

# Reducing readmissions for patients with Acute Kidney Injury through providing patient information

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## 1. Background

Acute kidney injury (AKI) is a sudden episode of kidney failure or kidney damage that occurs in 48 hours or within the last 7 days. It is a common complication of many other acute illness's and frequently occurs in patients in hospital, with around 20% of hospital inpatients having an AKI. Having an AKI increases the risk of patients developing a subsequent AKI. Southampton University Hospital NHS Foundation Trust found that they had a slightly higher than expected readmission rate for patients with AKI. This means that patients had an AKI one during their first admission and then were readmitted and had a subsequent AKI on that admission.

## 2. Introduction to the Quality Improvement Project

To assess where to focus the project a driver diagram was completed.

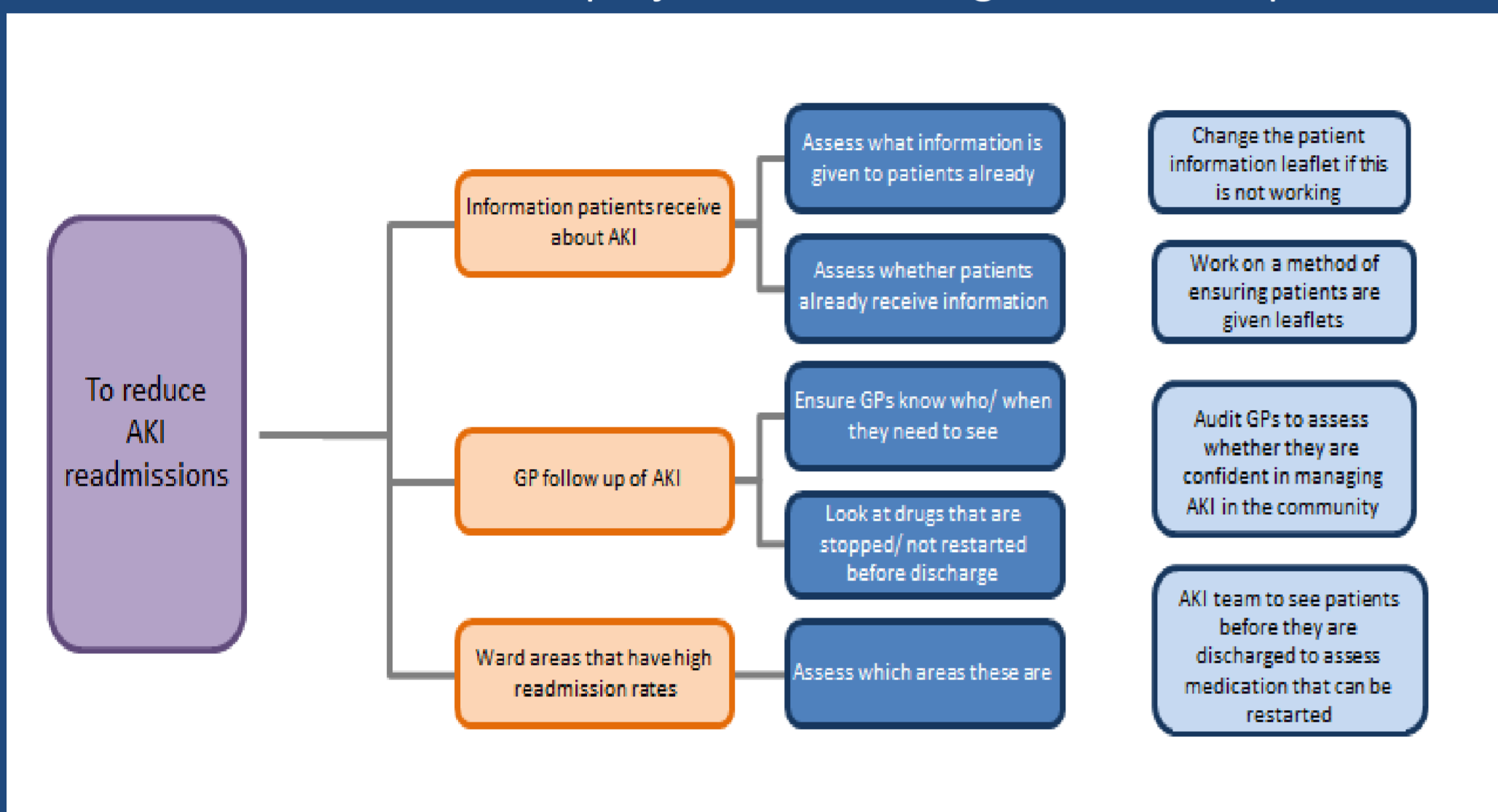


Diagram 1: Driver diagram .

