

Project Title

Improve Percentage of MAC Patients Proceed for Scheduled VIR Procedures within 60mins from Appointment Time

Project Lead and Members

Project lead: Ms Rosaline Yeo Lay Peng

Project members: Dr Joseph Lo Zhiwen, Ms Dorothy Tan, Ms Kelly Wang Zhi Fan, Ms Shen Peipei, Ms Chong Yik Huay, Ms Chew Lee Lik, Ms Roshnaran Begum D/O Shaik Mohamed and Ms Wan Kit Yin.

Organisation(s) Involved

Tan Tock Seng Hospital

Healthcare Family Group(s) Involved in this Project

Ancillary Care, Medical, Nursing

Applicable Specialty or Discipline

Medical Ambulatory, Respiratory & Critical Care Medicine, Diagnostic Radiology, General Surgery

Project Period

Start date: January 2019

Completed date: December 2019

Aims

To improve the percentage of MAC patients proceed for scheduled Vascular Interventional Radiological (VIR) procedures within 60minutes (from the appointment time) from 22% to 80% within 6months.

Project Attachment

See poster attached/below

Background

See poster attached/below

Methods

See poster attached/below

Results

See poster attached/below

Lessons Learnt

See poster attached/below

Conclusion

See poster attached/below

Additional Information

Accorded the NHG Quality Day 2021 (Category C: Developing a Flexible & Sustainable Workforce) Merit Award

Project Category

Care Continuum

Outpatient Care, Sepcialist Outpatient Care

Care & Process Redesign

Access to Care, Waiting Time, Turnaround Time

Keywords

Medical Ambulatory Care, Vascular Interventional Radiological

Name and Email of Project Contact Person(s)

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Improve Percentage of MAC Patients Proceed for Scheduled VIR Procedures within 60mins from Appointment Time

Ms Rosaline Yeo Lay Peng
Medical Ambulatory Centre (MAC)

Mission Statement

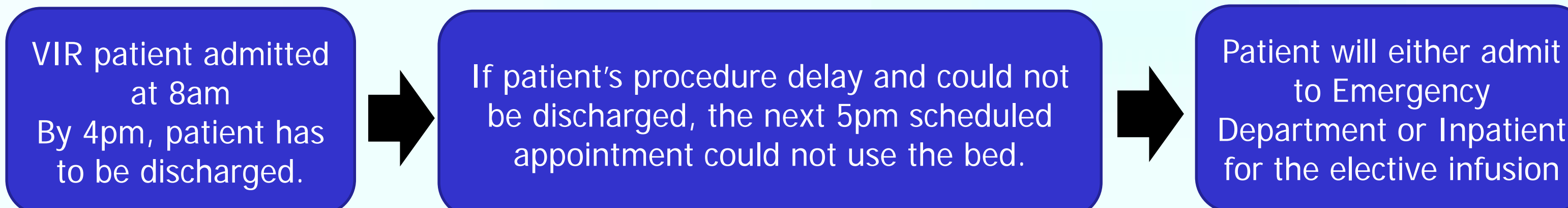
To improve the percentage of MAC patients proceed for scheduled Vascular Interventional Radiological (VIR) procedures within 60 minutes (from the appointment time) from 22% to 80% within 6 months

Team Members

	Name	Designation	Department
Team Leader	Ms Rosaline Yeo Lay Peng	Senior Nurse Manager	Previous at MAC Present at Nursing Service
Team Members	Dr Joseph Lo Zhiwen	Associate Consultant	General Surgery
	Ms Dorothy Tan	Nurse Clinician (NC)	Diagnostic Radiology
	Ms Kelly Wang Zhi Fan	Assistant NC	Diagnostic Radiology
	Ms Shen Peipei	Senior Staff Nurse	MAC
	Ms Chong Yik Huay	Staff Nurse	MAC
	Ms Chew Lee Lik	Patient Service Associate	MAC
	Ms Roshnaran Begum D/O Shaik Mohamed	Senior Assistant Nurse	Star Team
	Ms Wan Kit Yin	Patient Service Associate	Clinic B1A
Sponsor	A/Prof Alan Ng Wei Keong	Senior Consultant	Respiratory & Critical Care Medicine
Mentor	Ms Christina Tan Hwei Hian		

