

REDUCING VASCULAR COMPLICATIONS VIA FEMORAL ARTERY APPROACH IN IMPROVING PATIENT SAFETY

A.A. Abd Karim, S.J. Abdul Rahman, S. Salim, S.A. Yahaya MD
Invasive Cardiovascular Laboratory (ICL), National Heart Institute, Malaysia
 Presenting Author : **Arni Azura Abd Karim** (arniazura@ijn.com.my)



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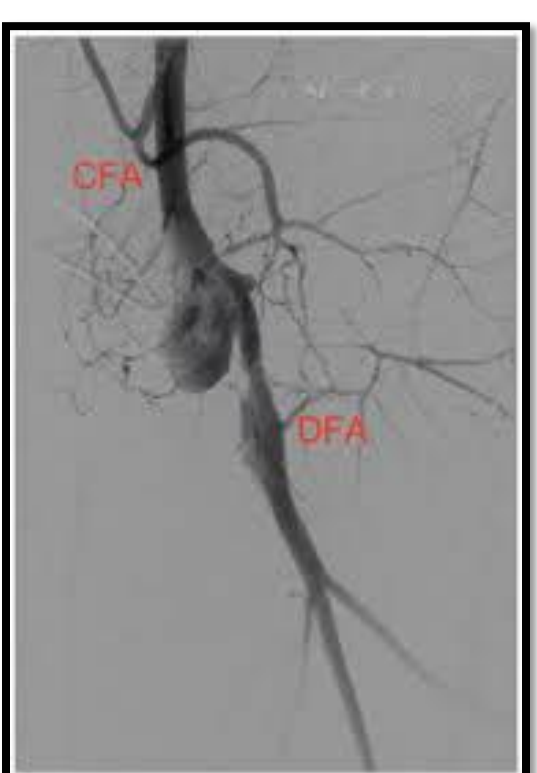
BACKGROUND

Cardiac catheterization and percutaneous intervention can result in problems at the vascular access site. In the ICL, vascular access-site problems via the femoral route can result in severe morbidity and mortality.

Bleeding is the common complication of femoral artery approach and may resulting hematoma, pseudoaneurysm or retro-peritoneal haemorrhage may cause fatal to patient.



