

# **REPORT ON BENCHMARKS FOR WAIT TIMES**

**The National Standards Committee  
Canadian Orthopaedic Association 2005**

Ted Rumble & Hans J. Kreder (Co-chairs)

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## **EXECUTIVE SUMMARY**

The National Standards Committee's most recent mandate was to produce benchmarks for orthopaedic wait times using the best available data from Canadian, US and international sources. The following recommendations are put forward:

### ***Benchmarking Definitions (Maximum Acceptable Wait Time)***

How long should an individual wait for treatment? This question can be addressed conceptually by considering either a hypothetical "ideal waiting time" or the "maximum acceptable wait time (MAWT)". Most individuals waiting for service of any kind would probably state that an ideal wait time would be immediate service, making it difficult to operationalize a definition of what constitutes an ideal wait. The concept of maximum acceptable wait time is easier to define at least in theory. It implies that some important deleterious effect (emotional, economic, quality of life, etc.) is incurred or that the risk of such an event occurring is substantially increased beyond the acceptable wait time. For example, while it is ideal to establish blood flow immediately to someone with an anoxic brain, the maximum acceptable time to do so is about two minutes before brain cell death and irreversible damage ensues. After consideration of the issues and the benchmark definitions used in other jurisdictions, the committee decided to recommend using maximum acceptable wait time (MAWT) for benchmarking purposes. MAWT benchmarks should be based on the best available evidence and be constantly updated as new information becomes available.

## ***Benchmarks***

### **Overview**

The committee decided to consider only scheduled surgical procedures for benchmarking at this time. Some jurisdictions have taken the approach of drawing up separate benchmarks for individual diagnostic or operative procedures while others have considered priority ratings that can be applied to any patient irrespective of the diagnosis or procedure. The former approach is flawed in the sense that not all patients within a diagnostic (or procedural) category require intervention with equal urgency so that a priority rating tool is still required. Thus the committee has recommended adoption of a wait time benchmark based on priority rating categories (see below). Additional ranking of the patients within a priority category was also considered.

The committee felt that the time from referral to consultation (*wait for consultation*) and the time from mutual patient and surgeon decision to operate to actual surgery date (*wait for surgery*) should be considered separately.

### **MAWT for Consultation**

***The committee recommends that no patient referred to an orthopaedic surgeon should be asked to wait longer than 3 months under any circumstances.***

Moreover to maximize efficient use of the orthopaedic consultant's time, patients referred for consultation should be pre-screened and fully worked up. As discussed in the workforce report, physician assistants (PA)/physician extenders could play an integral part in this regard.

## **MAWT for Surgery**

*The committee recommends that no patient be asked to wait longer than 6 months after the mutual patient / surgeon decision is made to operate.*

The patient's actual *MAWT for surgery* is determined by that patient's priority rating (see below).

### *Priority Rating*

After reviewing the available tools used in other jurisdictions, the committee decided to recommend adopting a priority rating scheme similar to one used in Australia.

***Priority 1:*** *A situation that has the potential to deteriorate quickly and result in an emergency admission should be operated within a MAWT of 1 month.*

***Priority 2:*** *A situation which involves some pain and disability but which is unlikely to deteriorate quickly to the point of becoming an emergency admission should be operated within a MAWT of 3 months.*

***Priority 3:*** *A situation that involves minimal pain, dysfunction or disability and which is unlikely to deteriorate quickly to the point of requiring emergency admission should be operated within a MAWT of 6 months.*

## **Relative Patient Ranking**

Within each priority category, the most urgent patients should ideally receive surgery before less urgent patients, taking into account various patient, social and disease related factors. For some conditions, validated tools (WOMAC score for hip and knee arthritis) may be useful in ranking patients relative to one another. Attempts have been made to produce specific priority rating tools (WCWL) but none are mature enough to recommend broad acceptance at this time. Moreover, most of these tools are condition specific, which would require considerable effort for a surgeon with a varied practice casemix. As wait times become shorter, relative priority ranking will become less and less important.

