

# Nuclear Medicine Glomerular Filtration Rate (GFR) Optimisation Project

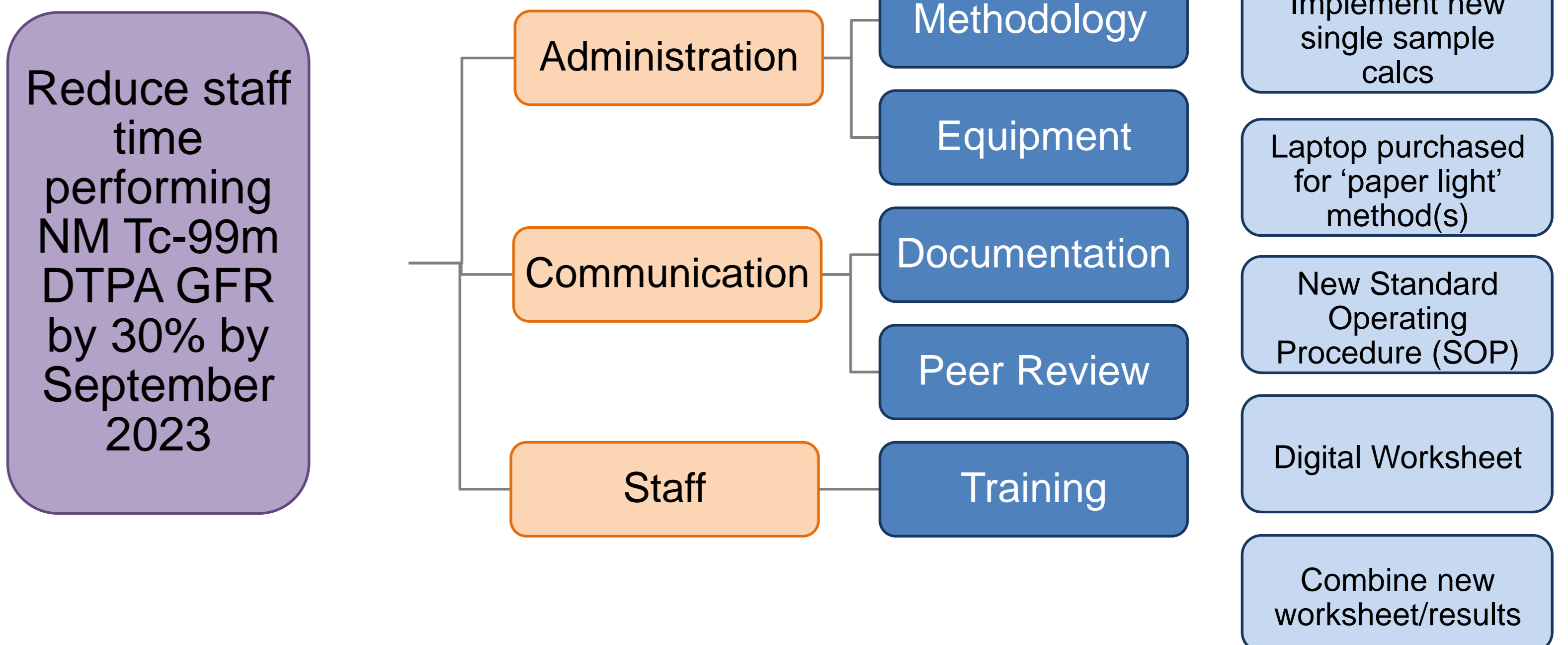
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## Background:

The Nuclear Medicine department performs a GFR (kidney function) test for patients starting platinum-based chemotherapies (predominantly Carboplatin). This test is the gold standard for measuring kidney function before nephrotoxic chemotherapy and is used in the calculations for patient's chemotherapy dosage. The GFR test involves cannulation, intravenous injection of a radioactive tracer, a two-hour gap to allow the kidneys to start filtering and then 4 blood samples (1 taken every hour). This is stressful for oncology patients as they are in the hospital for around 7 hours, and it is also labour intensive for Nuclear Medicine staff performing the test.