Assessment of the primary drivers included a patient survey to assess the effectiveness of information given to patients about their AKI. Question 1 was: Did you get any information about AKI whilst in hospital, either written or verbal? The results can be found below.

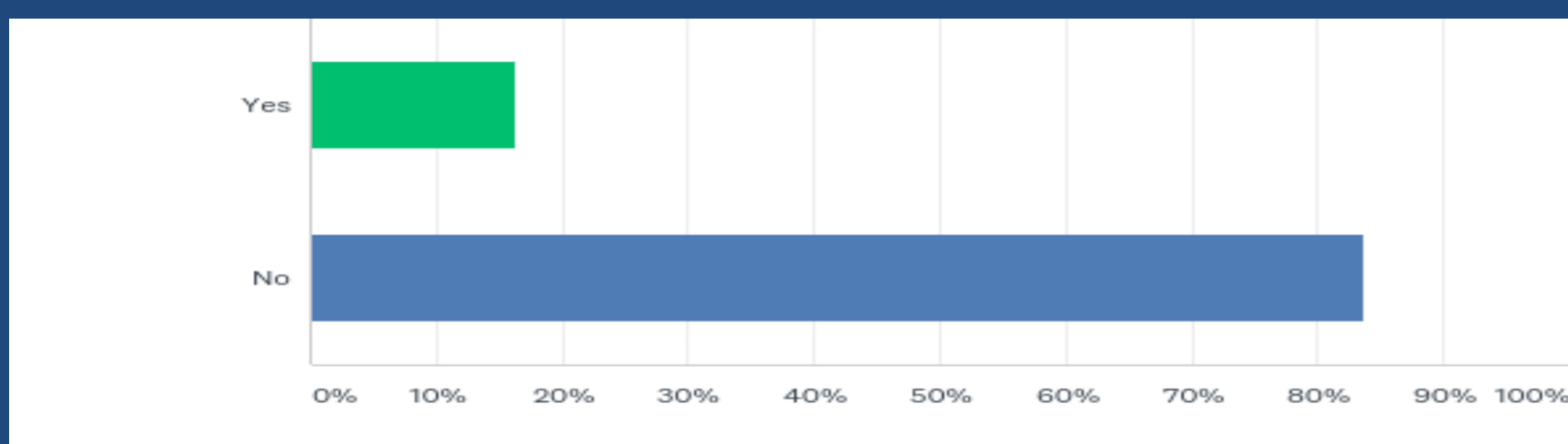


Diagram 2: Question 1. Questionnaire results

## 3. Aim of the project

This led to the aim of the project to be “Reducing AKI readmissions, through providing patient information”. A model for improvement was completed.

