

Potassium Protocol implementation and Blood work turn around time (TAT) reduction

1. Background

Potassium plays an important role in kidney health. While dialyzing, timely blood work results are helpful in understanding the potassium levels and changing the potassium bath for the patient to ensure the safe and effective management of the dialysis treatment.

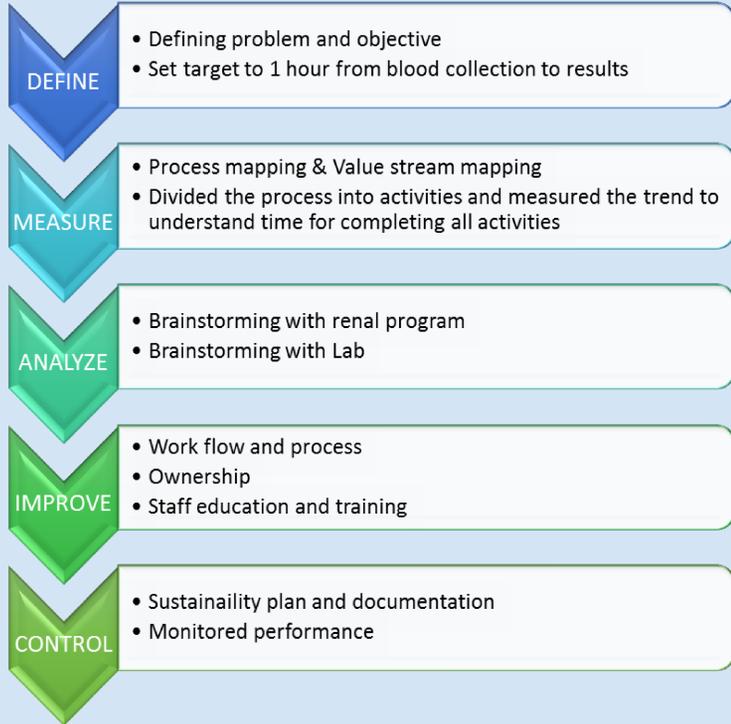
Goals:

- For Dialysis patients, reduce overall monthly blood work turnaround time for lab results to ensure safe and appropriate care to GRH patients and implementing potassium protocol.
- The "TAT" (Turn-Around-Time) project is a precursor to the implementation of a new potassium protocol. Timely blood work results are essential components of safe and effective management of the dialysis treatment.

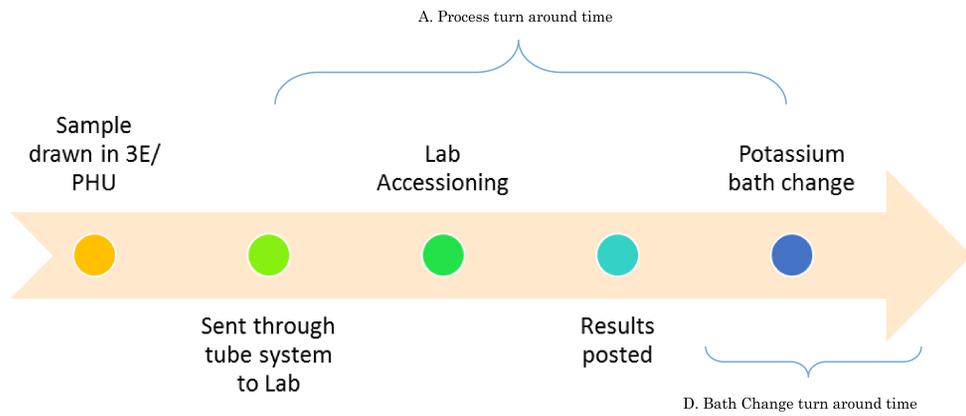
Inter Disciplinary Team:			
Renal Unit- Nursing Staff	Duty Assists	Lab- Pre analytics team	Education Practice Lead
Leadership- Renal program	Leadership- Lab Medicine	Decision Support	Quality

