their patients. Fox identifies this gaping hole in physicians' training as "The perennial problem in North American medical education" (1990, p. 199). Poor communication between patients and caregivers may have its roots as a gap in medical education but it has become a prominent feature of relations between patients and many health care practitioners because physician behaviour sets the pattern for all caregivers.

Frankel, writing about the evolution of the relationship between physicians and patients, calls the interaction between patient and physician the most “fundamental” in the health care system (1994, p.183). She further discusses the power and knowledge differential between physician and patient which resulted in the physician becoming dominant. It is true that physicians remain the gatekeepers to the health care system. Whatever occurs in a patient’s medical world is mandated or mediated by the physician. However, physicians, especially in teaching hospitals, actually spend very little time with patients. Physicians spend a great deal of time talking, reading and learning about the patient but surprisingly little of this activity actually involves spending time with the patient. It is left to nurses and other caregivers to meet the vast majority of patients’ physical and emotional needs.

My experience with communication among patients, caregivers and physicians at FMC accords with that of Arthur Frank where he notes that physicians, caregivers and other hospital employees do not have the time or inclination to know their patients as people or equals (1991). Frankel’s contention (as noted above) that the physician-patient relationship is the most fundamental in health care is accurate if it refers to the influence physicians have on patients’ medical experiences but not if it refers to the quality or extent of actual relationships formed between physicians and patients.

Faith in Numbers

Mr. Deck's condition three weeks after his accident remains very grave. His injuries are complicated by serious infections and he requires maximal mechanical and pharmacological support. To the staff caring for him, Mr. Deck has become unrecognizable as a person. Caregivers around his bedside watch the numerous monitors attached to him, glance at the results of his most recent diagnostic test or attend to his physical needs which are announced by the sounding of alarms from his life support and monitoring equipment. Mr. Deck's "numbers" have become the representation of him for the staff. Curiously enough, caregivers, without fail, encourage loved ones to talk to unresponsive patients but, for our own purposes, we often tend to distance ourselves from the person and concentrate on the numbers.

Arthur Frank, in his narrative about his own experiences as a patient, refers to the deference paid to laboratory tests by hospital personnel. He writes that, "The lab tests were presumed to tell all" and that physicians tended to downplay his perception of how he felt in favour of the scientific data offered by laboratory tests (1991, p.25). At Foothills, as at other AHSCs, there is an inordinate devotion to scientific and biological information. Nelkin and Tancredi, in their book, Dangerous Diagnostics: The Social Power of Biological Information, refer to the power accorded by the medical community to the results of diagnostic testing in the following passage:

Indeed, faith in “facts”, in the numbers derived from testing, has obscured the uncertainties intrinsic to such diagnostic tests, and they are widely accepted as neutral, necessary, and benign. (1989, p.10).

Nelkin and Tancredi also note that the information provided by diagnostic tests is automatically considered “objective” by both patients and physicians. They speculate that this is another way that patients' control over their own medical care is decreased by placing the power to interpret “objective” tests in the hands of physicians (Nelkin and Tancredi, 1989, p. 72-3). This assessment is echoed by Schneiderman and Jecker who speculate that the “impersonal nature” of modern medical care has led caregivers to rely on the answers provided by technology. They see practitioners following the “numbers” of their patients and substituting procedures and tests for personal care because they are unable to relate to them as people (1995, p. 30).

A common scenario at FMC is for resident and attending physicians to order test after test on patients despite the fact that no changes in treatment have been made. If the patient is unchanged or not responding as expected to treatment, he or she is sent for more scans and tests. It is as if we refuse to take “I don’t know” for an answer so we search relentlessly through repeated diagnostic testing or by changing therapies in order to feel that we are doing something for the patient.

A physician, with whom I worked for several years, was fond of saying to residents as they puzzled over the reams of physical information about patients spewed out by sophisticated monitoring equipment in the ICU, “when all else fails, try looking at the patient instead of the numbers”. He recognized that the physical condition of patients should not be lost in the barrage of tests or procedures to which we subject them. The aforementioned example of common sense is still the exception rather than the rule. Some physicians and other caregivers have become spellbound by the information that can be extracted from a patient by sophisticated diagnostic equipment to the exclusion of the patient as a person.

Futile Treatment

A last result of the clash between technology, educational needs and patient care at FMC that is very distressing to caregivers, patients and even physicians is persistence in futile treatment (defined below). This is not a problem unique to Foothills or even teaching hospitals, it is endemic in modern health care. Inappropriate treatment is often also the result of a lack of clear communication between physicians, patients and other caregivers about expectations and outcomes of treatment.

