

Is It Safe to Continue Clopidogrel During Primary Total Knee Arthroplasty?

Galen Berdis¹, Mason Frederick Carstens, Kellie Allyse Robbins, Jessica Ann Grimm, Robert T Trousdale, Matthew Philip Abdel¹

¹Mayo Clinic

INTRODUCTION: Clopidogrel is increasingly utilized by patients given their comorbid conditions. There continues to be debate whether it should be temporarily ceased in the perioperative period when performing a primary total knee arthroplasty (TKA). The purpose of this study was to compare transfusion rates, perioperative hemoglobin levels, complications, and implant survivorship between patients who held or continued clopidogrel at the time of primary TKA.

METHODS: We identified 175 patients between 2011 and 2020 who were actively prescribed clopidogrel at the time of primary cemented TKA. Some 71% held their clopidogrel while 29% continued it prior to TKA. Tranexamic acid (TXA) was used in 72% of the held group and 66% of the continued group. Outcomes assessed included allogenic blood transfusion, complications, and survivorship free of any revision or reoperation. Mean age at surgery was 72 years, 42% were female, and the mean BMI was 32 kg/m². Mean follow up was 4 years.

RESULTS:

There was no significant difference in transfusion rates between held and continued groups (6% vs. 12%, respectively; $p=0.13$). The mean decrease in hemoglobin was 2.5 g/dL and 2.9 g/dL for the held and continued groups respectively, each with mean preoperative value of 13.4 g/dL. There was no significant difference in complications ($p=0.73$) between the two groups, with one adverse cardiac event in the held group. The 5-year survivorship free of any revision was 95% in the continued group vs. 98% in the held group ($p=0.18$). There was no difference in reoperation ($p=0.35$) between groups.

DISCUSSION AND CONCLUSION: Continuing clopidogrel during the perioperative period when undergoing a TKA did not lead to an increased risk of blood transfusions, complications, revision, or reoperations when compared to those who held their clopidogrel. An adequate preoperative hemoglobin and the liberal use of TXA contributed to these findings.