

IAFP GERIATRIC MIG PICO DE POEM

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Intensive Blood Pressure Control in Older Patients Can Decrease Renal Function

PRESENTING QUESTION

Does intensive systolic blood pressure (SBP) lowering in older patients increase the likelihood of renal dysfunction?

INTERVENTION

This report examined the effects of intensive SBP lowering on kidney and cardiovascular outcomes and contrast its apparent beneficial and adverse effects. This report is a subgroup analysis of the SPRINT (Systolic Blood Pressure Intervention Trial), which enrolled patients with high blood pressure and elevated cardiovascular risk. This analysis was limited to the 6,662 participants, with a mean age of 66 years, who had a baseline estimated glomerular filtration rate of at least 60 mL per minute per 1.73 m² and who represented approximately 70% of the total original cohort. The participants were randomly assigned, allocation concealment unknown, to be treated to reach an intensive (120 mm Hg or lower) or standard (140 mm Hg or lower) systolic blood pressure.

COMPARATOR

Placebo

OUTCOMES

Intensive SBP lowering increased risk for incident CKD events, but this was outweighed by cardiovascular and all-cause mortality benefits

TIMEFRAME

Study Design: Randomized control trial (nonblinded)

SYNOPSIS

The actual blood pressure difference between the two groups was an average of 15 mm Hg. Significantly more patients in the lower blood pressure group experienced a significant decline in kidney function, defined as a 30% or greater decline in glomerular filtration rate to less than 60 mL per minute per 1.73 m² (number needed to treat to harm = 38; 95% confidence interval, 29 to 53). But, as in the full SPRINT report, the risk of death or cardiovascular event over three years was lower with lower systolic blood pressure. None of the participants developed end-stage renal disease. Post-hoc analyses such as this one are risky to interpret, but in this case, the results echo the analysis in the original report. In summary, although an acute decrease in eGFR was observed in the intensive treatment group, the differences in mean eGFR remained relatively stable between groups. Intensive SBP lowering increased the risk for incident CKD events, but this was outweighed by the potential for cardiovascular and all-cause mortality benefits over the relatively short follow-up.

KEY TAKEAWAY

- Intensive SBP lowering increased risk for incident CKD events, but this was outweighed by cardiovascular and all cause mortality benefits
- **Limitations of this study include short follow-up, which limits inferences on long-term effects, such as progression to ESRD.**

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