

## **PDSA Cycle 1**

**Aim:** what are you trying to accomplish?

To at least double the percentage of illiterate patients at Services Hospital who can understand their TTO discharge medication prescription at time of discharge in terms of being able to describe what medications they should take, at what dosage, at what time of day, and the length of course of treatment. This is to be achieved within 1 month.

**Plan:** what will your test be?

We will carry out prototype testing of the new picture-based discharge form by showing our initial design to both junior Pakistani doctors working in the hospital, and a selection of twenty illiterate patients. We will also talk to the largest hospital pharmacy in order to explain our idea for the new system face-to-face and discuss any possible problems. We will ask the pharmacist on duty to label boxes of medication with the correct number corresponding to a sample form to test if it is understood from the pharmacist's perspective.

**Prediction:** what do you think will happen as a result of your test?

We are likely to gain valuable feedback in terms of the parts of the design that are easily understood by the illiterate patient population, and the areas which will need rethinking. Overall however we expect improved levels of understanding amongst illiterate patients. We feel the form will be easily understood by the pharmacist and do not predict any problems in this area.

**Do:** what happened when you carried out your test?

There was largely universally positive feedback to the use of the symbols of the sun and moon at various stages of their cycles to represent the times of day that patients should take their medications. These symbols were intuitively understood by most illiterate patients, especially with an explanation beforehand. However the use of a calendar to represent the number of days that a course of treatment was to run was poorly understood and caused confusion.

The pharmacist easily labeled the boxes of medications correctly. He asked for educational posters to alert other staff to the new system.

**Study:** how did the results of your test compare with predictions?

The new picture based form was largely well received both by local junior doctors and by the illiterate patient 'focus group' for whom the new form was far more easily understood. As predicted, feedback about the design was valuable and allowed us to focus on the areas of the form that needed alteration. The new form also appears to work well for the pharmacists.

**Act:** how will you change your previous test in light of what you have learned?

We will redesign the symbol of the calendar to use a symbol more intuitively understood to represent the concept of a length of treatment. We will distribute educational posters to all the hospital pharmacies and ask a greater selection of pharmacists to correctly number medication boxes from a sample form.

## **PDSA Cycle 2**

**Aim:** what are you trying to accomplish?

To at least double the percentage of illiterate patients at Services Hospital who can understand their TTO discharge medication prescription at time of discharge in terms of being able to describe what medications they should take, at what dosage, at what time of day, and the length of course of treatment. This is to be achieved within 1 month.

**Plan:** what will your test be?

We will carry out a small scale trial by showing our redesigned picture-based form to a selection of twenty different illiterate patients from PDSA cycle 1 and asking them to explain its meaning. We will also ask five hospital pharmacists to correctly label the medication boxes with the correct number after they have read the educational poster but with no other explanation given.

**Prediction:** what do you think will happen as a result of your test?

We feel our use of the symbol of a sun rather than a calendar will be better understood by the illiterate patient population to represent the length of course of treatment. We hope the educational posters for the pharmacists will clearly explain their role.

**Do:** what happened when you carried out your test?

The symbol of a sun to represent the number of days of a course of treatment was better understood than the calendar but it was still not as intuitive as we would have liked with a significant proportion of illiterate patients still needing an explanation as to its meaning. However pleasingly the remainder of the pro forma continued to be well understood.

The pharmacists responded excellently to the educational posters, and were easily able to label the medication boxes appropriately.

**Study:** how did the results of your test compare with predictions?

The use of the symbol of a sun rather than a calendar yielded noticeably improved results in terms of understanding its meaning, even if it was not as intuitive as we had hoped.

The educational posters seem very effective with the pharmacists.

**Act:** how will you change your previous test in light of what you have learned?

We will trial the redesigned pro forma on the 100 illiterate patients used in the baseline measurement to directly compare its efficacy versus the old handwritten prescriptions. We will keep the symbol of the sun to represent the number of days the course of treatment is to run as, although PDSA cycle 2 has shown it not to be perfect, we have struggled to come up with a better alternative for a difficult concept to express symbolically.

