

031:



A Quality improvement project

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What is Quality Improvement?



Quaser

The use of systematic methods and tools to improve outcome for patients on a continuous basis, particularly in the areas of clinical effectiveness, patient safety and patient experience

No universal definition

QI promotes a healthcare system that is safe, effective, person centred, timely, efficient and equitable (Institute of Medicine)



Background & Project

- Standard practice for monitoring patients with HIV
 - CD4 counts & HIV-1 viral load (VL) on all at each visit.
- Antiretroviral therapy (ART) was led by CD4 count,
 - initially 200
 - then 350
 - now all start from diagnosis, regardless of CD4 count.

- BHIVA 2016 monitoring guidelines suggest less frequent monitoring, on ART, VL ND

CD4 cell count

- If <200 cells/mm³, test 3–6-monthly. If 200–350 cells/mm³, test annually
- If >350 cells/mm³ on two occasions >1 year apart, no further CD4 cell counts required¹

- Baseline- 83% CD4 sent outside guidelines
- Reducing tests sent :
 - Less phlebotomy for patients
 - Less results management for staff/increase efficiency
 - Reduce laboratory costs, hopefully for reinvestment into service

Quality Improvement

- **Aim** – reduce the percentage of CD4 tests requested outside of guidelines to 30% by January 2019

- **Measures** – How do we know change is an improvement?

Outcome – percentage of tests sent outside of guidelines

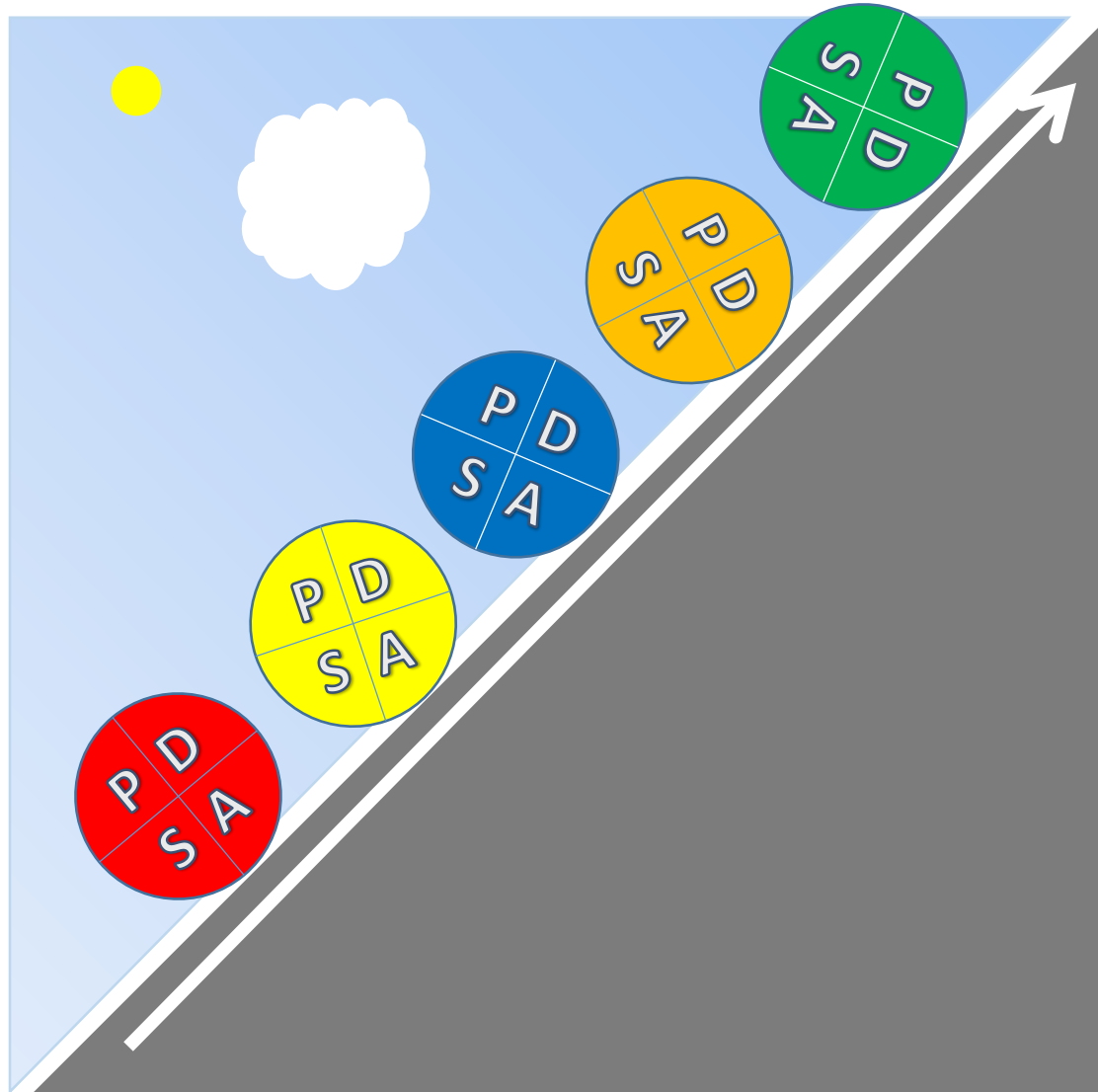
Process – audit a sample of patients each week