Schneiderman and Jecker, in their rivetting book aptly entitled, Wrong Medicine: Doctors, Patients, and Futile Treatment, describe and decry the proliferation of futile treatment in modern hospitals. They begin by discussing a term that is well known to caregivers and physicians in teaching hospitals.

Technological imperative... : if a means or instrument or medication exists that can produce an effect, then medicine must use it. [The] instruments of technology are the focus of attention rather than the patient. [They] have caused physicians to fragment their perceptions of the goals of medicine, leading to an emphasis on the outcomes of discrete parts rather than on the success of the whole. (1995, p.4).

I agree with Schneiderman and Jecker's assessment that providing treatment that is of no real benefit to the patient is a common occurrence in teaching hospitals. It is a familiar feeling to myself and many of my colleagues that what we are doing for a particular patient cannot possibly benefit them. I find frequent instances of situations in which the caregivers develop a sense that they are actually harming or torturing a patient by persisting in treatment.

In the case of the fictional Mr. Deck, eight weeks after his accident he has still not regained consciousness, he is on a ventilator and he is fed through a tube implanted in his stomach. The results of Mr. Deck's severe head injuries are irreversible. He is in what is known as a persistent vegetative state, unresponsive to anything around him. The caregivers are in the distressing position of having

to provide complete supportive care for a patient who, by all indications, will never wake up. They must also spend a great deal of time trying to support Mr. Deck's family who are reluctant to give up their hope that he will recover. Because Mr. Deck is severely brain injured and not brain-dead, none of his physicians is willing to speak to the family about withdrawing life support. It is most likely that Mr Deck will eventually (after weeks or months) succumb to an infection or other complication of his comatose state.

These situations are becoming more common as technology allows people to survive illnesses and injury that would have killed them only a few years ago. I see patients every week whose circumstances meet the criteria for futility as outlined below. Schneiderman and Jecker define futility (both quantitative and qualitative) first by posing a question and second by making a positive statement. The question posed is as follows: "Since we can never say never, can we agree that if a treatment has not worked in the last 100 cases, it would be 'reasonable' to conclude that it is futile?" (1995, p.15). As unbelievable as this sounds, the authors found that treatment to which the above question elicits a positive answer, is applied daily in North American hospitals.

Schneiderman and Jecker's second, qualitative, definition of futility is even more sensible:

If a patient lacks the capacity to appreciate the benefit of a treatment, or if the treatment fails to release a patient from total dependence on intensive medical care, that treatment should be regarded as futile (1995 p. 17).

The authors offer many reasons that health care workers may pursue clearly futile treatments. These include fear of litigation, guilt over a tragic situation, inability to accept failure (death) and the desire on the part of physicians to do anything they can for desperate people (1995, p. 22-34). Schneiderman and Jecker's findings echo my own experience that aggressive treatment often becomes the path of least resistance for caregivers. The unwritten and unspoken attitude seems to be that since the patient will eventually die anyway, why not appease the patient and his or her family by acceding to their wishes.

Zussman, in his study, found that intensive care unit staff are very critical of what they perceive as overly aggressive patterns of treatment (1992). He further notes that staff refer to treatment as "torture" when they feel it has gone past the point of providing any benefit to the patient and actually causes the patient pain or other harm (1992, p. 108). The refrain "Why are we doing this?" is a familiar one among my caregiver colleagues at FMC. I even hear it from physicians, both attending and resident, although I do not often notice that an immediate order to stop treatment or diagnostic testing follows the physician's lament.

Both caregivers and physicians are often unable to give precise reasons for persisting with clearly futile treatments or diagnostic tests. It seems that we persist because it is easier to do than to destroy the hope of the patient or his or her family. The fragmented nature of care at FMC, as described throughout this work, with several physicians and caregivers involved in every case, seems to preclude forming the type of relationship with patients and their families that would pave the way for open communication about expected outcomes.

It is important to note, as was alluded to above, that futile treatment encompasses not only life support measures such as those to which Mr. Deck was subjected. As introduced in an earlier section of this chapter, subjecting the patient to repeated, uncomfortable or distressing diagnostic tests without changing therapy is the most common futile exercise that I see at FMC.

It can be speculated that sometimes persistence in futile treatment at AHSCs like Foothills may be the result of inadequate supervision of residents by attending physicians but I was unable to document this in the literature. It seems reasonable to expect that staff physicians with more experience are better qualified to judge when a treatment is likely to provide no benefit to the patient than are residents. It also follows that attending physicians should be less tempted to persist in futile treatment for the teaching value than are their residents. But, in my experience, for the reasons given above, staff physicians seem to be responsible for persistence as often as residents.