Evidence for a Problem Worth Solving

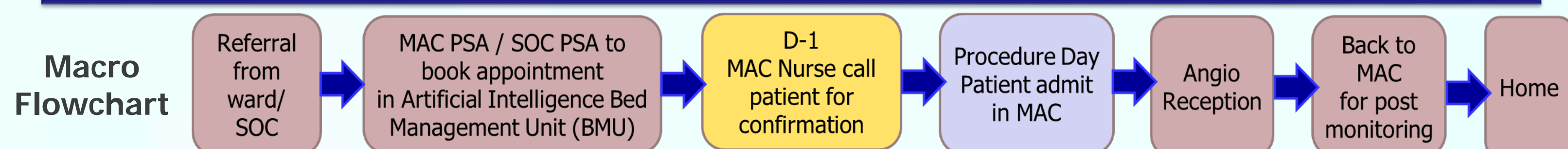
- MAC is a short stay facility where patients are managed and discharged within 24 hours, instead of being admitted as inpatients.
- MAC admission timing if from 0800 and 1700hours



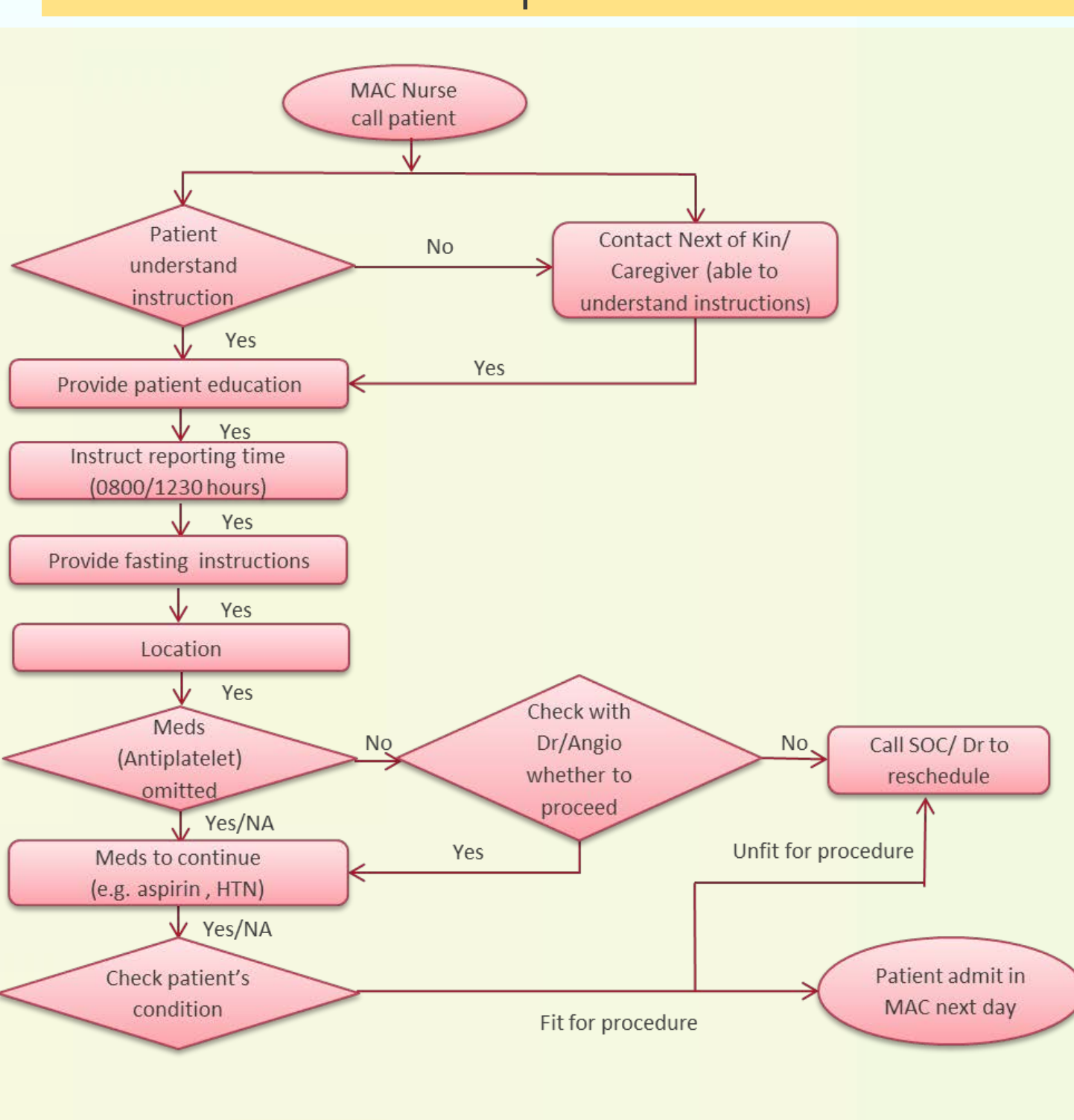
3. Problems Encountered:

- Delay in start time of procedure
- Decrease patient's satisfaction (both 8am and 5pm admission timing)
- Patients are unable to discharge on time (by 4pm); next scheduled patients are not able to start their treatment on time.
- Nurses and PSAs required to re-work and plan for beds for next scheduled patients in order to commence their treatment timely

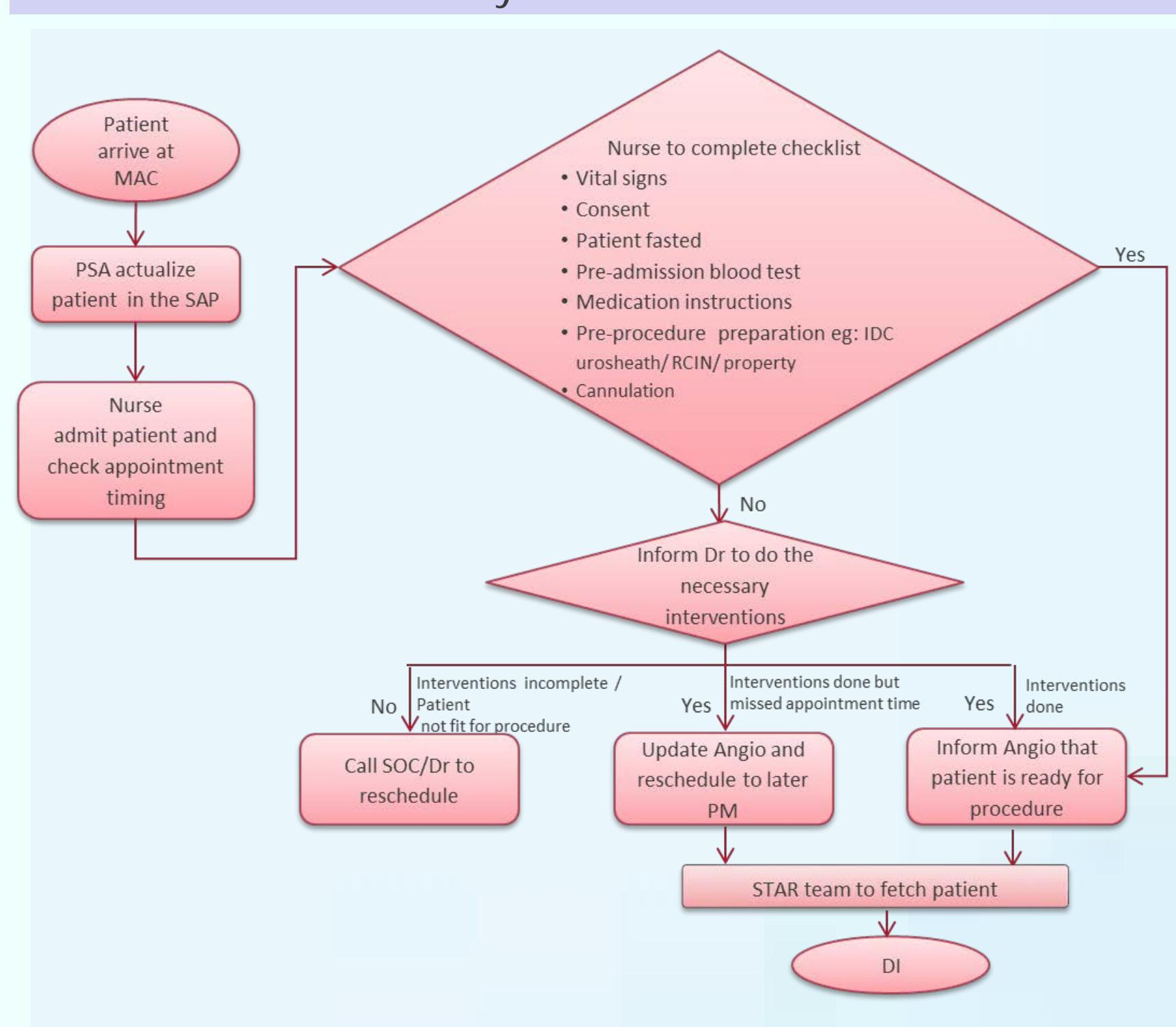
Flow Chart of Process



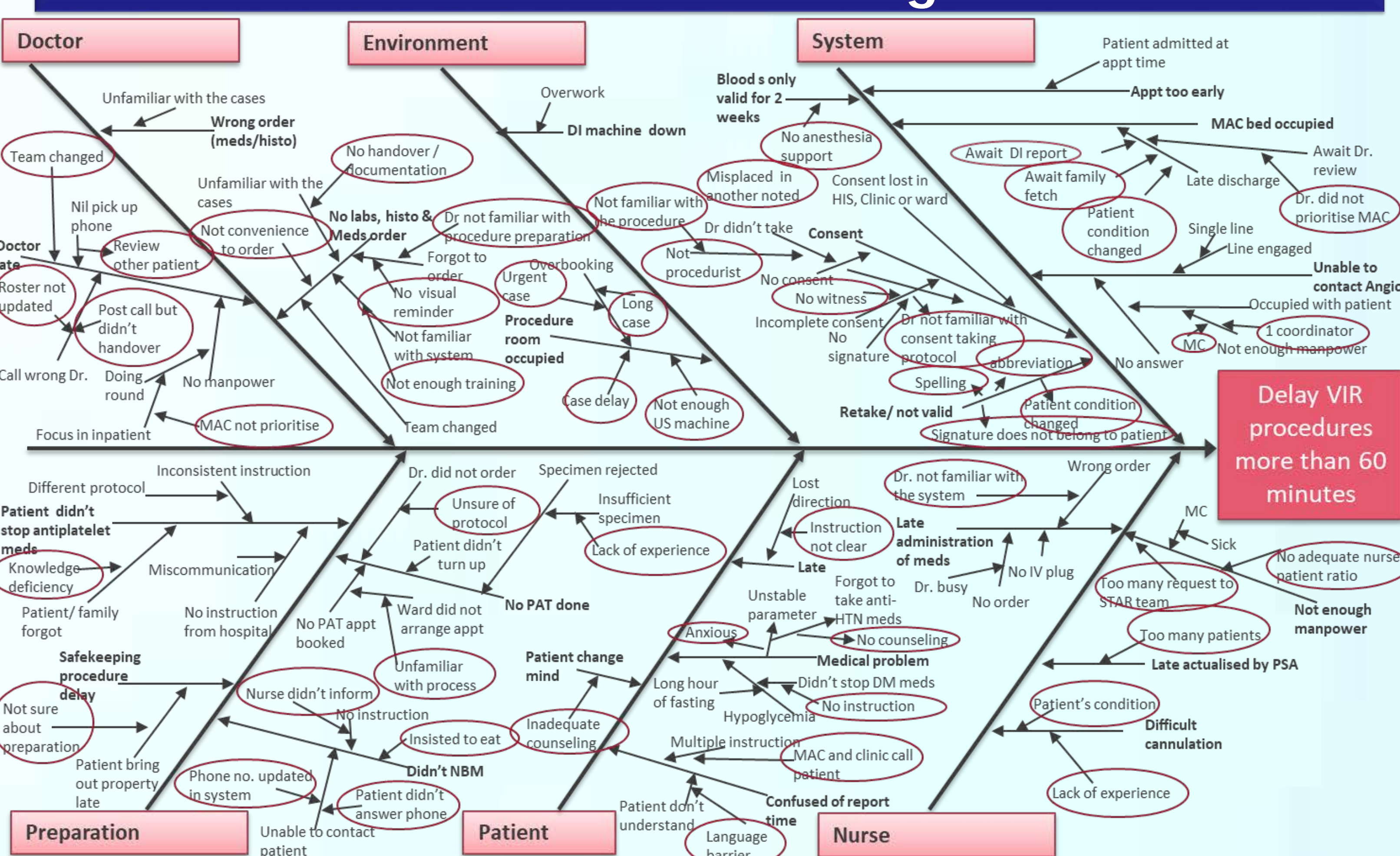
Micro Flowchart: D-1 MAC Nurse call patient for confirmation



