**JHS LAY SUMMARY**

Lay Title: Number and timing of blood pressure measurements during sleep: how many are needed and when?

Original Title: Number and Timing of Ambulatory Blood Pressure Monitoring Measurements

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Introduction (8-9 lines):

Average blood pressure during sleep is usually computed by measuring blood pressure every 20 to 30 minutes for the entire time that a person is asleep. However, this may cause disturb sleep and cause unnecessary waking. We set out to examine whether it is possible to collect a smaller number of blood pressure measurements and get almost the same average blood pressure value that we would have gotten if blood pressure was measured every 20 to 30 minutes during sleep.

Purpose (2-4 lines):

Some blood pressure measuring devices are designed to measure blood pressure 2 to 4 times during sleep, but there is no evidence-based set of guidelines on when and how often blood pressure should be measured during sleep to get a good reading using only 2 to 4 measurements.

Method (3-5 lines):

We thought of 74 different ways to measure blood pressure 2 to 4 times during sleep at specific times. We compared the different approaches by computing how close their average blood pressure was to the average blood pressure from a full night of blood pressure measurement every 20 to 30 minutes.

Conclusion (3-5 lines):

Measuring blood pressure at 1, 2, 4, and 5 hours after falling asleep was almost as good as measuring blood pressure all night every 20 to 30 minutes.

Implications (3-5 lines):

Scientists can ask participants in studies to have their blood pressure measured at 1, 2, 4, and 5 hours after falling asleep instead of asking them to measure blood pressure every 20 to 30 minutes all night.

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