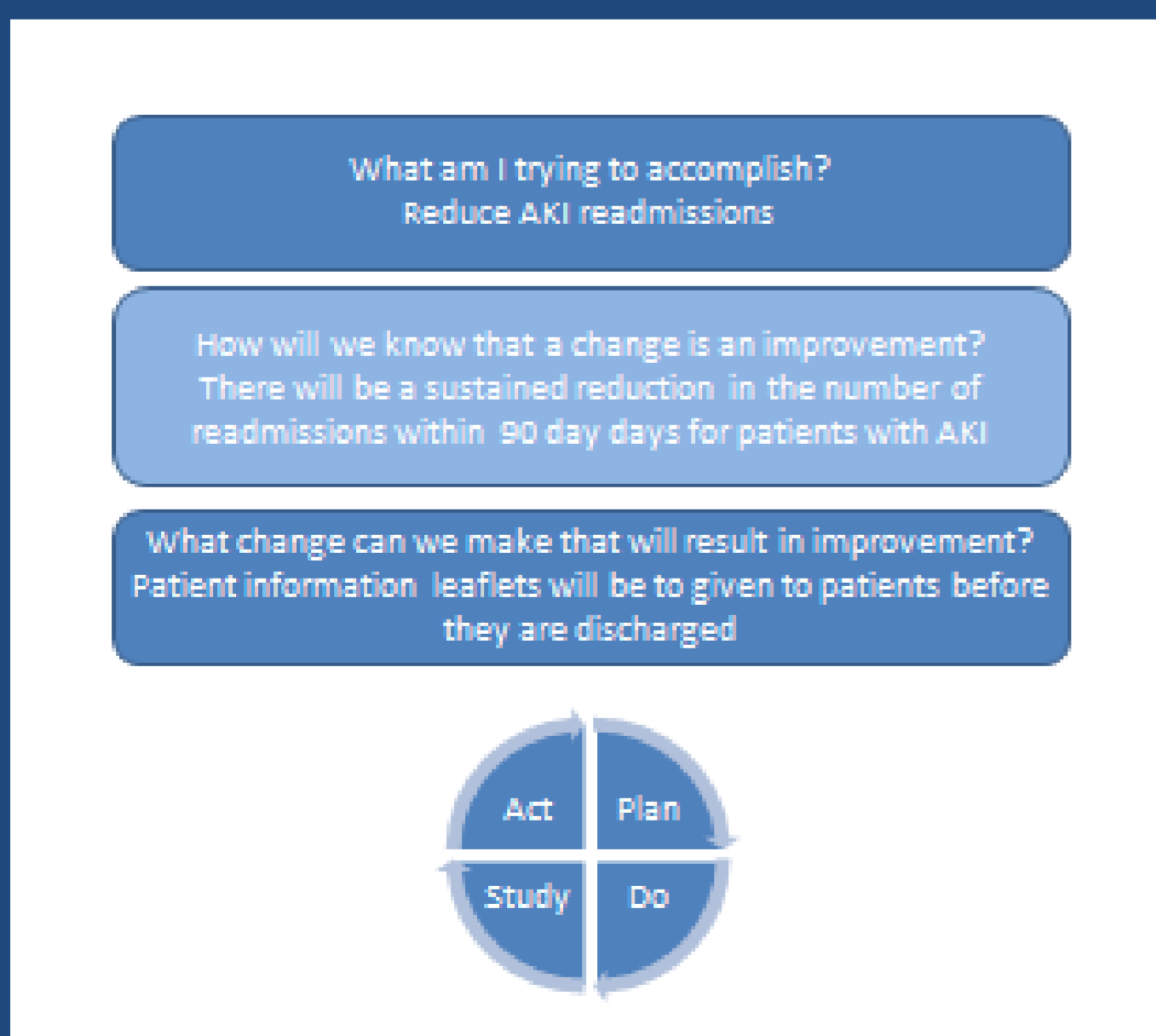


Diagram 3: Model for improvement

The AKI nursing team were involved in this project and gave both verbal and written information to all patients with AKI stage 2/3. The wards with the highest readmission rates were focused on and nursing leaders were engaged in the changes.

A copy of the patient information leaflet can be found using the QR code at the top of the poster.