Balance – patient expectation, clinical incidents

Change ideas –

- Staff education – guideline updates, education sessions
- Reconfigure test ordering systems
- Patient Involvement – education on test/results, promote U=U campaign

PDSA Ramp (Plan,Do,Study,Act)



Cycle 5

- Second Staff update/Launch 'CD4 countdown/Display run charts

Cycle 4

- Patient Questionnaire

Cycle 3

- First Staff guideline update

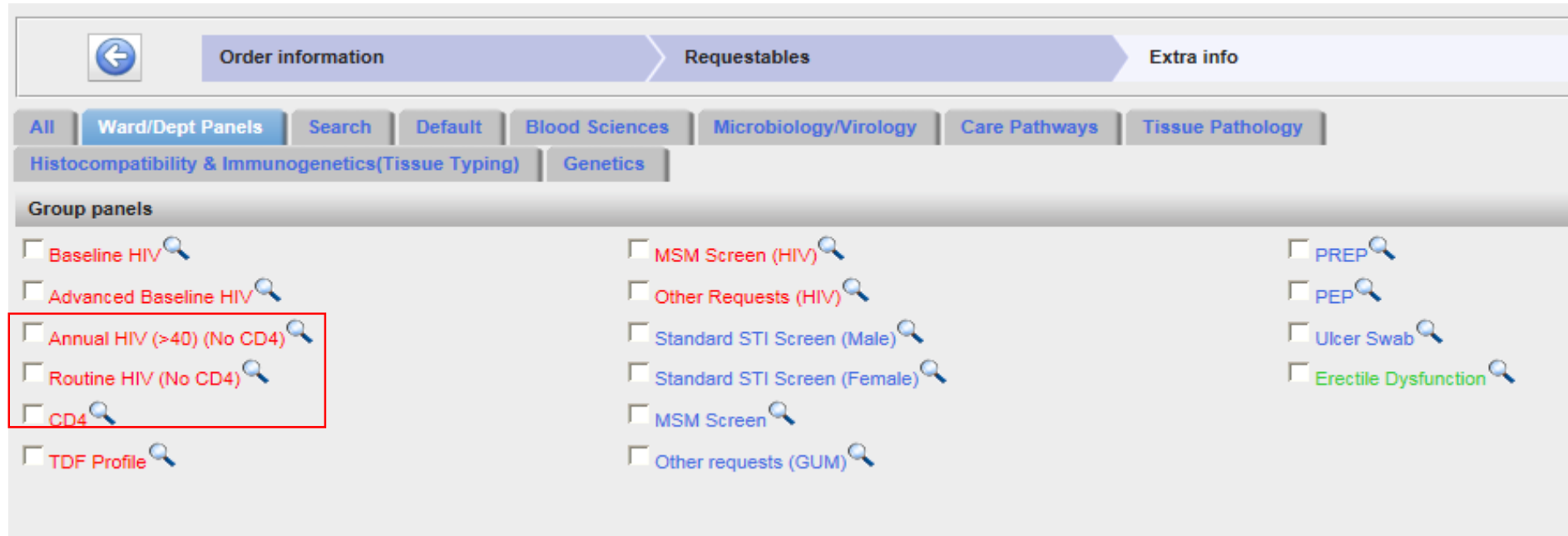
Cycle 2

- Project aim formally shared with clinic staff

Cycle 1

- Project aim agreed and trialed amongst SQB team

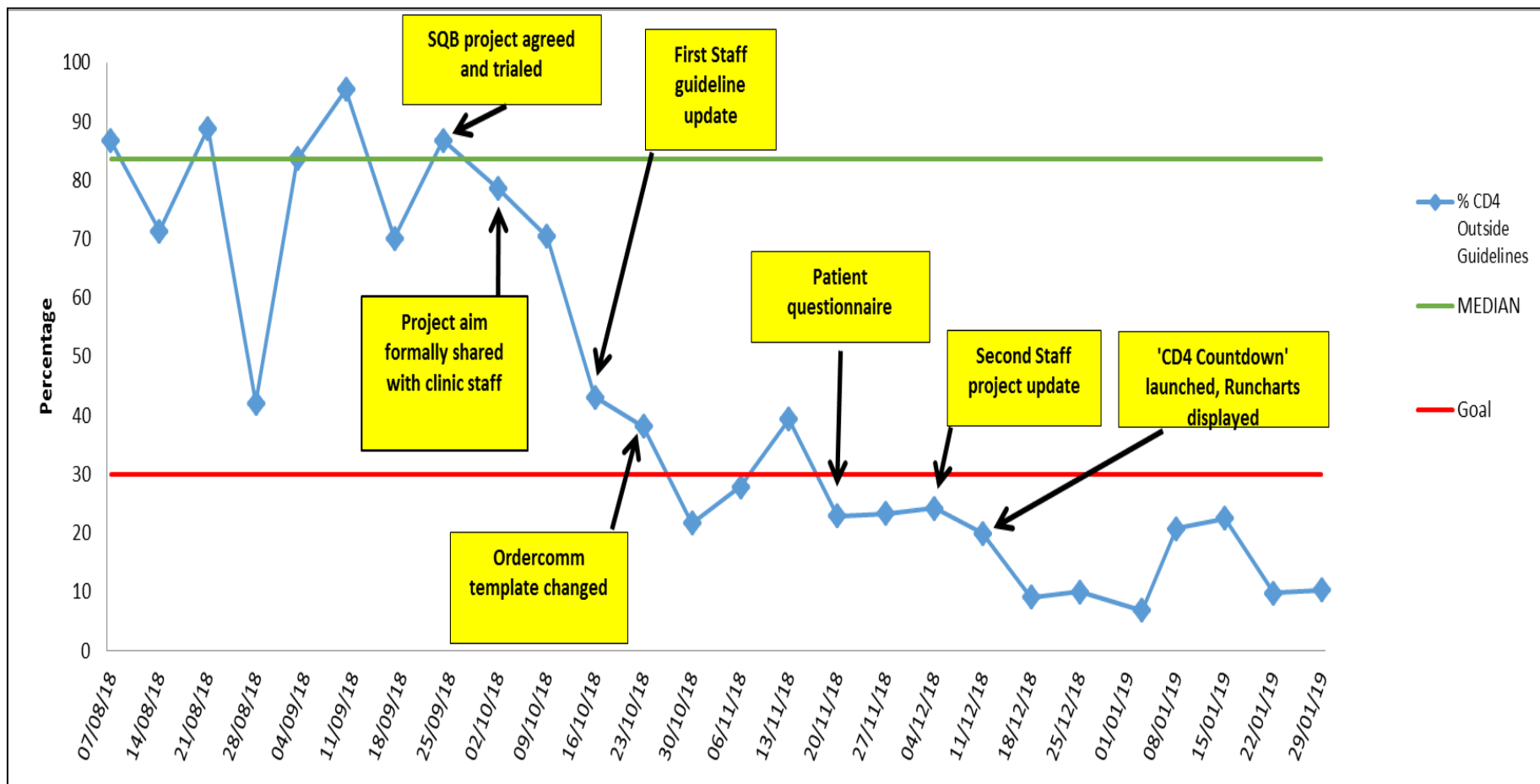
Changes Made & Example PDSA Ordercomms panels