Conclusion

Foothills Medical Centre is an enormous, complicated institution populated by divergent groups of patients, caregivers and physicians. As an academic health science centre, FMC possesses multiple missions which lead to conflict that can have a detrimental impact on patient care. Blurred lines of authority and responsibility compound to produce a culture where the most powerful group (physicians) is always deferred to even when the patient's best interests are lost. The tension which results from the dissonance between the education mandate and the needs of patients is evident in the daily clash of wills which occurs between resident physicians, staff physicians and caregivers at FMC.

As noted in the preceding chapters, allowing resident physicians a great deal of independence is a time honoured tradition and requirement in medical education (Lewis and Sheps, 1983, Bulger, 1990 and Downie et al., 1992). It is felt that, in order for resident physicians to learn decision-making and judgement, they must be allowed the maximum amount of clinical freedom. I have found some authors who agree that inadequate supervision of learning physicians can be detrimental to patients (e.g. Wu et al., 1991 and Lo, 1995).

Because they are expected to learn by doing, residents must learn by trial and error. As noted previously, residents order more tests, use more resources and often practice on patients without adequate supervision (Lewis and Sheps,

1983, Wu et al. 1991, Fried et al., 1994 and ACMC/ACTH I, 1995). This system is not easy for caregivers, patients or the residents themselves. Residents are put in a position where they must make decisions but they have no experience and are sometimes given very little direction on the best way to proceed. They do not see their teachers asking other professionals for help so they do not think they can. Residents are expected to know and this hampers their opportunity to learn.

As medical technology explodes, the knowledge gap between practitioners widens. There is no longer any way that practitioners can be proficient in multiple fields of expertise. The pressure to have the correct answer intensifies in the race for knowledge and success in medicine.

Academic pressure on learning physicians leads to an unwillingness on their part to admit when they are ignorant and pressure to produce the right answer in every situation. As discussed in a previous section of this chapter, there is a body of literature which has studied the patient care problems arising when learning physicians are poorly supervised and discouraged from asking for help. For example, in a study published in 1991 in JAMA, 114 resident physicians out of 254 surveyed reported making clinical mistakes (Wu et al.). A significant proportion (greater than 40%) of these mistakes were attributed by the residents to their own inexperience and a reluctance to ask for help due to a fear of censure (Wu et al., 1991, p. 2092). The expectation that resident physicians will always know the answer and be able to distinguish when they should ask for

help is, at best, unreasonable. At worst, it breeds mistakes and cover - ups to avoid censure (Wu et al., 1991).

For an example of how the pressure placed on residents to perform may adversely affect patient care let us return to Mr. Deck. In the middle of the night the attending intensive care unit physician has gone home leaving a gravely ill Mr. Deck on a complicated new treatment modality. The nurses and respiratory therapists are reasonably well versed in this therapy but the resident, who has been in ICU one week, is unsure of the basics, never mind advanced therapy. As Mr. Deck begins to deteriorate, the caregivers offer suggestions but the resident does not want to appear uninformed to the caregivers or the staff physician. Because of his inexperience and his unwillingness to appear ignorant, the resident does nothing until Mr. Deck deteriorates to a critical point and the attending physician must be called. This is not an unusual scenario in teaching hospitals like FMC. In my experience, this situation or something very similar to it happens several times a day.

Foothills Medical Centre (like most academic health science centres) is a place of contradictions. On any given day near miracles are performed for one patient while next door, the needs of another are not met because the system fails as described above. I argue that the type of questions I am asking and the situations I am discussing need to be addressed in order to bring change into the bastion of academic medicine. In The Sick Citadel, Lewis and Sheps argue that the lack of social science research in health care in general, and teaching

hospitals in particular, results in health services that do not match population health needs (1983). In their words, “ Medical education inevitably focuses predominately on the organic factors in health and disease processes in virtual isolation.” (1983, p. 132-3).

Foothills, like other AHSCs, is not known for its attention to social processes. We neglect the organization as much as we do the patient when it comes to issues of internal culture and the way medicine is practised here. The refusal of the health care establishment to acknowledge and address the difficult to measure social processes that affect the operation of health care systems and the patients they are meant to serve is characterized by David Mechanic as follows:

The irony is that while so much of the challenge of health care is social - to enhance the capacity of individuals to perform desired roles and activities - the thrust of the health enterprise is substantially technologic and reductionist, treating complex sociomedical problems as if they are amenable to simple technical fixes (1995, p. 1492).

