

# Postural hypotension quality improvement project – how good are we at measuring it?

**Authors:** Natalia Cernovschi-Feasey,<sup>A</sup> Cindy Eng,<sup>A</sup> Htin Aung<sup>A</sup> and Jessica Jozefczak<sup>A</sup>

## Background

Postural hypotension is a frequent cause of syncope, which contributes to morbidity, disability and death in cases of injury in the frail and older population.<sup>1</sup> We identified variation in methods of measuring lying and standing blood pressure (LSBP) by healthcare staff, which would have an influence on the results and treatment provided. This quality improvement project (QIP) aimed to assess the consistency of LSBP measurement and sustainability of this practice across various clinical areas.

## Methods

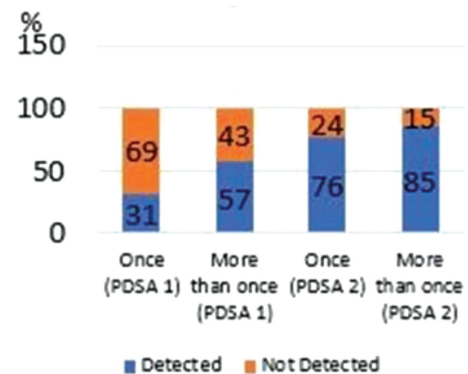
A team of junior and senior doctors working in an acute medicine setting conducted this project. A self-designed survey was distributed among healthcare staff at different grades in several departments who are involved in measuring LSBP. The data were collected and analysed using Excel and displayed in pictorial graphs. Our intervention was presenting the project outcomes at the health board grand round, followed by brief oral educational sessions based on an RCP poster 'Falls and Fragility Fracture Audit Programme'. We completed two plan, do, study, act (PDSA) cycles and implemented our changes.

## Results

57 staff members from different areas (emergency department, acute medical and surgical wards) participated in this study. Pre-intervention, only 47% of staff measured standing blood pressure (BP) between 1 and 3 mins. Post-intervention this percentage almost doubled, reaching 78%. We found that among staff who measured standing BP more than once, 57% detected postural drop and around 31% of staff possibly detected postural drop in those who measured standing BP once. PDSA2 showed an improvement of almost 20% in detecting postural drop when BP was measured more than once. (See Fig 1.)

## Conclusions

The project showed that clinical measurement of LSBP can be very variable and is operator dependent. We identified weak areas that showed improvement after implemented interventions and this



**Fig 1.** Frequency of measuring BP vs detecting postural drop.

will be maintained by the practice-monitor audit and continuous skills refreshment sessions. ■

## Reference

- 1 Lahrman H, Cortelli P, Hilz M, Mathias CJ, Struhal W, Tassinari M. EFNS guidelines on the diagnosis and management of orthostatic hypotension. *Eur J Neurol* 2006;13:930–6.

**Authors:** <sup>A</sup>NHS Wales, UK