PDSA cycle October 2018

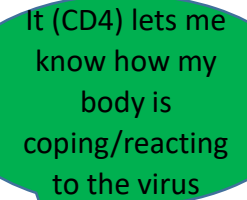
- CD4 count removed from 'routine review panel'
- Placed separately as option if required
- Resulted in '% CD4 tests sent outside of guidelines' reducing from 40% to 20% (target 30%)

Percentage of CD4 Tests Requested Outside of New Guidelines

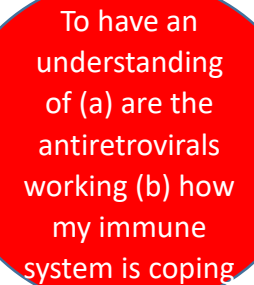


Patient engagement/ focus group

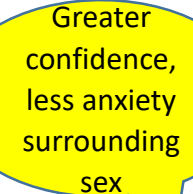
- Survey - a random sample of patients
 - to assess their understanding of VL and CD4 testing
 - whether these tests mattered to them
 - knowledge and experience of the U=U campaign (Undetectable VL means HIV is untransmittable).
- Results informed how we delivered information regarding the changes.
- Focus group at Positive Life, a 3rd sector organisation
 - to share the rationale for the project
 - hear patients' views
- Patient engagement at the focus group was constructive
- We addressed some user's concerns
 - the perception that cost saving was the main driver
- Identified what we needed to focus on in the patient information
- Learning about patients knowledge about U=U has led to a greater emphasis on promotion within the clinic



It (CD4) lets me know how my body is coping/reacting to the virus



To have an understanding of (a) are the antiretrovirals working (b) how my immune system is coping



Greater confidence, less anxiety surrounding sex

Why is it important for you to know your CD4?

“To allow me to make informed decisions regarding what risks I take in relation to my physical health”

“To keep on top of my health”

“It is my responsibility to take care of myself therefore I make a point of taking an interest in trackable markers. Also for self reassurance”

“Personal health and the safety of others”

“Is it the same as VL?”

“I want all information related to my health”

“Because it lets me know how my body is coping/reacting to the virus”

“To know if I am well”

How has your knowledge of U=U affected your quality of life?

“Greater confidence, less anxiety surrounding sex”

“Significantly”

“No but it has affected my self esteem and allowed me to be more up front with partners”

“My knowledge hasn't affect me it has affected others treatment”

“Hasn't. Disclosure of HIV within NI gay society still is an automatic kill of most encounters !”



Discussion

- This project was an excellent experience for all of our team.
 - new skills in quality improvement
 - team work
 - patient engagement
- We achieved our aim within the timeframe with a shift of more than 6 data points below the goal line to a new median of 21%
- CD4 £38.24/test, estimated saving £3928

Hurdles and barriers

- Patient buy in with many of our patients having a historical focus on their CD4 count being provided at each clinic visit.
- Ordercomms technical issue – reduced use of Ordercomms panels



Summary & The Future of the Project

- Success of the QI project was multifactorial
- Deciding the project aim early ensured we remained on schedule
- Keeping the aim small and focused ensured the goal was achievable
- Efficient data collection allowed real time tracking of progress
- Regular, short team briefs enabled early response to each PDSA cycle.
- This led to a real improvement in guideline driven test requests
 - From median 83% to new median 21%
 - Monthly saving just under £4000

Future

- Expand to other tests, within clinic
- continue patient education e.g. patient information leaflet
- Workgroup looking at results communication with patients



Questions?

