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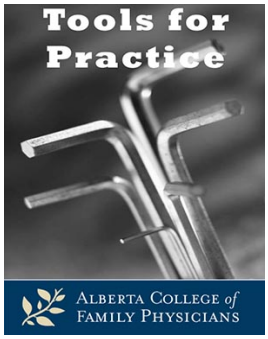
Reviewed: July 13, 2016
Evidence Updated: No new evidence
Bottom Line: No change
First Published: August 25, 2009



Type 2 Diabetes and ASA: Always or Maybe Sometimes?

Clinical Question: Should ASA be recommended in all patients with type 2 diabetes with no history of cardiovascular disease (CVD)?

Bottom-line: According to present evidence, ASA should not routinely be used in type 2 diabetics with no history of CVD. Some high-risk patients may benefit but this group has not yet been defined with evidence.

Evidence:

- Two randomized-controlled trials (RCTs) of ASA specifically in type 2 diabetics
  - JPAD[1]: 2,539 type 2 diabetics on low-dose ASA (81-100 mg) or nothing for 4.4 years.
    - No statistically significant difference in CVD events.
      - ASA 5.4% versus non-ASA 6.7% (p=0.16).
    - Bleeding events (hemorrhagic stroke and severe gastrointestinal) were not significantly different.
  - POPADAD[2]: 1,276 type 2 diabetics (with asymptomatic peripheral artery disease) on low-dose ASA (100 mg) or placebo for 6.7 years.
    - No statistically significant difference in CVD events.
      - ASA 18.2% versus placebo 18.3% (p=0.86).
    - Gastrointestinal bleeding events were not significantly different.
  - Meta-analyses[3-9] combining the above two trials with diabetic subgroup of other major primary prevention trials also failed to show statistically significant differences in any outcome.
    - Note: Relative risk reductions with ASA in diabetics in primary prevention are consistent with those for patients without diabetes.[3]

Context:

- The 2013 Canadian Diabetes guidelines[10] do not recommend routine use of ASA in diabetics, but state that it may be considered in patients with additional cardiovascular risk factors.

- High-risk features include microvascular or macrovascular disease, diabetes >15 years, and other traditional CV risk factors.
  - However, this "high-risk" group includes patients who did not benefit from ASA in the latest studies.[1-9]
- High-quality evidence has not clearly identified "high-risk" diabetics who will benefit from ASA.

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