

# Automated blood pressure measurement in routine clinical practice

Martin G. Myers<sup>a,b</sup>

**Objective** To compare blood pressure measurements taken in routine clinical practice using an automated recorder, the BpTRU (VSM MedTech Ltd, Coquitlam, Canada), with readings taken by a conventional mercury sphygmomanometer.

**Methods** Fifty consecutive patients [28 women, 22 men; mean ( $\pm$  SD) age  $62 \pm 16$  years] referred to a specialist for management of hypertension had blood pressure taken on the first visit in random order using both a mercury sphygmomanometer and an automated device.

**Results** The mean initial automated reading (mmHg) taken with the observer present ( $162 \pm 27/85 \pm 12$ ) was similar to the mean manual blood pressure taken in duplicate ( $163 \pm 23/86 \pm 12$ ). Both values were higher ( $P < 0.001$ ) than the mean of the next five readings taken with the automated recorder when the patient was resting quietly alone ( $142 \pm 21/80 \pm 12$ ). Women exhibited a greater fall in blood pressure with the automated device than men.

**Conclusions** Use of an automated blood pressure recorder can eliminate some of the white-coat effect associated with readings taken by a mercury sphygmomanometer.

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<sup>a</sup>Schulich Heart Centre, Division of Cardiology, Sunnybrook & Women's College Health Sciences Centre <sup>b</sup>Department of Medicine, University of Toronto, Toronto, Ontario, Canada

Correspondence and requests for reprints to Dr. Martin G. Myers, Division of Cardiology, Sunnybrook & Women's College, Health Sciences Centre, 2075 Bayview Avenue, Room A2 02, Toronto, Ontario, Canada M4N 3M5  
Tel: 416 480 4749; fax: 416 480 5404; e-mail: martin.myers@sw.ca

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