TOOLS FOR PRACTICE #425 | November 9, 2026



TOOLS FOR PRACTICE

PEER PATIENTS EXPERIENCE EVIDENCE RESEARCH

Don’t Lose Sleep Over When to Take Blood Pressure Medications

CLINICAL QUESTION

In adults with hypertension, does taking once-daily antihypertensive drugs at bedtime, rather than in the morning, reduce cardiovascular events or death?

BOTTOM LINE

In patients with hypertension, taking antihypertensive drugs in the evening does not reduce the risk of cardiovascular events or death compared with morning administration. Consider a default of morning dosing for once-daily antihypertensive medications; timing can then be tailored to patient preferences and convenience to support adherence.

EVIDENCE

- 5 systematic reviews of randomized controlled trials (RCTs) in the past 2 years compared cardiovascular events when taking ≥1 antihypertensive drugs at bedtime/evening versus taking them all in the morning.[1–5]
- Focusing on systematic reviews comparing timing only (excluding RCTs with different drugs in the intervention and comparator groups):[1–3]
    - 5 RCTs with 46,606 patients (mean age 63 years, 45% women).

    - Over a median 5.2 years of follow-up, no statistically significant difference in cardiovascular events[1,2] or deaths.[1–3]
- Inconsistent results between trials driven by 2 RCTs by the same group (Hygia and MAPEC) at risk of bias.[1,6]
- Focusing on 3 RCTs at low risk of bias (Canadian BedMed[7] and BedMed-Frail[8], and the UK TIME[9]):
    - No difference in cardiovascular events, death, cognition, fractures, or glaucoma.[1]
    - More patients randomized to morning administration took their medications at the allocated time.[7,9]

CONTEXT

- Rationale for bedtime dosing based on observational studies suggesting that nighttime blood pressure better predicts cardiovascular events than daytime or in-office measurement, and that absence of the natural decline in blood pressure during sleep ("non-dipping") is associated with increased cardiovascular risk.[6,10]
- Taking antihypertensive drugs in the evening lowered 24-hour ambulatory blood pressure by ~1-2 mmHg compared with morning administration, but not statistically different after excluding trials by the Hygia/MAPEC investigators.[11]
- A previous Tools for Practice based on the MAPEC trial suggested taking antihypertensive drugs at night might reduce cardiovascular events, but cautioned about several important trial limitations.[10]
- Guidelines emphasize the importance of antihypertensive drug adherence and recommend they be taken at the most convenient time of day for an individual patient, noting the evidence showing administration time does not alter cardiovascular risk reduction.[12]

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