

Project Title

Reduced Endoscopy On-Call Staff Burnout

Project Lead and Members

Project lead: Zhang Rong

Project members: Wang Caihong, Fan Ruhui, Low Jie Wen, Xing Lijia, Ma Xueyun

Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group Involved in this Project

Nursing

Applicable Specialty or Discipline

Gastroenterology

Aims

The endoscopy team intends to achieve reduce avoidable call back hours from 131 hours to 104 hours and frequency of prolonged call back hours from average 3 episodes to 0 episode per month by 31/7/2021.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

Staff wellbeing is paramount to achieve safe and effective care for patients. Successful change requires effective communication and collaboration among departments.

Conclusion

See poster appended/ below

Project Category

Organisational Leadership, Human Resource, Staff Wellbeing

Care & Process Redesign, Quality Improvement, Workflow Redesign

Keywords

Reduce call-back hours, Endoscopy

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REDUCED ENDOSCOPY ON-CALL STAFF BURNOUT

MEMBERS:

ZHANG RONG, WANG CAIHONG, FAN RUHUI, LOW JIE WEN, XING LIJIA, MA XUEYUN

Define Problem, Set Aim

From April 2020 to August 2020, Endoscopy staff call back hours reached average 131 hours per month. There were 17 episodes of staff called back to work exceeded 12hrs during this period (Fig 1&2). This led to violate Ministry of Manpower regulation, staff burn out and decreased job satisfaction.

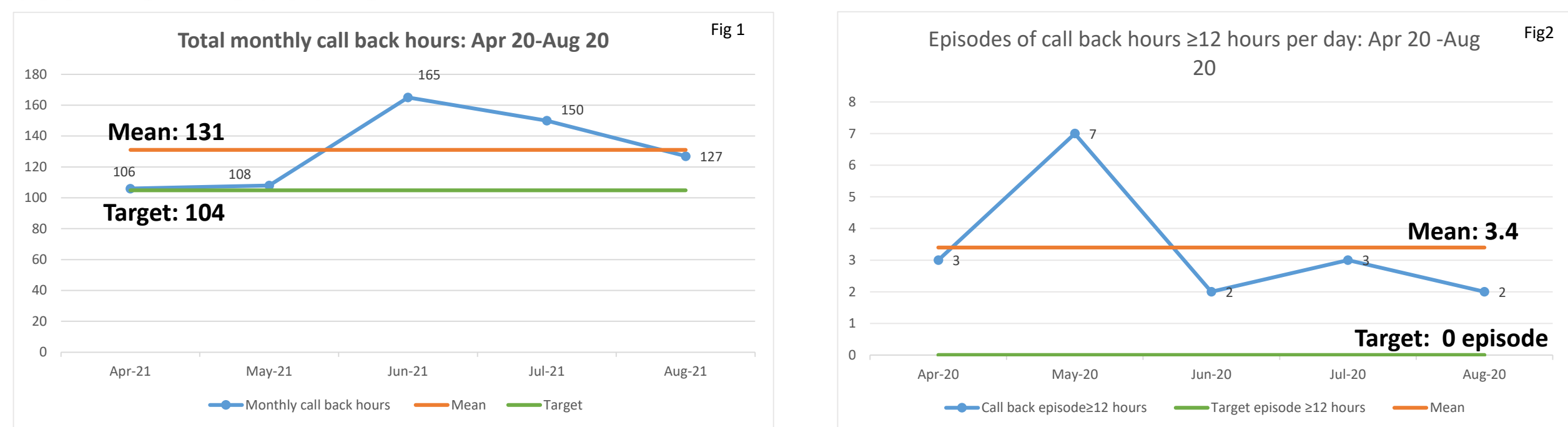
Aim

The endoscopy team intends to achieve reduce avoidable call back hours from 131 hours to 104 hours and frequency of prolonged call back hours from average 3 episodes to 0 episode per month by 31/7/2021.