## 4. Results

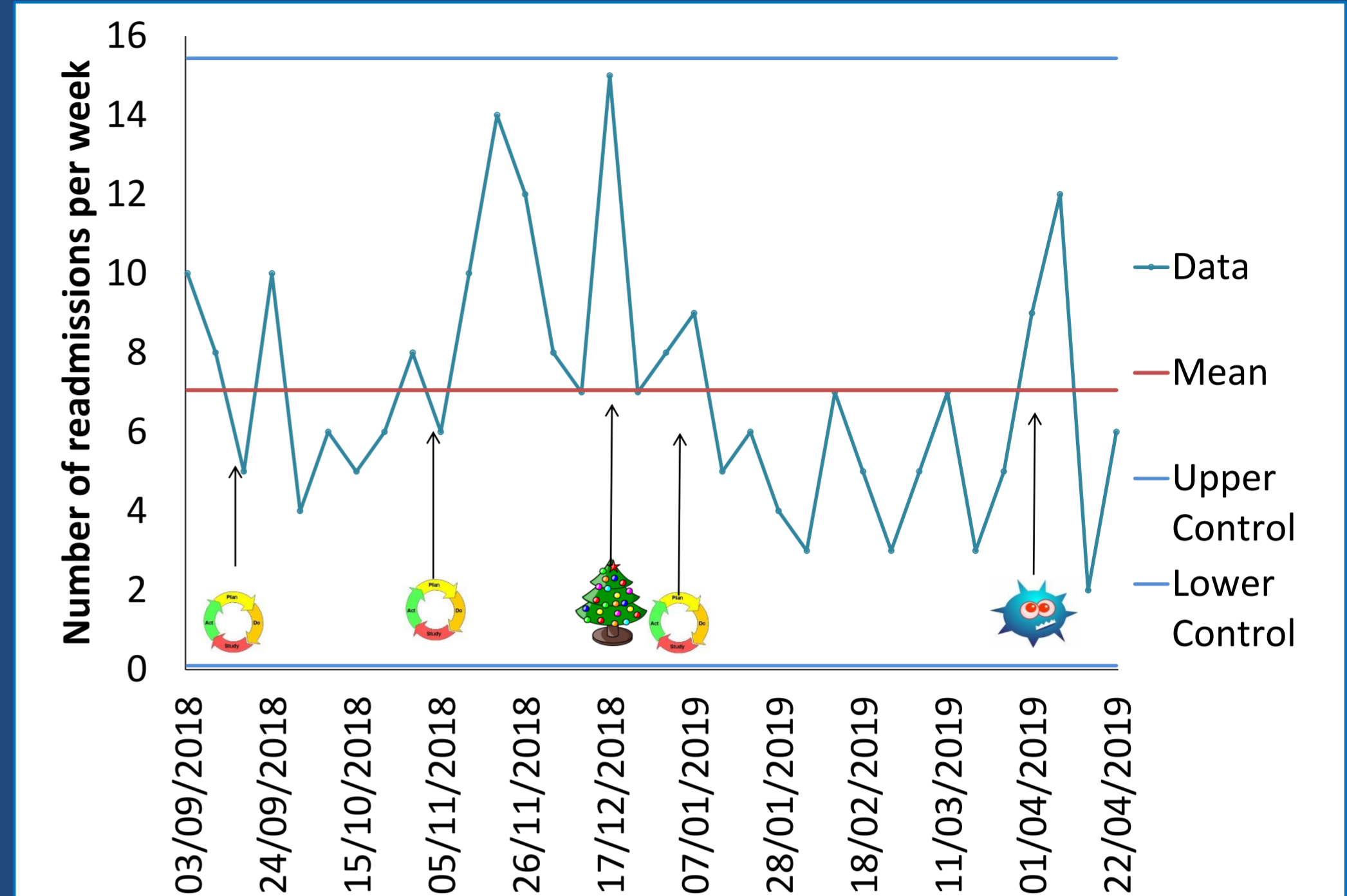


Diagram 4: Statistical Process Control (SPC) chart demonstrating number of adult patients readmitted by week to the medical directorate

This SPC chart looks at the date the patient is discharged and whether they are readmitted within 90 days of the discharge date.

A Pareto chart was used to determine which area to focus the QI project on. This demonstrated that medicine was the area which would elicit the most impactful change.