## **Adherence to Benchmarks**

Benchmarks are useless in the absence of data regarding how well they are being adhered to. Thus it is imperative that actual wait times be reviewed periodically, with a view to bringing down the number of patients who are exceeding the MAWT in a given region.

## **Collection of Waiting Time Data**

The committee recognizes that collecting wait time data is resource intensive. It will require COA, joint registry, federal & provincial government & agency cooperation.

The committee encourages authorities to implement the requisite resources for wait time data collection. Additional information that will need to be collected as part of the medical record includes the date of patient referral, surgical booking (decision date) and priority ranking at the time of booking.

## **Public Disclosure of Wait Times**

The committee supports the concept of public access to information regarding regional and individual surgeon wait times for consultation and for surgery

Access to accurate & timely wait time data is important so that patients and their referring physicians can make fully informed decisions. Specifically, the committee felt that presenting the percentage of a surgeon's patients waiting longer than the MAWT, or a surgeon's median waiting time would both provide useful information. The former (percentage of patients waiting longer than the maximum acceptable waiting time) may be more acceptable to surgeons concerned about broadcasting excessively short or long wait lists. Regional level data is largely of interest to policy makers.

# **BENCHMARKS FOR WAITING TIMES REPORT**

## ***Definitions:***

Different definitions used to measure actual patient waiting times include mean, median, mode, minimum and maximum. In theory a benchmark could be set for each of these measures. Mean, median and mode waiting time benchmarks would ignore the fact that many patients may wait significantly longer than these times, while the overall group may well meet the benchmark as most wait distributions are right skewed. Moreover one must also consider that benchmarks will be applied at the individual patient level (how long should this particular patient wait) albeit overall monitoring of adherence to the benchmark will consider larger patient groups.

Some have advanced the concept of “ideal wait time” as the basis of benchmarking. Most individuals waiting for service of any kind would probably state that an ideal wait time would be immediate service, making it difficult to operationalize a definition of what constitutes an ideal wait. The concept of maximum acceptable wait time is easier to define at least in theory. It implies that some important deleterious effect (emotional, economic, quality of life, etc.) is incurred or that the risk of such an event occurring is substantially increased beyond the acceptable wait time. For example, while it is ideal to establish blood flow immediately to someone with an anoxic brain, the maximum acceptable time to do so is about two minutes before brain cell death and irreversible damage ensues. After consideration of the issues and the benchmark definitions used in most other jurisdictions around the world, the committee decided to recommend using maximum acceptable wait time (MAWT) for benchmarking purposes. MAWT benchmarks should be based on the best available evidence and be constantly updated as new information becomes available.

## ***General Approach***

The committee reviewed how other jurisdictions had handled the issue of benchmarking considering that there are many different procedures that could potentially be benchmarked and that patients waiting for treatment within a given condition category might vary dramatically in terms of treatment urgency. Some jurisdictions have taken the approach of drawing up separate benchmarks for individual diagnostic or operative procedures (see Saskatchewan in appendix I) while others have considered priority ratings that can be applied to any patient irrespective of the diagnosis or procedure. After careful review, the committee felt that the former approach is flawed in the sense that not all patients within a diagnostic (or procedural) category require intervention with equal urgency so that a priority rating tool is still required. Thus the committee has recommended adoption of a wait time benchmark based on priority rating categories. Additional ranking of the patients within a priority category was also considered.

## ***Benchmarks for Maximum Acceptable Waiting Time***

The committee focused the discussion as follows:

1. Only scheduled procedures were considered at this time. Urgent and emergent conditions were deferred for future study. Scheduled patients are those that are generally not admitted immediately after consultation (i.e. those that are discharged home but may be scheduled for surgery). Although some acute fractures and soft tissue injuries (locked knee) are discharged home and scheduled in upcoming OR time, we excluded all acute fractures and soft tissue injuries from consideration as scheduled procedures at this time.
2. The MAWT from referral to consultation (*wait for consultation*) was considered separately from the wait after decision for surgery date to surgery (*wait for surgery*).