Mechanic is clearly referring to the need to place more emphasis on a holistic view of population health but his idea is also applicable at the micro-level of patients in teaching hospitals like Foothills. So much of what I have described as occurring at FMC is attributable to a neglect of the basic mission of hospitals - to treat the sick- and a refusal or inability to change the way care is delivered.

Solutions to the difficulties experienced by caregivers and patients in teaching hospitals are beyond the scope of this work. What I have endeavoured to do is to shed light on some of the problems and, through analysis of the literature and in light of my experience, expose some of the sources of those problems.

My experience with the tensions that arise from the conflict between teaching and patient care at FMC is that they are often the result of inertia. As described in this work, AHSCs are very large and convoluted and thus resistant to change. In AHSCs like Foothills, the focus is more often on science than service. Because of this, the patients' needs are often subordinated to the academic and structural demands of the organization.

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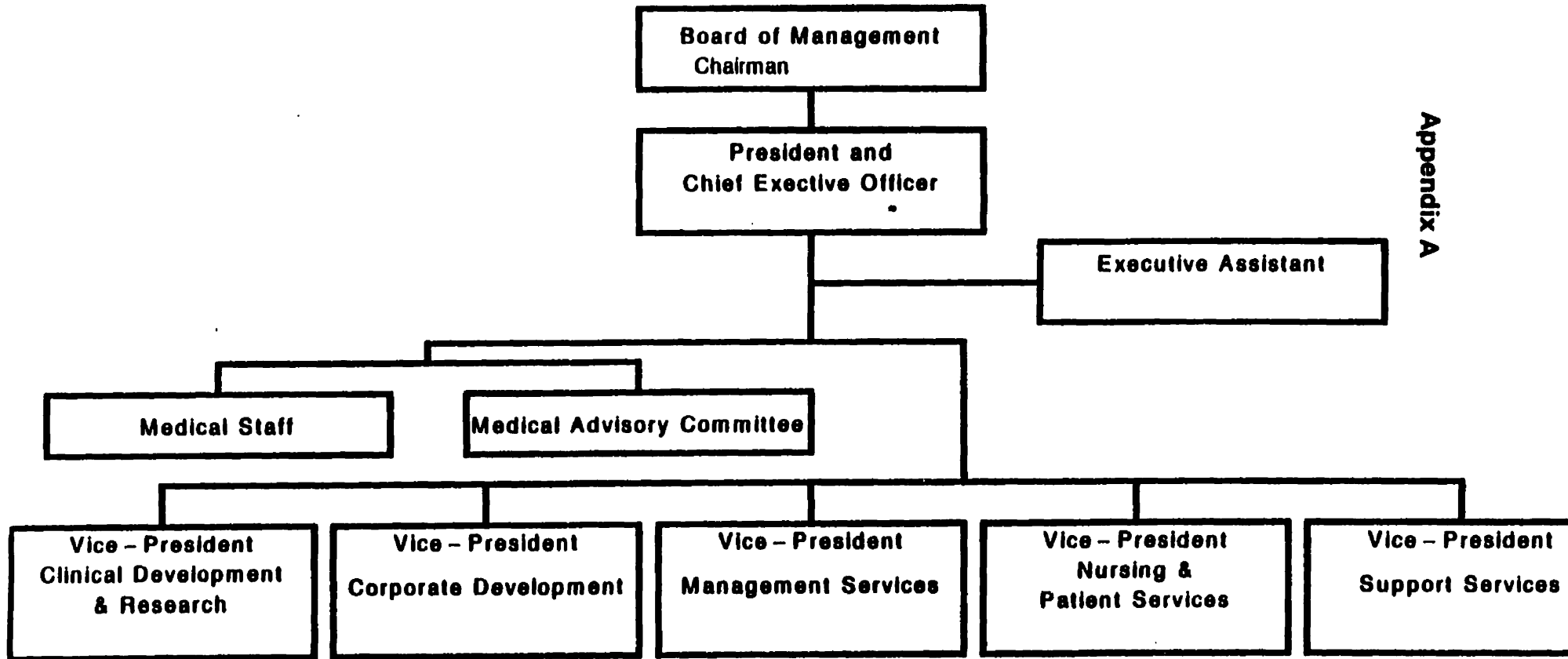
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ORGANIZATIONAL CHART



Appendix A

Major Committees – Internal

- Ex officio member of all Board and Hospital Committees
- Clinical Services Development
- Foothills Medical Centre Board Chairmen's Advisory Council
- Management
- Medical Advisory Committee
- Nursing Education Advisory (Board)

