

Improving Efficiency of Paracentesis Procedures in the CTU setting at Victoria Hospital



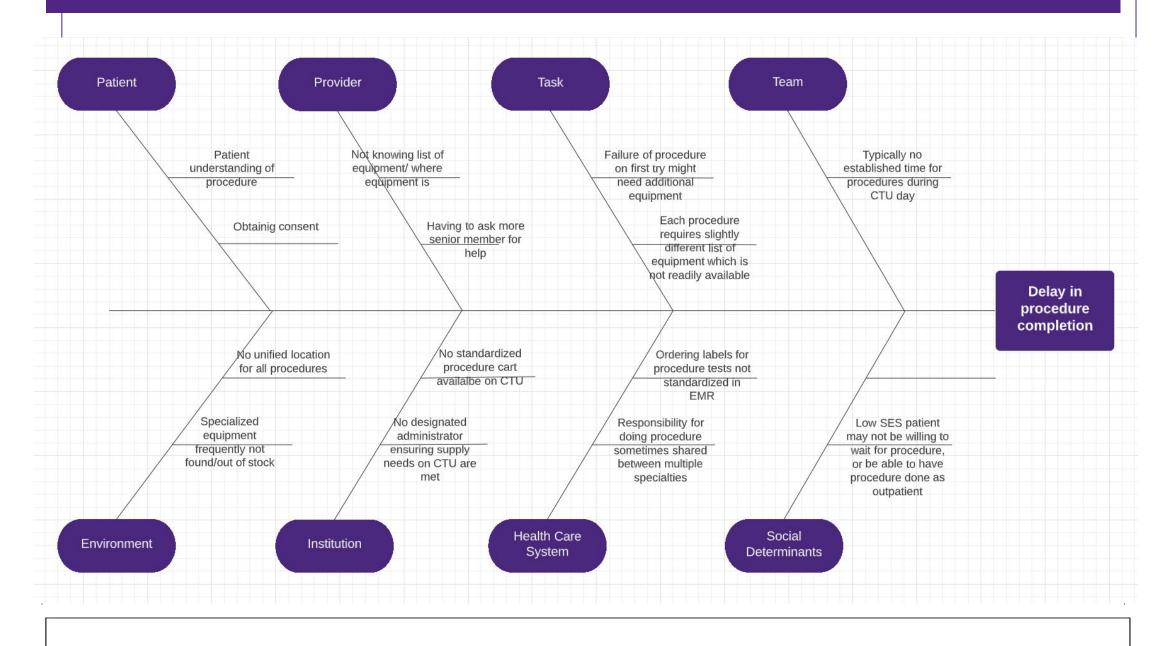
Ahmed Zaki, Rajiv Lakhani, Hamza Mahmood Centre for Quality, Innovation, and Safety, Schulich School of Medicine & Dentistry, Western University, London, ON, Canada