Establish Measures

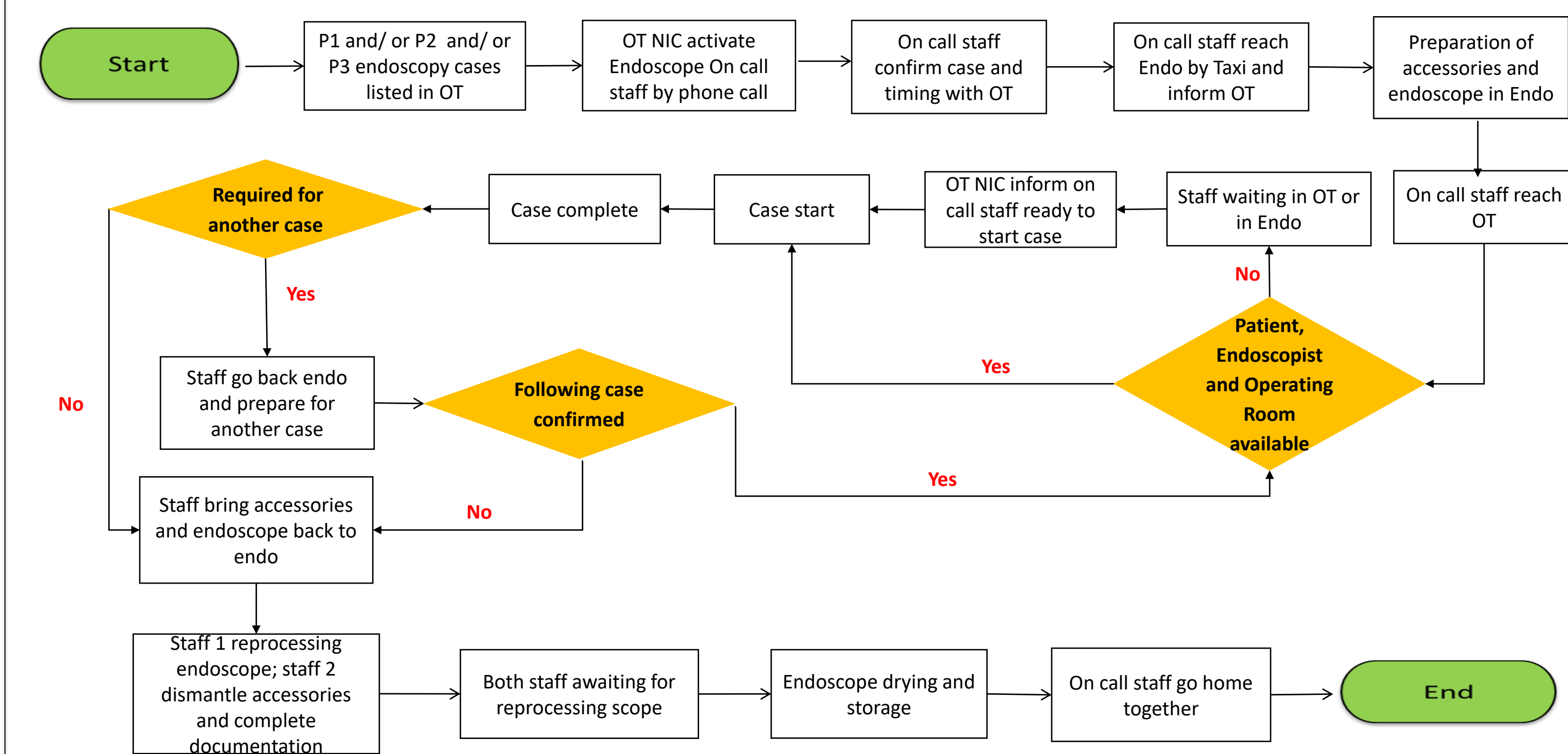
What was your performance before interventions?

Outcome measure:



Analyse Problem

Endoscopy on call duty work process:



What are the probable root causes?

