Surgical Wait List Management: A Strategy for Saskatchewan

Facilitating Appropriate and Timely Patient Access to Non-emergent Surgical Services in Saskatchewan

A Report to Saskatchewan Health

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LETTER OF TRANSMITTAL

January 2, 2001

Honourable John T. Nilson, Q.C.
Minister of Health
Province of Saskatchewan

To the Honourable John T. Nilson, Q.C.:

We are pleased to present to you the Surgical Wait List Management: A Strategy for Saskatchewan report. We would like to express our appreciation for the assistance and advice afforded by all those that met with us.

Respectfully submitted,

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Executive Summary and Recommendations

The Provincial Wait List Strategy team was appointed in response to concerns about surgical waiting lists in Saskatchewan. Our tasks were to review current Saskatchewan efforts, review initiatives in other provinces and countries, and recommend a provincial wait list strategy including implementation and communication strategies. This was not a study of surgical wait lists as such, but rather the creation of a recommended strategy to help Saskatchewan improve access to needed surgical procedures. The review process examined background papers and other relevant information. Meetings and interviews were held with Saskatchewan Health officials, Regina, Saskatoon, Moose Jaw - Thunder Creek, Swift Current, Battlefords, Prince Albert and East Central health districts, the Saskatchewan Medical Association (SMA), the College of Physicians and Surgeons of Saskatchewan and the Health Services Utilization and Research Commission (HSURC). The team also investigated initiatives in other parts of the country and the world.

In reviewing current initiatives, we noted that the Saskatchewan Minister of Health appointed a Task Team in December 1998 to advise on Surgical Wait List issues. This report has guided much of the activity on surgical wait lists since that time. Saskatchewan Health currently has activities directed at human resource initiatives, enhancing surgical resources and capacity, improving system organization and efficiency, and developing consistent standards of care. As well, the Surgical Access Review Committee was appointed to act as a coordinating body for surgical resources across the province.

For the most part, individual surgeons in each district decide patient priority. Operating room (OR) time is based on historical allocations plus waiting list length. Excessive wait times are primarily a Saskatoon and Regina problem. In Saskatoon, the waiting list data is managed by the health district administration. In Regina, surgeons manage their own waiting list and provide information to the health district on a regular basis.

A review of initiatives in other jurisdictions revealed that there is widespread concern about waiting times for elective surgery. Many are attempting to find ways to ensure those most in need receive care first, and to bring more structure and rigor to the provision of surgical services within clinically appropriate times. An emphasis is being placed on measurement and analysis to manage wait list issues with fact, not opinion. Many places are trying to make waiting times public on an ongoing basis.

The review process uncovered several issues that need to be addressed in Saskatchewan. There is a lack of consistent, accurate data on surgical wait lists in the province. There is no consistent patient prioritization process, and family physicians do not have sufficient information to inform patients of their waiting time. Surgeons are frustrated with their inability to operate on elective patients in a timely manner and the public is frustrated with the lack of timely access to elective surgical procedures.

The Canadian Medical Association has defined two goals for the effective management of surgical waiting lists on their web site (www.cma.ca). The first is to "maintain or enhance patients' quality of life and health status through effective development and management of waiting lists". The second goal is to "ensure the development and management of waiting lists is based on the best available evidence of clinical appropriateness, clinical effectiveness, rational use of resources, clinical need and quality of life". These are appropriate goals for Saskatchewan.

It is our view that a comprehensive and effective wait list strategy should be based on the following six key elements:

- **Capacity**
- **Structure**
- **Accountability**
- **Knowledge**
- **Communication**
- **Evaluation**

The system should have the capacity to carry out appropriate and necessary surgery within clinically appropriate waiting times. This includes ensuring the appropriate numbers and types of facilities, equipment and providers exist, and ensuring these resources are used effectively and efficiently. Therefore:

Recommendation 1 (High Priority)
It is recommended that Saskatchewan Health continue the Human Resource initiatives outlined in the Current Saskatchewan Wait List Initiatives section.

Recommendation 2 (High Priority)
It is recommended that a rolling three-year surgical wait list fund be created with three distinct sections for:

- **Operating Costs**
- **Equipment Costs**
- **Facilities Costs (renovations and construction)**

Funds should be allocated on the basis of acceptable business plans.

Recommendation 3 (Medium Priority)
It is recommended that the Regina and Saskatoon health districts, in cooperation with Saskatchewan Health, carry out a thorough review of day procedure (ambulatory surgery) processes, equipment and facilities and identify needed changes and investments to facilitate the maximum clinically appropriate use of day surgery. A business plan should be submitted to Saskatchewan Health by June 2002.

A properly functioning wait list management structure would incorporate clear role definitions for all participants and parties in the system and have consistent and standardized procedures and processes that are based on best practice models. Such a structure would also have a continuum of care in place across all sectors and locations and incorporate continuous communication and feedback. To support these principles:

Recommendation 4 (Medium Priority)
It is recommended that Saskatchewan Health define precisely the surgical services role of each hospital in each district. These role descriptions should set out the expectations for services that would be provided at all times and those that would be available periodically.

Recommendation 5 (Medium Priority)
It is recommended that, in a cooperative manner, Saskatchewan Health and the districts:

- **Define the responsibilities of smaller hospitals to larger hospitals and vice-versa.**
- **Develop province-wide integrated care pathways for high volume and/or high-risk procedures.**

Recommendation 6 (High Priority)
It is recommended that each district develops OR time allocation mechanisms to actively manage wait lists across surgical specialties. Such a system should replicate what is currently done in Saskatoon and Regina, only on a smaller scale.

Defining roles and responsibilities will also clarify accountabilities. Once these frameworks exist, the parties involved must accept their responsibilities and obligations to each other and to the public, and be clearly accountable for their agreed roles and their decisions.

Accurate and comprehensive standardized data is required to understand who is waiting, how long they have been waiting and what their need is, as well as facilitate the continuous analysis and evaluation of waiting list issues. Therefore:

Recommendation 7 (High Priority)
It is recommended that an electronic province-wide Saskatchewan Surgery Registry be created as soon as possible.

Recommendation 8 (High Priority)
It is recommended that the province work to develop standardized priority criteria and tools to ensure that the process of prioritizing patients waiting for surgery is fair and transparent.

Communication efforts should concentrate on both the functioning of the surgical care system and the details of individual patient's situations. System-wide information on the status of wait lists by procedure and by district is needed, along with general communications with the public on the nature and appropriateness of waiting lists. Therefore:

Recommendation 9 (High Priority)
It is recommended that the Regina and Saskatoon health districts each designate a person as a surgical services coordinator to facilitate communication between the district, patients and their referring physicians.