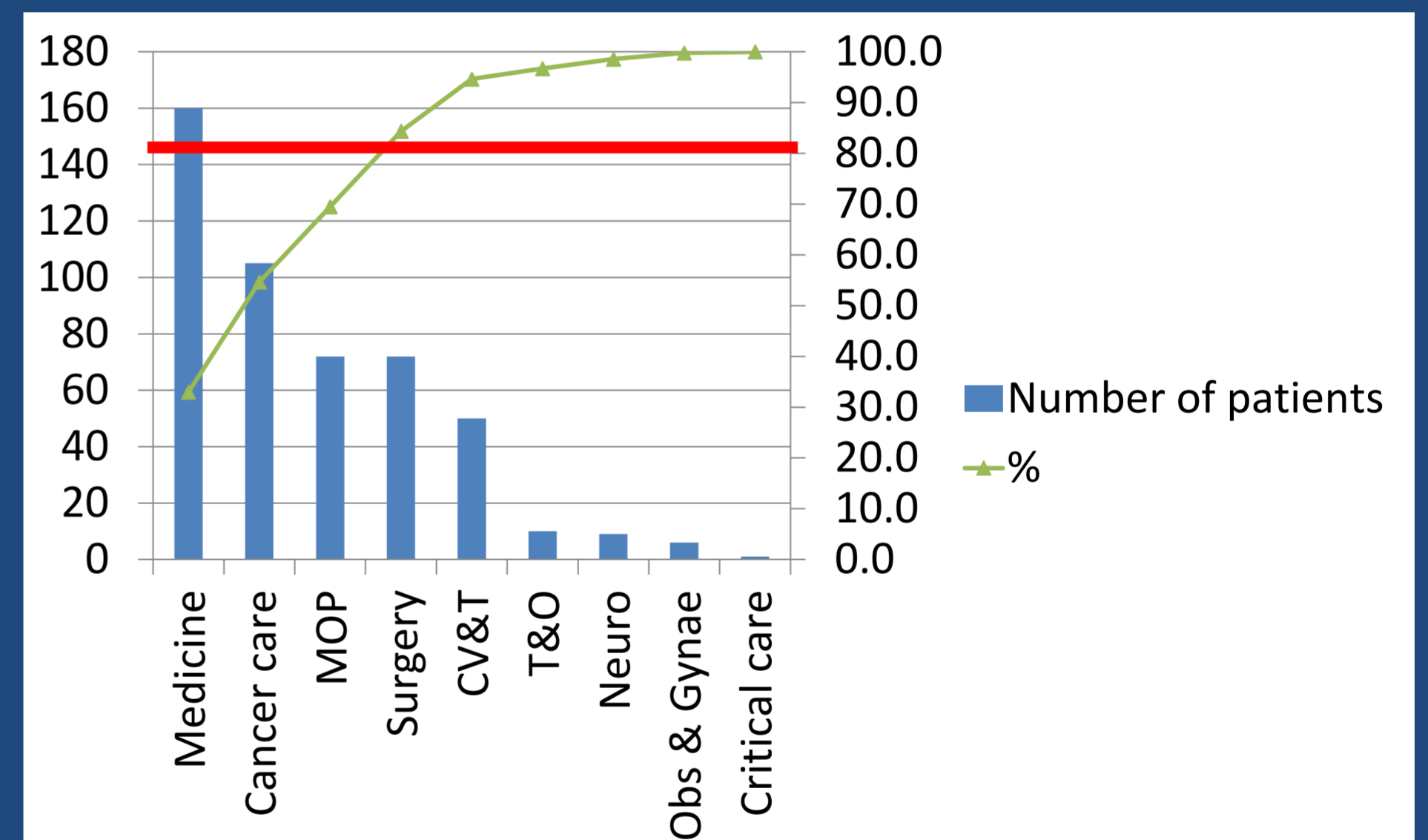


Diagram 5: Pareto chart assessing number of patients readmitted by care group

Following a PDSA cycle at the beginning of 2019 the acute admissions areas were then focused on as an area for targeted improvement. This led to a sustained reduction in the number of patients readmitted (with 11 points below the mean) prior to an outbreak of norovirus in April 2019. This would indicate that whilst the change is significant and sustained it is not robust enough to accommodate external challenges.

## 5. Next steps

The next piece of work will be around ensuring that in times of increased bed pressures there is a process in place to ensure that the readmission rate remains low. This work will be led by the AKI nursing team and will include IT solutions to assist on improving information giving to patient. It is anticipated that this will be in place before April 2020.

## 6. What I know now that I didn't know before.

- QI methodology & tools can assist in targeting the project on the correct area; use these first.
- Get the right data; at times it will feel like the project is improving quality but assessing the correct data will assist in showing change or not.
- Having a supportive network of QI colleagues will assist in ensuring that the project is successful. This can provide support and advice but also assist in appropriate reflection on the project during it's development.