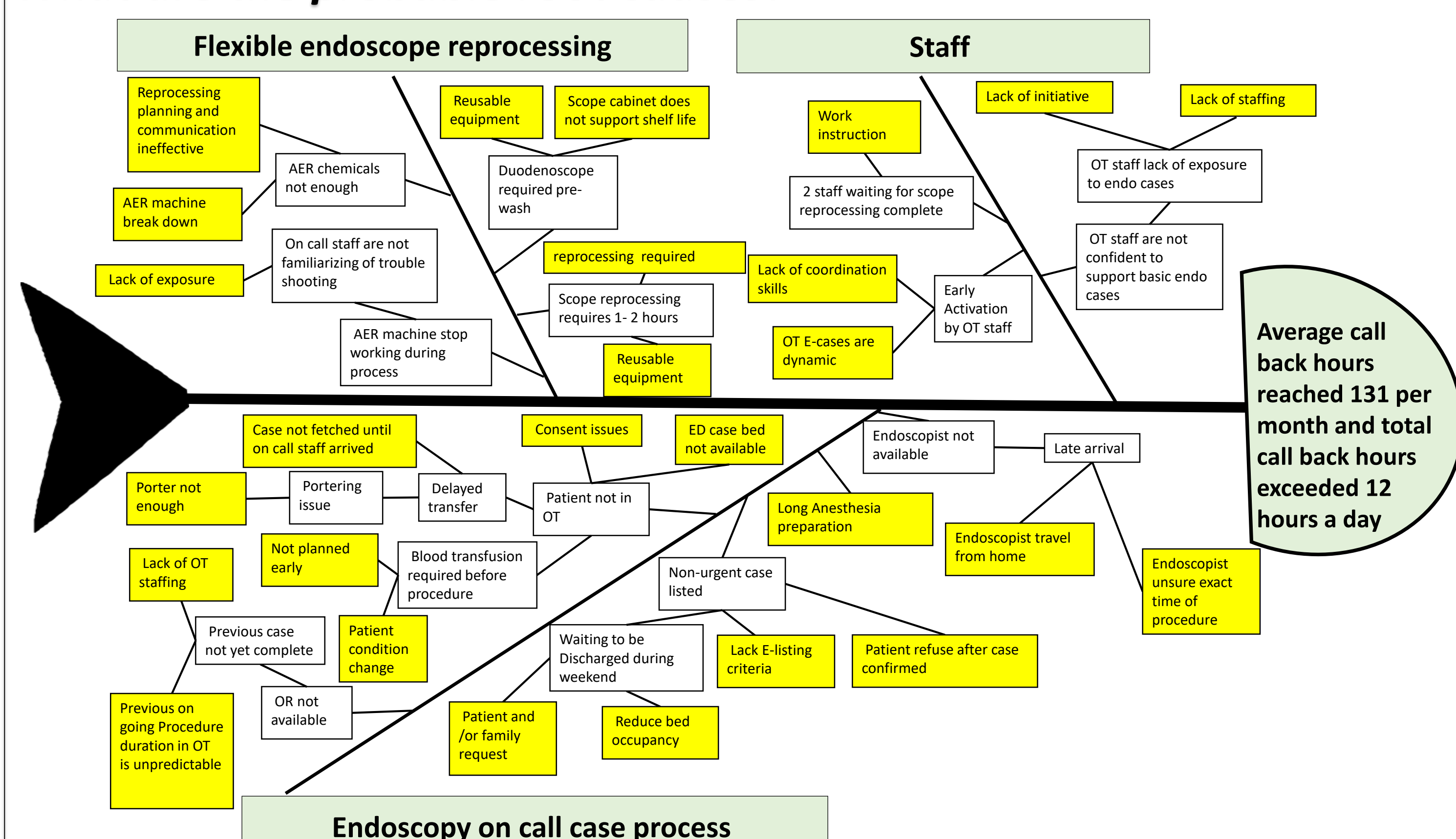
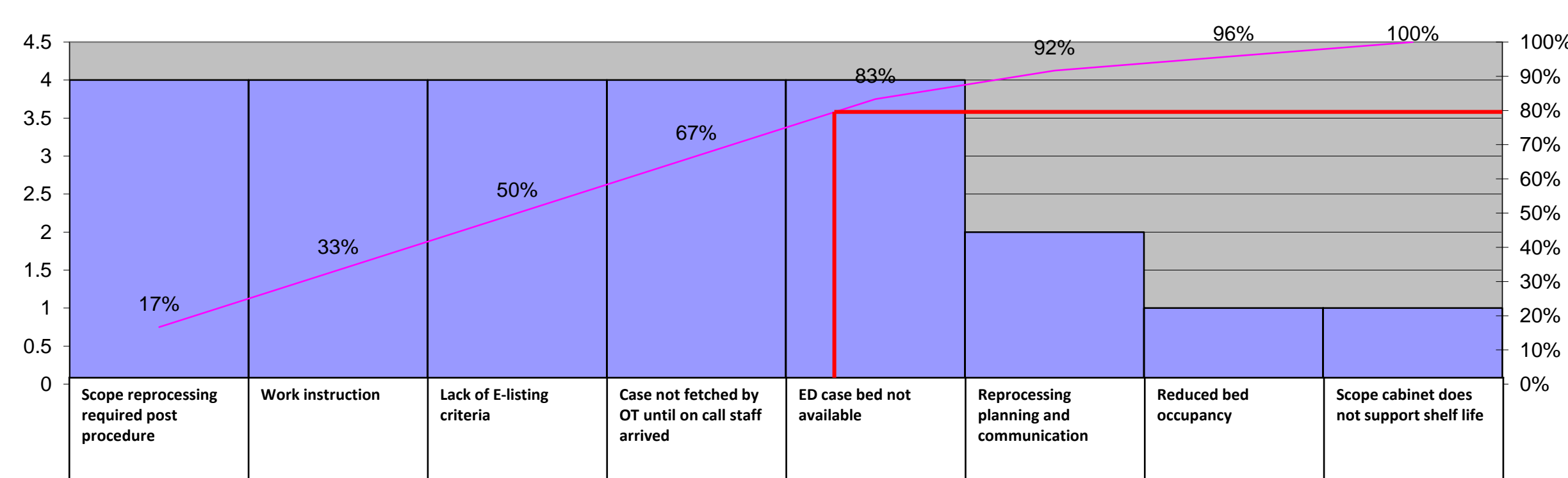