Continuous evaluation is essential to ensure the wait list management system is functioning appropriately and to identify areas where opportunities exist to improve.

In order to facilitate the implementation and ongoing functioning of Saskatchewan's surgical care system:

Recommendation 10 (High Priority)
It is recommended that an advisory committee to Saskatchewan Health called the Saskatchewan Surgical Care Network (SSCN) be created to assist with improving access, equity and efficiency in the provision of surgical services in Saskatchewan. The committee would be made up of representatives of providers, districts, and government. The committee should be chaired by a person who is not a representative of these three groups.

The wait list strategy recommended in this report includes all aspects of Saskatchewan's health care system, since all parts of the system are interrelated and each has an effect on the access patients have to surgical services. With a united resolve, we believe this plan is achievable.

Acknowledgements

We would like to thank everyone who participated in our meetings and discussion groups. The input of many contributed to the recommendations presented in the report.

In particular, we would like to thank Janine Bonokoski for organizing our work, keeping many notes and working us through the many drafts of the report. Her assistance made our job much easier.

1. Our Tasks

The Provincial Wait List Strategy team was appointed by Saskatchewan Health in August 2001 in response to concerns about surgical waiting lists in the province.

Our tasks were to:

- Review current Saskatchewan initiatives;
- Review initiatives in other provinces and countries;
- Recommend a provincial surgical wait list strategy;
- Recommend an implementation strategy; and,
- Recommend a communication strategy.

This was not a study of surgical wait lists as such, but rather the creation of a recommended strategy to help Saskatchewan improve access to needed surgical procedures. This report does not address matters of detail, such as OR booking processes.

2. The Process

The review process began with an examination of background papers and other relevant information. Appendix A contains a bibliography of relevant literature.

We met with the following groups:

- Saskatchewan Health officials
- Regina and Saskatoon health districts, including a Board representative, the Chief Executive Officer and representatives of the Surgical Disciplines
- Moose Jaw - Thunder Creek, Swift Current, Battleford, Prince Albert and East Central health districts
- Saskatchewan Medical Association (SMA)
- College of Physicians and Surgeons of Saskatchewan
- Health Services Utilization and Research Commission (HSURC)

3. Current Saskatchewan Wait List Initiatives

In December 1998, the Saskatchewan Minister of Health appointed a Task Team to advise on Surgical Wait List issues. The Task Team Report (March 1999) has guided Saskatchewan Health in its work with health districts, professionals and others on the issue of surgical wait lists in the province.

3.1 Human Resource Initiatives

With respect to Human Resources, Saskatchewan Health is continuing to develop and implement a range of programs aimed at retaining and recruiting medical professionals in the province. For example, the following programs have made Saskatchewan more competitive and will assist in addressing the ongoing challenge of ensuring stable services across the province:

- *The Specialist Recruitment Fund* has recently been negotiated with the SMA. This is one of several programs established through an agreement between the SMA and the provincial government to retain physicians and ensure Saskatchewan graduates stay in the province.
- *Physician Incorporation:* This program has been available since August 2000. It provides a tax incentive to physicians in the province and assists them with issues such as income planning for re-training or educational upgrading and with the acquisition of new medical technologies.
- *Re-entry Training Programs:* A physician program initiated in 1999 provides two grants annually to rural family physicians who wish to enter specialty training.
- In April 2000, the province announced a bursary program for nurses who wished to re-enter the profession. This program applies to previously licensed RNs, practical nurses and psychiatric nurses.
- *Expansion of training programs:* In the past year, Saskatchewan Health has increased both the number of nursing education seats and the number of training positions for physicians in the province.

Comment

These are very important initiatives, which should be continued. (See Recommendation 1.)

3.2 Enhanced Surgical Resources and Capacity

Through the Wait List Fund initiative, the four largest districts - Regina, Saskatoon, Prince Albert and Moose Jaw - Thunder Creek - have been provided with additional financial resources to enhance the delivery of surgery in the province.

Since the introduction of the $12 million Fund, progress has been made in a number of areas, most notably:

- the transfer of a significant number of surgical procedures out of the OR and into ambulatory care in Regina.
- the shift to 5-5-5[1] schedule in both Saskatoon and Regina (although only Regina is currently maintaining this working schedule).

All districts have utilized the funds to purchase necessary capital equipment and to recruit and retain physicians and other medical professionals. Staffing initiatives have included specialized training for operating room nurses, employment of Utilization Co-ordinators and Physician Facilitators for surgery in the Regina Health District[2].

Comment

This is an excellent initiative that should be continued and enhanced, but only in conjunction with the other recommendations in this report. (See Recommendation 2.)

3.3 Improved System Organization and Efficiency

3.3.1 Surgical Booking Processes

A review of the operating room booking procedures in Saskatoon was completed in April 2001. The final report recommended a number of ways to resolve issues in the management of surgical booking in the health district. Saskatoon District Health, the University of Saskatchewan and the College of Medicine are now implementing these recommendations.

Comment

The implementation of the report recommendations has started to significantly improve OR management processes in Saskatoon.

[1] 5-5-5 scheduling implies that operating rooms fully function five days per week. Under a 5-5-4 system, the OR is closed every third Friday.

[2] Physician Facilitators screen admissions and discharges on a daily basis and help the district better manage surgical and medical beds.

3.3.2 Surgical Benchmarking Analysis

Saskatchewan Health and district partners are currently working with Johnson & Johnson Consulting Services to examine surgical processes and the efficiency and performance of surgical programs in the largest hospitals in the province (i.e., Regina, Saskatoon, Prince Albert, Moose Jaw, North Battleford, Swift Current, Yorkton). These districts have subscribed to a surgical benchmarking analysis program that will allow comparisons to benchmarks from across the country, and will allow districts to assess how effectively they are using human resources and managing the surgical process from pre-admission to recovery. An initial report is expected soon.

Comment

This is an excellent initiative, complementary to this report, which will provide a baseline understanding of the efficient use of resources and the effectiveness of current management practices.

3.3.3 Audit/Validation of the Waiting List

Saskatchewan Health began the process of validating the wait lists in Saskatoon and Regina. The routine validation of surgical wait lists ensures that the lists are as accurate as possible and that patients placed on the wait list still require surgery. This process includes checking the information provided by the district against the health registration file to identify individuals who have moved out of the province or died.

Comment

This is an excellent and necessary initiative.

3.4 Develop Consistent Standards of Care

Several initiatives are currently underway to assist physicians with the development of standard terminology and tools for determining when patients are placed on wait lists and how they are prioritized for surgery.