Major Committees – External

- Alberta Perinatal Program Advisory Committee
- Calgary Area Hospital Advisory Council
- Calgary Hospital Administrators
- Council of Metropolitan General Hospitals (AHA)
- Council of Teaching Hospitals of Alberta

Liaison

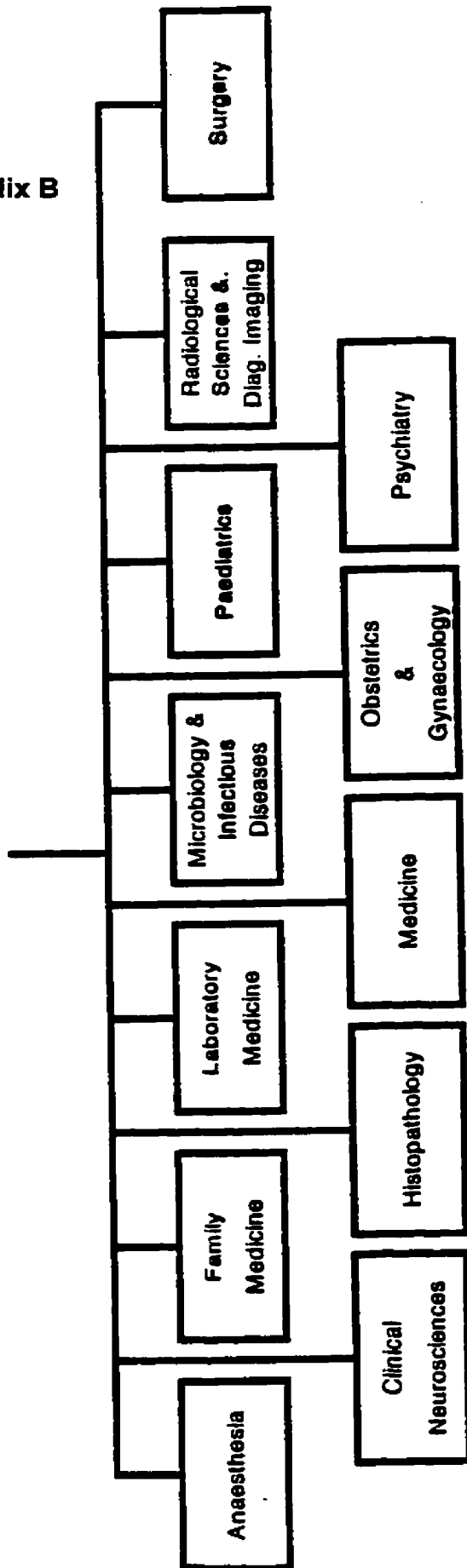
- Alberta Cancer Board
- Alberta Hospital Association
- Department of Health
- University of Calgary

FOOTHILLS HOSPITAL

ORGANIZATIONAL CHART

Vice – President Clinical Development & Research

Appendix B



Special Focus

- Clinical Development Promotion
- Clinical Research Promotion
- Graduate & Undergraduate Medical Education
- Medical Program & Manpower Planning
- Medical Staff Organization
- Value Improvement Promotion