## Driver Diagram:



## Aim:

**Reduce Nuclear Medicine staff time performing GFR tests by 30% by September 2023.**

## Measurements:

### Outcome Measure:

No. of Hours taken for staff to perform GFR Test, per patient.

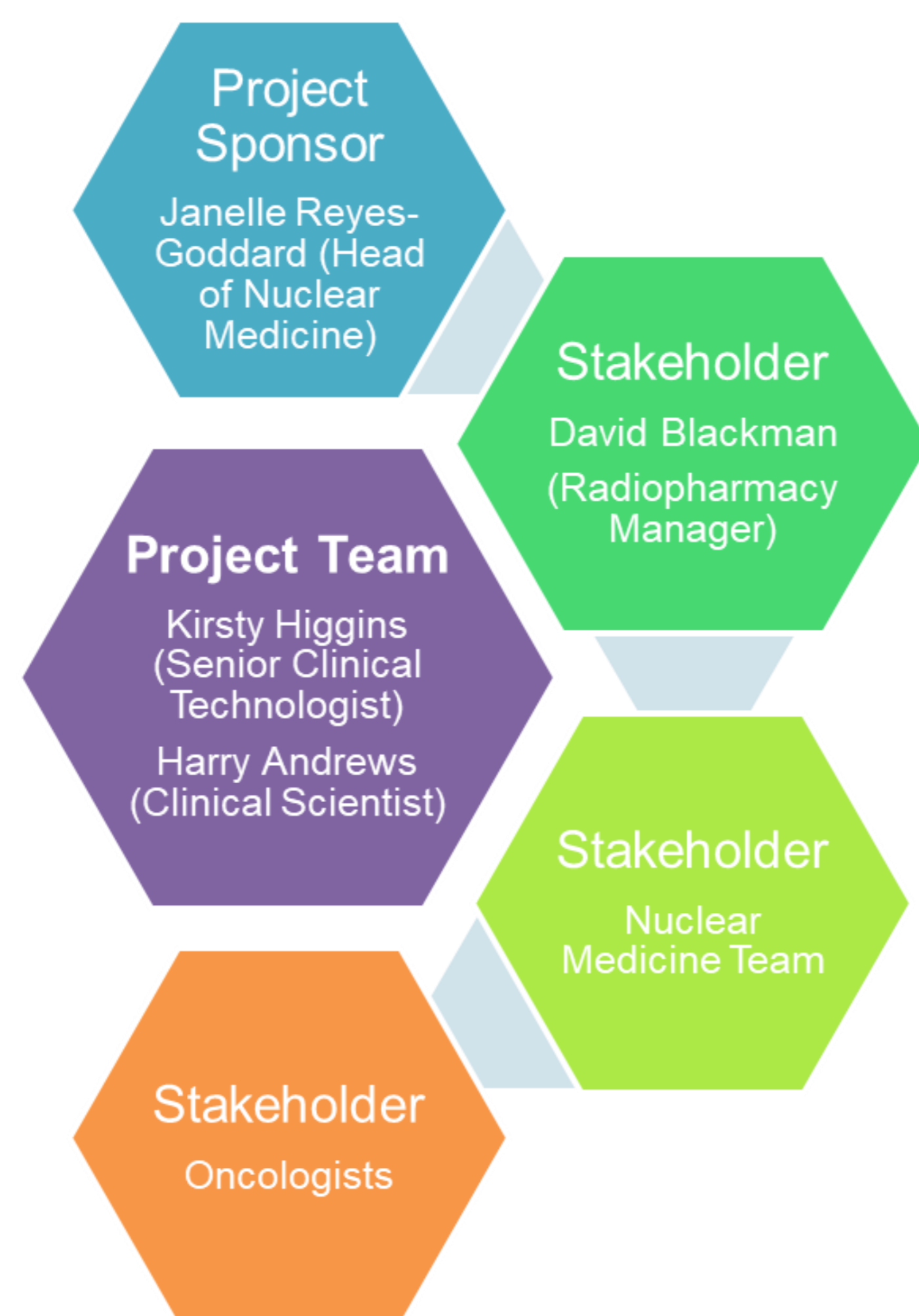
### Process Measure:

No. of documents changed (e.g., SOPs, Analysis spreadsheet).  
No. Of Change Control Meetings.