Saskatchewan Health has recently contracted with Dr. Mark Ogrady, Chief of Surgery from the Regina Health District, to begin working with the Saskatoon and Regina health districts and the regional centres to develop consistent terminology for prioritizing patient need. A second aspect of the project will be to articulate benchmarks (i.e. acceptable waiting times) that would be used for the various different clinical priorities within the province.

Comment

This is a necessary component of a Wait List Management Strategy. (See Recommendation 7.)

3.5 Surgical Access Review Committee

The Surgical Access Review Committee (SARC) includes representation from Saskatchewan Health, the Regina and Saskatoon health districts, the Saskatchewan Cancer Agency and regional centres. The goal of the SARC is to act as a coordinating body for surgical resources across the province and to facilitate fair and reasonable access to surgical services. They also serve as consultants on issues and projects involving wait list issues, such as the web site initiative.

Comment

This is an excellent and important initiative, but the committee has not met often enough to be effective. (See Recommendation 9.)

4. Current Wait List Management Processes in Saskatchewan

4.1 Saskatoon District Health

In Saskatoon, waiting list data is managed by the health district administration. Longer lists equate to more operating room time for surgeons and there is a formal process in place to reclassify elective cases to urgent.

4.2 Regina Health District

Surgeons in Regina manage their own waiting list, and provide information to the health district on a regular basis. As in Saskatoon, longer waiting lists mean more operating room time for individual surgeons. Urgent cases are reviewed retrospectively every week.

4.3 Comparison of Regina and Saskatoon Wait Times

Table 1 shows the number of cases and median wait time comparisons for Regina and Saskatoon for selected procedures. The table indicates that the wait time is long for many procedures and that there are substantial differences between Regina and Saskatoon.

Despite active operating room time management, Tables 2 and 3 show the apparent substantial waiting time differences between individual surgeons in Regina and Saskatoon for the same procedure. There is insufficient data to determine the reasons for these substantial differences, but their very existence raises questions as to equitable patient access to surgical services in Saskatchewan. The list of procedures was chosen for illustrative purposes only.

Table 1

Wait Times for Selected Non-Emergent Procedures Performed in Regina and Saskatoon

January through September, 2001 [3]

Procedure	Saskatoon District Health		Regina Health District	
	Cases	Median[4] (weeks)	Median (weeks)	Cases
ARTHROPLASTY HIP	283	25.4	10.0	167
ARTHROSCOPY (ALL)	877	15.9	12.3	705
CATARACT EXTRACTION	3481	45.1	17.6	2235
CHOLECYSTECTOMY	341	9.4	9.7	295
HYSTERECTOMY	344	7.3	9.1	347
REPAIR INGUINAL HERNIA	230	13.1	11.1	323
MYRINGOTOMY	1018	4.1	2.6	248
TONSILLECTOMY	235	38.3	14.7	56

Source of Information: Derived from wait list data reported to Saskatchewan Health by Regina Health District and Saskatoon District Health.

[3] Waiting times are not fully comparable between the two tertiary hospital centres because of current differences in when patients are put on the waiting list and in how surgeries are prioritized. Waiting times are calculated from the date that a patient is put on the waiting list to the date that the surgery is performed. Both the elective and urgent portions of the waiting time are reflected for those patients who have been reclassified from elective to urgent.

[4] The point at which 50% of patients received surgery.

Table 2

Saskatoon District Health

Selected Non-Emergent Procedures Performed

January through September, 2001[3]

	Surgeon With Shortest Wait Time		Surgeon with the Largest # of Cases		Surgeon with Longest Wait Time	
Procedure	**Cases**	**Median[4] Wait (weeks)**	**Cases**	**Median Wait (weeks)**	**Cases**	**Median Wait (weeks)**
ARTHROPLASTY HIP	3	7.9	60	48.4	60	48.4
ARTHROSCOPY (all)	80	5.1	154	16.4	152	18.7
CATARACT EXTRACTION	53	5.1	732	48.9	518	57.2
CHOLECYSTECTOMY	4	0.9	45	14.1	15	25.1
MYRINGOTOMY	276	3.1	339	4.1	1	57.7
REPAIR INGUINAL HERNIA	5	0.7	29	39.6	27	69.0
TONSILLECTOMY	1	4.6	101	61.3	101	61.3
HYSTERECTOMY (all)	7	2.0	46	7.2	2	37.8

Source of Information: Derived from wait list data reported to Saskatchewan Health by Regina Health District and Saskatoon District Health.

Table 3

Regina Health District

Selected Non-Emergent Procedures Performed[5]

January through September, 2001[3]

	Surgeon With Shortest Wait Time		Surgeon with the Largest # of Cases		Surgeon with Longest Wait Time	
Procedure	**Cases**	**Median[4] Wait (weeks)**	**Cases**	**Median Wait (weeks)**	**Cases**	**Median Wait (weeks)**
ARTHROPLASTY HIP	29	3.4	29	3.4	23	37.6
ARTHROSCOPY (all)	97	3.0	162	13.8	126	47.4
CATARACT EXTRACTION	4	1.9	740	19.9	558	23.0
CHOLECYSTECTOMY	2	1.7	45	15.4	17	41.7
MYRINGOTOMY	128	2.1	128	2.1	74	3.1
REPAIR INGUINAL HERNIA	5	1.3	39	11.4	17	39.4
TONSILLECTOMY	6	5.4	31	21.1	31	21.1
HYSTERECTOMY (all)	44	4.2	66	8.6	37	36.0

Source of Information: Derived from wait list data reported to Saskatchewan Health by Regina Health District and Saskatoon District Health.

[5] Excludes a very small number of cases where there was no physician identifier on the record.

4.4 Other Health Districts

Table 4 describes the wait list management processes in the other districts with major surgical programs.

Table 4

Other Health Districts (Regional Centres)

District:	Who Manages List	OR Time Allocation	How to Ensure Most Urgent Cases Go First
East Central (Yorkton)	Individual Surgeons	Longer wait list = more OR time. Also based on historical practices.	Each surgeon prioritizes own list as necessary.
Moose Jaw - Thunder Creek	Individual Surgeons	OR allocation is based on the wait list submitted by each service	Surgeons are working together to rearrange schedules to make sure the most urgent cases get in first.
Swift Current	Individual Surgeons	Historical allocation	Each surgeon prioritizes own list as necessary
Battlefords	Individual Surgeons	Historical allocation	Each surgeon prioritizes own list as necessary
Prince Albert	Individual Surgeons	Any surgeon with a wait list gets 1 day per week and more time is allocated to those with longer lists.	Each surgeon prioritizes own list as necessary

4.5 Comments on Current Wait List Management Processes in the Districts

For the most part, individual surgeons in each district decide patient priority. OR time is based on historical allocations plus waiting list length, as submitted by each surgeon. Excessive wait times are primarily a Saskatoon and Regina problem.