## **Wait for Consultation**

### *Efficiency Gains Through Better Patient Filtering*

In many communities orthopaedic surgeons see many patients who are not ready for surgery for a variety of reasons. The committee emphasized the merits of filtering patients before referral to an orthopaedic surgeon's office for maximum efficiency. The Alberta efforts were discussed, whereby patients will be evaluated at regional centres for a variety of conditions to optimize non-surgical care and to then refer for surgery when appropriate. Alternatives include better primary care provider education on the management of orthopaedic conditions and the proper place of surgical referral. While more orthopaedic education is clearly required in medical student training, this will not lead to changes for some years to come, and the concept of regional centres was considered a preferred option.

### *Efficiency & Patient Satisfaction Gains Through Surgeon Extenders*

When a pre-screened patient is referred for surgery much routine work could be undertaken by a physician assistant (PA) or surgeon extender (for example: review of systems, allergies, medications & preoperative education). Evidence in the US indicates that patient satisfaction with PAs is high and that their presence in the clinical setting improves surgeon productivity.

### *MAWT for Consultation*

*The committee recommends that no patient referred to an orthopaedic surgeon should be asked to wait longer than 3 months under any circumstances. This recommendation is based on policies in other jurisdictions and the consensus of the committee.*

## Wait for Surgery (following mutual decision to operate after consultation)

### *MAWT for Surgery*

*The committee recommends that no patient be asked to wait longer than 6 months after the mutual patient / surgeon decision is made to operate. The patient's actual MAWT for surgery is determined by that patient's priority rating (see below). This recommendation is based on policies in other jurisdictions and the consensus of the committee.*

### *Priority Rating*

After reviewing the available tools used in other jurisdictions, the committee decided to recommend adopting a priority rating scheme similar to one used in Australia. There the priority rating is assigned at the time of surgical booking and becomes part of the patient record.

***Priority 1:*** *A situation that has the potential to deteriorate quickly and result in an emergency admission should be operated within a MAWT of 1 month.*

***Priority 2:*** *A situation which involves some pain and disability but which is unlikely to deteriorate quickly to the point of becoming an emergency admission should be operated within a MAWT of 3 months.*

***Priority 3:*** *A situation that involves minimal pain, dysfunction or disability and which is unlikely to deteriorate quickly to the point of requiring emergency admission should be operated within a MAWT of 6 months.*

### *Western Canada Waiting List Project MAWT*

In February 2005, the Western Canada Waiting List Project (WCWL) released the Final Report, *Moving Forward*, outlining MAWT benchmarks for hip and knee replacement surgery. Utilizing three clinically relevant levels of urgency ranging from least urgent (Urgency 1) to most urgent (Urgency 3), the report proposes the following maximum acceptable waiting times:

Urgency III (most urgent)	1 month
Urgency II	3 months
Urgency I (least urgent)	5 months

The WCWL urgency levels are based their prior work developing and validating a priority screening tool. These represent clinically distinct and relevant patient populations (see Appendix II)

These benchmarks are primarily based on clinical, patient and public input. Orthopaedic surgeons reviewed standardized patient cases developed using the WCWL priority

criteria and determined maximum acceptable waiting times. Patients scored with the priority criteria also recommended a maximum acceptable waiting time based on cases like theirs. Members of the public may not hold the clinical or patient experience to make direct MAWT judgements. As a result, the WCWL report used an indirect methodology in which members of the public would choose among different clinical scenarios taken from the priority criteria. Analysis of these responses determined the public MAWTs. Patient and surgeon responses were consistent while the public MAWT were longer. The following table outlines the clinical, patient and public inputs for MAWTs (from the WCWL 2005 Final Report, *Moving Forward*):

	Clinical	Patient	Public
Urgency III (most)	1 month	1 month	7 months
Urgency II	3.25 months	2 months	21.75 months
Urgency I (least)	6.5 months	3 months	36.75 months

### *Relative Patient Ranking*

Within each priority category, the most urgent patients should ideally receive surgery before less urgent patients, taking into account various patient, social and disease related factors.

