

ASSESSING THE USE OF ASPIRIN FOR PRIMARY PREVENTION IN ADULTS OVER THE AGE OF 70



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Background

The 2019 American Heart Association (AHA) and the American College of Cardiology (ACC) Guidelines for the role of aspirin for primary prevention of clinical atherosclerotic cardiovascular disease (ASCVD) were recently published and address the long debated benefits and risks of aspirin use for primary prevention of ASCVD. Recent studies question the benefit of aspirin use for primary prevention in patients with a low to moderate risk of cardiovascular disease. The updated ACC/AHA guidelines suggest aspirin use for primary prevention may be considered for patients age 40-70 years with high risk of ASCVD and low risk of bleeding. The ACC/AHA update recommends against routine use of aspirin for primary prevention for adults over 70 years of age or anyone who is at an increased risk of bleeding. With aspirin use being recommended routinely for decades for primary prevention of ASCVD, these recommendations present a paradigm shift. To better understand the impact of the ACC/AHA recommendations, an evaluation of current trends in aspirin use is needed. The aim of this study was to determine the demographics and ASCVD risk factors present in patients over the age of 70 using aspirin for primary prevention.

Methods

- Setting:** Multidisciplinary private practice clinic in Northwest Ohio.
- Study Design:** Retrospective chart review.
- Study Population:** 5452 patients met criteria for inclusion. A random sample of 200 patients was analyzed.
- Inclusion Criteria:** Patients over the age of 70 taking aspirin for primary prevention of a cardiovascular event.

Endpoints

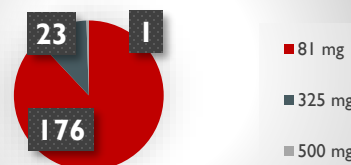
- Primary endpoint:** Quantification of patients over age 70 on aspirin for primary prevention of an ASCVD event.
- Secondary endpoint:** Quantification and assessment of cardiovascular risk factors of patients over age 70 taking aspirin for primary prevention.

Results

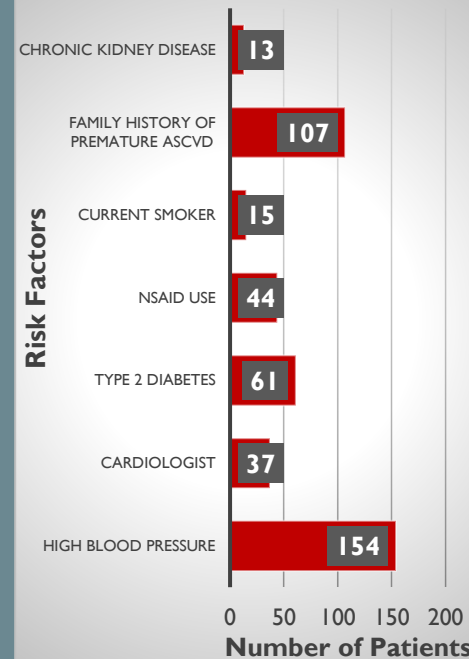
Patient Demographics

Characteristic	Total
Female	107
Male	93
Characteristic	Mean
Age (Years)	78.4
Weight (Pounds)	181
Height (Inches)	65
BMI	29.7
Systolic BP (mmHg)	129
Diastolic BP (mmHg)	69
CrCl (mL/min)	60
Total Cholesterol (mg/dL)	169
LDL (mg/dL)	90
HDL (mg/dL)	53
TG (mg/dL)	131

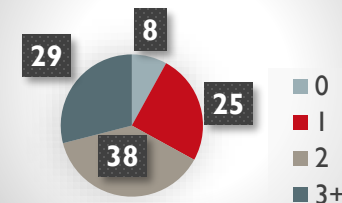
Aspirin Doses



ASCVD Risk Factors



Number of ASCVD Risk Factors Per Patient



Discussion

The results indicate that the majority of patients over the age of 70 included in this study had at least one ASCVD risk factor with 67 patients (33.5%) having 2 or more ASCVD risk factors. The most common risk factors present included a family history of premature heart disease and high blood pressure. While the most common dose of aspirin used was 81mg, 24 patients (12%) were taking higher than recommended doses of aspirin for primary prevention.

While the 2019 ACC/AHA guideline recommends an ASCVD risk evaluation be performed for patients 40-70 years of age, no such evaluation is suggested for evaluating appropriateness of aspirin use in patients over 70 years of age. Determining if the benefit may outweigh the risk in patients above 70 years of age with multiple ASCVD risk factors and low risk of bleeding will continue to be a clinical debate.

Several limitations to this study exist. External validity is limited due to the inclusion of only one study site and inclusion of only patients >70 years of age. Additionally, since data collection extraction occurred using an electronic health record, the risk of data omission may be present if data was not properly documented.

Conclusion

Results of this chart review determined that aspirin use in patients over the age of 70 years at this private practice clinic was common. Pharmacists have an opportunity to educate patients and providers on the risk versus benefit of aspirin use for primary prevention in those over 70 years of age.

References

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2. DK, Blumenthal RS, Albert MA, et al. ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease. Journal of the American College of Cardiology (2019). [cited 2020 Jan 30] Available from: http://www.onlinejacc.org/sites/default/files/additional_assets/guidelines/Prevention-GuidelinesMade-Simple.pdf