

Answers to your questions from medical experts

## 1. Is it time to give up mercury blood pressure instruments? What are the choices?

Question submitted by a GP in Toronto, Ontario

Giving up mercury blood pressure (BP) instruments may be too extreme. Rather, it would be more appropriate to rethink how, when, and by whom mercury sphygmomanometers are used.

The validity of readings from any device are limited by the equipment, methodology, and patient. Whether a mercury or an aneroid (dial-type) sphygmomanometer are used, the accuracy of the reading depends on close to 20 assumptions being met; many relate to those taking the reading.

Many accuracy issues can be avoided by using an automated device in the clinic. Some automated devices take multiple readings and can be activated by the patient, without clinic personnel present.

With a fully automated device capable of taking multiple readings, once patients are fitted with the correct cuff and instructed on how to remain positioned, seated, and quiet, they can activate the device themselves. After the series of readings are complete, they can be reviewed by the physician or clinic personnel to ensure blood pressure has stabilized.

Most devices, even the automated ones, have their limitations. Arrhythmias, for example, may cause errors or erroneous readings. However, even manual measurements usually require many extra readings to detect arrhythmias.

The medical/scientific community does not have complete data on the accuracy of automated devices in special populations, such as young children, pregnant women, or obese or frail adults. Furthermore, auto-

mated devices need to have their accuracy checked annually, at the very least.

One good way to check the accuracy is to connect the automatic device to a sphygmomanometer of known accuracy; a mercury device or properly calibrated aneroid device is perfect for this.

If you choose to purchase an automated device, you may wish to verify which devices have been independently validated for accuracy in an adult population. This information can be obtained by selecting BP devices at [www.dableducational.com](http://www.dableducational.com).

**Answered by:**

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## 2. What precautions should be taken before sending an acute MI case to the ED from the office?

Question submitted by a GP in Vancouver, British Columbia

If myocardial infarction (MI) is confirmed by an electrocardiogram (ECG), or if no ECG can be done, call 9-1-1 immediately; there isn't much that can be done safely for these patients in most offices. Getting them to the nearest emergency department (ED) is critical.

Do not, (as I have seen twice this past year) have patients, or their partners, drive to the ED.

Check the patient's pulse, blood pressure, and respiratory status. If vital signs are stable after treatment with regular acetylsalicylic acid, 160 mg to 325 mg (chewed, not just swallowed), give the patient nitroglycerine sublingually. The nitroglycerine can be repeated at five-minute intervals, as long as pain persists and blood pressure remains above 100 mmHg.

I would not initiate other medications, such as a beta blocker or clopidogrel at this

time. These decisions need to be made in the ED.

Finally, call the ED to which the patient will be taken. Informing the doctor on duty of who is coming and what you have found and done are invaluable in shortening the decision time for reperfusion. *Find*

Answered by:

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 Calgary, Alberta

**Remember This...**

Remembering is difficult... but even more difficult if you have Alzheimer Disease. A disease, which affects the brain, erases memory, and eventually takes life itself.

The Alzheimer Society provides information, support and funds research into the cause and cure. To find out more contact your local Alzheimer Society.

[www.alzheimer.ca](http://www.alzheimer.ca)  
 Help for Today. Hope for Tomorrow.

**Alzheimer Society**

*Handwritten text on the hand:*  
 Can 50% of memory be recovered?  
 The Alzheimer Society helps you living with the disease and their families. The Alzheimer Society helps people with Alzheimer Disease return home safely.  
 By 2021, the number will be 150,000.  
 2 in 23 people over 65 have AD or a related dementia.  
 Alzheimer Disease is the most common cause of dementia.  
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