Assessment of Prescriber Knowledge and Understanding of Aspirin's Place in Therapy for the Primary Prevention of Atherosclerotic Cardiovascular Disease

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Background: Aspirin has established use in secondary cardiovascular disease event prevention, but only minute evidence for use in primary prevention. Yet many patients still take it for primary prevention, with about a quarter of them doing so inappropriately, most of whom do so by recommendation from a prescriber. This suggests lack of knowledge/adherence to evidence-based recommendations. The latest guidelines in 2022 by the United States Preventative Service Task Force are very restrictive, only permitting initiation in those between 40 and 59 years of age with a >10% 10-year event risk, who are not at an increased risk for bleeding. Student pharmacists should possess current knowledge of this subject and should be able to help mitigate this deficit in knowledge.

Objective: This study aimed to measure prescriber knowledge and compare it to student pharmacists of the 2022 USPSTF recommendations, as these guidelines are the most recent.

Methods: This survey-based study assessed knowledge of the 2022 USPSTF guidelines and the utilization of patient-specific elements (e.g., 10-year ASCVD risk score) that should be weighed when considering the use of aspirin for primary prevention. This survey contained 18 questions of various types, including case based, quiz-styled, demographic, and traditional survey styled questions. Surveys were distributed to SIUE School of Pharmacy Students and clinicians at SMM Health St. Mary's in St. Louis, Missouri, between February 9 and March 20, 2023.

Results: A total of 60 surveys were received, but only 17 were complete from student pharmacists and 10 from physicians and were used in data analysis. Overall, prescriber knowledge was low, as only 50% correctly answered over half of the case questions correctly, only one person identified the correct age when aspirin should be discontinued, and identified only 64% of bleeding risk factors, on average. Prescribers do, however, consider pertinent patient-specific risk factors. Student pharmacists performed worse, as only 35% answered >50% of case questions correctly.

Conclusion: Both prescribers and pharmacy students can benefit from educational interventions to increase understanding of aspirin use for primary prevention in hopes this helps reduce inappropriate aspirin usage and unnecessary harm (i.e., bleeding) that results from it.