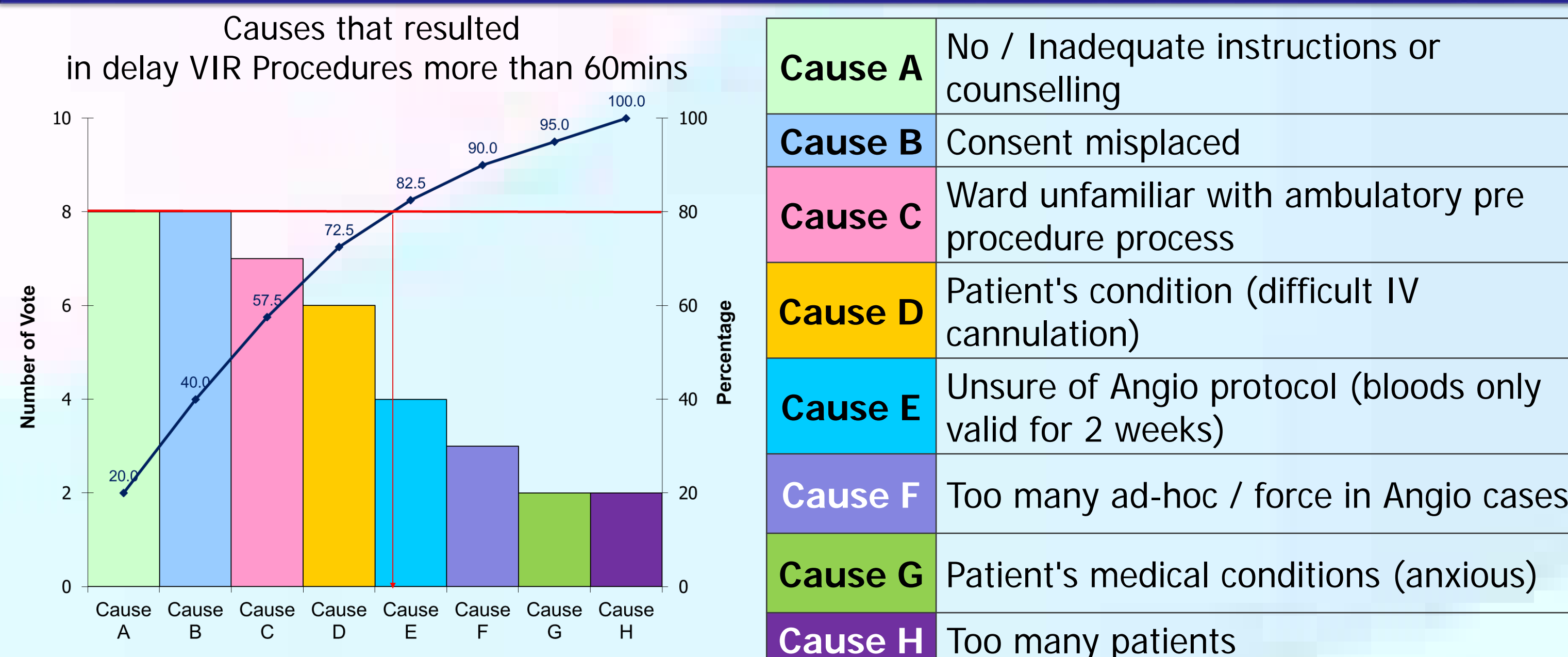
Micro Flowchart: Procedure Day - Patient admit in MAC