Programs

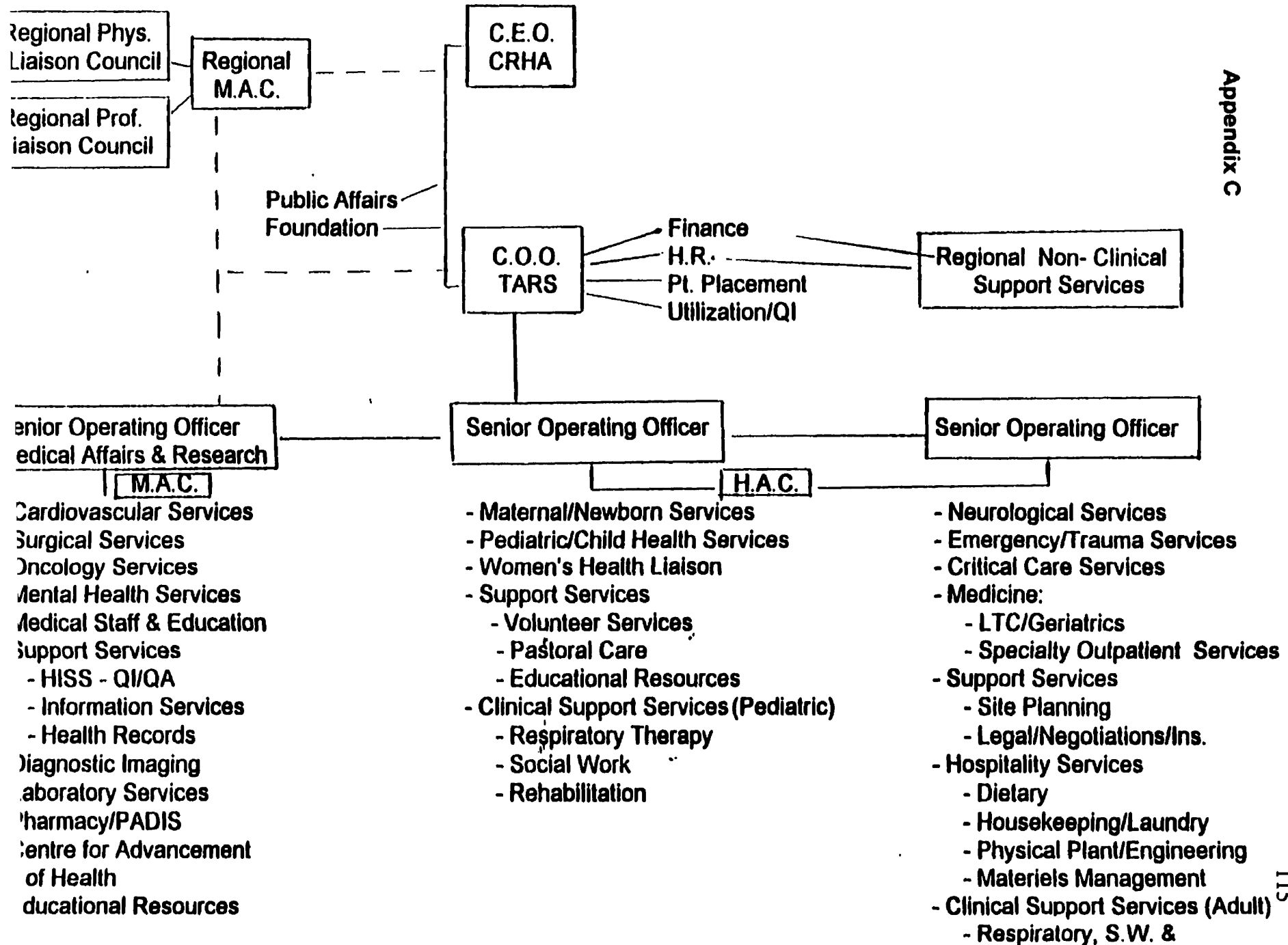
Major Committees

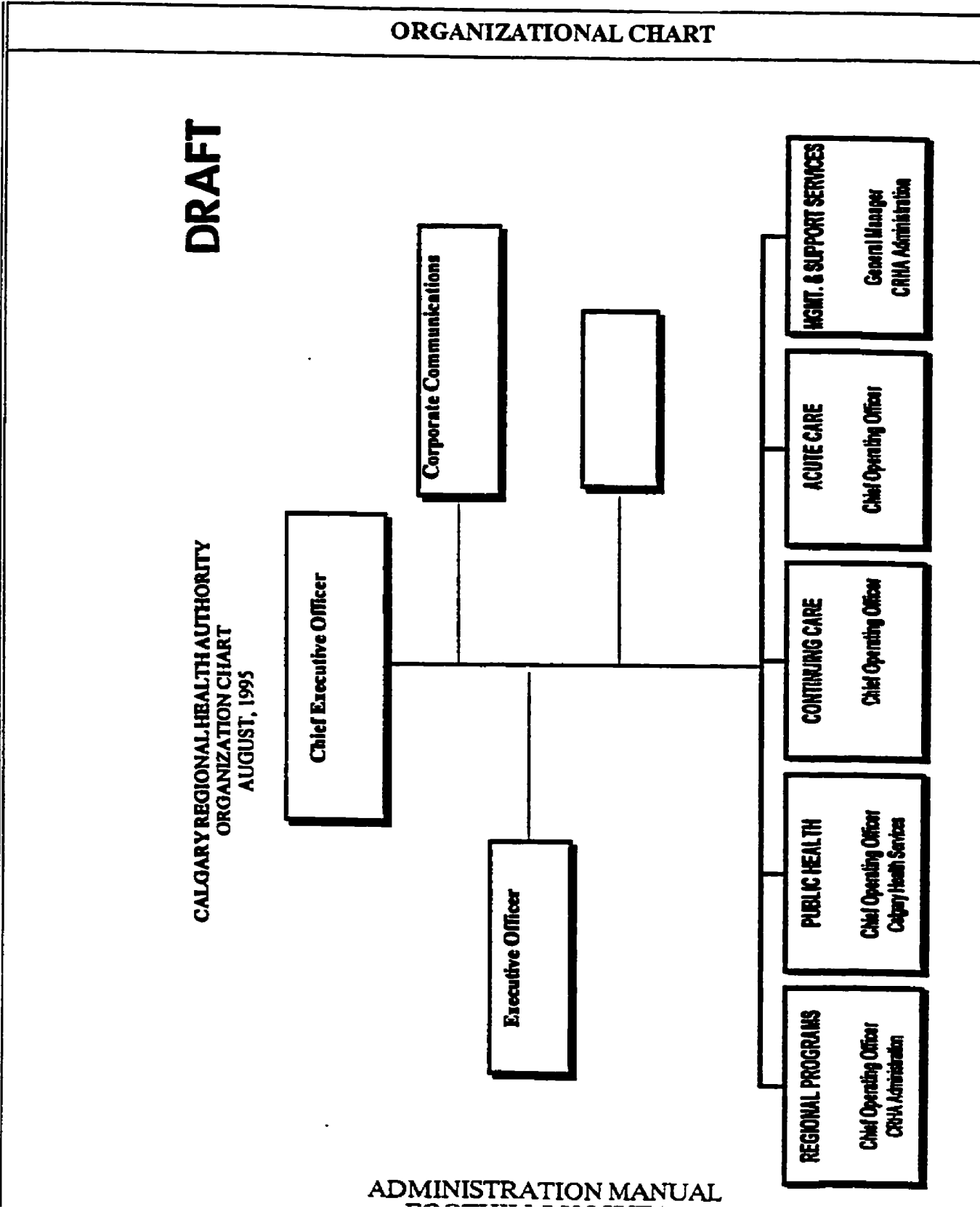
- Budget Advisory
- Bylaws
- Clinical Services Development (Chairman)
- Credentials
- Graduate Clinical Education
- Joint Conference
- Laboratory Coordinating --
- Management

Liaison

