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/Purpose

- Very small window for benefit for aspirin in primary prevention, despite established secondary benefit.
- Components of the 2022 USPSTF recommendations: Ages 40 to 59, 10-year ASCVD risk of ≥10%, Not at an increased risk for bleeding, Discontinue at age 75, Studies find around 25% of aspirin use in primary prevention is inappropriate. Only ~77% of patients take prophylactic aspirin at the recommendation of a physician.
- Aspirin increases bleeding risk by 58%.

Objectives

- Measure prescriber knowledge of proper use of aspirin for primary ASCVD prevention
- Compare knowledge to that of student pharmacists.
- Mitigate inappropriate use of aspirin

Methods

- Cross-sectional, survey-based study
- Study population came from SIUE School of Pharmacy and SMM Health St. Mary’s
- Data collected February 9 – March 20, 2023
- Used the 2022 USPSTF guidelines to analyze knowledge
- Study population included: physicians, medical residents, medical students, and pharmacy students
- Excluded P1’s and unfinished surveys
- 18 questions: paper and Qualtrics surveys
- Utilized several question types: case-based, quiz styled, and traditional survey-style

Results

- 200 surveys sent out to pharmacy students, 43 recorded responses, 17 complete
- 30 surveys distributed to prescribers, 16 recorded responses, 10 complete
- 4 prescribers and 4 student pharmacists claim to be familiar with the 2022 USPSTF recommendations.
- 35.3% of pharmacy students assessed aspirin correctly >50% of the time, whereas 50% of prescribers did the same.
- Only 2 (11.8%) pharmacy students and 1 (10%) prescriber knew the correct age when aspirin should be discontinued.
- 50% of prescribers report either prescribe or consider prescribing aspirin for primary prevention if/when aspirin would be prescribed or recommended:
  - Risk factors for bleeding are considered: Always: 76.5% (student pharmacists), 80% prescribers
  - Most of the time: 23.5% (student pharmacists), 10% prescribers Rarely: 10% prescribers
  - Personal ASCVD risk factors are considered: Always: 82.4% (student pharmacists), 90% (prescribers)
  - Majority of the time: 17.6% (student pharmacist), 10% prescriber
  - Pooled Cohort Equation is used to calculate 10-year risk
  - Agreed to some extent: 94% (student pharmacist), 90% (prescriber)
  - Neutral: 5.8% (student pharmacist), 10% (prescriber)

Strengths/Limitations

- Use of case-based questions too assess knowledge of guidelines
- Evaluated prescribers with varied amounts of experience
- Used most-recent guidelines
- Multiple types of questions to assess knowledge
- Low response rate and sample size
- Single location
- Didn’t include all prescribers
- Potential for dishonest survey responses
- Did not include pharmacists

Conclusion

- Prescriber deficit in knowledge could contribute to inappropriate prescribing
- Education would have big benefit for both prescribers and student pharmacists
- Greater integration of topic into core therapeutics courses

References