5. Wait List Management in Other Jurisdictions

5.1 Western Canada Wait List Project (WCWL)

The Western Canada Wait List Project is a federally funded collaboration of researchers, clinicians/practitioners, policy makers and administrators from all four western provinces. In September 1998, the WCWL project received $2.2 million from the Federal Health Transition Fund to address significant information gaps in the health care system and to influence the way waiting lists are structured, managed and perceived in Canada.

Priority criteria were developed in the following five clinical areas:

1. Total hip and/or knee replacement
2. Cataract surgery
3. General Surgery
4. Children's mental health services
5. Diagnostic Medical Resonance Imaging (MRI)

Experts in each area derived relevant criteria for each panel and developed instruments to measure priority. These instruments were then tested, refined and re-tested. The reliability of the tools was strongest for general surgery and hip/knee replacement. The tools provide a clinically transparent method of prioritizing patients for wait listed services. The current absence of standardized criteria and methods to prioritize patients waiting for care means that patients may be placed and prioritized on a wait list based on a range of clinical and non-clinical criteria that may vary across institutions and health care providers.

5.1.1 General Surgery Panel (as an example)

The General Surgery panel included academic and community surgeons, general practitioners and researchers. The priority criteria were designed to cover all patients to be operated on by general surgeons (from hernias to cancer). This panel began by examining standards set in New Zealand. They tested this information with patients, revised the tools and then tested for validity and reliability. The general surgery tool has been pilot tested in Winnipeg at one tertiary care hospital and one community hospital on close to 500 patients. The derived priority criteria score correlated with the surgeon's estimate of urgency both on a visual analog scale and maximum acceptable waiting time. The mean actual waiting time was 40 days in the tertiary hospital and 26 days in the community hospital. Large variations were seen between surgeons.

5.2 Ontario Initiatives

5.2.1 Cardiac Care Network

The Cardiac Care Network of Ontario (CCN) was established in 1990 as a partnership of health professionals, hospitals and government. It is an Advisory Body to the Ministry of Health and Long Term Care dedicated to improving quality, access, efficiency and equity in the delivery of cardiac services. It focuses on appropriate and timely access to adult cardiac services by patients and their physicians. The CCN has 17 member hospitals and was expanded in 1999 to include cardiac catheterization, angioplasty and stent procedures. The CCN monitors over 40,000 patients per year and plans exist to expand the program to other cardiac services in the future.

The CCN provincial patient registry and management information system produces a profile of Ontarians waiting for advanced cardiac procedures and helps guide referrals for such procedures. Regional cardiac care coordinators gather data for the system from referring physicians. Urgency rating scores are used to quantify the severity of a patient's illness and assists in prioritizing patients on the list. This scoring system supports the idea that the more serious a patient's illness, the sooner the person should receive care. Regional cardiac care coordinators serve as the primary contact for patients waiting for a procedure.

CCN is governed by the CCN Committee, made up of 17 people representing clinical specialists and administrative representatives from the designated cardiac hospitals, and representatives from the Ministry, as well as district health councils, regional cardiac care coordinators, primary- and secondary-care physicians, consumers and representatives of the new cardiac centres. The Chair is appointed by the Minister and does not have a vested interest in Cardiac Care.

The CCN is widely recognized for its effectiveness.

5.2.2 Ontario Joint Replacement Registry (OJRR)

The Ontario Joint Replacement Registry (OJRR) was piloted in 1998 in Southwestern Ontario and serves as an information infrastructure used to manage waiting lists. It has since been expanded to cover the whole province. OJRR focuses on severity rating and patient outcomes using the Western Ontario McMaster Osteoarthritis Index (WOMAC). This registry provides data for evidence based surgical practice and is a module of the Canadian Joint Replacement Registry.

OJRR collects demographics, waiting times (including referral to consult and decision date to surgery) and co-morbidity. This information is used to track regional trends, facilitate patient follow-up, link data to validate national and provincial level comparisons and to develop a waiting list management system.

5.2.3 Ontario Waiting List Project

The Ontario Waiting List Project (OWL) is a research project of the Ontario Joint Policy and Planning Committee intended to develop an understanding of how to effectively manage waiting lists and improve access to health care services in Ontario. This project is building on work already undertaken by the Western Canada Waiting List project by piloting three of the WCWL tools (MRI, Cataract Removal Surgery and General Surgery). This project will apply the best available needs assessment and clinical evidence to decisions about priority setting and contribute to the development of a set of tools that will allow decision makers to make transparent and defensible resource allocation decisions.

It is intended to provide an approach to address political and public demands for structure, transparency and accountability in how waiting lists are managed. The aim of the project is to develop methodology that fairly prioritizes patients, ensures timely access to services, applies across levels of care and is acceptable to all stakeholders[6].

OWL has three clinical panels: Cataract Surgery, General Surgery and MRI. All three panels are expected to finish their work in 2001.

[6] *Ontario Waiting List Project Fact Sheet.* (2001, June 26). Toronto, Ontario: Ontario Joint Policy and Planning Committee. RetrievedOctober 31, 2001 from the World Wide Web: http://www.jppc.org/owl/fact_sheet3.htm

5.3 British Columbia

Information on British Columbia initiatives can be found at: http://www.hlth.gov.bc.ca/waitlist/. British Columbia has identified 3 key elements to their wait list initiatives:

- *Investing more for hospitals:* The idea behind this is to ensure people have the care they need, when they need it, where they live. Because wait times for surgery have no single cause, the ministry is targeting investments in a number of key areas, such as adding more nurses, increasing training, adding long term care beds and home support and more hospital beds.
- *Improving wait time information*: Wait times for hospital based surgeries and services in 20 different categories are tracked, monitored and updated on a monthly basis in a Surgical Wait List Registry. The registry monitors more than 90 percent of the non-emergency surgeries performed in the province. Note: The information provided on the registry is retrospective data and is subject to the administrative booking rules of each hospital. Therefore, it may not be a true reflection of the actual waiting list.
- *Increasing health care choices:* The Surgical Wait List Registry is available through the internet, giving people the chance to see how long wait times are across the province and judge where wait times are shorter.

5.4 Manitoba Initiatives

5.4.1 Cataract Waiting List Program

The Manitoba Cataract Waiting List Program (MCWLP) was created when all adult ophthalmologic surgical services were consolidated at the Misericordia Health Centre in 1993. This list records all patients waiting for cataract surgery in Winnipeg. The scoring system was developed using the Visual Functioning Index (VF-14), a 14 item questionnaire, to measure the severity of functional impairment in patients. The scoring system for the MCWLP also takes into account the patient's difficulty at work due to visual impairment, potential loss of driver's licence and length of wait.