- Faculty of Medicine
- International Exchange
- MAC Committees
- Medical Staff Executive
- Renal Advisory Committee (Dept. of Health)
- Regional Psychiatric Services

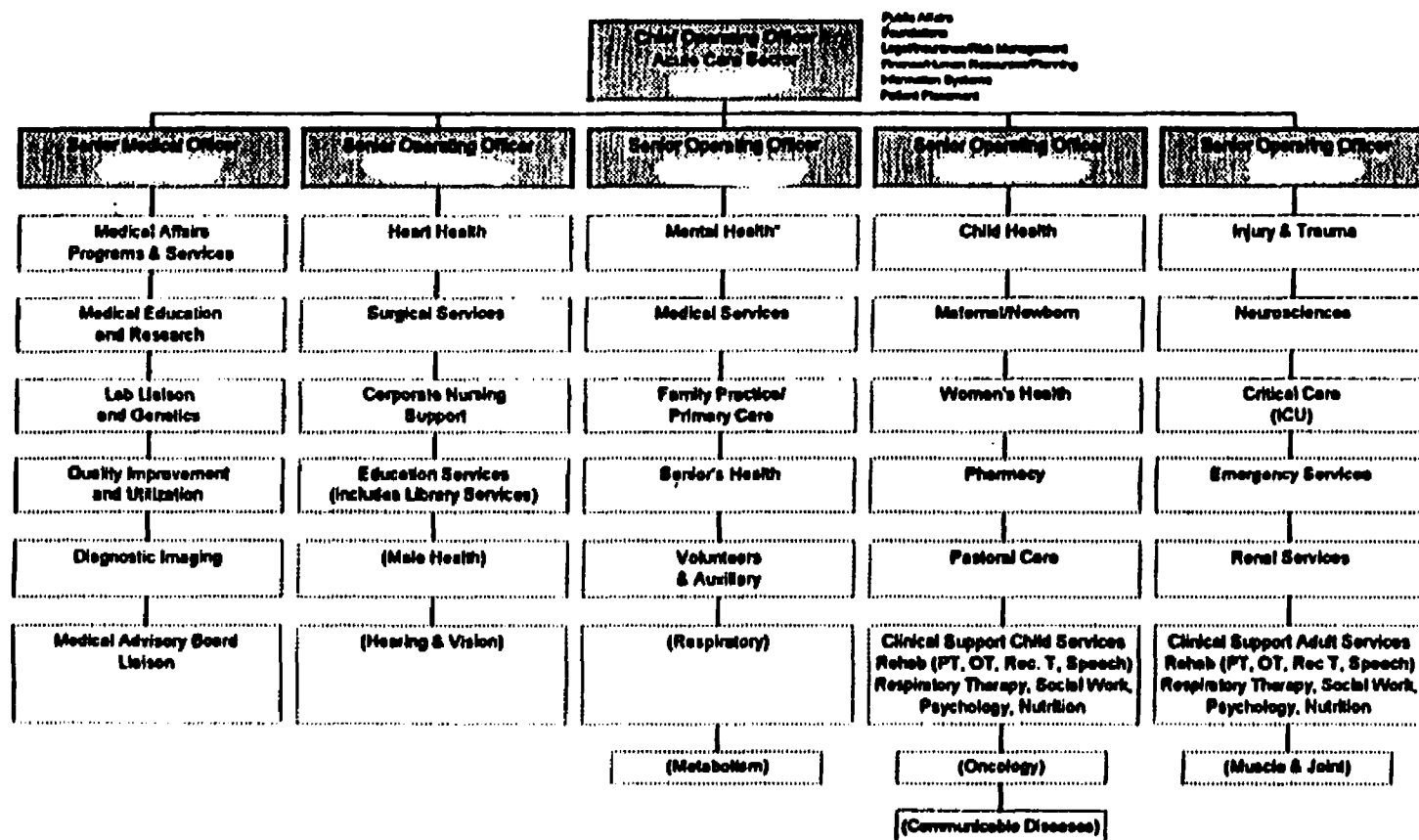
TERTIARY ACADEMIC REGIONAL SERVICES
(Foothills Hospital & Alberta Children's Hospital)





