

IMPROVING THE TREATMENT AND MANAGEMENT OF THE LOWER LIMB IN THE ACUTE SETTING

Stephanie Netherwood Tissue Viability Clinical Nurse Specialist Barnsley Hospital NHS Foundation Trust

Background

As an experienced nurse I have worked across a variety of health settings and this has given me the opportunity to work with well established systems and processes which have been easily transferable between roles.

Due to the social demographics of the local area, leg conditions are more prevalent than the national average. Currently working in a local hospital, I have identified an increasing number of patient admissions through our Emergency Department (ED) with suspected leg infections. An increasing percentage of these patients are then admitted and commenced on intravenous antibiotics. It has become apparent that once patients have been reviewed, not all require admission or IV antibiotics. This clinical concern was the reason for my investigation and subsequent plan to alleviate inappropriate prescribing.

Investigation

I was assisted in setting up a live database where Emergency Department attendances were recorded under the SNOMED codes of cellulitis/lower extremity ulcer of the skin/thrombophlebitis. From this, I was able to initiate and examine live data whilst consulting with ED Doctors and Nurses.

Findings

March 2024 data sample shows number of attendees allocated under the SNOMED codes of cellulitis/lower extremity ulcer of the skin/thrombophlebitis.

135 patients attended ED

34.07% (46) patients admitted

60.87% (28) patients received IV antibiotics

11.8% (5) patients found to have infected legs

£1,710 estimated bed costs per patient admitted

(*Based on 5 days, £342 per bed, NHS England 20/21)

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Quality Improvement

This can be defined as:

An approach for tackling problems and making measurable improvements by testing ideas and learning.

Improvement approaches are used in the NHS to tangibly improve the care, outcome and experiences for our patients.

My quality improvement project aligns with the Trusts quality goals and strategy. This consists of being best for the patients and general public, best for performance, best for people and best for the planet, with the patients, carers and families at its core.

The Trusts' five-year strategy for 2022-2027 states we will use continual quality improvement and introduce innovative new ways of working and new technologies aligning itself with our goals and objectives within this project.

