

# FALLING FOR YOU! Improving the cardiovascular assessment of frail patients presenting with falls

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## Context:

Falls are common in the elderly population and result in increased morbidity, disability, hospitalisation and mortality [1, 2]. Rapid assessment of the patient and their cause for falling is essential and a lying and standing blood pressure (LSBP) and ECG are the minimum investigations recommended by the British Geriatric Society for the cardiovascular assessment of falling patients [3].

## Aim:

Our project was aimed at evaluating and improving the cardiovascular assessment of frail patients presenting with falls on the Acute Frailty Unit at Royal Preston Hospital.

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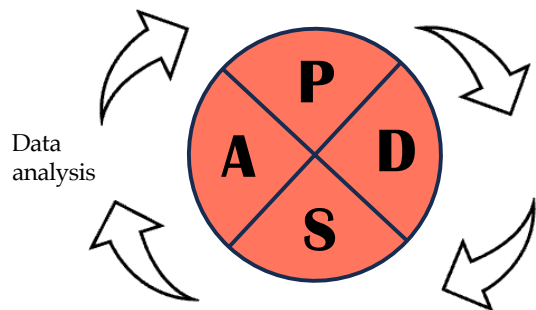
### Primary Analysis:

On initial review, 31 patients were identified during June 2023. Of these patients, 31 (100%) had a LSBP and 25 (81%) were documented. 26 (84%) of patients had an ECG and 24 (94%) were reviewed.

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BCS world guidelines were used as a standard for the cardiovascular work up of falling patients

Data analysis



Data collection from medical notes via IT departmental system

### Improvements:

- Regular teaching sessions on ECGs and LSBP assessments were given to the frailty team
- Lanyard flashcards on how to perform a LSBP and what indicates a positive result were distributed to staff
- Visual prompts with posters were placed on the ward to remind staff of the cardiovascular investigations
- After handover, inpatients falls reviews were performed to check that an ECG and LSBP had been documented with a tick box to be completed.

Fig 1.



Fig 2.

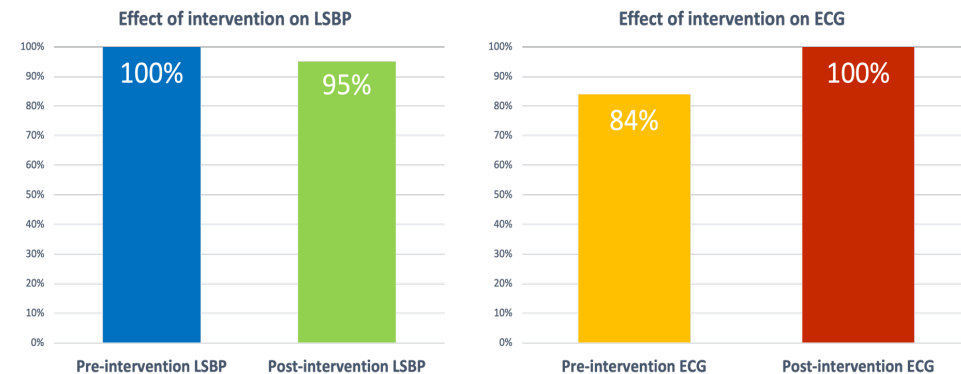
Fig 3.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
LSBP AND ECG					

3

### Secondary Analysis:

We re-analysed the data and 42 patients were identified during the second 4 week period. Of these patients, 40 (95%) had a LSBP and all of these were documented. 42 (100%) patients had an ECG and all were documented.



### Conclusion:

Our project showed that patient cardiovascular assessments can be improved with multiple simple interventions, and this ensures that the minimum investigations are performed for all frail patients presenting with falls. These changes can be applied to other aspects of the multifactorial falls risk assessment as well as other frailty presentations.

### Limitations:

Due to these multiple interventions, it is difficult to identify which one had the most impact. Patients who were temporarily bed bound or reviewed on the weekend may miss the opportune moment for these investigations.

### Methodology:

#### Inclusions:

- Patients admitted to AFU with a fall over a 4 week period before and after intervention
- The number of ECGs and LSBPs were recorded for each patient including if they had been documented by a doctor or specialist nurse

#### Exclusions:

- Any patients unable to stand for a LSBP

Figure 1 – Royal college of physician’s lanyard flashcards on LSBP [4].

Figure 2 – Posters reminding staff of cardiovascular workup for falling patients.

Figure 3 – Photo of inpatient falls reviews tickbox.

#### References:

1. Falls (no date) World Health Organization. Available at: <https://www.who.int/news-room/fact-sheets/detail/falls> (Accessed: 30 October 2023).
2. Fenton, K. (2014) *The human cost of falls*, UK Health Security Agency. Available at: <https://ukhsa.blog.gov.uk/2014/07/17/the-human-cost-of-falls/#:~:text=Falls%20are%20the%20most%20common,another%202%20million%20by%202021.> (Accessed: 30 October 2023).
3. Montero-Odasso, M. (2023) 'Correction to: World guidelines for falls prevention and management for older adults: A global initiative', *Age and Ageing*, 52(10). doi:10.1093/ageing/afad199.
4. *Measurement of lying and standing blood pressure: A brief guide for clinical staff* (2023) RCP London. Available at: <https://www.rcplondon.ac.uk/projects/outputs/measurement-lying-and-standing-blood-pressure-brief-guide-clinical-staff> (Accessed: 01 November 2023).