The committee reviewed a number of existing priority and disease severity rating tools and made the following points:

1. Prioritization tools are mainly required when arranging patients for surgery within a long queue. If all patients meet their priority specific benchmark, the need for severity rating and prioritization within that category becomes much less acute.
2. Simple universal priority rating tools are preferred. It would be cumbersome to utilize a different tool for each condition.
3. An ideal tool would have high inter and intra-rater consistency and minimize “gaming”.

Among the tools reviewed were the WOMAC and WCWL. The WOMAC may be collected for all total hip and total knee replacement patients as a preoperative severity rating tool and may be used to monitor the effectiveness of treatment after surgery.

The Western Canada Waiting List Project (WCWL) has developed a priority screening tool for prioritizing patients waiting for hip and knee arthroplasty (see appendix 2). While continued validation of the tool is ongoing, existing data support the tool as a measure of physician-rated urgency. In its February 2005 report, the WCWL further adapted this tool for primary health care to prioritize referrals to orthopaedic surgeons based on urgency.

Longer-term the committee recognises the need to develop and validate priority screening tools for orthopaedic procedures beyond TJA. Tools that are condition specific would require considerable effort for a surgeon with a varied practice casemix. In the future, as wait times become shorter, relative priority ranking may become less and less important.

### ***Adherence to Benchmarks***

There is little value in setting benchmarks unless policy and resources are put into place to ensure compliance. To monitor the effectiveness of such policy it is imperative that actual wait times be periodically measured. It is anticipated that over time the number of persons exceeding the MAWT will be brought down eventually to zero. Specific policy targets should be set in this regard (i.e. bring the percentage exceeding MAWT down by 50% next year).

### **Collection of Waiting Time Data**

Although supporting the collection and public disclosure of wait time information, the committee realizes that such an endeavour is significantly resource intensive and the Canadian Orthopaedic Association lacks the necessary resources to accomplish this task on its own.

The joint registries that are supported in part by the COA are potential vehicles for national monitoring of care provided to total hip and total knee replacement patients but this leaves many other procedures un-monitored and at risk of suffering at the expense of programs designed to improve access to care for hip and knee replacement patients. Potentially, cooperation with federal & provincial ministries and agencies would best accomplish data collection objectives

The committee encourages authorities to implement the requisite resources for wait time data collection. Additional information that will need to be collected as part of the medical record includes the date of patient referral, surgical booking (decision date) and priority ranking at the time of booking. Ensuring compliance in the collection of this data across the country might be challenging. Requiring this data at the time of submitting a surgical booking is one possible measure to ensure complete data collection.

### **Public Disclosure of Wait Times**

#### *Overview*

Public access to information regarding wait times is of interest to patients, providers and policy makers. Regional information regarding wait times and adherence to MAWT benchmarks would provide the public with a sense of the magnitude of the problem of access to orthopaedic care in general as well as highlighting potential regional disparities. This information could then be used to lobby policy makers for the necessary resources to

address the problem. The availability of surgeon specific data would provide patients and referring doctors with the necessary information to make an informed choice regarding which surgeon to approach with a referral.

The committee supports the concept of public access to information regarding regional and individual surgeon wait times for consultation and for surgery. This information needs to be accurate and updated on a timely basis. Surgeon specific data could be released in the form of mean or median wait times or as the percentage of patients waiting longer than the MAWT. There may be some sensitivities around the publication of mean wait times for surgeons with excessively long or short queues and the dissemination of information regarding percentage of patients exceeding the MAWT may be more acceptable to surgeons while still providing useful information to the public.