A computer program was created in 1998 to maintain the data. The active component of this system tracks all patients booked for surgery and waiting. The archive component contains records of completed procedures and cancelled bookings. Ophthalmologists send in a booking request to the hospital when the decision is made for the patient to undergo surgery. The hospital contacts each patient and administers the questionnaire over the phone. The results of the questionnaire are entered into the computer database, which creates a prioritization score. Ophthalmologists receive monthly lists of their patients in order of priority according to the scoring system. The doctor then indicates which patients will be operated on, and in what order, for the next 3 months. The ophthalmologist can revise/override the VF-14 score in some cases, and will provide scores for patients who cannot be reached or who are not able to answer the questionnaire.

A number of concerns have been expressed about the MCWLP. By adding extra points to the VF-14 for work and driving impairment, the point-scoring system has been altered. The VF-14, even without this change, has not been validated for use in a clinical practice roster. Also, the use of an open-ended priority score with points given for waiting on the list may negate the objective of treating the most urgent cases first.

5.4.2 Orthopaedic Waitlist Initiative

The Orthopaedic Waitlist Initiative involves surgeons and patients completing forms at the time of surgical booking. This project does not include priority scoring and is used for data recording only. The mean wait time for orthopaedic surgery is 16 weeks, with 65% of patients waiting less than 20 weeks and only 4% waiting more than 40 weeks.

5.4.3 Cardiac Care Network

Recently, Winnipeg has become a cell of the Ontario Cardiac Care Network program.

5.5 New Zealand

The New Zealand government has outlined four key objectives and seven strategies for reducing waiting times and improving access to elective services[7]. The key objectives are:

- All patients with a level of need that can be met within the resources (funding) available are provided with surgery within six months of assessment.
- Delivery of a level of publicly funded service that is sufficient to ensure access to elective surgery before patients reach a state of unreasonable distress, ill health, and/or incapacity.
- National equity of access to electives - so that patients have similar access to elective services, regardless of where they live.
- A maximum waiting time of six months for first specialist assessment.

The seven strategies for achieving these objectives are:

1. Nationally consistent clinical assessment
    - Referral and assessment guidelines have been developed to ensure patients are treated in order of relative priority and in a similar manner throughout the country.
    - Guidelines were developed in conjunction with clinical specialists, general practitioners, hospital managers and other health care professionals based on generally accepted clinical practice. These guidelines provide a framework to assess the patient's relative priority based on a range of medical, social and complicating factors and will be validated and refined by clinicians on an ongoing basis.
    - Referral guidelines assist family practitioners when referring patients to secondary services.
    - Access criteria help ensure that the most urgent referrals are seen first.
    - Clinical Priority Assessment Criteria help ensure that the patients with the greatest need are seen first.
2. Increase the supply of elective services
3. Give patients certainty
4. Improve the capability of public hospitals
5. Better liaison between primary and secondary sectors
6. Actively manage sector performance
7. Build public confidence

[7] *The New Zealand Health Strategy.* (December 2001). New Zealand Ministry of Health. http://www.moh.govt.nz/moh.nsf

As of late 2001, New Zealand does not have in place a uniform waiting list system based on priority criteria scores. The existing scoring system has not been thoroughly evaluated and is not consistently used.

5.6 England

In England, the National Health Service (NHS) has a plan to improve access to treatment. Information on the plan can be accessed at http://www.doh.gov.uk/about/nhsplan/priorities.

This plan includes:

- Building more hospitals and increasing bed numbers
- Recruiting more doctors, nurses, therapists and other staff
- Giving these staff more powers and wider roles
- Giving patients alternatives to their General Practitioner (GP) and acute and emergency department with services like NHS Direct[8]
- Setting up fast-track services to diagnose and treat the most serious conditions

The NHS Plan on access also identifies top-level targets for waiting. This includes:

- All patients to be seen by a health professional within 24 hours and a GP within 48 hours by 2004
- Maximum wait for a routine outpatient appointment halved from six months to three months by 2005
- Maximum wait for inpatient treatment down to six months by 2005.

NHS has designated an Access Taskforce to deal with improving access to care. This taskforce will cover a range of areas, including reducing waiting times in both primary and secondary care and making services more widely available and convenient.

NHS also maintains a web site that publishes waiting times on a quarterly basis. This information is reported for inpatient services as well as waiting times for first outpatient (specialist) appointment. The waiting time data is reported for about 100 Health Authorities and 300 Trusts[9], plus Regional and England totals. The total number of people waiting as well as how long they have been waiting (0 to 18+

[8] NHS Direct is a 24-hour nurse-led help line providing confidential healthcare advice and information NHS Direct Online provides a gateway to high quality and authoritative health information on the Internet

[9] Primary Care Trusts (PCT's) are free-standing, legally established, statutory NHS bodies that are accountable to their Health Authority. By 2004, PCT's will have responsibility for at least 75% of the NHS budget. These Trusts offer an opportunity for local stakeholders to shape services to provide better health and better care.

months) is reported for each specialty. At this time, the intention is to keep three years' worth of data directly available on the web site.

About half of all patients treated in the hospitals are emergency cases and do not come from the waiting lists. Waiting time is reported from the date the clinician decides to admit the patient and patients are removed from the waiting list when they are admitted to the hospital.

5.7 Australia

Australia has a National Demonstration Hospitals Program with a mandate to reduce clinically inappropriate waiting times for elective surgery by identifying and disseminating strategies to overcome barriers to improved management of the whole elective surgery processes. Under this initiative, funding was provided directly to hospitals that had developed and implemented best practice models in elective surgery management to work with groups of hospitals seeking to improve their services in similar areas. The model creates a lead/collaborating hospital relationship between innovators and encourages hospitals to share their experiences and build common responses to common efficiency and effectiveness problems. This process has been through three phases of funding allocation since 1993. Table 5 summarizes the three phases of the project and is taken from information found at http://www.health.gov.auhsdd/acc/ndhp/overview.html.

Table 5

National Demonstration Hospitals Program

Phase	Date	Funding Allocated	Focus	Outcomes (if indicated)
One	July 1995 to June 1997	$11 million to 39 hospitals	Funding provided for 3 priority areas: preadmission assessment and admission scheduling; operating theatre utilisation and scheduling; and discharge care and post discharge planning	These projects led to improved systems for monitoring and acting on patient feedback.
Two	June 1997 to July 1998	$6.2 million to 29 hospitals	Funding provided in response to Phase 1 to help develop systems to integrate the management of all admissions following best practice guidelines.	Substantial improvements in outcomes for patients and the overall quality and effectiveness of their bed management systems
Three	July 1998 to March 2001	$7.5 million	Funding to help projects identify and implement innovative models that improve the quality, coordination and integration of all services provided by the acute care sector and that provide effective two-way links between hospitals and community providers.	