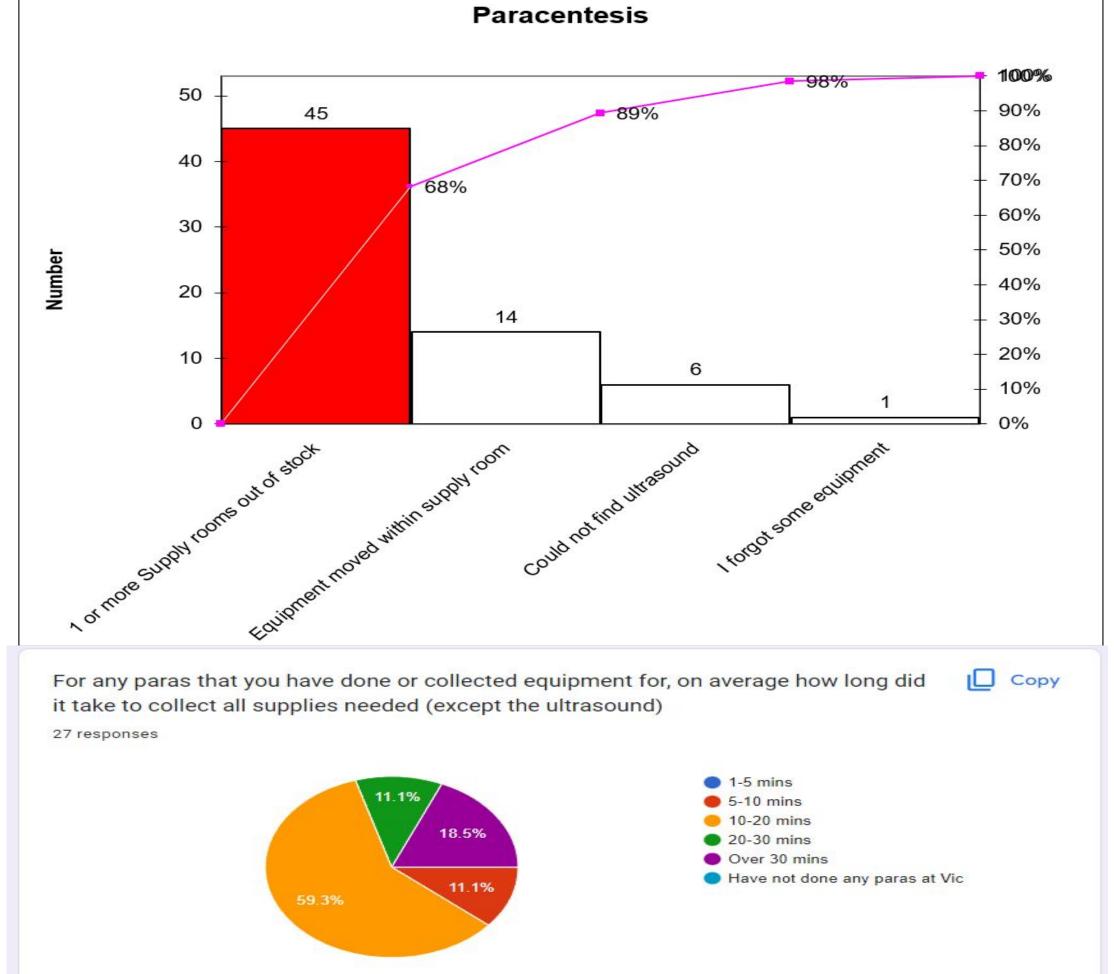
AIM Statement: Reduce the time required to gather equipment for a paracentesis by residents on the CTU service at VH by 25% in 8 months time.

PROBLEM DEFINITION

- Significant time spent collecting equipment for paracentesis is a barrier for efficient delivery of care
- Residents are unaware of location of equipment
- Equipment not readily available or out of stock

ROOT CAUSE ANALYSIS





SOLUTION

Easily accessible procedure checklist that outlines all equipment required for paracentesis, with curated route for efficient collection at VH while on CTU.



