

Functional outcome of the P.F.C. Sigma® RP-F knee system and the P.F.C. Sigma® knee system

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| Submission date 24/07/2007 | Recruitment status No longer recruiting | <input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol |
| Registration date 12/09/2007 | Overall study status Completed | <input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results |
| Last Edited 13/04/2022 | Condition category Musculoskeletal Diseases | <input type="checkbox"/> Individual participant data |

Plain English summary of protocol

Background and study aims

Knee osteoarthritis is a condition where the cartilage inside the knee joint is worn away, leading to the bones rubbing against each other and becoming damaged. In knee replacement surgery, the damaged knee joint is removed and replaced with an implant. Different knee implants are available. The aim of this study is to find out whether the P.F.C.®Sigma RP-F knee system provides patients with a higher range of motion than the P.F.C.®Sigma knee system.

Who can participate?

Patients aged 18 and over with knee osteoarthritis who require knee replacement surgery

What does the study involve?

Participants are randomly allocated to undergo knee replacement surgery with either a P.F.C. Sigma® RP-F or a P.F.C. Sigma® knee system. Range of motion is measured at 12 months.

What are the possible benefits and risks of participating?

Not provided at time of registration

Where is the study run from?

James Cook University Hospital (UK)

When is the study starting and how long is it expected to run for?

March 2008 to March 2019

Who is funding the study?

South Tees Hospitals NHS Trust (UK)

Who is the main contact?

Mr Anthony Hui

Contact information

Type(s)

Scientific

Contact name

Mr Anthony Hui

Contact details

James Cook University Hospital
Division of Trauma
Marton Road
Middlesbrough
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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

MTO 001

Study information

Scientific Title

Functional outcome of the P.F.C. Sigma® RP-F knee system and the P.F.C. Sigma® knee system: a prospective, randomised controlled trial

Acronym

RP-F trial

Study objectives

The primary objective of this clinical trial is to test the hypothesis that the P.F.C.®Sigma RP-F knee system can deliver a higher post-operative Range Of Motion (ROM) than the P.F.C.®Sigma knee system.

Ethics approval required

Old ethics approval format

Ethics approval(s)

County Durham & Tees Valley 1 Research Ethics Committee, 30/08/2007, ref: 07/H0905/67

Study design

Prospective randomised controlled single-centre trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Hospital

Study type(s)

Treatment

Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

Health condition(s) or problem(s) studied

Osteoarthritis of the knee

Interventions

Eligible subjects will be randomised to primary total knee replacement with a P.F.C. Sigma® RP-F or a P.F.C. Sigma® knee system.

Intervention Type

Procedure/Surgery

Primary outcome measure

Measurement of the difference in the mean ROM between participants receiving a primary total knee replacement with either the P.F.C. Sigma® RP-F or the P.F.C. Sigma® knee system at 12 months.

Secondary outcome measures

Comparative evaluation of any post-operative variation between participants receiving a primary total knee replacement with either the P.F.C. Sigma® RP-F or the P.F.C. Sigma® knee system in change from baseline at each post operative time point (3, 12, 60 and 120 months) in terms of:

1. Functional recovery using the Oxford Knee Score
2. Quality of life assessed by the Short Form-12 (SF-12v2) questionnaire
3. American Knee Society Score
4. Survivorship analysis of the two groups at 60 and 120 months post-operatively

Overall study start date

01/03/2008

Completion date

31/03/2019

Eligibility**Key inclusion criteria**

1. Male or female subjects, aged 18 years and older.
2. Subjects who are able to give voluntary, written informed consent to participate in this investigation and from whom consent has been obtained.
3. Subjects who, in the opinion of the Investigator, are able to understand this investigation, co-

operate with the investigational procedures and are willing to return to the hospital for all the required post-operative follow-ups.

4. Subjects who present with idiopathic or posttraumatic osteoarthritis that in the opinion of the clinical investigator requires a primary total knee arthroplasty and who are considered suitable for treatment with P.F.C. Sigma® RP-F and P.F.C. Sigma® knee systems.

5. Subjects, who in the opinion of the Clinical Investigator, are considered to be suitable for treatment with both investigational devices, according to the indications specified in the package insert leaflet.

Participant type(s)

Patient

Age group

Adult

Lower age limit

18 Years

Sex

Both

Target number of participants

84 participants

Total final enrolment

120

Key exclusion criteria

1. Subjects who, in the opinion of the Investigator, have an existing condition that would compromise their participation and follow-up in this study.
2. Subjects with a Body Mass Index (BMI) >35.
3. Subjects with a known history of poor compliance to medical treatment.
4. Women who are pregnant.
5. Subjects who are known drug or alcohol abusers or with psychological disorders that could affect follow-up care or treatment outcomes.
6. Subjects involved in Medical-Legal claims.
7. Intra-operative use of augmentation devices.
8. Intra-operative decision to resurface the patella based on clinical indication.
9. Revision of an existing knee implant.

Date of first enrolment

01/03/2008

Date of final enrolment

31/03/2019

Locations**Countries of recruitment**

England

United Kingdom

Study participating centre
James Cook University Hospital
Middlesbrough
United Kingdom
TS4 3BW

Sponsor information

Organisation
South Tees Hospitals NHS Trust (UK)

Sponsor details
c/o Prof. Paul Gregg
James Cook University Hospital
Division of Trauma
Marton Road
Middlesbrough
England
United Kingdom
TS4 3BW

Sponsor type
Hospital/treatment centre

ROR
<https://ror.org/02js17r36>

Funder(s)

Funder type
Government

Funder Name
South Tees Hospitals NHS Trust (UK) - Division of Trauma

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

Not provided at time of registration

IPD sharing plan summary

Not provided at time of registration

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---------------------------------|---------|--------------|------------|----------------|-----------------|
| Results article | | 01/03/2010 | 13/04/2022 | Yes | No |