

REASON WHY?

Measuring lying and standing blood pressure is a key part of a falls assessment because a significant drop in blood pressure when standing up, known as orthostatic hypotension, is a major risk factor for falls, particularly in older adults; by checking this change, healthcare professionals can identify individuals at higher risk and implement preventive measures to reduce their fall likelihood

PLAN

Ward 28 at the Royal Shrewsbury Hospital is a ward who Care for Older People (CoE). An important aspect of care on CoE wards is the proper assessment of lying and standing blood pressure, as studies suggest this can help with repeat falls on the ward.

Following an audit on the ward and review of current processes to remind colleagues to undertake assessments, there was an opportunity to review documentation and training relating to the assessment of patient's blood pressure.

We planned to introduce a **standardised form** to ensure consistent L/S BP assessments. This is to improve compliance with best practice guidelines which reduces the likelihood of falls.

We expected that:

- More staff would routinely measure BP correctly.
- The number of missed assessments would decrease.
- It would positively impact post-fall assessments, reducing repeat falls in high-risk patients.

DO

In May 2024 the new form was introduced to help with assessments. Key stakeholders were identified and written to, to communicate the change, alongside training interventions on the ward with nursing colleagues. Data relating to the change was collected as part of routine nursing quality audits. Below is a picture of the form:

QIP in frailty medicine- Lying/Standing BP form.

Partnering Ambitious Caring Trusted

Patient name: _____
DOB: _____
Hospital number: _____

Day	Lying Blood pressure (3 mins)	Standing Blood pressure (3 mins)	Standing Blood pressure (5 mins)
Day one			
Day two			
Day three			

1. Identify if you are going to need assistance to assist the patient and verbalise this to the patient and observer.
2. Take a reading of the patient's blood pressure and document it.
3. Repeat the assessment to the patient.

Instructions:

Lying:
1. Ask the patient to lie down for at least 5 minutes.
2. Measure the BP.
3. Ask the patient to stand up (assist if needed).
4. Measure BP after standing for 3 minutes.
5. Measure BP again after patient has been standing for 5 minutes.
6. Repeat recording if BP is still dropping.
7. In the presence of patient safety, repeat regularly until normal.
8. If symptoms change, repeat the test.

Standing:
1. Ask the patient to stand up for at least 5 minutes.
2. Measure the BP.
3. Ask the patient to stand up (assist if needed).
4. Measure BP after standing for 3 minutes.
5. Measure BP again after patient has been standing for 5 minutes.
6. Repeat recording if BP is still dropping.
7. In the presence of patient safety, repeat regularly until normal.
8. If symptoms change, repeat the test.

Notes:
1. A drop in BP of 20 mmHg or more when standing is a sign of orthostatic hypotension.
2. A drop in BP of 10 mmHg or more when standing is a sign of orthostatic hypotension.
3. A drop in BP of 5 mmHg or more when standing is a sign of orthostatic hypotension.
4. A drop in BP of 2 mmHg or more when standing is a sign of orthostatic hypotension.
5. A drop in BP of 1 mmHg or more when standing is a sign of orthostatic hypotension.
6. A drop in BP of 0.5 mmHg or more when standing is a sign of orthostatic hypotension.
7. A drop in BP of 0.2 mmHg or more when standing is a sign of orthostatic hypotension.
8. A drop in BP of 0.1 mmHg or more when standing is a sign of orthostatic hypotension.

Patients up-to-date weight: _____

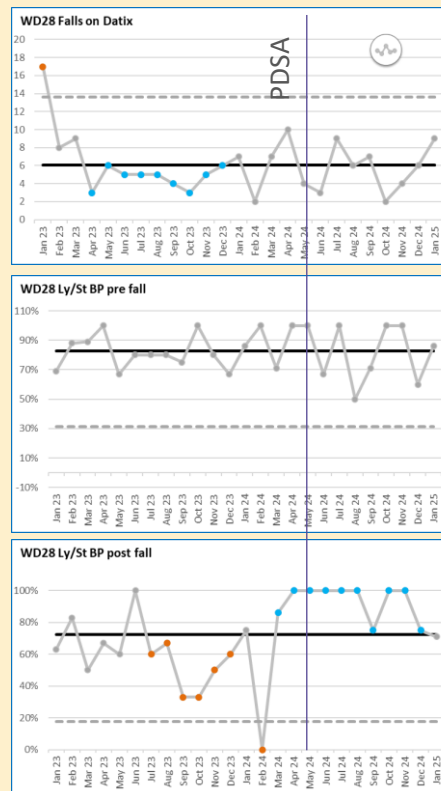
Info, created and designed by Dr M Mahmood & Dr R Al-Shaharli. Agreed by ward manager Karen. Adapted from © Royal College of Physicians 2023

STUDY

Quality Nursing metrics are shown here, relating to this change in the form of statistical process control charts (SPCs). The PDSA date is annotated on these graphs with a blue line. (May 2024)

As you can see from the SPCs, following the change, there was no statistically significant impact on the number of falls, or the recording of lying and standing blood pressure pre fall. However, since the change, there has been a statistically significant improvement in the observations post fall.

The form was also well received by staff on the ward and has since been introduced at the corresponding ward at the Princess Royal Hospital (PRH).



ACT

We are going to **ADAPT** the Intervention.

Why?

- The intervention led to a statistically significant improvement in post-fall observations, demonstrating its value in patient safety. However, it did not reduce the number of falls, indicating that while it improves documentation and awareness, there is still room for further enhancement.
- The intervention has been well-received by staff and adopted at another hospital (Princess Royal Hospital), it would be counterproductive to abandon it.

Next Steps for Improvement:

1. Introduce laminated versions of the form at patients' bedsides, along with whiteboard markers, to encourage consistent use and reduce paper waste.
2. Integrate the BP form into routine documentation (e.g., vital sign charts or digital systems like Vital PAC) to ensure it becomes part of standard practice.
3. Reinforce staff education to emphasize the importance of pre-fall BP assessments, ensuring proactive rather than reactive use.
4. Monitor compliance and explore additional fall prevention measures, as BP assessment alone may not be sufficient to reduce falls without complementary interventions.