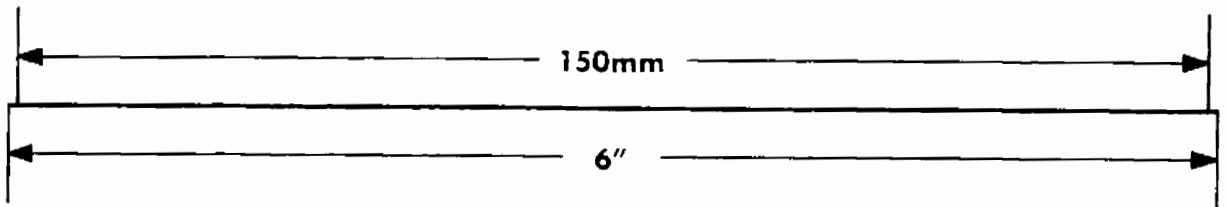
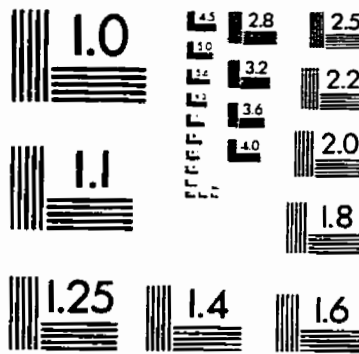
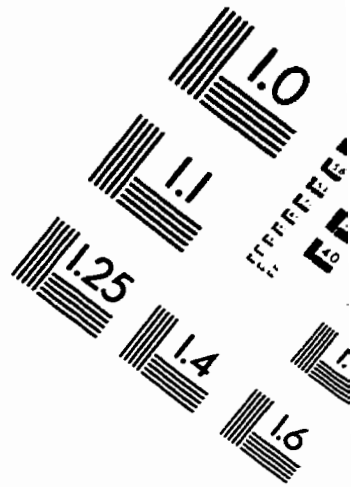
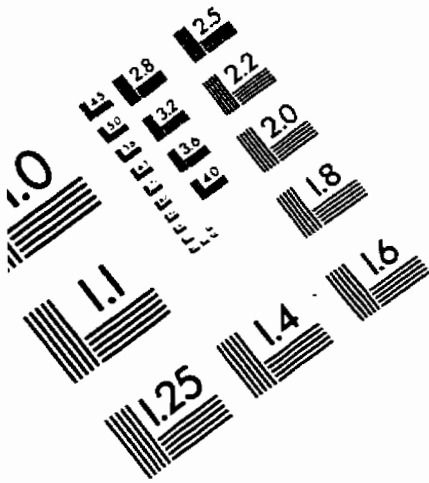
CALGARY REGIONAL HEALTH AUTHORITY

ACUTE CARE SECTOR



Please Note: Ambulatory Clinics are included in programs and services.

IMAGE EVALUATION TEST TARGET (QA-3)



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