**Title:**

Outcomes of Total Knee Replacement in Hospital Tuanku Fauziah: A Retrospective Cohort Study

**Background:**

Total knee replacement (TKR) is a surgical procedure that is commonly performed to alleviate the pain and disability caused by end-stage knee arthritis. In Malaysia, Hospital Tuanku Fauziah (HTF) is one of the tertiary referral centers that offer TKR surgery to patients. Despite the growing demand for TKR surgery in Malaysia, there is limited data on the outcomes of this procedure in HTF. Therefore, a retrospective cohort study is needed to evaluate the outcomes of TKR surgery in HTF.

**Objectives:**

The primary objective of this study is to evaluate the outcomes of TKR surgery in HTF. Specifically, this study aims to:

1. Assess the preoperative characteristics of patients who underwent TKR surgery in HTF.
2. Determine the clinical and functional outcomes of TKR surgery in HTF, including pain relief, range of motion, and functional status.
3. Identify the complications associated with TKR surgery in HTF and their management.
4. Evaluate the factors associated with the outcomes of TKR surgery in HTF, including patient demographics, comorbidities, and surgical techniques.

**Methodology:**

This study will employ a retrospective cohort design that will include all patients who underwent TKR surgery in HTF between 2019 and 2022. The sample size will be determined based on the number of patients who meet the inclusion criteria during the study period. The data will be collected from the hospital's electronic medical records and radiological imaging.

The primary outcomes of the study will include pain relief, range of motion, and functional status before and after TKR surgery. The secondary outcomes will include the incidence of postoperative complications and their management. The data will be analyzed using descriptive statistics and regression analysis to identify the factors associated with the outcomes of TKR surgery in HTF.

**Expected outcomes:**

The study's outcomes will provide valuable insights into the outcomes of TKR surgery in HTF. The findings will help healthcare providers and policymakers in identifying the strengths and weaknesses of the TKR surgery program in HTF and in improving the quality of care provided to patients who undergo this procedure. The results of the study will be presented in a report that will outline the preoperative characteristics, clinical and functional outcomes, complications, and factors associated with the outcomes of TKR surgery in HTF. The report will be disseminated to relevant stakeholders and published in a peer-reviewed journal.

**Conclusion:**

The proposed study will contribute to the body of knowledge on the outcomes of TKR surgery in HTF. The findings will help healthcare providers and policymakers in identifying the areas for improvement in the TKR surgery program and in providing better care to patients who undergo this procedure. The results of the study will also serve as a baseline for future studies on the outcomes of TKR surgery in HTF.