Quality Improvement Approaches

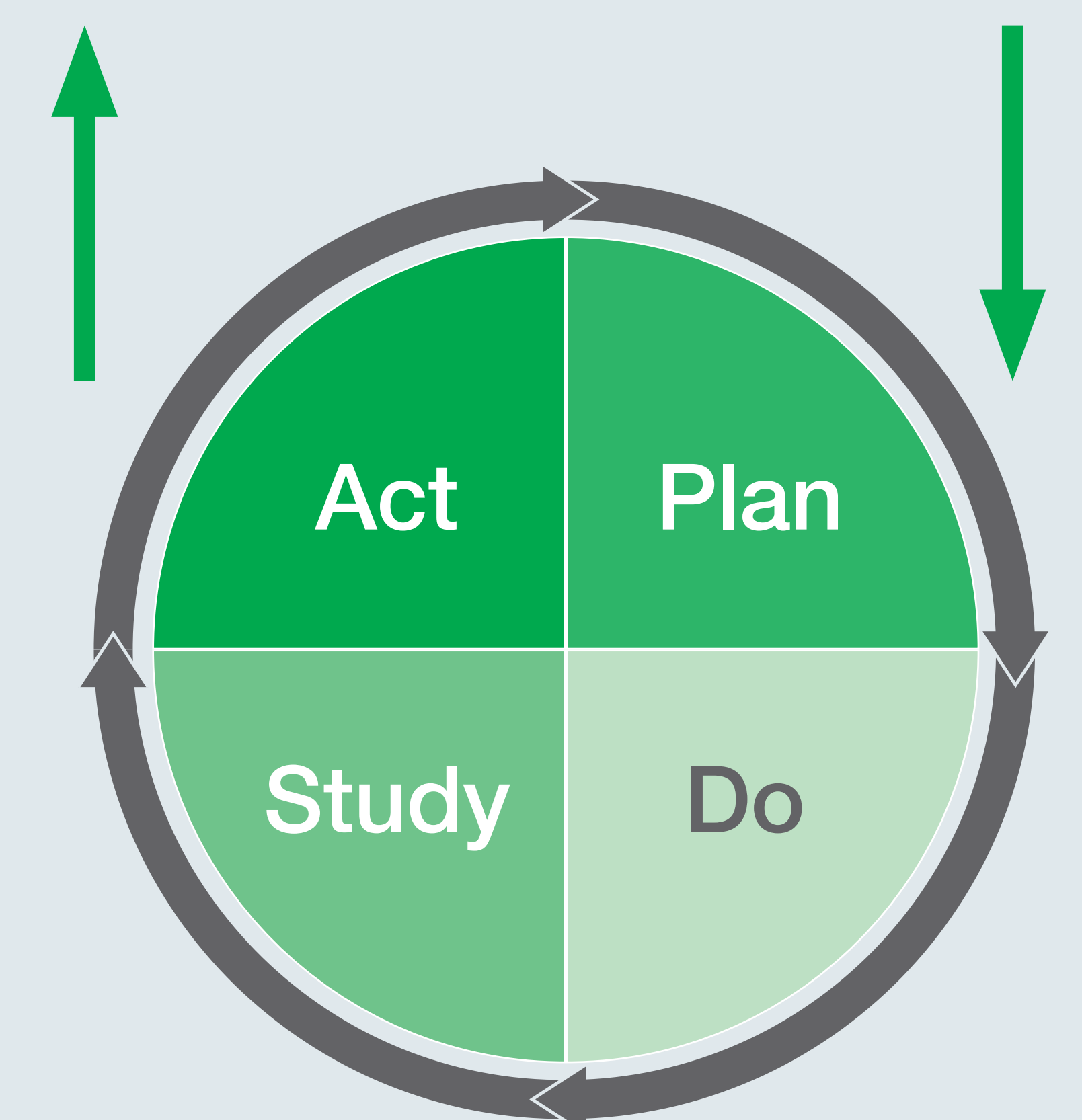
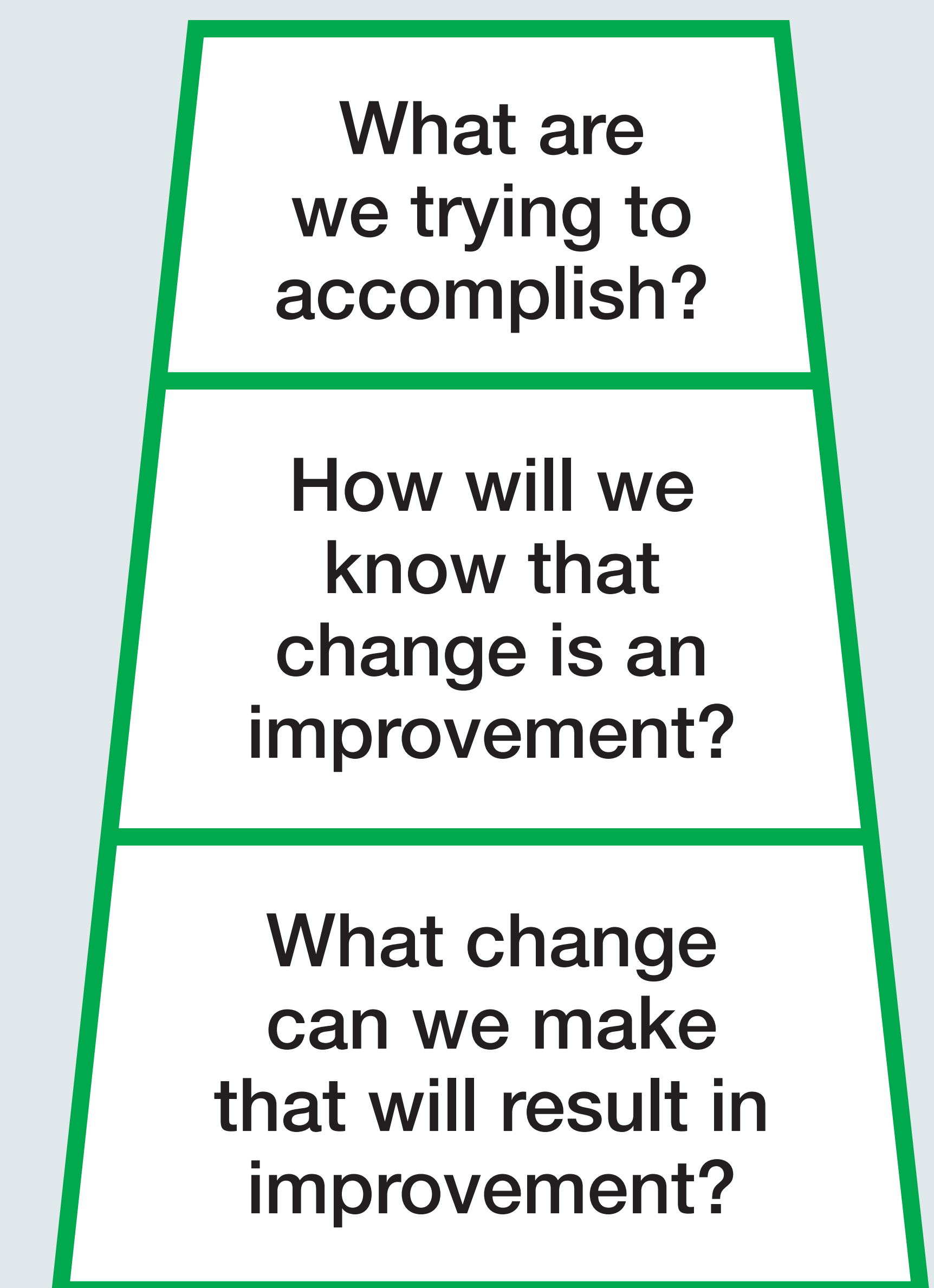
At Barnsley we use a standardised model across the Trust to ensure a consistent approach to quality improvement..