IMPLEMENTATION

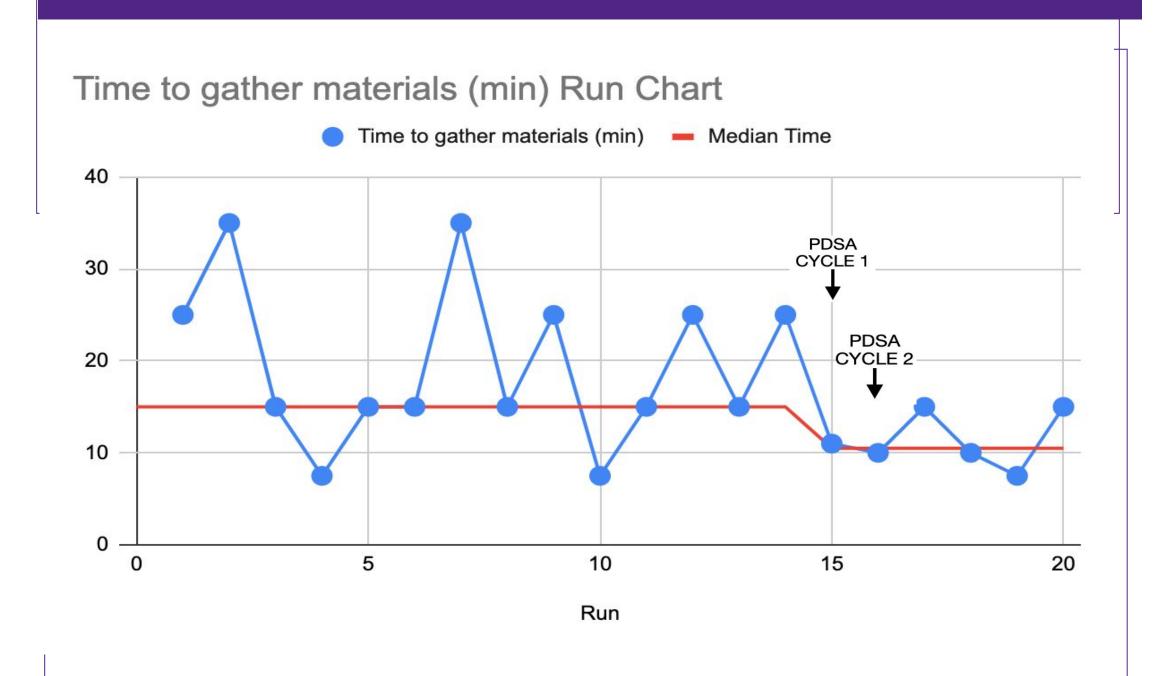
PDSA cycle 1

Implementation: Checklist trialed on 1 resident Learning: Successful route, improve checklist order

PDSA cycle 2

Implementation: Checklist mailed to IM cohort Learning: Easy access, primary location at times out of stock