### *Patient Choice*

The committee considered that a patient may choose to wait for surgery with a given surgeon, even if that surgeon has a large percentage of patients who receive care in excess of the MAWT. Provided that alternative providers in the region are available to the patient, and that the regional wait times are within the benchmark, the patient would be able to avail themselves of timely care, but would retain the ability to choose the provider of their choice.

### *Resource Allocation*

Ideally resources would be allocated to regions where the benchmarks are not being met. To achieve this while maintaining equity and fairness may be difficult. As noted above, the committee felt strongly that patient choice must be preserved. As such, patients may choose to stay in long queues providing they are made aware of how they might access care more quickly. It would be impossible to preserve equity if additional resources were made available specifically to those providers with a long queue at the expense of the other providers in the region. Moreover such a system might be gamed by booking patients onto the wait list early in the disease process if it meant that more resources would be allocated to that surgeon. While the committee discussed these issues at length no clear implementation plan for resource allocation to regions below the MAWT benchmark was finalized.

## **Which Wait Times Should be Monitored?**

There is considerable danger that as attention and resources are allocated to one condition, the wait time for other procedures may be adversely affected. While it would be ideal to monitor the wait times for each conceivable specific condition, it may be more useful to monitor adherence to benchmarks by considering common and effective procedures from various subspecialties rather than individual operations, at least in the initial phase of monitoring. Such procedures might be termed “sentinel” procedures. We considered that sentinel procedures should possess the following attributes:

- a. Apply to an important condition that is proven to benefit from orthopaedic treatment (surgery).
- b. Apply to a relatively common condition that represents an important proportion of services or cost to orthopaedics as a whole or to the subspecialty area in question.
- c. Are measurable and routinely collected so that the number of individuals are treated inside and outside of the MAWT benchmark can be tracked over time (i.e. in CIHI or other billing / administrative databases).

The committee produced a list of potential sentinel procedures to track based on the above criteria and proposed that these be circulated to the membership for consideration and possible modification. In drawing up the list we reviewed the top 50 procedures in Ontario by cost and by frequency of service.

List of Procedures:

1. Upper extremity: instability surgery
2. Lower extremity: hip & knee replacement
3. Spine: lumbar disectomy
4. Pediatrics: scoliosis, clubfoot, DDH
5. Sports med: ligament repair
6. Foot & ankle: Forefoot reconstruction including bunions
7. Non-acute trauma related: nonunions, malunions

## ***Legal Issues***

If payors, hospital administrators, providers and patients agree on a specific time limit for treating a specific condition, it follows that pressure can be brought to bear on payors and administrators to provide the necessary operating room and support resources to ensure that the timelines can be realized. Moreover, if a system of monitoring wait times is in place, the effect of policy initiatives can be evaluated over time to ensure that resources are made available in a cost effective manner.

There is always concern that guidelines will be used to litigate or punish those who failed to provide treatment according to the guideline. What if a surgeon did not operate on a patient within the suggested time limit despite having sufficient resources available? Is he or she liable for any adverse consequences the patient may have suffered?

Historically, guidelines have not been successfully used to prosecute providers. While this is a theoretical concern, it is much more likely that benchmarks will be used to the benefit of our patients than to the detriment of care providers. We must also be careful to advise users of the guidelines that each circumstance must be individualized to some degree and that the benchmark is simply a guideline.

The committee has obtained legal opinions that have been forwarded to the COA executive for review.

## Literature Review

Apart from the literature concerning emergent conditions (such as compartment syndrome, ischemia, etc.), there has been little data published regarding the effect of delay to treatment for orthopaedic conditions other than TJR surgery.

Evidence from the literature indicates that timely access to TJR is advantageous both clinically and economically.