Model for improvement:

Plan, Do, Study and Act (PDSA) is a method of evaluation that allows you to test and refine the impact of an initiative and continuously learn from experiences, whilst improving the chosen approach.

For example, in using PDSA cycles, it is vital that teams build in sufficient time for planning and reflection, and do not focus primarily on the “doing.”

As this is a loop process, it is important for ongoing evaluation in order to continually amend and improve the service so the patient receives the best experience.



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Implementation

It's vital that all staff fully understand the problem the QI project is attempting to solve and the intended outcomes.

Training – This involves training with doctors and nurses on the aim of the project, the process and the implementation. Also, working with our local regional clinical advisor from industry to increase knowledge and understanding of a variety of leg presentations to show not all legs that look infected are infected and the differing diagnosis available.

Posters – This consisted of a visual representation and description of the varied leg presentations that can be displayed throughout the unit. This involved working in collaboration with and having the support of our industry project partner and regional clinical advisor .

QI code – This takes staff directly to the poster content so they can access the information anywhere within the Trust and compare the leg presentation with the catalogue of images.

Tissue Viability (TV) in reach – ED staff were required to contact the team for support and assessment of patients with suspected infected legs. TV had access to community records and could therefore undertake an holistic review and decide on the treatment regime. TV can then signpost towards best treatment and care plan.

Process Map – This involved the development of a new pathway, whereby any patient with a suspected leg infection is referred to the TV in reach service.

Measuring Success

- Live data and results from the Iris database
- SPC (Statistically Process Charts) collated monthly
- Training feedback surveys via QR codes
- Patients surveys after receiving care on the new pathway
- Feedback from ED staff as to whether they feel better supported with leg diagnosis and has it helped stream line their workload
- Analysis of previous Trust data to demonstrate potential improvements in patient experience and the fluidity through the department e.g. (reducing waiting times etc).