MEASUREMENT & RESULTS



Median improved from 15 minutes to 10.5 min (30% decrease), with less variance

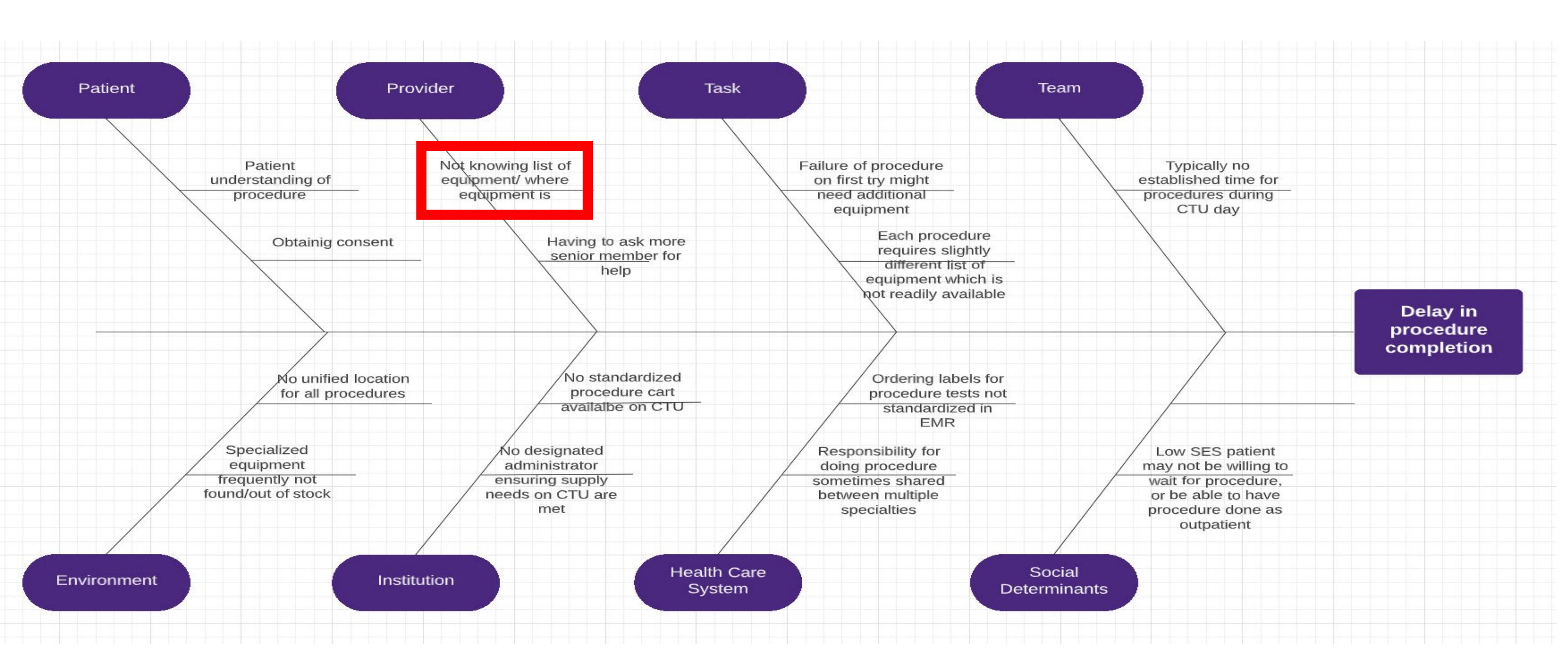
SUSTAINABILITY

- 1. Checklist/QR code in orientation email
- 2. Chiefs/GIM fellows trained monitor durations
- 3. Chiefs/GIM fellows to FU on checklist application Q1-3 months

