# An assessment of the effectiveness of weight-adjusted antibiotic administration, for reduced duration, in surgical prophylaxis of primary hip and knee arthroplasty

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## Title and Additional Identifiers

**Submission number**
44779

**Public title**
An assessment of the effectiveness of weight-adjusted antibiotic administration, for reduced duration, in surgical prophylaxis of primary hip and knee arthroplasty



**Scientific Title**
An assessment of the effectiveness of weight-adjusted antibiotic administration, for reduced duration, in surgical prophylaxis of primary hip and knee arthroplasty

**Acronym**
Weight-adjusted antibiotics for primary hip and knee arthroplasty

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**
Nil known

**Protocol/serial number**
nil known

**Condition category**

**Date Applied**
19/12/2023

**Date Assigned**

**Last Edited**
19/12/2023

**Overall study Status**
Completed

**Recruitment status**
No longer recruiting

# Study Information

**Study hypothesis**
Use of a weight-adjusted antibiotic regime of prophylaxis, for a shorter duration, would not lead to increased rates of surgical site infection (SSI) in patients undergoing primary total hip and knee arthroplasty

**Ethics approval required**
Ethics approval not required

**Ethics approval(s)**
This study was undertaken as part of a quality improvement project and did not require ethics committee approval as per the guidelines of Sunnybrook Hospital.

**Study design**
Prospective observational cohort study



**Primary study design**
Observational

**Secondary study design**
Cohort study

**Study setting(s)**
Hospital

**Study type(s)**
Other, Safety

**Overall study start date**
18/09/2018

**Overall study end date**
31/05/2022

**Condition**
Patients undergoing primary total hip and knee replacement

**Interventions**
A cohort of arthroplasty patients undergoing primary THA/TKA with a single pre-operative dose and two post-operative antibiotic doses (old regime, OR; September to December 2018), was compared to a group of patients undergoing primary THA/TKA after the regime had been changed to a weight-adjusted pre-operative dose and a single post-operative dose (new regime, NR; January to April 2019).

**Intervention Type**

Drug

**Pharmaceutical study type(s)**
Bioequivalence

**Phase**
Not Applicable

**Drug/device/biological/vaccine name(s)**
Cefazolin

**Primary outcome measure**
Deep SSI rates at 2 years following surgery

**Secondary outcome measures**
Superficial SSI rates at 2 years following surgery

**Study website**

**Participant information sheet**
not applicable



## Eligibility

**Participant inclusion criteria**
Undergoing elective surgery for hip and knee replacement

**Participant type(s)**
Patient

**Age group**
Adult

**Lower age limit**
18 Years

**Sex**
Both

**Target number of participants**
1264

**Total final enrolment**
1264

**Participant exclusion criteria**
Patients undergoing revision arthroplasty surgery or return to theatre following primary procedures were not included in this cohort

**Recruitment start date**

01/10/2018

**Recruitment end date**
30/04/2019

# Locations

**Countries of recruitment**
Canada

## Study participating centres

## Study Centre

**Study Centre Name**
Sunnybrook Holland Orthopaedic And Arthritic Centre

**Address**
Wellesley Street East



**City**
Toronto

**Country**
Canada

**Zip**
M4Y 1H1

# Plain English Summary

This study aimed to evaluate the impact of a weight based regime administered for a shorter duration, on the incidence of wound infection in a cohort of patients undergoing elective primary total hip and knee arthroplasty

# Results and Publications

**Publication and dissemination plan**
Planned publication in a peer-reviewed journal

**IPD sharing plan**
The datasets generated and or analysed during the current study will be available upon request from Mr Tosan Okoro- tosanwumi@hotmail.com

**Intention to publish date**
02/02/2024

**IPD sharing plan summary**
Available on request

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### Sponsor

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Hospital/treatment centre

**Website**
https://sunnybrook.ca/content/?page=holland-bone-joint-program

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# Funder(s)

**Funding Type**
Not defined

## Funder

**Funder Name**
Investigator initiated and funded



**Payment method**
Online payment