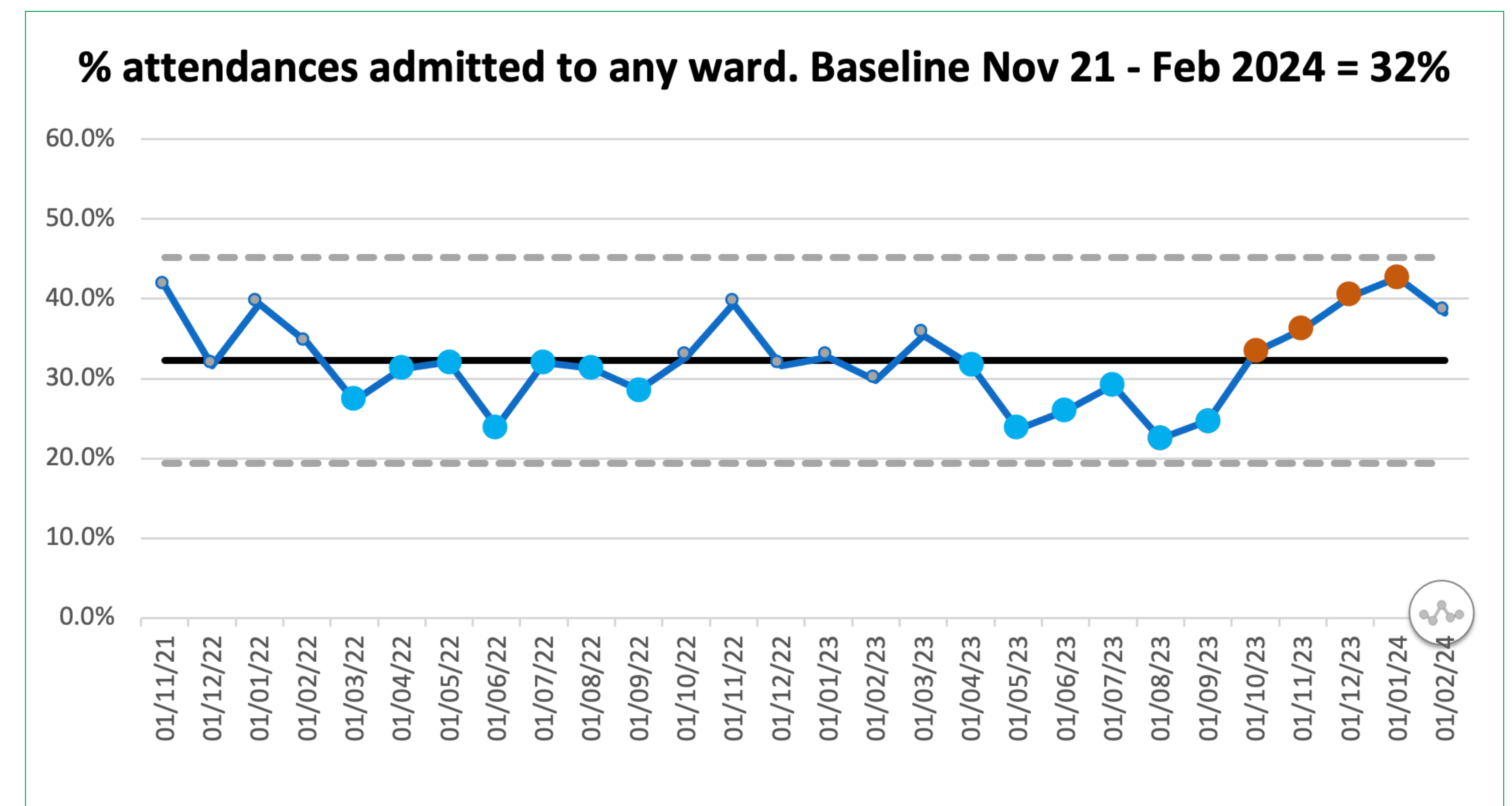
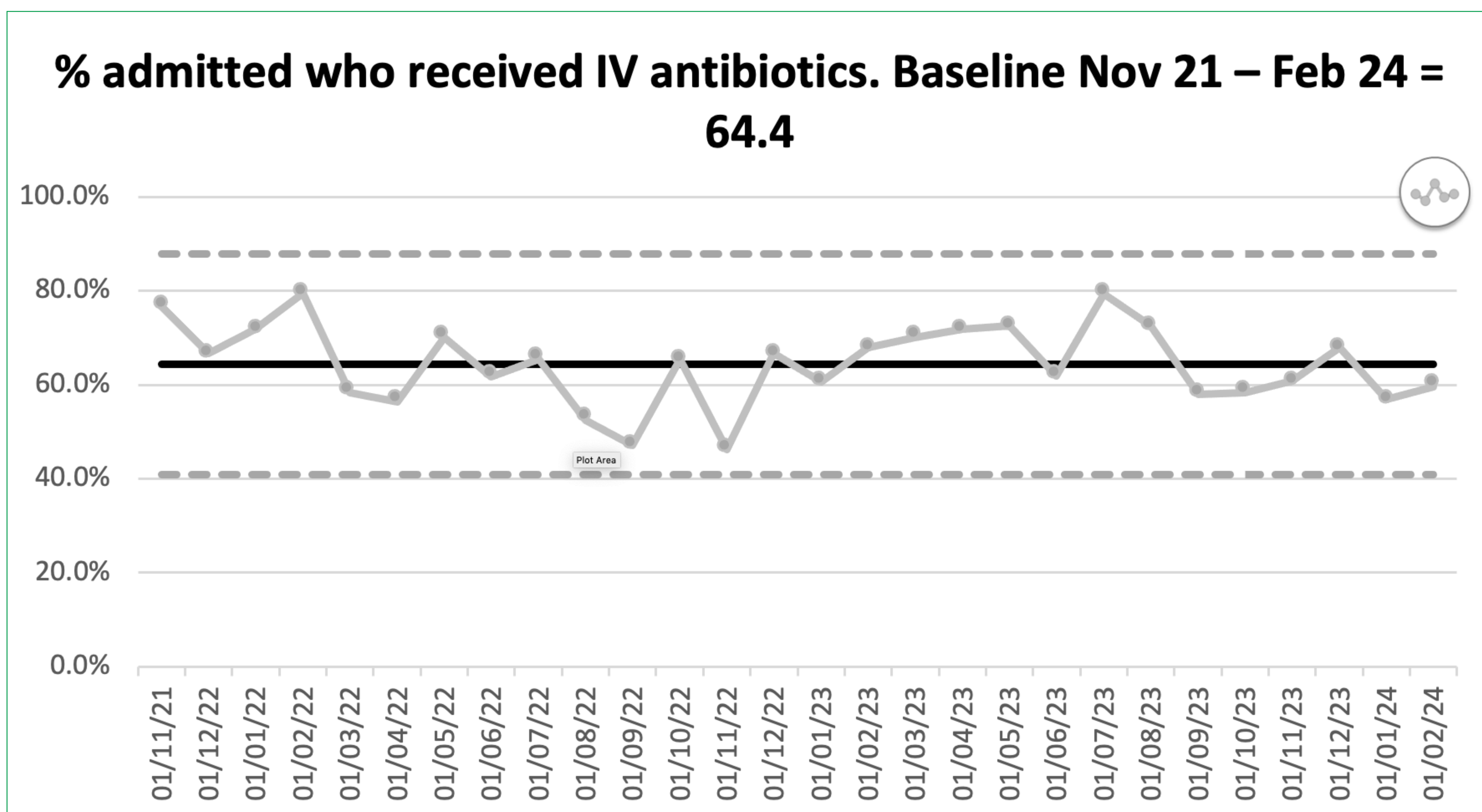
Measuring results through statistics alone can be difficult due to human inaccuracy. While I do continue to collate data I will also continue to gather evidence through other sources.