3. Methodology

Six Sigma technique is used through out to improve end result



2. Process

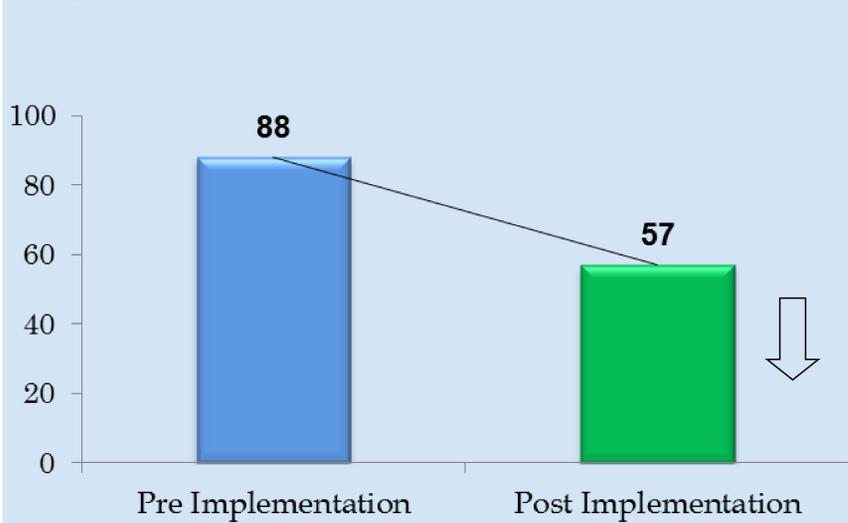


4. Improvement Journey

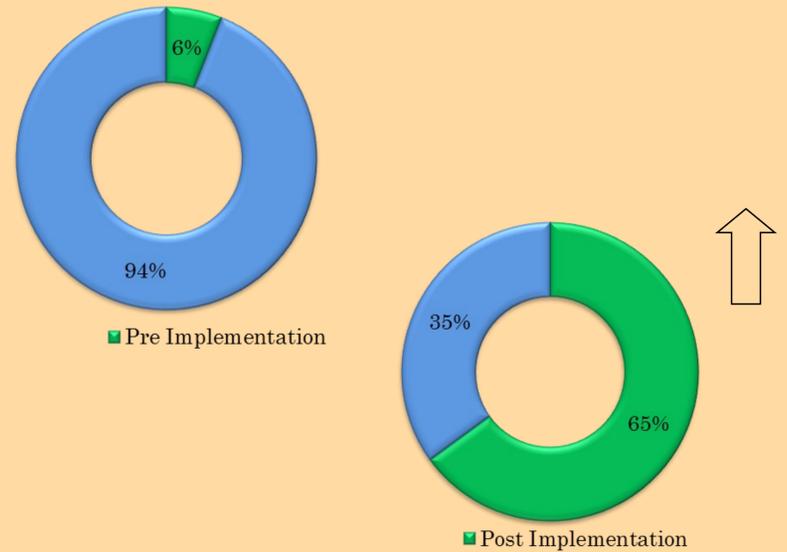
Program	Category	Improvements
Renal- 3E and PHU	Communication	.For query, wrong area in renal called; multiple calls made for sample issues. Generated new calling list
	Training/ refresher	.Blood ends up in wrong tube .Staff awareness for blood work order .Accuracy for signing labels (date, time, etc.) .Labels to be stucked in a legible way to samples .More understanding on the process of drawing and sending the blood work
	Scheduling	.DA's break time to be different from peak time for blood work transfer from renal to lab
	Responsibility & communication	.Effectively communication with in POD for DA / Resource Plan off from unit
	Responsibility & Ownership & Process	.Education to nurses for responsibility on sending blood work to lab .Standardize the sequence of activities involved in blood withdraw to sample transfer to tube .Minimize variation between shifts
	Lab	Staffing issues
Sample identification/ Mistake proofing		.New color bags " Blue" used to ensure staff don't miss the renal electrolyte samples on monthly blood work days
Staff education		.Staff buy in by involving in all project stages and sharing regular feedback
Defined Algorithm for optimal capacity		.To minimize the lag in transfer of samples after accessioning, used linear equation- $Y = mx + c$ to understand the optimal number of samples which could be handled by analyzer.