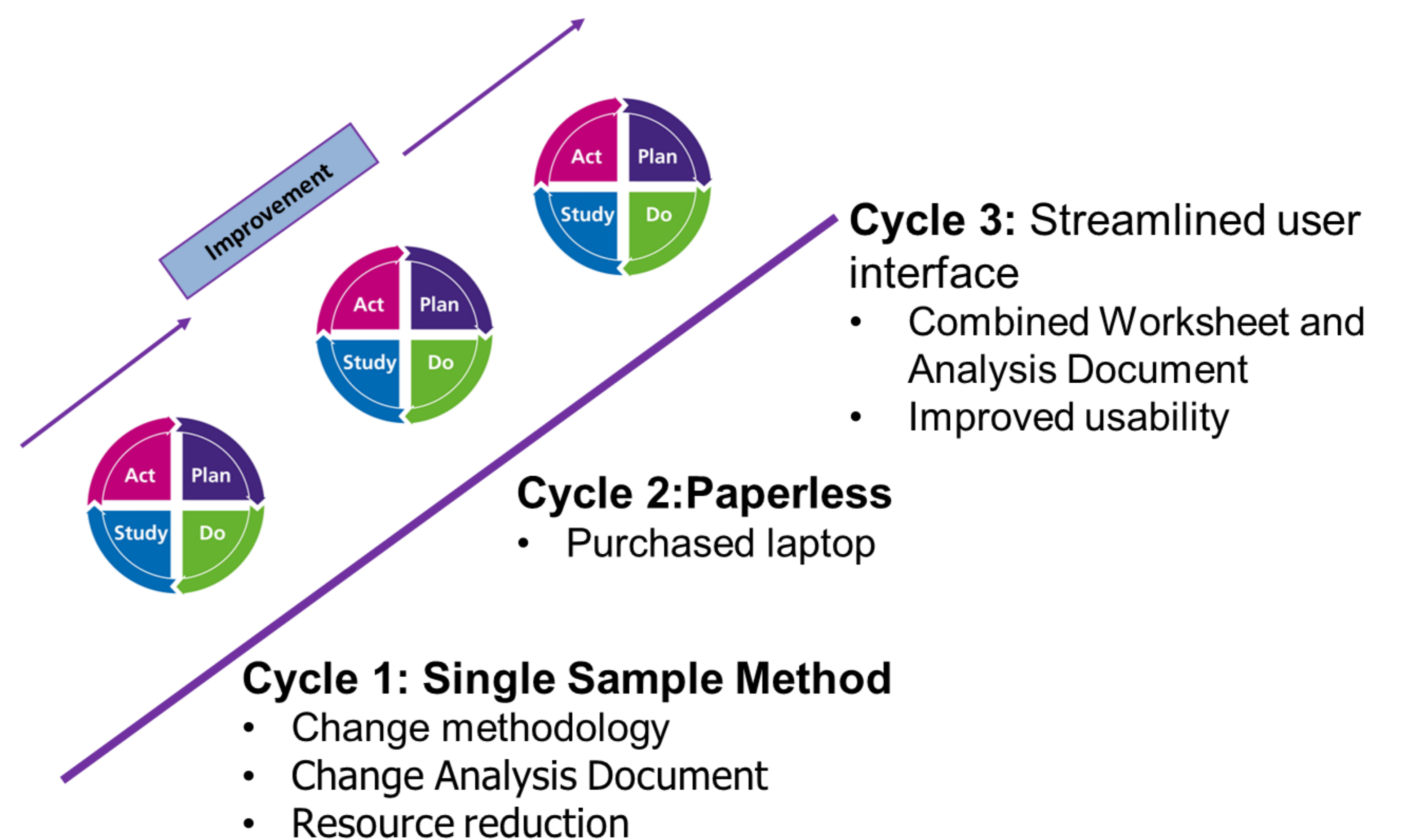
### Balancing Measure:

Resources saved.  
Effect on patients with GFR<25 or Ascites/Oedema.