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% of admitted patients who received IV Abx in ED (according to ED coding)

% of those attending with leg infection SNOMED codes who are admitted to inpatient bed



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Aim & Objectives

To reduce admissions to ED for patients presenting with possible leg infections as identified by agreed SNOMED codes by 5% (from a baseline of 32%). To account for seasonal variation, we will aim to reduce this over a 12 month period, by February 2025.

To Date

- Project launch and delivery with posters, screen savers to raise awareness and education. New in reach TV service.
- Training has been delivered to Consultants, Doctors and Nurses within the ED. This has been very well received and are happy to implement these changes.
- Data collection – Monitoring monthly reports of patient admissions and SPC charts in order to continually evaluate.
- Training with the industry regional clinical advisor for our short stretch bandages* including study days for medical professionals on leg conditions and treatment.

Limitations

- Wrong coding assigned to patients in ED
- Tissue Viability service demand means we can't always attend ED to help with leg assessments
- Service delivery time restraints – Tissue Viability only work limited hours
- Agency and locum staff awareness of the new pathway
- No scope to allow ED nurses for training due to other training demands

Ongoing

Focussing on the PDSA model will give me the statistical data and eventually cost savings which in turn, would allow me to submit a business case to implement a full-time service in ED.

Ongoing training – working in collaboration with the regional clinical advisor for our short stretch compression bandages*, to up-skill staff to be able to offer full leg assessment and treatment.