BP Monitoring

Calibration drift of new blood pressure measuring devices in a retail pharmacy environment

High blood pressure is a key risk factor for the development of cardiovascular disease and a major cause of morbidity and mortality worldwide. An accurate blood pressure monitoring device is fundamental to all blood pressure measurements in the diagnosis and control of hypertension. However, the drift in accuracy over time of a new device for detecting suboptimal blood pressure control is not known.

The aim of this research is to ascertain if electronic sphygmomanometers used in daily practice in a retail pharmacy environment lose accuracy over time and if so what factors affect this. From this we intend to determine the most appropriate calibration interval and its effect on the accuracy of blood pressure measuring devices.

We are assessing the calibration drift of a validated automatic blood pressure monitor used by a retail pharmacy chain. The pharmacy chain commenced use of the monitor - made available for members of the public to use free of charge - in many of its pharmacies at the same time, thus providing a large cohort of monitors whose performance over time can be evaluated.

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Published papers:
None as yet. Fieldwork is currently underway.

Study protocol:
Available on request.