SASKATCHEWAN PROVINCIAL SPINE CARE PATHWAY

CONCEPT PAPER

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1. Background

The Surgical Services Subcommittee (SSS) is an arm of the Saskatchewan Surgical Care Network (SSCN) which works to ensure that patients needing surgical care have timely access to quality services.

The committee observed that besides significant practice variation between Saskatoon and Regina in the surgical care of patients with spinal disorders, patients experienced long wait times to access these services; especially to see a specialist, to access imaging and to get the surgery. Also, there is a need for measurable treatment outcomes assessment.

The committee mandated the creation of a provincial spine care pathway working group chaired by Dr. Joseph Buwembo who is a member of the SSS.

2. Mission

The mission of the provincial spine care pathway working group is to develop an adaptive spine care pathway model.

3. Vision

Patients seeking care for spinal disorders will follow a patient-centred, adaptive clinical pathway model whereby comprehensive, multidisciplinary healthcare processes will be offered in a timely, evidence-based and cost-effective way.

4. Objectives

- Develop a one-stop solution spine centre
- Standardize practice patterns
- Shorten patient wait times for spine care services
- Develop comprehensive education programmes for non surgical and surgical patients
- Develop and adopt evaluation frameworks to assess practice methodology and patient outcomes
- Liaise with Chronic pain care programmes

5. Goals

- Improved patient care and satisfaction
- Increase Cost-effectiveness of services
- Improved research/outcomes evaluation
- Continuing professional development opportunities
- An adaptive pathway
6. Process
Over a two-year period, starting in January 2007, eleven meetings were held, nine by teleconference, and two face-to-face.

The working group comprised of various health care providers involved in the management of patients with spinal disorders, who were introduced at different stages of development of the pathway, and included spine surgeons, chiropractors, physiotherapists, family physicians, nurses, occupational therapists, psychologists, department of health staff and an external expert, Dr. Hamilton Hall.

7. Classification of Low Back Pain

The Saskatchewan Provincial Spine Care Pathway working group has adopted the classification developed by Hamilton Hall; where all lower back pain patients may be classified into one of the following 4 patterns:

**Pattern 1:** Low back dominant pain, constant or intermittent. Pain most intense in the back, buttock, trochanter or groin, intensified by forward bending or sustained flexion. Pain may be constant or intermittent. No other neurological symptoms.

**Pattern 2:** Low back dominant pain, consistently worse in the back, buttock, trochanter or groin with lumbar extension, but not with lumbar flexion. Pain always intermittent. No other neurological symptoms.

**Pattern 3:** Constant leg (lower limb) dominant pain. Pain more severe below the gluteal fold and can be either above or below the knee. Pain is always constant and neurological symptoms must be present.

**Pattern 4:** Intermittent leg dominant pain brought on by activity and relieved by rest with the lumbar spine in a flexed position. Generally found in patients over the age of 50.

**Illness Behaviour (Pattern 5):** A patient in any of the above patterns may exhibit discrepancies between history and physical examination.

Noteworthy is the fact that each pattern has a specific treatment algorithm.

8. Evaluation Tools

**Primary care provider:**
- CBI-Q
- Lifestyle Questionnaire

**Multi Disciplinary spine Clinic:**
- Pain severity (Visual Analog Scale)
- Disability Index (Lower Back Questionnaire)
- Quality of Life (EQ-5D)
- DASS 42

These tools will be administered before treatment and on completion of the treatment algorithm in order to measure treatment outcomes and patient satisfaction.
Pathway efficiency

- Measurement of wait times will be compared to baseline measures. Baseline measures reflect patient experience in waiting to see a specialist (wait 1), to receive imaging (wait 2), for the second surgical consult (wait 3) and the wait time for surgery.
- Clinic measures will reflect the wait to get into the MDC, for imaging, to see a specialist and to get surgery status quo
- Public confidence in the MDC (feedback from patients & primary care providers)

9. Continuing Professional Development

It is recommended that the primary care providers (physicians, chiropractors, nurse practitioners, physiotherapists) take a continuing education course (CEC) that will be developed in collaboration with college of Medicine and the Saskatchewan Medical Association. This course will inform the caregivers of the essential history and physical examination, classification of back pain into the patterns, the specific treatment for each pattern, identification of red flags and the indications for referral to the MDC/imaging for patients with a spinal disorder.