Fig 3 Pareto Chart

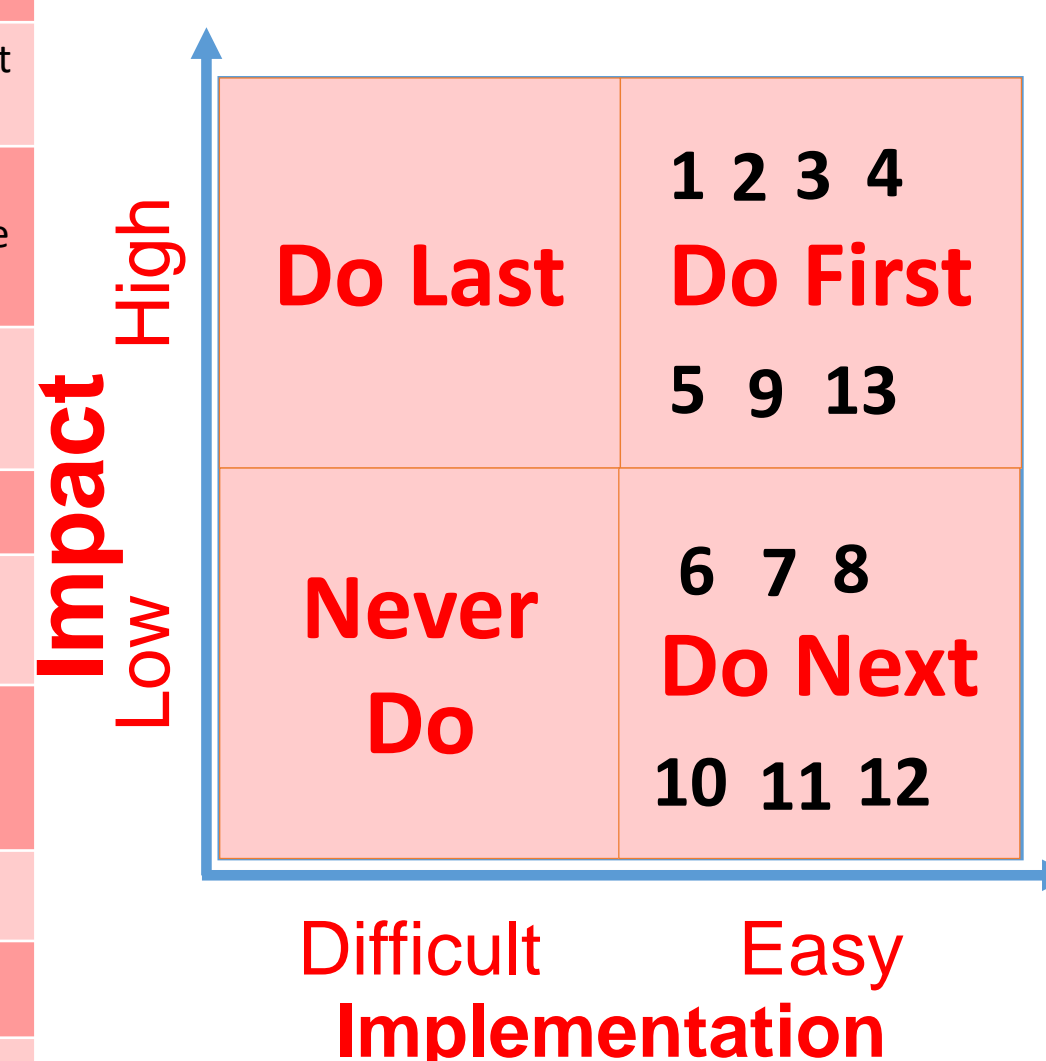


- SAFETY
- PRODUCTIVITY
- QUALITY
- COST
- PATIENT EXPERIENCE
- TEAMWORK
- COMMUNICATION

Select Changes

What are all the probable solutions? Which ones are selected for testing?

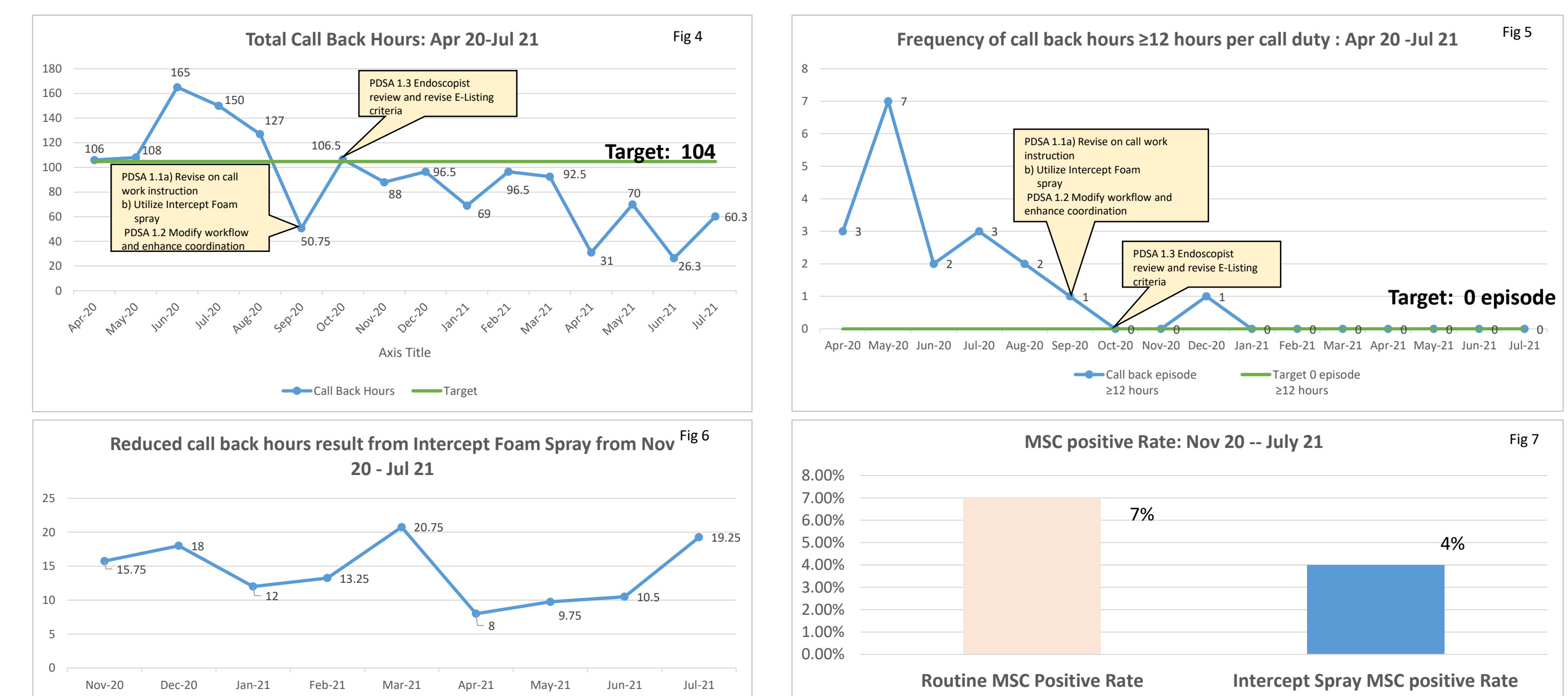
Root Causes	Potential Solutions
A. Scope reprocessing required post procedure	1 Source alternatives delay reprocessing process by using Intercept Foam spray
	2 One staff to stay back for scope reprocessing complete when it is possible
B. Work instruction	3 Reduce 2 staff to 1 staff to wait for reprocessing complete whenever it is possible
	4 Report on call data to Endoscopy Committee Chairman Dr Choo CG, Ms Joanna Tan and CN, and share in Endo Committee and disseminate through Email
C. Lack E-listing criteria	5 Endoscopist to review and standardize E-listing criteria, and to disseminate within department to reinforce the E-listing criteria
	6 Escalate issues to senior management
	7 Reinforce to OT that on call staff estimated arrival is 45 mins -1 hour once activated
D. Case not fetched by OT until on call staff arrived	8 Improve OT staff communication and coordination with endoscopist, anesthetist and on call staff, to provide more precise procedure time
	9 On call staff to update OT once arrived in hospital
	10 Timely feedback to endo NCs and OT NCs of avoidable delay
	11 Reinforce to OT that on call staff estimated arrival is 45 mins -1 hour once activated
E. ED case bed not available	12 Improve communication and coordination with OT staff, endoscopist, anesthetist and on call staff, to provide more precise procedure time
	13 Reinforce OT staff to activate on call staff only when bed is available