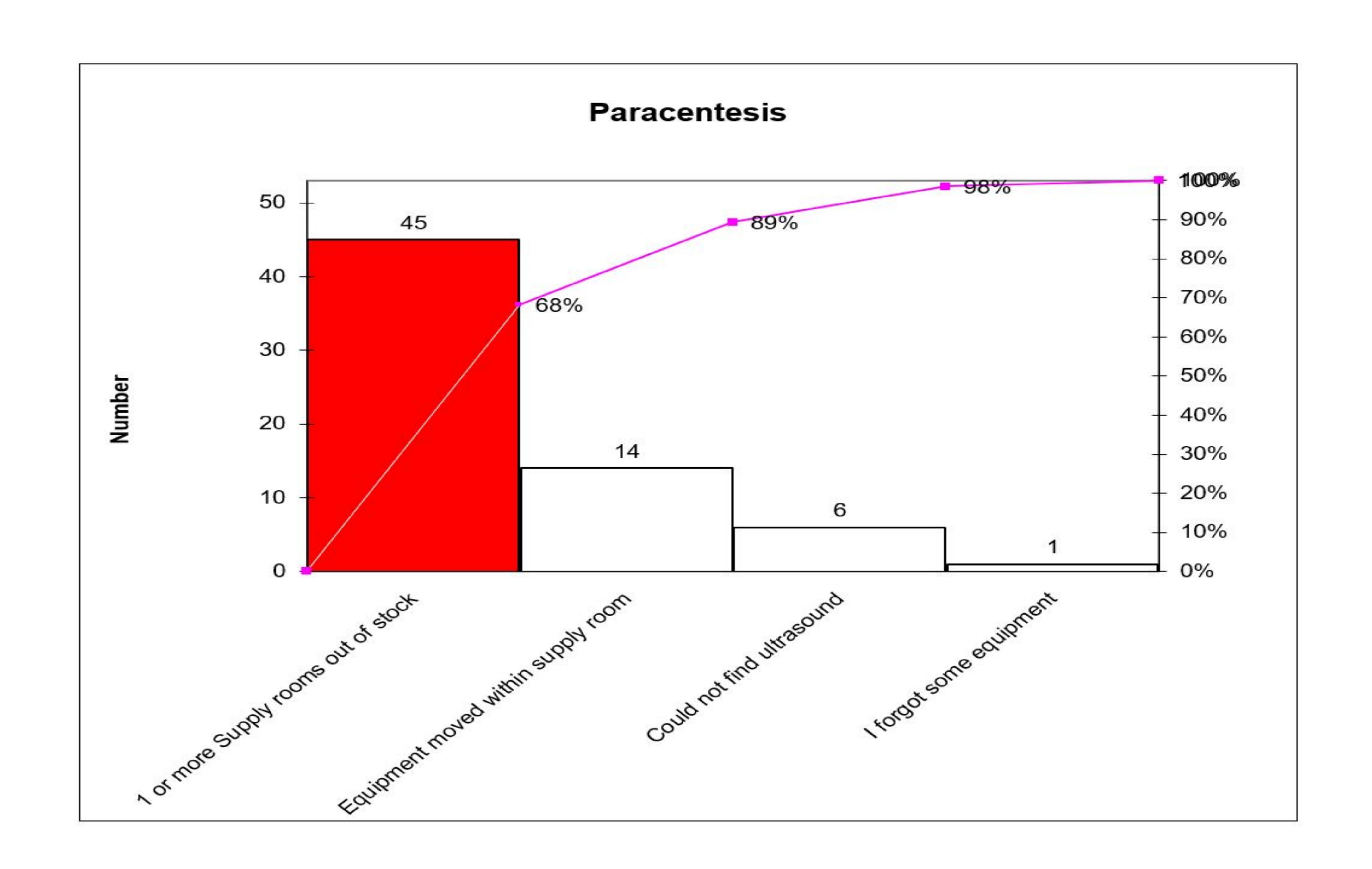
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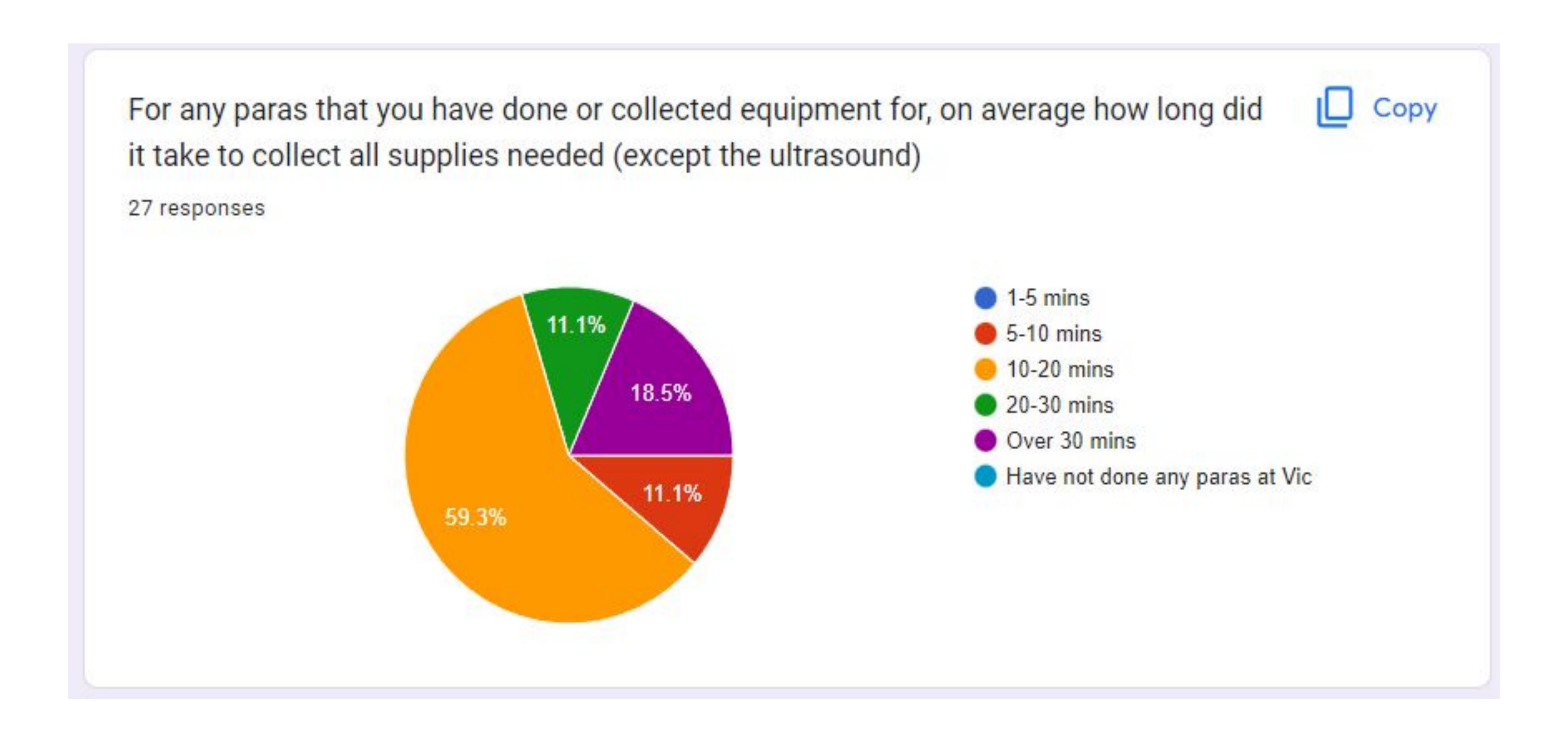
ROOT CAUSE ANALYSIS



