

This document certifies that the manuscript

The efficacy and safety of intravenous tranexamic acid in total shoulder arthroplasty: a meta-analysis

prepared by the authors

Huamei Deng

was edited for proper English language, grammar, punctuation, spelling, and overall style by one or more of the highly qualified native English speaking editors at AJE.

This certificate was issued on **March 7, 2023** and may be verified on the [AJE website](https://aje.com) using the verification code **22BC-F5B1-8FAB-E37A-8DAP**.



Neither the research content nor the authors' intentions were altered in any way during the editing process. Documents receiving this certification should be English-ready for publication; however, the author has the ability to accept or reject our suggestions and changes. To verify the final AJE edited version, please visit our verification page at aje.com/certificate. If you have any questions or concerns about this edited document, please contact AJE at support@aje.com.