Results: The OA group was significantly older, had greater BMI, KL scores and WOMAC scores compared to the asymptomatic group (Table).
The OA group had significantly less MVPA, bouted MVPA, and steps per day based on accelerometer data, but self-reported more time spent doing bouted vigorous and bouted MVPA (Table).
In terms of meeting guidelines, based on accelerometer data, 44.4% of asymptomatic individuals and 8.5% of those with moderate OA met physical activity guidelines (>=150 bouted MVPA min/week), while 18.5% of asymptomatic individuals and 36% of those with moderate OA were considered inactive (no bouts of MVPA/week). Using self-reports, 74.1% of asymptomatic individuals and 89.4% of those with moderate OA met physical activity guidelines, while only 3% of asymptomatic individuals and 2% of those with moderate OA were considered inactive.
Conclusions: Based on objective accelerometer data, the moderate knee OA group had similar sedentary (9 hours per day) and light (4 hours per day) PA as asymptomatic individuals. Given that long sedentary bouts are particularly detrimental to health outcomes, further work is needed to determine how this time was distributed over the day in both groups. The moderate OA group engaged in less time in MVPA and accrued fewer steps per day compared to asymptomatic individuals based on accelerometer data. Interesting, the moderate OA group self-reported greater levels of MVPA. These findings suggest PA levels are substantially overestimated using the IPAQ, particularly in individuals with moderate knee OA, questioning its value in physical activity assessment in the OA population. The accelerometer data support efforts to identify safe and effective interventions to increase MVPA in those with knee joint pathology to ensure PA benefits are achieved in the OA population.

Mean (SD) group demographics and daily physical activity levels.

	Asymptomatic	Moderate OA	p-value
Age (years)	54.7 (7.8)	62.3 (6.8)	<0.001
BMI (kg/m^2)	27.6 (4.7)	31.2 (5.8)	<0.001
WOMAC – Total	2.1 (5.8)	22.3 (18.5)	<0.001
KL Global*	2.0 (2)	3 (2)	<0.001
Accelerometer – Sedentary (mins)	573.9 (90.7)	541.1 (102.0)	0.181
Accelerometer – Light (mins)	261.6 (54.7)	278.2 (78.1)	0.103
Accelerometer – MVPA (mins)	39.9 (25.0)	21.7 (15.0)	<0.001
Accelerometer – Bouted MVPA (mins)	22.4 (21.2)	7.71 (11.12)	<0.001
Accelerometer – Step Counts	8357 (2993)	6518 (2426)	<0.001
IPAQ – Bouted MVPA (mins)	99.5 (111.6)	171.5 (186.8)	0.01

BMI – Body Mass Index, WOMAC, KL – Kellgren Lawrence (*Mann-Whitney U Test), MVPA – moderate-vigorous physical activity, IPAQ – International Physical Activity Questionnaire.

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MANAGING KNEE OSTEOARTHRITIS IN AN ACADEMIC PRIMARY CARE PRACTICE: OPPORTUNITIES FOR IMPROVEMENT

L. Keshavjee †, N. Gakhal †,‡, L. Mahendira §, R. Propp ‖, N. Ivers †,‡. † *Univ. of Toronto, Toronto, ON, Canada;* ‡ *Women's Coll. Hosp., Toronto, ON, Canada;* § *Royal Coll. of Surgeons Ireland, Sch. of Med., Dublin, Ireland;* ‖ *York Univ., Toronto, ON, Canada*

Purpose: To determine the current management of knee osteoarthritis (OA) in Women's College Hospital Family Practice Health Team, a large urban academic primary care practice in Toronto, Ontario, Canada.
Methods: An algorithm was developed to identify patients with knee OA in the electronic medical record (EMR). The initial search criteria identified 2210 patients. The exclusion criteria included patients 40 and under and patients with a diagnosis of inflammatory arthritis (rheumatoid arthritis or lupus). A chart review was then conducted and patients were excluded if the chart did not indicate a diagnosis of knee osteoarthritis. A diagnosis of knee OA was confirmed by x-ray or family practice/specialist clinical assessment. This resulted in a final cohort of 814 patients with a confirmed diagnosis of knee OA. Patient characteristics and management of the knee OA were then extracted.
Results: 814 (8%) family practice patients over the age of 40 had knee OA. Of those with confirmed knee OA, 183 (22.4%) were male and 631 (77.5%) were female. The mean age of patients was 65. BMI was reported in 513 (63%) patients. The mean BMI was 29.6. 450 (55.3%) patients had OA indicated in their current problem list and 561 (68.9%) patients had a knee x-ray completed. 436 (53.6%) patients were being managed in family practice and had not been referred to sports medicine, orthopedics or rheumatology. 495 (60.8%) patients received counselling on lifestyle interventions for their knee OA which included weight loss and/or physiotherapy. 397 (48.8%) patients were recommended to try acetaminophen and/or an oral anti- inflammatory, 45 (5.5%) opioids, 76 (9.3%) steroid injections and 100 (12.3%) topical medication.
Conclusions: Knee OA is a prevalent medical problem in family practice. Counselling on lifestyle interventions for knee OA is not optimized given the evidence of its effectiveness and the prevalence of obesity in the population. These results formed the basis of a quality improvement project to optimize the management of knee OA in primary care that is currently being piloted.

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INTRAARTICULAR INJECTION OF HYALURONIC ACID IN KNEE AND PHYSICAL THERAPY AGENTS FOR THE TREATMENT OF KASHIN BECK DISEASE: A PROSPECTIVE INTERVENTIONAL STUDY

W. Wang †, P. Yuan ‡, X. Guo §. † *The Second Affiliated Hosp., Xian Jiaotong Uinversity, Xian, China;* ‡ *Shaanxi Traditional Chinese Med. Coll., Xianyang, China;* § *Key Lab. of Environment and Genes Related to Diseases, Hlth.Sci. Ctr., Xian Jiaotong Uinversity, Xian, China*

Purpose: To determine whether hyaluronic acid (HA) or Physical therapy agents (PTA) can improve functional parameters in patients with knee Kashin-Beck Disease (KBD).
Methods: In a 2-year, 55 patients were treated with HA weekly for 5 weeks, then 6th and 7th injections on the3ird month and 6th month for a total of seven injections.53 patients were treated with PTA five times a week for 3 weeks every month for 6 months. The patients were evaluated with the Western Ontario and McMaster University Osteoarthritis Index (WOMAC) and the visual analog pain scale.
Results: During the study, after the treatment interruption, pain increased rapidly in the PTA group (from a mean value of 85.7 ±83.8mm at month 12 to 145.2 ±128.8mm at month 18 and 201.3 ±150.5mm at month 24)while it remained stable in the HA group (from a mean value of 80.7 ±70.6 mm at month 12 to 90.1±95.2mm at month 18 and 82.6 ±85.3mm at month 24) with a statistically significant difference in favour of HA at month 18($P < 0.05$) and month 24($P < 0.05$). Joint stiffness, physical functionand total WOMAC showed the same trend as pain. The global efficacy judgments by the patients and the investigators are presented a statistically significant difference in favour of HA at month 18($P< 0.05$) and month 24($P<0.05$).
Conclusions: Although all patients had improvement for both pain and function, HA was superior to PTA alone for pain relief and remained longer.