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IMPLEMENTATION

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order

PDSA cycle 2

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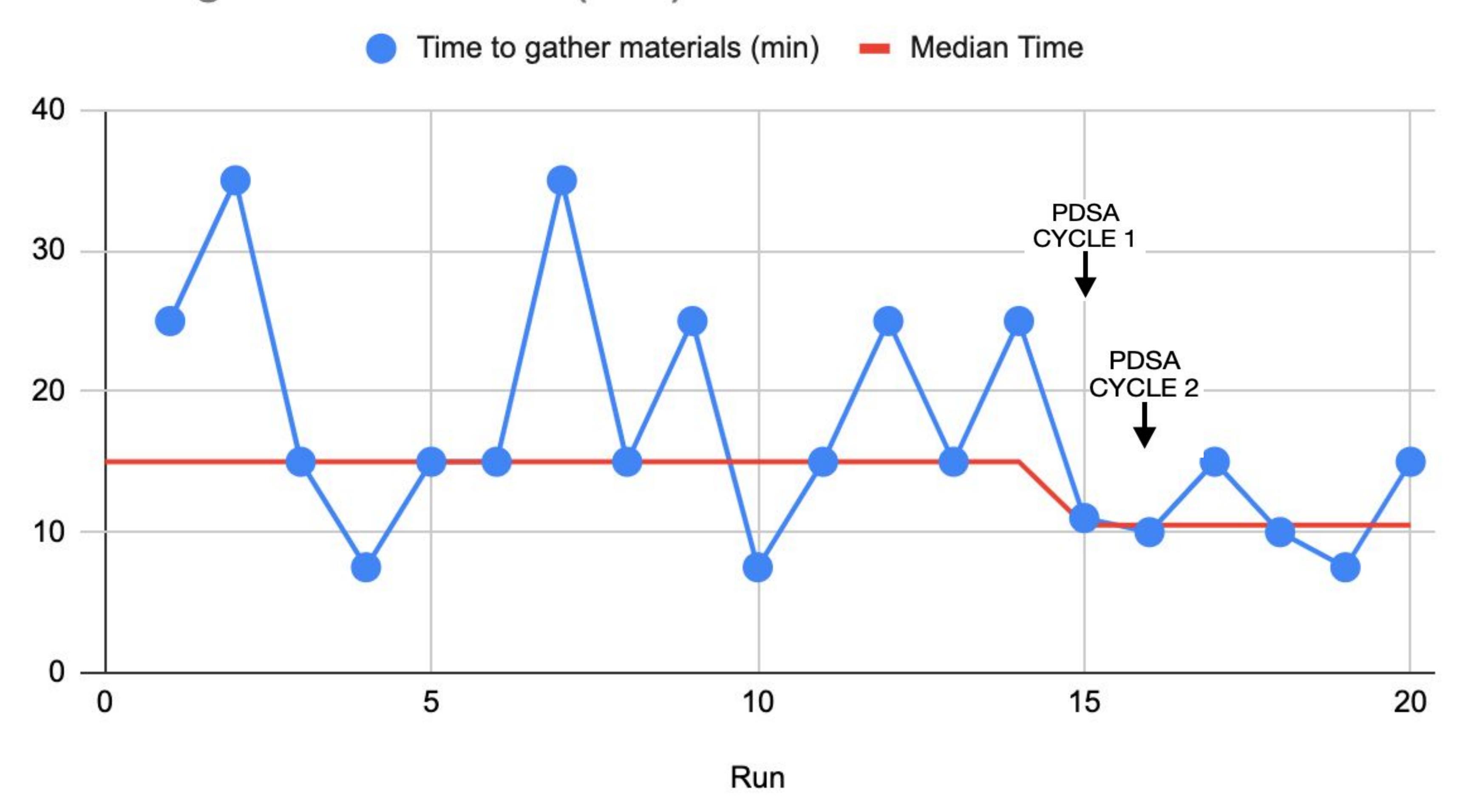
out of stock

