

Chapter 17: Cardiovascular Disease Management

17.1: Consider managing CVD at least as intensively in KTRs as in the general population, with appropriate diagnostic tests and treatments. (Not Graded)

17.2: We suggest using aspirin (65–100 mg/day) in all patients with atherosclerotic CVD, unless there are contraindications. (2B)

CVD, cardiovascular disease; KTRs, kidney transplant recipients.

Background

The Work Group chose to deal with the prevention of CVD after kidney transplantation, and considered the management of CVD complications to be beyond the scope of this guideline. However, in patients with known CVD, prophylaxis includes aspirin.

Rationale

- There is good evidence that atherosclerotic CVD is prevalent in KTRs.
- There is no reason to believe that the management of complications of atherosclerotic CVD is different in KTRs than in the general population.
- In the general population, there is strong evidence that aspirin reduces atherosclerotic CVD events in patients with known CVD.
- There is little reason to believe that the benefits of aspirin would not exceed the harm in KTRs with CVD, as in patients with CVD in the general population.

Randomized controlled trials, and meta-analyses of these trials, have demonstrated that low-dose aspirin is safe

and effective in reducing CVD events in patients at high risk for CVD. This has led to several guidelines suggesting that low-dose aspirin should be used in patients with known CVD (secondary prevention) (615–617). The American Heart Association, for example recommends using aspirin for patients with established coronary and other atherosclerotic vascular disease, including peripheral arterial disease, atherosclerotic aortic disease and carotid disease (616).

In KTRs, there is little reason to believe that low-dose aspirin would not be as effective as it is in the general population. There is some evidence that platelet function is abnormal in KTRs, increasing the risk for thrombosis (618). Some observational data suggest that aspirin is safe in KTRs. In at least one retrospective observational study, the use of aspirin was associated with better graft survival (619). Given the high incidence of CVD in KTRs, the benefits of aspirin prophylaxis may be expected to outweigh risks, principally of bleeding.

Evidence from the general population suggests that aspirin prophylaxis is effective in preventing CVD events in patients at high risk for CVD events, such as patients with known CVD. Most guidelines recommend that patients in the general population with known CVD should receive aspirin prophylaxis unless aspirin is contraindicated. Data for other antiplatelet agents are sparse; however, many guidelines recommend that clopidogrel may be used in patients who cannot take aspirin.

Research Recommendations

- A RCT is needed to determine the efficacy and safety of aspirin in KTRs.