Test & Implement Changes

How do we pilot the changes? What are the initial results?

CYCLE	PLAN	DO	STUDY	ACT
1	1.1 Revise endoscope reprocessing: a) Revise on call work instruction b) Utilize Intercept Foam spray	<ul style="list-style-type: none"> One staff stayed back for scope reprocessing whenever possible Used Intercept Foam Spray on scopes if the next day was a working day Initiated research project on Microbiological surveillance culture (MSC) for scope after spray to ensure scope was safe for patient use 	<ul style="list-style-type: none"> Reduced call back hours resulted from modified on call scope reprocessing process Satisfactory MSC result achieved 	<ul style="list-style-type: none"> Call back hours was reduced significantly after scope spray. Fig 4 and Fig 6 MSC conducted after scope spray was comparable to routine MSC result (4% vs 7%). Fig 7 On call staff were more satisfied with the revised endoscope reprocessing work instruction as on call staff no need to wait for scope reprocessing after Intercept Foam spray. However, it added workload for reprocessing staff who need to pre-reprocessing the scope on the coming working day. To adopt the change and implement
	1.2 Modify Workflow and Enhance coordination: a) Standby second on call team b) Improve OT staff communication and coordination with on call staff, endoscopist and anesthetist	<ul style="list-style-type: none"> Second on call team to take over if the first team worked more than 12 hours Ensure case was ready when on call staff arrived in OT to reduce on call staff waiting time 	<ul style="list-style-type: none"> Reduced call back hours Reduced episode of call back hours ≥12 hours per call duty 	<ul style="list-style-type: none"> Early activation was decreased and communication among stakeholders was improved. Both call back hours and episode of call back hours ≥12 hours per call duty were significantly reduced. Fig 4 and Fig 5 To adopt the change and implement
	1.3 Review and Revise E-listing Criteria: Review and revise E-listing criteria by endoscopist	<ul style="list-style-type: none"> Reported and shared the on call data to all key stakeholders by endo team Reviewed and standardized E-listing criteria by endoscopist 	<ul style="list-style-type: none"> Reduced call back hours 	<ul style="list-style-type: none"> Total call back hours reduced remarkably. Fig 4 Staff job satisfaction increased tremendously To adopt the change and implement



Spread Changes, Learning Points

What are/were the strategies to spread change after implementation?

Endoscopy on call process is complex and complicated. Reduce avoidable call back hours requires systematic approach and all key stakeholders' involvement. Staff work commitment, management support and collaborative effort will render sustainable change. Intercept Foam spray is useful however it demands clinical testing for its safe use. Research project of the impact of Intercept Foam on endoscope Microbiological test is ongoing and received good interim result. The final result is planned to publish next year.

What are the key learnings from this project?

Staff wellbeing is paramount to achieve safe and effective care for patients. Successful change requires effective communication and collaboration among departments.

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