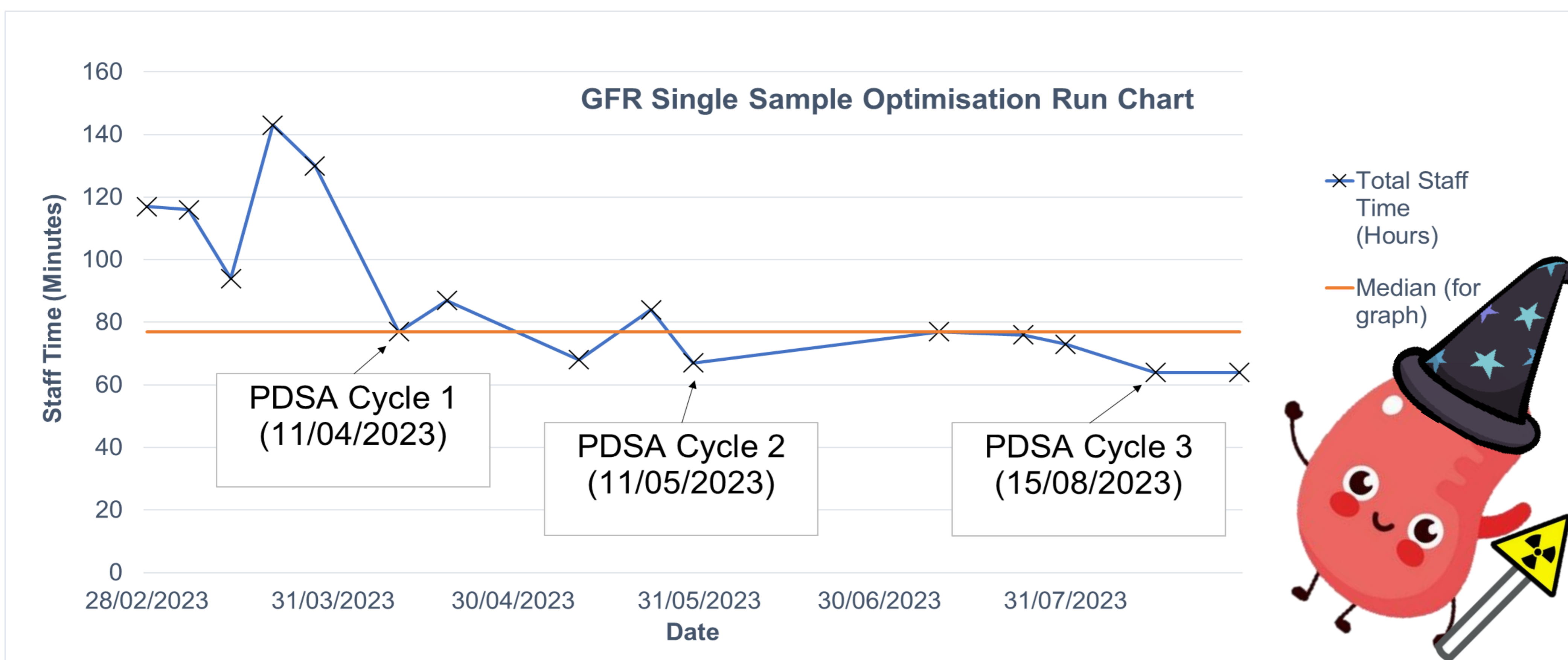
## Project Team :



## PDSA Cycles:



## Data:



## Resource Reduction:

- 21p per Vacutainer Eclipse Set = 63p saved
  - 10p per Vacutainer Blood Tube = 30p saved
  - 2p per Test tube and Cap = 6p saved
  - 4p per Pipette tip = 12p saved
  - 6p per pair of Gloves = 18p saved
  - 6p per apron = 18p saved
  - Paper = 1p saved
- Total saved per patient = £1.48  
Annual saving = £118 (approx. 80 patients per year)



## Results:

47% Reduction of Staff Time compared to Pre-Project by PDSA Cycle 3.  
Significantly reduced patient time in hospital improving the patient experience

## Next Steps:

Final review due 3 months post PDSA cycle 3 (Nov/Dec 2023)