

A 65 year-old man is found to have an office blood pressure of 149/80 mmHg on a routine health check. The doctor decides to perform a 24-hour ambulatory blood pressure to confirm the diagnosis. Which of the following blood pressure recordings on a 24-hour monitor would confirm this diagnosis based on the ESC definition of hypertension?

A: A 24-hour mean blood pressure of 134/76 mmHg B: A 24-hour mean blood pressure of 130/80 mmHg

C: A daytime (awake) blood pressure of 130/80 mmHg **D: A daytime (awake) blood pressure of 135/85 mmHg**

E: A night-time asleep blood pressure of 119/64 mmHg

Before Training

Okay, so I have this question about hypertension diagnosis using a 24-hour ambulatory blood pressure monitor. Let me try to break it down step by step.
The patient is a 65-year-old man with an office blood pressure of 149/80 mmHg....
Looking at the options:

A: 134/76 mmHg. That's above 130/80, so it would confirm.

.... ..

So the options that are 24-hour mean and above 130/80 mmHg are A and B. But the question is, which one would confirm the diagnosis? Both A and B are above the threshold, but I think the correct answer is the one that meets or exceeds 130/80 mmHg on the 24-hour mean

Wait, but the question is asking which would confirm the diagnosis

Wait, no, the question is which of the following would confirm

Never mind, choose B

Analyze question and options, generate candidate answer

Rethink again and again by "wait..." and random select an answer

After Training

Okay, so I'm trying to figure out which blood pressure recording on a 24-hour monitor would confirm the diagnosis of hypertension for a 65-year-old man with an office blood pressure of 149/80 mmHg.

First, I need to recall the ESC definition of hypertension. The European Society of Cardiology (ESC) defines hypertension during the daytime based on an average systolic blood pressure above 135 mmHg or diastolic above 85 mmHg, reflecting awake-period thresholds. This means that for a patient to be considered hypertensive, their average blood pressure during the day (when they're awake) needs to meet or exceed these thresholds. The patient in question has an office blood pressure of 149/80 mmHg. That's a high systolic and normal diastolic. The doctor is performing a 24-hour ambulatory blood pressure monitor to confirm the diagnosis. The goal is to determine which of the given options would confirm this diagnosis based on the ESC definition.

Looking at the options:

A: A 24-hour mean blood pressure of 134/76 mmHg. This is below the threshold for both systolic ($134 < 135$) and diastolic ($76 < 85$). So this doesn't confirm hypertension.

... ..

So, the correct answer is D because it meets both the systolic and diastolic thresholds for the daytime (awake) period as defined by the ESC.

Analyze question and recall knowledge

Analyze the options and provide the correct answer