

SIGNIFICANCE STATEMENT

There is a paucity of data on whether the magnitude of decline in kidney function that occurs during intensive BP lowering is associated with long-term mortality risk in patients with CKD. This study, an analysis of data from the AASK and the MDRD Trial, found that, among participants previously assigned to intensive BP lowering, acute declines in kidney function up to 20% were associated with survival benefit in the intensive BP (versus <5% decline in the usual BP) arm. However, declines in kidney function of 20% or greater were associated with higher risk of death. The data support intensive BP control when declines in kidney function are of moderate magnitude during the intensification of antihypertensive therapy. However, caution may be warranted when greater declines in kidney function occur during intensive BP lowering among patients with preexisting CKD.