In Australia, waiting time data is provided to the Australian Institute of Health and Welfare as part of the National Minimum Data Set for Elective Surgery Waiting Times. The Elective Surgery Waiting Times are expected to be included as indicators of accessibility to the health care system. The waiting times for orthopaedic and ear, nose and throat surgery are the worst. Reporting is done on waiting time rather than the length of waiting lists. Waiting times are calculated by

comparing the date on which a patient was added to a waiting list, with the date that they were admitted to the hospital. Patients waiting for elective surgery are classified according to their clinical urgency into three categories. The most recent report available on the Australian government web site is the "Waiting Times for Elective Surgery in Australia 1998-99".

The state of New South Wales publishes information about their public hospital waiting times and waiting lists according to:

- Type of surgery or procedure;
- Urgency classification;
- Hospital; and
- Specialist doctor.

This web site (http://www.health.nsw.gov.au/waitingtimes) is a first for Australia and includes information for both patients and doctors. The data provided is a retrospective and aggregated view of the actual amount of time patients have waited for admission to hospital.

5.8 Common Themes from Other Jurisdictions

In examining the initiatives of other jurisdictions, the following themes are evident:

1. There is a concern about waiting times for elective surgery in all jurisdictions.
2. Many are attempting to find methods to ensure that those most in need receive care before those with a lesser need, including the use of patient prioritization tools.
3. Many are attempting to bring more structure and rigor to the provision of surgical services within clinically appropriate times.
4. All are putting an emphasis on measurement and analysis in order to manage the issues with facts, not opinions.
5. All are committed to making the information on waiting times public on an ongoing basis.

6. Views of the Public and Health Authorities on Wait List Management Issues

In early 2001, the Western Canada Wait List Project undertook surveys of the public and health authorities on the question:

"Are these (prioritization) tools and the changes they will entail in the health care system appropriate and acceptable to the public and health authorities?"

The findings[10] were as follows:

- **Public** – high levels of concern about the current state of waiting lists
- **Public** – generally unaware of how the system operates
- **Public** – the most important criteria is urgency or severity; all others are secondary
- **Public** – supportive of the point-count concept in which higher priority criteria scores result in a relatively shorter wait time
- **Public** – aware of the challenges of implementation and administration of the tools
- **Providers** – considerable variability exists in current priorization methods
- **Providers** – WCWL tools judged acceptable for application across entire regions and provinces
- **Providers** – would result in standard data and ability to make comparisons across regions and provinces
- **Providers** – successful implementation will depend on appropriate change management processes and education
- **Providers** – as the health system is inherently resistant to change, implementation requires a strategic approach

Saskatchewan Health also recently sought the opinion of the public on these issues. The results were similar to the WCWL surveys. The Saskatchewan public support substantial change to the surgical wait list system. They envision a fair, comprehensive, and transparent wait list management system.

[10] *Progress Report.* (September, 2001). Western Canada Waitlist Update Newsletter.

7. Issues Identified

1. Lack of consistent, accurate data on surgical wait lists.
2. No consistent patient prioritization processes.
3. Family physicians do not have sufficient information to inform patients of waiting time.
4. Surgeons frustrated with inability to operate on elective patients in a timely manner.
5. Public frustrated with lack of timely access to elective surgical procedures.
6. Only intermittent coordination and cooperation between health districts on surgical services issues.

8. Wait List Management Goals and Principles

8.1 Goals

The Canadian Medical Association has defined two goals for the effective management of surgical waiting lists. These goals are[11]:

- Maintain or enhance patients' quality of life and health status through effective development and management of waiting lists.
- Ensure the development and management of waiting lists is based on the best available evidence of clinical appropriateness, clinical effectiveness, rational use of resources, clinical need and quality of life.

These are appropriate goals for Saskatchewan.

[11] *Operational Principles for the Measurement and Management of Waiting Lists*. (1999, November 27). Ottawa, ON: Canadian Medical Association. Source: http://www.cma.ca

8.2 Principles

- Patient focussed and evidence based
- Fair to patients
    - equitable access to necessary and effective surgery
    - patients with greatest needs are served first
    - access within the clinically appropriate maximum waiting time
- Supportive of academic surgical education
- Standardized
    - concepts, processes, terms and definitions
    - best practice care plans
- Valid, reliable and timely data and information for sound decision making
- Stakeholder involvement in all aspects
- Systemic approaches (from 1st contact through treatment and then home)
- Regular independent data audits and evaluations of process and outcomes
- Transparency (public, providers and government)
- Accountability of all parties to each other and the public

9. Elements of a Wait List Management Strategy

It is suggested that a comprehensive and effective wait list strategy should have six key elements that apply at all levels of the health care system, the hospital, the district and the province. They are:

- **Capacity**
- **Structure**
- **Accountability**
- **Knowledge**
- **Communication**
- **Evaluation**

9.1 Capacity

The system should have sufficient capacity to carry out appropriate and necessary surgery in a clinically appropriate wait time. Capacity includes ensuring the appropriate numbers and type of facilities (beds and operating rooms), equipment and providers exist. It also means making certain that these resources are used effectively and efficiently. Surgical capacity can be reduced quickly, however it cannot be increased without substantial lead times to recruit and train staff, acquire equipment and prepare facilities.

9.2 Structure

To be successful, a Wait List Management Strategy must exist in a health care system that:

- incorporates clear role definitions of all participants and parties in the system;
- has consistent and standardized procedures and processes based on best practice models;
- has a continuum of care in place across all sectors and locations; and
- incorporates continuous communication and feedback.

An important aspect of a health care system with standardized approaches for care is the existence of:

9.2.1 Integrated Care Pathways

Integrated care pathways are useful for interdisciplinary and inter-district care planning and communication tools. They maximize quality of care through optimal sequencing and timing of interventions across the continuum of care. Care pathways incorporate current best evidence and include the patient/client in the planning process. For example, if you are a person that experiences heart problems in a rural area of Saskatchewan, integrated care pathways help to ensure that:

- you will receive the appropriate interventions based on research evidence in your local hospital;
- you will be sent at the appropriate time to a larger centre where additional interventions will be implemented as necessary;
- you will be assessed for surgery or other interventions by the health care team based on well-researched criteria;
- your post-operative care will be coordinated back to your local hospital and home care if necessary; and,

- all of the members of the health care team will implement the pathway, in consultation with you, which results in a seamless continuity of care for you.