5. Results

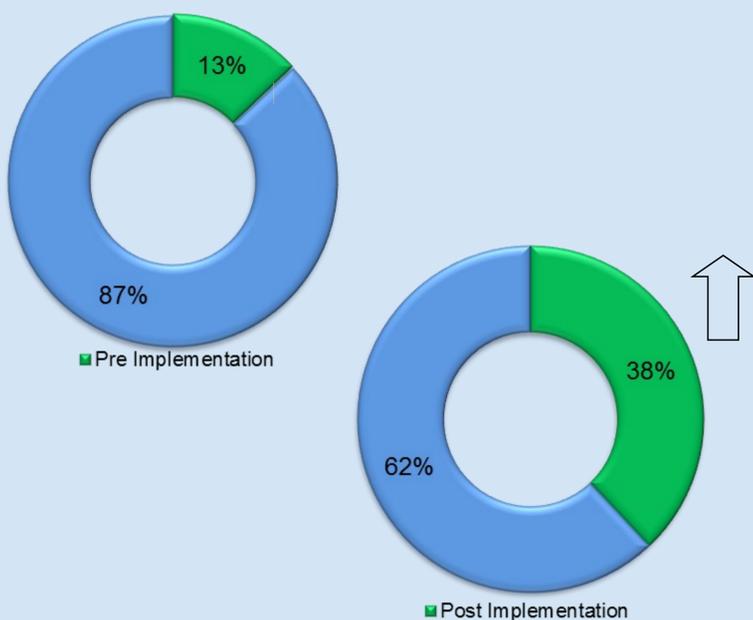
A. Average Turn Around time (Min.) form sample collected to results posted



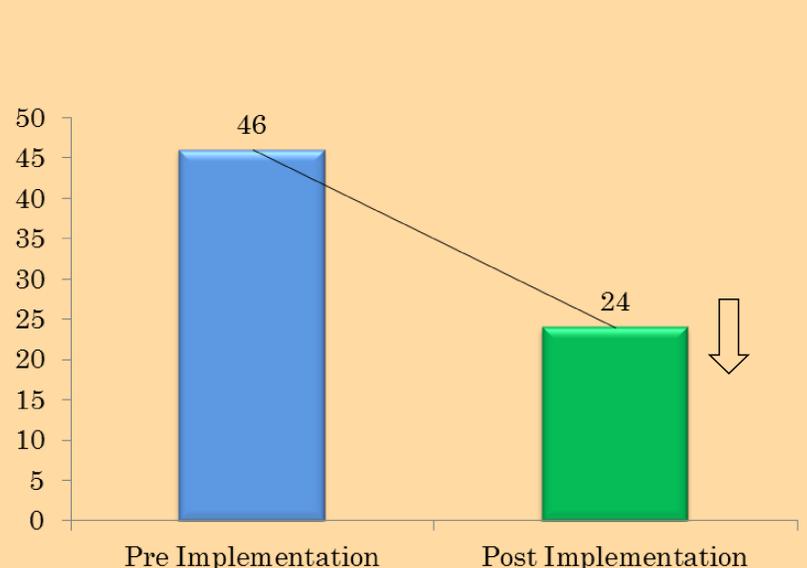
B. Percentage of reporting within an hour (60 min)



C. Percentage of bath change post lab results



D. Average Turn Around time (Min.) for bath change



E. Reduced unnecessary phone calls between physician and nurse of approx. 7.5 hours per months time

6. Sustainability:

- Regular monitoring the process, in scorecard
- Reviewed performance until six months post implementation of changes
- Added to monthly meeting staff meeting agenda and new employee orientation protocol

7. Lessons Learned:

- Practice change for 100+ nurses is not easy, require dedication
- Strong and regular follow ups is important post implementation
- True passion bring results

GRAND RIVER HOSPITAL,
KITCHENER, ONTARIO, CANADA

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Project Lead (Renal Program): Jaqueline Martin / Jessica Walker (EPL)
Lab Medicine: Sonia Bucher and Leslie Rowbotham (Pre-Analytics manager- Lab)