Cause and Effect Diagram



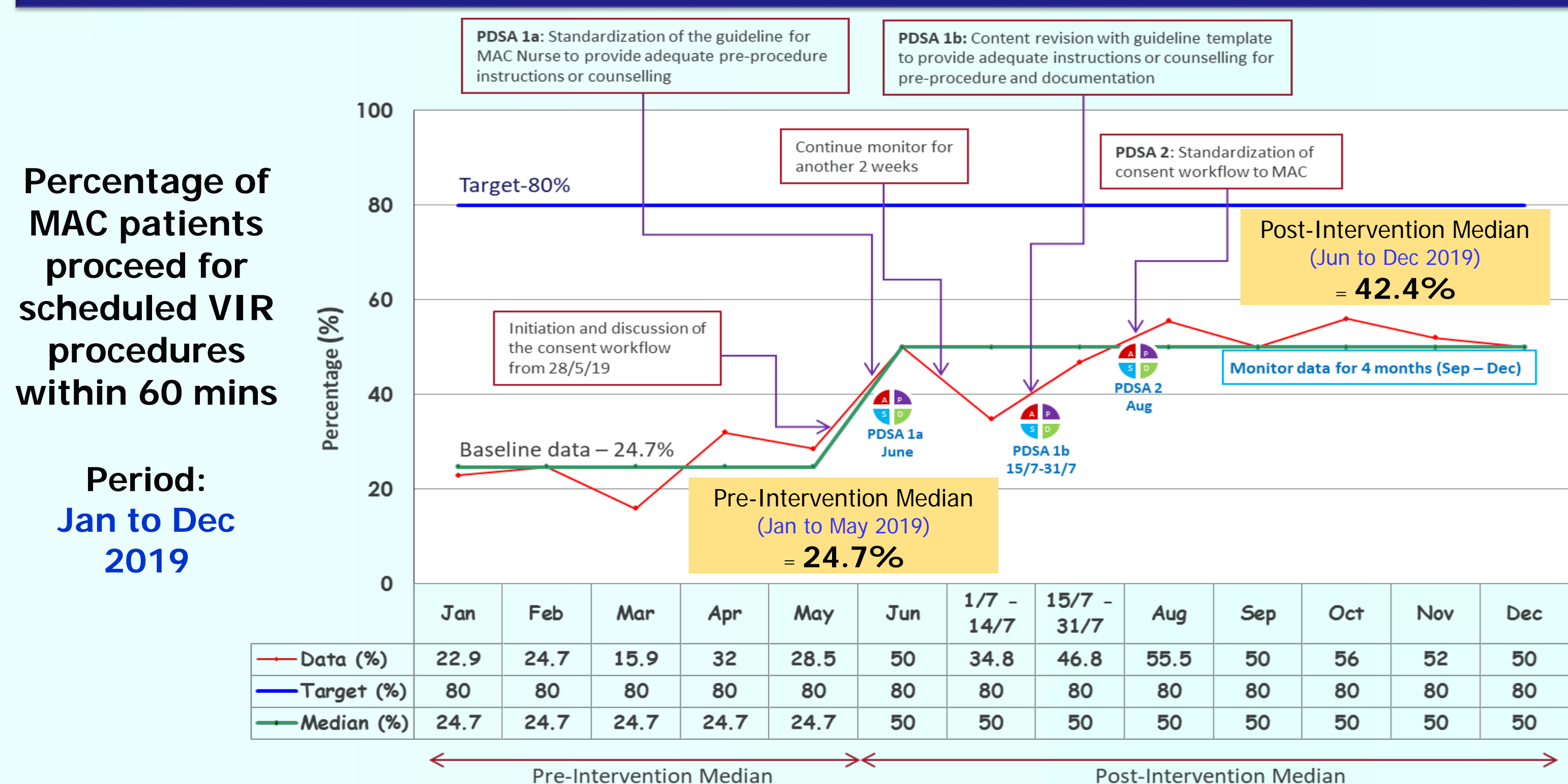
Pareto Chart



Implementation

Root Cause	Intervention	Implementation Date
Cause A: No / Inadequate Instructions or Counselling	PDSA 1: Standardization of the guideline for MAC Nurse to provide adequate pre-procedure instructions or counselling PDSA 1A: Content revision with guideline template	1 Jun 2019 15 Jul 2019
Cause B: Consent misplaced	PDSA 2: Standardization of consent workflow to MAC	1 Aug 2019

Results



Cost Savings

	Item	Pre-Intervention	Post-Intervention	Outcome
Per Patient	Mean Time Taken (mins)	106	73	33
	Estimated Manhour Cost(s) Saved (\$)	\$136.20	\$68.10	\$68.10
	Manpower Savings (\$)	\$136.20	\$68.10	\$68.10
Annualized	Mean Time Taken (mins)	152,640	105,120	47,520
	Estimated Manhour Cost(s) Saved (\$)	\$196,128.00	\$98,064.00	\$98,064.00
	Total Manpower Savings (\$)	\$196,128.00	\$98,064.00	\$98,064.00

Problems Encountered

- Time consuming in collecting data
- Staff expectations' on changing interventions during PDSA - overcome by constant communication and feedback session
- Stakeholder's to stay aligned - establish objectives of the project scope

Lessons Learnt

- Communication is imperative for effective teamwork
- Great effort is needed for collaboration across all stakeholders
- Reviewing the current processes / practice is important for constant improvement
- Interventions may not work initially but PDSA will provide insightful perspective
- Implementation might benefit relevant department. However, need to be mindful on downstream impact to other areas.

Strategies to Spread

VIR / Bedside Procedure

Review clinic processes - Explore possibilities for clinic to refer MAC guidelines or customize pre-procedure instructions to their current workflow

Logistic Instructions

- Greet the recipient & identify self/patient. Ask for permission to speak to them.
- Clarify with recipient whether did the clinic provide any information about the procedure / IV infusion
- Report to MAC at 0800/1230/1700hrs
- Check patient's condition
- Inform patient for Medisave/Insurance claim he/she will need to stay for a minimum of 8 hours
- Location of MAC

- To NBM / take light breakfast
- DM medication to stop*
- Antiplatelet medication to stop*
- Medication to continue*
- Instruct patient to bring along the medications if not sure*
- The activation of chemotherapy medication for VIR IT MTX* (to confirm with Doctor for activation of chemotherapy)

* if applicable