IMPLEMENTATION



MEASUREMENT & RESULTS

Time to gather materials (min) Run Chart



Pre PDSA Median Time: 15 mins

Post PDSA Median Time: 10.5 mins (30% decrease)

Sustainability

- 1. Documentation of new standard:
 - a. QR and checklist included in the CTU welcome email sent by the chiefs
- 2. Education and training:
 - a. GIM fellows and chief residents are shown how to update handout
 - b. Option for residents to provide suggestions to the checklist
- 3. Monitoring:
 - a. Future GIM fellows will continue to monitor and collect data on residents doing procedures
 - b. Residents will self-monitor and provide feedback on duration of procedures
- 4. Response:
 - a. GIM fellows and medicine chiefs will be prompted to review checklist accuracy and relevancy



PARACENTESIS PROCEDURE CHECKLIST

Victoria Hospital

ITEM	LOCATION	BACKUP LOCATION	BACKUP BACKUP LOCATION	
Bedside U/S	D7-017 code 8326*	CCTC (ask permission)	CCTC (ask permission)	
Sterile gloves	D7-011 supply room	Supply room by patient	CCTC Procedure Cart	
Skin pen/blunt needle tip for site marking	D7-011 supply room	Supply room by patient	CCTC Procedure Cart	
Optional: Gravity suction bottle if more rapid collection preferred	D7-011 supply room	Supply room by patient	CCTC Procedure Cart	
Dressing	D7-011 supply room	Supply room by patient	CCTC Procedure Cart	
Tubes: 1 red top (CBC), 1 purple top (chemistry), 1 anaerobic bottle (C+S), 1 aerobic bottle (C+S), cytology bottle (optional)	D7-011 supply room	Supply room by patient	CCTC Procedure Cart	
lodine cleaning swabs X3	D7-011 supply room	Supply room by patient	CCTC Procedure Cart	
Paracentesis tray (use as sterile field; includes drape, 10 cc syringe, blunt needle tip, skin freezing needle tip, scalpel)	D7-416 (Safe-T Thora-Para Tray ideally)	Supply room by patient	CCTC Procedure Cart	
Safety needle <i>(ideal)</i> or 16-18 gauge needle catheter	D7-416 (included in Safe-T Thora-Para Tray)	Supply room by patient	CCTC Procedure Cart	
50 cc syringe for specimen collection	D7-416	Supply room by patient	CCTC Procedure Cart	
Paracentesis suction bag	D7-416	Supply room by patient	CCTC Procedure Cart	
Lidocaine 1 or 2% with epinephrine	Obtained from RN	Supply room by patient	CCTC Procedure Cart	
Facemask with shield	Outside Patient Room	Supply room by patient	CCTC Procedure Cart	

POWERCHART	Cell count and differential,Flui d (CDF)	Fluid Culture (FLDS)	Albumin,Fluid (ALBF)	Protein,Fluid (PRF)	Cytology Fluid (CYTOF)	Albumin,Serm, Plasma (ALB)
LABEL APPLIED	Lavender top	Culture bottles	Light Green	Light Green	Cytology	RN to
TO	tube		top tube	Tube	container	complete