Abstract:

Objective: To evaluate a triage tool, based on patient self-report disability assessment and standardized radiographic score, for patients referred to an orthopedic clinic for TKA surgery with a diagnosis of knee pain or knee osteoarthritis (OA). To compare the triage tool’s decision regarding appropriateness for surgery to information provided in the referral letter from the primary care physician.

Design: A prospective study to assess the correlation of a triage tool comprised of a standardized radiographic assessment and a patient derived disability assessment to clinical decision making by the orthopedic surgeon.

Setting: Medium sized Canadian teaching hospital.

Participants: Patients with knee pain seen during their initial referral to one of four orthopedic surgeons over a 1-year period.

Interventions: Patients underwent a standardized battery of self-report disability questionnaires; SF 12, WOMAC, Tegner & Lysholm questionnaire, Functional Comorbidity Index and an Inflammatory Disorder Questionnaire and standardized radiographs in addition to their usual consult with an orthopedic surgeon. The referral letter from the primary care physician was scored based on the criteria of the Western Canada Wait List Priority Referral Score (WCWL-PRS).

Results: Of the 173 patients referred, 63 (36.4%) were booked for major reconstructive surgery, of whom 97% underwent TKA and 2% HTO. The information provided by the referral letter from the primary care physician was scored based on the criteria of the Western Canada Wait List Priority Referral Score (WCWL-PRS). Of the 173 patients referred, 63 (36.4%) were booked for major reconstructive surgery, of whom 97% underwent TKA and 2% HTO. The information provided by the referral letter from the primary care physician was scored based on the criteria of the Western Canada Wait List Priority Referral Score (WCWL-PRS).

There was no correlation between whether the referral letter addressed any of the priority criteria (extent of pain, radiographic abnormalities and impairment in ADL) and whether the patient was booked for surgery.

Conclusion: These preliminary results suggest that an evidence based triage tool based on the combination of Disability Evaluation and Radiographic Grading may be useful to determine the need for TKA surgery. It may allow for patients with high scores to be rapidly seen by an arthroplasty surgeon, while subjects with low scores may be referred to non-surgical care.

Introduction.

The management of patients with osteoarthritis in jurisdictions with a single government payer is characterized by significant waits from referral to consultation (wait time 1) and from consultation to surgery (wait time 2). Wait times have been extensively researched, but only recently has there been increasing interest in the wait time. In the UK, the NHS guidelines for appropriateness of referral for OA, stating that “to determine severity of impairment, and hence priority of referral to TJR, the referral should take into account the extent to which the condition is causing pain, disability, sleeplessness, loss of independence, inability to undertake normal activities and reduced functional capacity.”

One method to expedite care is to use advanced practice physiotherapists (APPs) in orthopedic clinics in order to “triage patients for surgery, prescribe conservative management and monitor patients on an ongoing basis.” It has been shown that APPs can effectively manage over 30% of the patients referred to a surgeon for hip or knee replacement surgery, since these patients do not require surgery. Furthermore, APPs and orthopaedic surgeons agree on the recommendation of appropriateness of OA undergoing surgical candidates (kappa=.70), with physiotherapists having a lower threshold to refer for surgical consultation.

Similarly, a triage clinic staffed by trained physicians using standardized tools halved the number of surgical consultations suggesting that primary care physicians are uncertain as to the criteria for surgical consultation.

Our project was designed to determine if the same triage function could be performed by a patient self-report questionnaire of musculo-skeletal disability combined with a standardized radiographic assessment for patients with knee OA. Our hypothesis is that it will be able to identify patients who clearly meet the criteria for TKA, and those for whom non-surgical treatment is indicated.

Methods:

184 consenting patients over the age of 35 were prospectively enrolled into the study. Patients were enrolled from the new patient referrals to one of four orthopedic surgeons at a medium sized Canadian academic centre. Eleven subjects were not included due to incomplete data sets or diagnoses other than knee pain (i.e. referred hip and back pain). There were 173 subjects included in the analysis. In addition to their orthopedic consultation, participants completed 5 disability questionnaires: SF 12, WOMAC, Tegner & Lysholm questionnaire, Functional Comorbidity Index and an Inflammatory Disorder Questionnaire. Additional clinical evaluation included a WCWL-HKPT score, standardized weight bearing radiographs of their affected knee and a record of their diagnosis and treatment plan, including any proposed surgical treatment. The referral letter from the primary care physician was scored based on the criteria of the Western Canada Wait List Priority Referral Score. The referral letter from the primary care physician was scored based on the criteria of the Western Canada Wait List Priority Referral Score.

The majority of referral letters did not include the minimum data necessary to allow for prioritization of the referral regarding the severity of the patient’s condition. The referral letter addressed Pain Severity, Physical Limitations in ADL, and standardized radiographic abnormalities. The triage tool may identify those patients who are clearly candidates for TKA, and may expedite their care. Additionally the triage tool may identify patients with low disability and low radiographic scores who are not candidates for TKA. These individuals could be referred to physiotherapists or other health care providers for the most appropriate non-surgical treatment.

Funding: Funding for this study was provided by Federal Economic Development Agency for Southern Ontario and in kind by OAISYS Inc.

References:

6. See Sheehy et al Poster # 380 Reliability of a Unicompartmental Grading for Knee OA.