Continuous evaluation and analysis of activities and outcomes is key to this practice.

Interest in care pathways seems to be high in Saskatchewan. In November 2000, 200 people from 27 health districts attended the provincial pathways workshop. The Canadian Council on Health Services Accreditation expects pathways to be in place and used. Saskatoon and Regina are currently working on developing these tools. Moose Jaw - Thunder Creek Health District already has pathways in place for urology procedures, total hip and total knee replacements, hernia repair, and laproscopic cholecystectomy. They are in the process of implementing a pathway for bowel surgery. Smaller districts are asking for support to get pathway programs going and to link with tertiary centre pathways. A proposal for a provincial pathway program has been submitted to Saskatchewan Health.

9.3 Accountability

For a Wait List Management Strategy to be successful, all participants must be clearly accountable for their agreed roles, and their decisions. The parties involved must accept their responsibilities and obligations to each other and to the public.

9.4 Knowledge

The knowledge component of a successful Wait List Management Strategy includes an understanding of the following:

- those waiting, their waiting time, and their need;
- those served, what their need was and how long they waited;
- continuous information and analysis of waiting lists; and
- evaluation of processes and outcomes.

9.5 Communication

Communication on both the functioning of the surgical care system and the details of a patient's situation is key. This communication is to and between the public, health care providers and the government. Patient confidentiality must be respected at all times.

9.6 Evaluation

Continuous evaluation is essential to ensure the wait list management system is functioning appropriately and to identify areas where opportunities exist to improve.

10. Surgical Wait List Management Strategy Recommendations

This report presents a comprehensive set of recommendations, as there is no instant solution to the problem. The resolution lies in a deliberate and steady resolve by all parties to substantially reduce wait times through the implementation of systematic solutions based on accurate, up-to-date information.

10.1 Capacity

Surgical resource capacity is a complicated issue involving a complex mix of providers, facilities and equipment. In order to continue to both enhance and ensure the effectiveness and efficiency of surgical care resources in Saskatchewan, the following recommendations are made:

Recommendation 1 (High Priority)
It is recommended that Saskatchewan Health continue the Human Resource initiatives outlined in the Current Saskatchewan Wait List Initiatives section.

Recommendation 2 (High Priority)
It is recommended that a rolling three-year surgical wait list fund be created with three distinct sections for:

- **Operating Costs**
- **Equipment Costs**
- **Facilities Costs (renovations and construction)**

Funds should be allocated on the basis of acceptable business plans.

These funds should be accessed through the submission of annual business plans. The Government of Saskatchewan should set the size of each section of the fund, for each rolling three-year period, in accordance with the fiscal capacity of the province. Such a fund will allow districts to better plan for the future and address the surgical waiting list problem in a more systematic way, since surgical capacity (especially the staff necessary to do the work) cannot be expanded or sustained without a sense of the operating funds being available in the future. The money should be separate from that required to cover wage and other cost increases.

The **operating funds** should be distributed according to explicit and open allocation criteria, including the following:

- Submission of an annual business plan, and an annual accountability report showing the impact the investment will have or has had on waiting lists.
- Meeting or exceeding length of stay and day procedure best practice norms for Canada.
- Participation in the Saskatchewan Surgery Registry, including the addition of severity scoring in certain prescribed areas.
- Active district-wide wait list management processes, including operating room time and bed allocations.
- Implementation of changes arising from the Johnson & Johnson benchmarking study.

The criteria for receipt of **equipment and facility funding** should be set out as follows:

- Conditions for funding should be the same as for operating funds, along with the submission of a business plan showing the impact of the proposed investment on waiting lists.

In order to ensure that the Regina and Saskatoon health districts are able to provide surgical services as much as possible and appropriate on a day procedure (ambulatory) basis, the processes, equipment and facilities need to be reviewed to ensure the optimum configuration. Therefore:

Recommendation 3 (Medium Priority)
It is recommended that the Regina and Saskatoon health districts, in cooperation with Saskatchewan Health, carry out a thorough review of day procedure (ambulatory surgery) processes, equipment and facilities and identify needed changes and investments to facilitate the maximum clinically appropriate use of day surgery. A business plan should be submitted to Saskatchewan Health by June 2002.

10.2 Structure

As stated previously, a surgical wait list management strategy requires a structured surgical care system. The following recommendations are aimed at bringing more structure to the Saskatchewan Surgical Care System.

Recommendation 4 (Medium Priority)
It is recommended that Saskatchewan Health define precisely the surgical services role of each hospital in each district. These role descriptions should set out the expectations for services that would be provided at all times and those that would be available periodically.

Recommendation 5 (Medium Priority)
It is recommended that, in a cooperative manner, Saskatchewan Health and the districts:

- **Define the responsibilities of smaller hospitals to larger hospitals and vice-versa.**
- **Develop province-wide integrated care pathways for high volume and/or high-risk procedures.**

Recommendation 6 (High Priority)
It is recommended that each district develops OR time allocation mechanisms to actively manage wait lists across surgical specialties. Such a system should replicate what is currently done in Saskatoon and Regina, only on a smaller scale.

10.3 Accountability

10.3.1 Between the Districts and Saskatchewan Health

Signed agreements should be derived from the business plans. It will be essential that Saskatchewan Health employs timely decision making processes.

10.3.2 Between Surgeons and the District

Surgeons and the district must agree to participate in wait list data gathering and management processes.

10.4 Knowledge

Accurate, comprehensive and timely data is required for decision-making. For surgical wait lists this is best accomplished through the creation of a centralized, continuously updated provincial registry of all non-emergent patients who have agreed to surgery and been accepted by a surgeon for a procedure. The data for such a registry could come either directly from surgeons' offices or through the districts. However, it is essential that there be a common, standardized set of data elements. Therefore:

Recommendation 7 (High Priority)
It is recommended that an electronic province-wide Saskatchewan Surgery Registry be created as soon as possible.

Recommendation 8 (High Priority)
It is recommended that the province work to develop standardized priority criteria and tools to ensure that the process of prioritizing patients waiting for surgery is fair and transparent.

Operating room bookings would only be made for those persons who are on the registry. Initially the data should incorporate detailed severity ranking for heart, eye (lens replacement), general surgery and orthopaedic surgery (total joint replacement). Tools to assist with severity ranking for these procedures are available from the WCWL project. All other procedures should include urgency rankings (province-wide, standard definitions at 2 levels) plus non-urgents. Patient confidentiality must be protected in such a registry.

It should be noted that the responsibility for OR scheduling and management remains, as it should, with the districts. In addition, the decision of which patient receives surgery remains, as it should, with the surgeon.