10. Advantages

On completion of the CEC, primary care providers will be able to do a history and physical in order to categorize patients into one of the four patterns and recommend pattern specific treatment, and will feel more comfortable to follow the treatment algorithm. This will ease the challenge imposed by the low back pain patient.

- Professional bodies may recommend increased compensation for the services provided under this pathway by care providers who have completed the CEC.
- Attendees will earn CEC credits
- Enthusiastic spine care providers will have an opportunity to teach
- The course will greatly facilitate standardization of care
- Continuing professional development will be an ongoing process.

11. Primary Care of the Low Back Pain Patient

Education materials for care providers, including pattern classification and treatment algorithms, as well as patient education materials will be available on the internet. Primary care providers will have access to these materials, and can use the information to facilitate their management of the back pain pt, and may follow the referral protocol to the spine MDC. The Working group is recommending consideration of increased compensation for spine care services who have taken the CEC training.

12. Referral to the Multi Disciplinary Spine Clinic (MDC)

Ideally, patients that have been treated by the primary care provider per pattern specific algorithm who fail to improve, or who deteriorate during the course of treatment, and those with yellow and orange flags, should be referred to the centre. Patients with red flags should be referred to the spine surgeon on call or ER immediately.

The working group recommends that primary care providers take the CEC as soon as is feasible. This will facilitate in building their confidence to manage back pain patients and hence minimise premature
referrals to the MDC as this has the potential to create a bottleneck for patients and delays in accessing necessary services.

13. The Multidisciplinary Spine Centre

a) Physical Structure
The working group recommends that two centres be established initially – in Saskatoon and Regina. The space should provide an ambience conducive to the care of a patient with a spine disorder.

b) Staffing
It is recommended that the centre provide a multi-disciplinary team to provide assessments, triaging, education and treatment. The exact staffing compliment will be decided by the regional implementation teams and may include:

- Administrative Clerk
- Registered Nurse
- Occupational/Physio Therapist
- Kinesiologist
- Consults with a chiropractor, nutritionist or clinical psychologist may be requested as the need arises.
- Spine Surgeons will see patients at the centre

c) Database
A database should be developed to store patient’s demographics; pain severity, disability and quality of life scores; pattern/diagnosis; imaging results (if indicated); medical and surgical assessments; treatment record; conservative/surgical; discharge status (cured, returned to work, disabled, chronic pain) and any other data that may be required for patient care or research.

14. Patient Care at the Multi Disciplinary Clinic

a) Assessment and Triage
Will be completed by the multidisciplinary team at the Clinic

b) Data Capture
Patients will be assisted by the clinic staff to fill out questionnaires; staff will elicit other data from the patient, and then the clerk will enter the data into the computer. Updates will be done as more data is acquired for the particular patient.

c) Investigations
Investigations will be ordered as indicated by the pattern algorithms and will be on the patient file prior to the surgeon consult.

d) Treatment
Pattern specific treatment algorithm will be followed. Initial assessment and education will be provided at the clinic and patients requiring on-going treatment will be referred to community partner organizations for continued treatment.

e) Referral to the Spine Surgeon
Once a patient is considered to be a surgical candidate or if the patient fails to improve or deteriorates during the course of treatment, the surgeon will see the patient at the MDC.
f) Chronic Pain
Patients who are deemed to have chronic pain will be referred for appropriate care to pain specialists or to regional pain clinics.

g) Evaluation- Statistical Data/Research
Statistical data will be collected from all patients and entered into a database which will be analyzed quarterly to assess system efficiency, treatment outcomes and patient satisfaction.

15. Continuing Care in the Community

a) Primary Care Provider
Feedback will be provided to the referring primary care provider by the clinic at the commencement and completion of treatment. Specialist reports pertaining to the care planned/given will also be provided to the referring primary care physician.

b) Physiotherapist/Occupational Therapist
Patients that may need continued care in this regard will be referred to community partner resources in their local communities.

c) Remote Access/Telehealth
It is the recommendation of the Spine Working Group that the Spine program be developed to provide services using Telehealth to facilitate patient access and reduce travel great distances for services.

d) No Patient is Lost Philosophy
The Ministry of Health has adopted a Patient First philosophy. Therefore, services must be available for all patients. It is the recommendation of the Spine Working Group that the Implementation Teams follow the patient flow to develop clear guidelines regarding entry to and discharge from the MDC