

FRI0401

### IMPLEMENTATION OF NICE GUIDELINES FOR OSTEOARTHRITIS IN PRIMARY CARE. FEASIBILITY STUDY OF JIGSAW-E IN SCOTLAND

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**Background:** In the UK osteoarthritis (OA) is a common musculoskeletal problem with 8.75 million people seeking treatment in 2015<sup>1</sup>. Evidence-based guidelines are available for the management of OA but implementation into routine daily practice remains complex. The Joint Implementation of Guidelines for Osteoarthritis in Western Europe (JIGSAW-E) model of care was developed and evaluated in England and implemented in Europe with an aim to optimise quality primary care for OA, support self-management and promote use of NICE guidelines<sup>2</sup>. The intervention includes:

1. An OA guidebook for patients
2. A model OA consultation for primary care
3. Training for practitioners to deliver the model consultation
4. Measures of quality care using an e-template

**Objectives:** To explore the feasibility of implementing the JIGSAW-E model to support people with OA in Scottish primary care.

Research questions were informed by the Theoretical Domains Framework with an aim of:

- 1) Exploring knowledge and beliefs about OA and its management in primary care.
- 2) Identifying determinants for change; barriers and facilitators to implementing the JIGSAW-E model in Scotland.

**Methods:** This qualitative study was comprised of 2 phases:

Phase 1 included semi-structured interviews with health professionals (GPs and Extended Scope Practitioners) working in primary care. A purposeful sampling approach aimed to provide geographical and professional representation across Scotland. Interviews were recorded, transcribed and analysed using a theoretically-informed thematic framework approach.

Phase 2 involved an engagement workshop that allowed for refinement and direct validation of emergent findings.

**Results:** 90 invitations were sent to practice managers in primary care. 14 participants from 10 practices across 6 Health Boards in Scotland were recruited for interviews, including 6 GPs and 8 Physiotherapy Extended Scope Practitioners (ESPs). 23 participants attended the engagement workshop (ESPs = 22, GPs = 1). Thematic analysis indicated four main themes related to the research questions:

- 1) Most participants were aware of NICE guidelines and believed they provided evidence-based OA care, and yet, for example, prescribing of co-codamol remained high. Physiotherapy ESPs were more likely to follow OA guidelines than GPs.
- 2) Adaptations of the JIGSAW-E model are needed to support OA management in the Scottish context. For example, in addition to adapting the guidebook for local relevance, the e-template was met with resistance due to technological barriers.
- 3) System-based barriers to implementation of the JIGSAW-E model included; lack of overall time for external training for practitioners; limited time in GP/patient appointments to consult and explain medication use and importance of physical activity. In part because patients usually present with multi-morbidities.
- 4) The roll out of ESPs across Scotland in primary care provides a potential key for the delivery of sustainable evidence-based care in the Scottish health system.

**Conclusion:** Overall, participants were in favour of the JIGSAW-E model in Scotland. Contextual adaptation of written materials would increase acceptance, ownership and usability by both practitioners and patients. The evolving role of GPs and ESPs is key to implementation, where ESPs provide leadership in the delivery of evidence-based care for patients with osteoarthritis.

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FRI0402

### MAGNETIC RESONANCE IMAGING EVALUATION OF CARTILAGE EROSION AND LIGAMENT INTEGRITY IN EARLY STAGE THUMB CARPOMETACARPAL JOINT OSTEOARTHRITIS

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**Background:** Most of the studies on pathogenesis of thumb carpometacarpal joint (CMCJ-1) osteoarthritis were from cadavers or patients with advanced osteoarthritis, therefore the findings may not reflect any early changes of cartilage wear and ligament condition.

**Objectives:** We evaluated MRI to address where articular degeneration begins and which ligaments are most often involved in the early clinical stage CMCJ-1 osteoarthritis.

**Methods:** We retrospectively analyzed MRI examinations of 26 patients with early clinical stage CMCJ-1 osteoarthritis without radiologic abnormality and 19 control patients without CMCJ-1 pain or osteoarthritis who underwent MRI for dorsal or ulnar wrist pain. Two independent and blind observers assessed chondral defect of the CMCJ-1 divided into four quadrants: volar-ulnar (VU), volar-radial (VR), dorso-ulnar (DU), and dorso-radial (DR). They assessed the integrity of the four major ligaments of CMCJ-1: the anterior oblique ligament (AOL), the intermetacarpal ligament (IML), the posterior oblique ligament (POL), and the dorsal radial ligament (DRL). The prevalence of cartilage lesion and ligament abnormality between the osteoarthritic and control patients was compared using Fisher's exact test.

**Results:** Cartilage lesion was significantly more common in the VU quadrant of the trapezium in the osteoarthritic patients than in the control patients (17/26 vs. 2/19; P = 0.002). AOL abnormality was more common in the osteoarthritic patients than in the control patients (14/26 vs. 3/19; P = 0.009). In the osteoarthritic patients, 10 of 17 patients with VU quadrant cartilage erosion had AOL rupture, while four of nine patients without VU cartilage erosion had AOL rupture, thus there was no association between VU quadrant erosion and AOL rupture (10/17 vs 4/9, P = 0.484).

**Conclusion:** MRI evaluation of early clinical CMCJ-1 osteoarthritis commonly demonstrate cartilage lesion in the VU quadrant of the trapezium and ligament abnormality in the AOL. However, no association of cartilage erosion in the VU region and AOL rupture suggests that AOL rupture is not a mechanical factor leading to TMCJ osteoarthritis in specific area, but a common finding secondary to arthritic changes.

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FRI0403

### CLINICAL FEATURES OF PROSTHETIC JOINT INFECTIONS DIFFER IN PATIENTS WITH INFLAMMATORY ARTHRITIS AND OSTEOARTHRITIS

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**Background:** Inflammatory arthritis (IA) patients are at increased risk for prosthetic joint infections (PJI). However, because active IA patients without infections can have elevated inflammatory markers that mimic joint infection, PJI diagnosis is challenging in this population.

**Objectives:** We used an institutional PJI registry to identify and compare the clinical, microbiologic, and histopathologic features of culture positive (CP) and culture negative (CN) total hip and knee PJI in IA and OA patients. We