Early TJR surgery is associated with better functional outcomes. Fortin et al. (2002) followed a group of 165 THR/TKR surgery patients in Boston and Montreal assessing pain and function using the WOMAC and SF-36 at baseline, six months and two years.

Improvements in pain and function at two years were similar to those observed at six months. In addition, patients with worse WOMAC and SF-36 scores at baseline had comparatively worse function six months and two years after surgery. They conclude that early surgical intervention in the course of functional decline is warranted. An earlier study by Fortin et al. (1999) also indicated that THR/TKR patients with better function before surgery had better function six months post-surgery.

Holtzman et al. (2002) investigating hip arthroplasty (using Medicare administrative data in Minneapolis) echoed Fortin et al.'s findings. They measured activity level, pain, ability to walk and ability to perform Instrumental Activities of Daily Living (IADLs). In all cases, patients with worse pre-operative status were more likely to be worse off one year post-surgery. They conclude that patients who are more likely to benefit from total hip arthroplasty are those with graver pre-operative status. Still, superior pre-operative status is associated with better outcomes.

Also in a 2002 study, Hajat et al. concur that measures of pain and function are worse one year later among patients with worse scores prior to THR. And patients who waited more than twelve months for consultation with a surgeon or for the actual surgery suffered significantly worse measures of pain and function twelve months post-THR.

Health status declines while waiting for surgery. Killi et al. (2003) indicate that Harrison hip scores declined significantly with time on the waiting list for THR. The median wait for surgery in the study is 330 days. They conclude that patients requiring total hip replacement deteriorate while on the waiting list. Waiting times should be as short as possible to reduce unnecessary suffering. Mahon et al. (2002) conclude that clinically important losses in HRQOL and mobility occur in patients waiting more than 6 months for THA.

It is well known that patient lose knee range of motion as their arthritis worsens. It is also known that the ROM achieved by TKR is primarily determined by the pre-operative ROM. Hence, a long wait for TKR is likely to leave patients with less ROM than they might have had if their surgery had not been delayed.

Saleh et al (1997) carried out an economic analysis to determine whether there were economic advantages to performing THA early rather than having patients wait. They conclude that there is the potential for substantial savings in resources as a result of timely surgery.

### *Literature Review References*

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## Appendix I&II:

### Appendix I: Intenational Comparison: MAWTs

Sweden	<ul style="list-style-type: none"> <li>-guarantee on the national level for visits in primary care (non-urgent patients should get a visit within 7 days)</li> <li>-referral to a specialist should not take more than 90 days</li> <li>-plans to introduce a waiting time guarantee of three months for all elective treatment</li> </ul>
New Zealand	<ul style="list-style-type: none"> <li>- a maximum waiting time of six months for first specialist assessment</li> <li>- all patients with a level of need which can be met within the resources (funding) available are provided with surgery within six months of assessment (decision to treat)</li> </ul>
Finland	<ul style="list-style-type: none"> <li>- at present there are no maximum waiting time guarantees</li> <li>- discussions about such initiatives for the future</li> </ul>
Ireland	<ul style="list-style-type: none"> <li>- There is no waiting time guarantee in Ireland</li> <li>- A 2001 government strategy document outlined these goals: <ul style="list-style-type: none"> <li>-By the end of 2002—12 month wait</li> <li>-By the end of 2003—6 month wait</li> <li>-By the end of 2004—3 month wait</li> </ul> </li> </ul>
Spain	<ul style="list-style-type: none"> <li>-maximum waiting time guarantee in Spain set by each regional health service</li> <li>-maximum waiting time is set to six months except for cardiac surgery</li> </ul>
Australia	<ul style="list-style-type: none"> <li>- public patient requiring elective surgery is assigned to an elective surgery category</li> <li>-Category 1: Admission within 30 days desirable for a condition that has the potential to deteriorate quickly to the point that it may become an emergency.</li> <li>-Category 2: Admission within 90 days desirable for a condition causing some pain, dysfunction or disability but which is not likely to deteriorate quickly or become an emergency</li> <li>-Category 3: Admission at some time in the future acceptable for a condition causing minimal or no pain, dysfunction or disability, which is unlikely to deteriorate quickly and which does not have the potential to become an emergency</li> </ul>
United Kingdom	<ul style="list-style-type: none"> <li>-Achieve a maximum wait of four months (17 weeks) for an outpatient appointment and reduce the number of &gt;13-week outpatient waits by March 2004, as progress towards achieving a maximum wait of three months for an outpatient appointment by December 2005</li> <li>-Achieve a maximum wait of nine months for all inpatient waits and reduce the number of six-month inpatient waits by 40 per cent by March 2004, as progress towards achieving a maximum six-month wait for inpatients by December 2005 and a three-month maximum wait by 2008. This will ensure an overall reduction in the total list size and reduction of at least 80 per cent by March 2005 in the number of over six month inpatient waits from the March 2004 baseline</li> <li>- In all other inpatient and day case treatment, including orthopaedic treatment, the current maximum waiting time for 2004-05 was 18 months, but on 30th June 2004 the Minister announced that the 2nd Offer Scheme will be extended to support a maximum length of wait of 12 months by the end of March 2005</li> </ul>
Saskatchewan	<ul style="list-style-type: none"> <li>-Elective</li> <li>-1 week: locked knee, malignant bone tumour, secondary placement of fracture, implant failure (fracture&amp; infection), some cases of peripheral nerve injury</li> <li>-2 weeks: acute tear of major tendon or meniscus in active patient athletes, recent acute lumbar disc protrusion with paralysis, paresis or severe pain, some cases of implant failure and peripheral nerve injury</li> <li>-6 weeks: selected joint replacement (polyarthritis, bilateral disease, revision or when indicated by concomitant disease, recurrent dislocation of total joint, subacute implant infection, congenital dislocation of the hip, routine spinal disk herniation, rotator cuff repair, knee arthroscopy</li> <li>-3 months: club foot correction, anterior cruciate reconstruction, shoulder acromioplasty, selected joint replacements, selected spinal fusion</li> <li>-6 months: all elective surgery</li> </ul>

**Appendix II: Can J Surg. 2003 Aug;46(4):290-6.**

**Developing priority criteria for hip and knee replacement: results from the Western Canada Waiting List Project.**

**Arnett G, Hadorn DC; Steering Committee of the Western Canada Waiting List Project.**

Western Canada Waiting List Project Hip and Knee Replacement Panel, Edmonton, Alta.

**INTRODUCTION:** The Western Canada Waiting List Project (WCWL), a federally funded partnership of 19 organizations, was created to develop tools for managing waiting lists. The WCWL panel on hip and knee replacement surgery was 1 of 5 panels constituted under this project. **METHODS:** The panel developed and tested a collection of standardized clinical criteria for setting priorities among patients awaiting hip and knee replacement. The criteria were applied to 405 patients in 4 provinces. Regression analysis was used to determine the set of criteria weights that collectively best predicted clinicians' overall urgency ratings. Inter-rater and test-retest reliability was assessed from 6 videotaped patient interviews, scored by orthopedic surgeons, related professionals and general practitioners. **RESULTS:** The priority criteria accounted for over two-thirds of the observed variance in overall urgency ratings (adjusted  $R^2 = 0.676$ ). The panel modified the criteria and weights based on the empirical findings and on clinical judgement. The reliability of the priority criteria for the hip and knee replacement tool was among the strongest of the 5 instruments developed in the WCWL project. **CONCLUSIONS:** The panel considered the criteria easy to use and reasonably reflective of expert surgical judgement regarding clinical urgency for hip and knee replacement. Further development and testing of the tool appears warranted.

Additional information may be obtained by consulting the Western Canada Waiting List Project website: [www.wcwl.ca](http://www.wcwl.ca)