10.5 Communication

Communication strategies should include:

- System-wide information on the status of wait lists by procedure and district.
- General communications with the public (including public education) on the nature and appropriateness of wait lists.

10.5.1 Districts

The districts should be responsible for sharing information with the public on waiting time by service and by surgeon. This can be further supplemented by active communication and monitoring of persons on waiting lists, through their family physician, by designated district staff. The districts' goals with respect to waiting times and progress towards meeting those goals should also be conveyed to the public.

Recommendation 9 (High Priority)
It is recommended that the Regina and Saskatoon health districts each designate a person as a surgical services coordinator to facilitate communication between the district, patients and their referring physicians.

10.5.2 Saskatchewan Health

Saskatchewan Health should ensure communication with the public on the government's goals in respect to waiting times and progress towards meeting those goals.

10.6 Evaluation

Appropriately skilled persons should carry out continuous evaluation of the wait list management processes and outcomes, as well as communication processes.

11. Implementation Strategy

Implementation of an effective Surgical Wait List Management Strategy will require concerted cooperative action over a lengthy period of time by all the partners in Saskatchewan's health care system.

Therefore, in order to focus on managing surgical wait lists in a cooperative and coordinated manner across the province:

Recommendation 10 (High Priority)
It is recommended that an advisory committee to Saskatchewan Health called the Saskatchewan Surgical Care Network (SSCN) be created to assist with improving access, equity and efficiency in the provision of surgical services in Saskatchewan. The committee would be made up of representatives of providers, districts, and government. The committee should be chaired by a person who is not affiliated with these three groups.

Saskatchewan Health will need to provide sufficient dedicated staff support to the committee to ensure that it can carry out its work. The committee will need to meet monthly for at least the first year.

The network would have four main functions:

1) Coordinating the provision of all surgical services in Saskatchewan through:
    a. The creation of a province-wide computerized surgical patient registry that would be utilized by all surgical centres to facilitate and monitor access to surgical care by patients and their physicians. The information from the registry will help enable equitable, timely and appropriate access to surgical care. (See Recommendation 7.)
    b. Enhancing and facilitating the relationships between the surgical centres in the province, and their relationship to family practitioners, in order to coordinate the appropriate and timely referral of patients and facilitate the return of patients to their home communities.
2) Advising the districts and Saskatchewan Health on matters related to the provision of surgical services using data- and consensus- driven methods.
3) Communicating with providers and the public on surgical access issues including the reporting of data on the functioning of the surgical services system and publication of an annual report.
4) Commissioning research on relevant surgical access matters.

The Network should be fully functional and able to carry out the role described above within six to nine months of start-up. The first priority for the SSCN would be the creation of the Registry (Recommendation 7). In addition, the Network should begin working on implementing Recommendations 5, 6 and 8. The Network should have a close relationship with the recently announced Quality Council in order to ensure the effective evaluation of surgical care processes in Saskatchewan.

12. Communication Strategy

Communication on surgical wait list issues should be handled primarily by the SSCN. Communication should be a priority activity as quickly as possible after SSCN is created. In the interim, it is recommended that both Saskatchewan Health and the districts make clear to the public their intention to move forward quickly in partnership on the issues. The recommendation related to a designated person responsible for patient and family practitioner liaison in Regina and Saskatoon health districts should be implemented as soon as possible to give the public and referring physicians a personal contact point.

13. Conclusion

Our suggested wait list management strategy encompasses all aspects of the Saskatchewan health care system. This is key, as all parts are interrelated and each has an effect on the access of patients to surgical services. With a united resolve, we believe this plan is achievable.

APPENDIX A

Bibliography

Australian Institute of Health and Welfare (AIHW) 2001. Waiting times for elective surgery in Australia 1998-99. AIHW cat. No. HSE 13. Canberra: AIHW (Health Services Series no. 16).

Barer, M., Lewis, S., McDonald, P., Sanmartin, C., Sheps, S., Shortt, S. (1998). Waiting lists and waiting times for health care in Canada: summary report. (Health Canada Publication). Retrieved October 5, 2001 from the World Wide Web: http://www.hc-sc.gc.ca/

Canadian Institute for Health Information. (2001). Canadian joint replacement registry (CJRR). Ottawa, ON: Author. Retrieved April 30, 2001 from the World Wide Web: http://www.cihi.ca/wedo/hscjrr.shtml

Glynn, P., Hudson, Dr. A., and Taylor, Dr. M. (2001). A review of the operating room booking systems of Saskatoon District Health and other matters. Saskatoon, SK: University of Saskatchewan, Health Sciences Advisory Council.

Institute for Clinical Evaluative Sciences. (2000, August). Urgency rating, waiting list management and patient outcomes monitoring for primary hip/knee joint replacement (Pub. No. 00-04-TR). Toronto, Ont.: Author

Lewis, S., Barer, M., Sanmartin, C., Sheps, S., Shortt, S., McDonald, P. (2000). Ending waiting-list mismanagement: principles and practice. Canadian Medical Association Journal [On-line serial], 162 (9) 1297-1300. Available: www.cma.ca

Monaghan, B., Morgan, C., Shragge, B., Higginson, L., Vimr, M., and Trypuc, J. (2001). Through the looking glass: the cardiac care network of Ontario 10 years later. Hospital Quarterly, Spring 4(3) 30-38.

New South Wales Health Department. (2001). NSW health waiting times information. New South Wales, Australia: Author. Retrieved July 16, 2001 from the World Wide Web: http://www.health.nsw.gov.au/waitingtimes/

Progress report. Western Canada Waitlist Update Newsletter, September 2001, 2.

Sanmartin, C., Shortt, S., Barer, M., Sheps, S., Lewis, S., and McDonald, P. (2000). Waiting for medical services in Canada: lots of heat, but little light. Canadian Medical Association Journal. [On-line serial], 162 (9): 1305-1310. Available: Available: www.cma.ca

Stock, S. (2001, July 27). Surgery queue getting longer. The Australian. Retrieved October 31, 2001 from the World Wide Web: http://www.healthinsite.gov.au/

Thompson, L. (2001). Creating order out of waiting list chaos: improving current situation will take leadership and cooperation. A Closer Look. Summer.

Western Canada Waiting List Project. (2001, March). From chaos to order: making sense of waiting lists in Canada (Final Report). Edmonton, AB: Author

Wright, C., and Robens-Paradise, Y. (2001). Evaluation of indications and outcomes in elective surgery: a feasibility study in the acute care hospitals of the Vancouver/Richmond health region. (Report no. RD31.5.W75 2001). Vancouver, BC: Centre for Clinical Epidemiology and Evaluation, Vancouver Hospital and Health Sciences Centre.