

Virtual Unicompartmental Knee Arthroplasty Clinic

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Aim

Uni knee AP X-ray.
Transition to reviewing at least 70% of UNI knee replacement reviews at Musgrave Park Hospital (MPH) to a Virtual Clinic (VC) by May 2019, and sustain this service at not less than 70% for the subsequent year, till May 2020.



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Why is this important?

Research and audit is an integral part of modern surgical practice to monitor infection, failure, and other complications of surgery. New implants are constantly entering the market and can often receive a Conformité Européenne (CE) marking before their medium - to long-term performance is known.

Follow up of elective knee arthroplasty patients has been advocated to identify those patients with asymptomatic loosening. British Orthopaedic Association (BOA) guidelines (1, 2) recommend follow up of each arthroplasty patient at one, seven and every subsequent three years following surgery, traditionally carried out via a face to face appointment with x- rays.

Regular clinic follow up places a significant time and financial burden on orthopaedic services. Assessment through virtual means has been endorsed by the literature and the BOA as an alternative to physical clinic reviews in arthroplasty patients.

1. **No authors listed.** British Orthopaedic Association: knee replacement: a guide to good practice. 1999. 2. **No authors listed.** British Orthopaedic Association. Primary total hip replacement: a guide to good practice. 2006.

What are we doing and why?

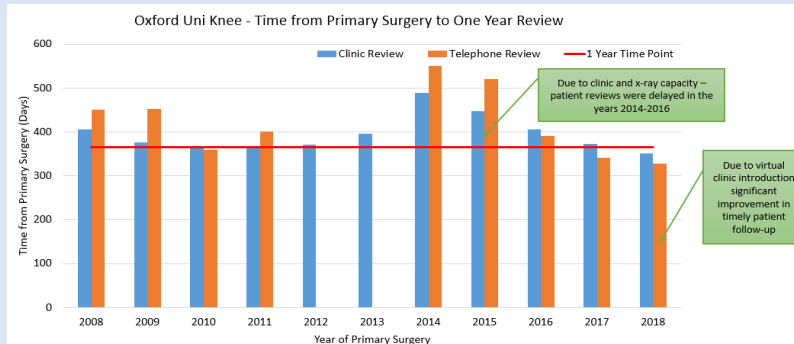
In our unit 'virtual follow up' via a patient questionnaire (Oxford knee score) and x-ray is scheduled at five yearly intervals from five years post op after an initial questionnaire and x-ray at year 1. Both results are then assessed by an Arthroplasty Care Practitioner (ACP) and arthroplasty surgeon and patients who give cause for concern, either radiologically or in outcome measurements are recalled to a clinic appointment.

1) For this improvement project > 70% of these patients will be contacted by phone (by an Arthroplasty Care Practitioner - ACP) and reviewed at a virtual clinic (using a standard template and outcome measure/PROM). Patients who have a pain free joint and a satisfactory x-ray and outcome score will be reviewed on time and re-assured. Patients with problems will be seen face-to-face and triaged by an ACP or seen at a surgeon led problem clinic.

2) We want increased satisfaction of patients/family members with UNI knee replacement follow-up. We envisage concurrent positive effects on patient experience, the waiting time between required review slot (One and five year) and phone/virtual consultation, and face-to-face clinic capacity will be increased – to see new patients, and spend more time with patients experiencing problems. This will also free up time for orthopaedic surgeons to operate on or review patients with potentially serious problems.

3) There are clinical, ethical and academic reasons why we must ensure that our joint replacements are appropriately clinically and radiologically followed up in virtual clinics to minimise complications. The Orthopaedic Data Evaluation Panel (ODEP) provide ratings for arthroplasty implants. An implant with a 10A ODEP rating, has a minimum ten year follow up with strong evidence, we continue to collect data for ODEP on Uni knees.

What has it achieved?

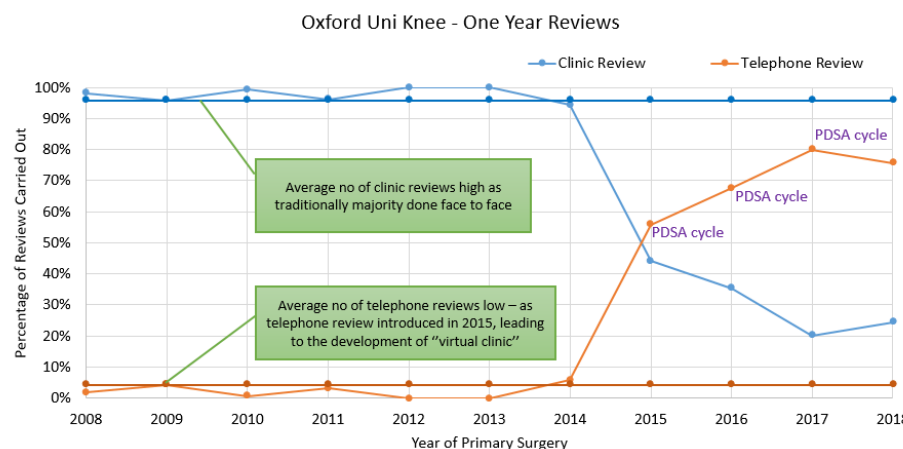


1336 Uni knees in 1186 patients have been carried out in MPH since 2008. Virtual clinic follow-up is now embedded in practice.

Patient said "Very efficient and review questionnaire completed at home – saves a consultant time when there is no problem with my knee x-rays"

Outcome measures

Consecutive patients who used the virtual clinic in 2017 & 2018/19 (n=104) were invited to complete a questionnaire about their experience of the new service. Most patients (91.3 %) felt that ease of appointment set up with the ACP was either very good or good. All of the respondents reported having an x-ray at MPH, 100% reported the date convenient (as it was chosen by the patient) and 98% the time convenient. 85 patients (81.7%) found the virtual clinic pathway easier than attending a face-to-face appointment.



Learning and next steps

A virtual arthroplasty clinic not only significantly reduces the number of patients attending regular follow up clinics without compromising patient safety but also identifies patients who may need a face to face review, have disease progression, need other joint surgery or referral to other subspecialty pathways.

More new patients can be seen in vacated review clinic slots, more time can be spent with patients experiencing problems. Orthopaedic surgeons will have more time to operate on or review patients with potentially serious problems.

Further work is required to standardise follow-up practice across all surgical teams and ensure appropriate training is available to everyone involved to optimise the use of this innovation. Early data from this new service is encouraging with high levels of patient satisfaction and proactive management support. Transformational change has been achieved, producing a safe, patient-focused, efficient and clinically effective process.