Hematoma



Pseudoaneurysm

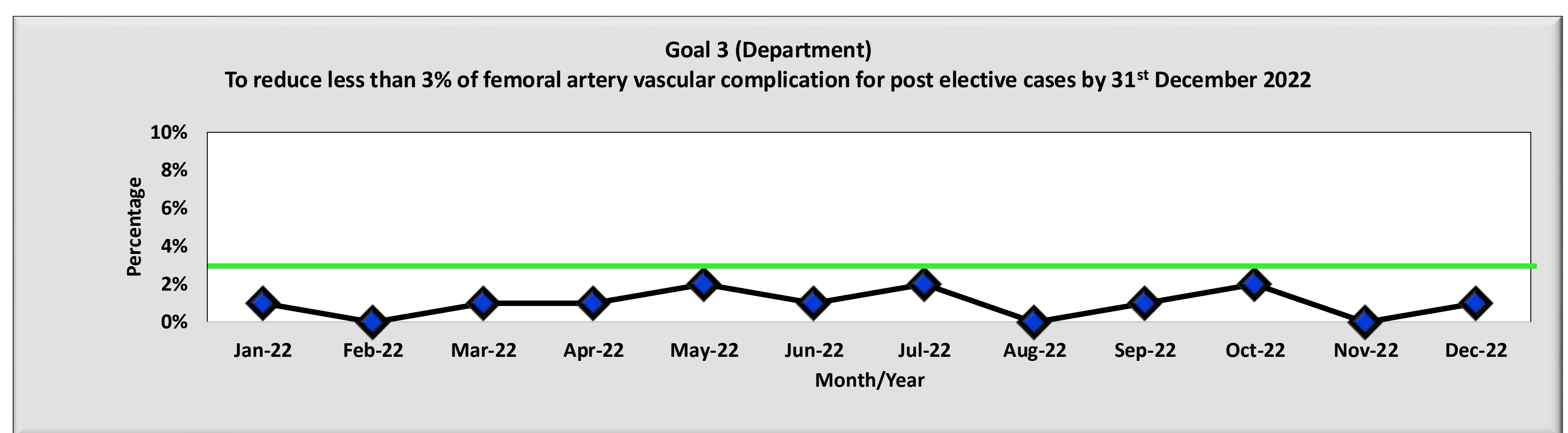
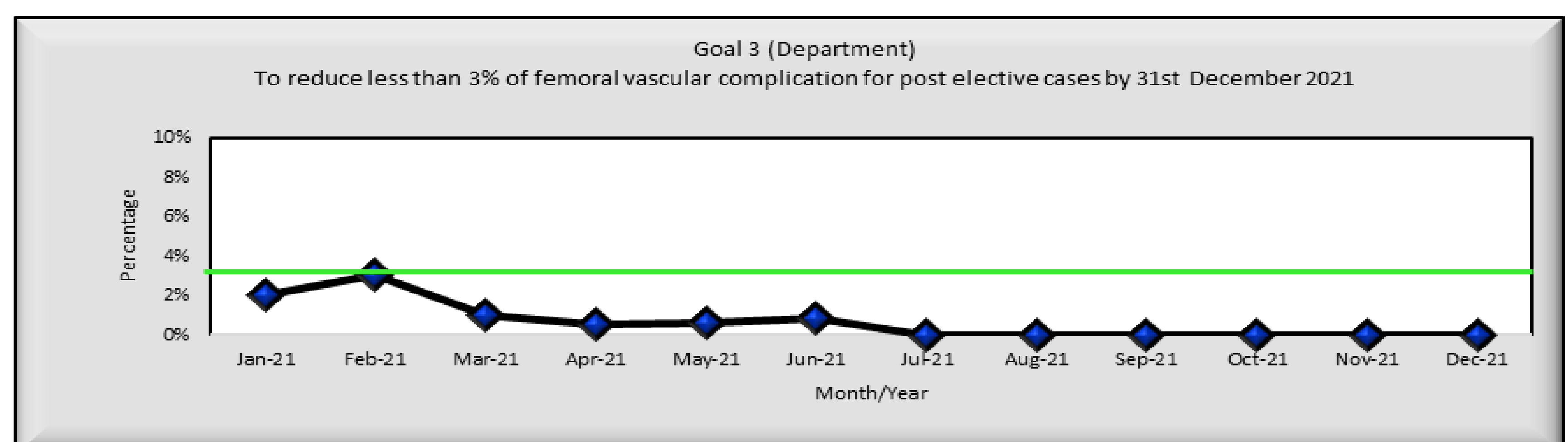
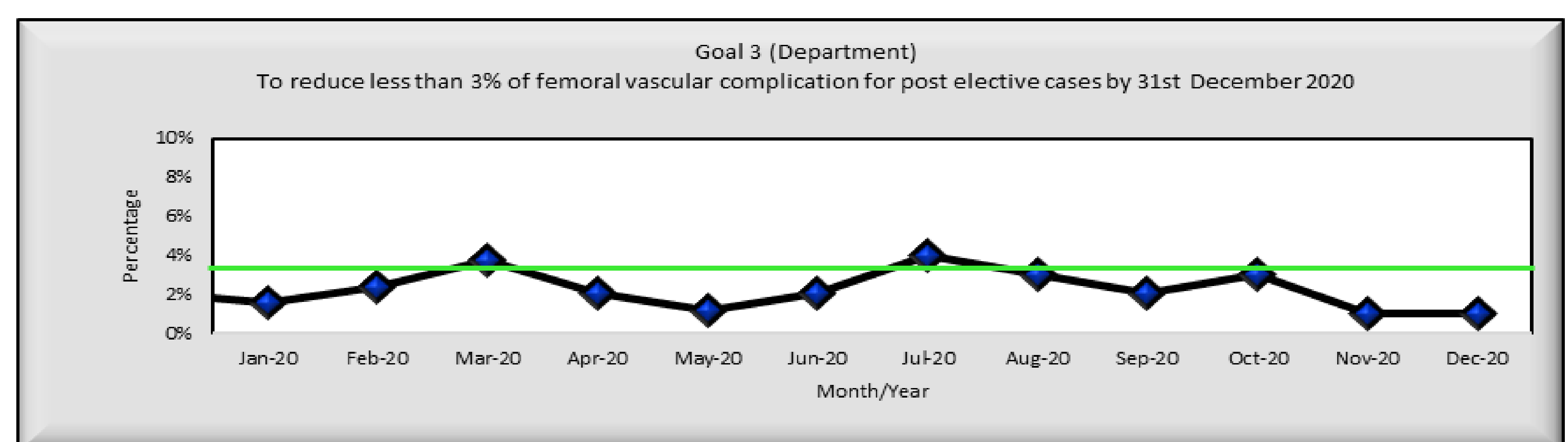


Retro-peritoneal Hemorrhage

OBJECTIVE

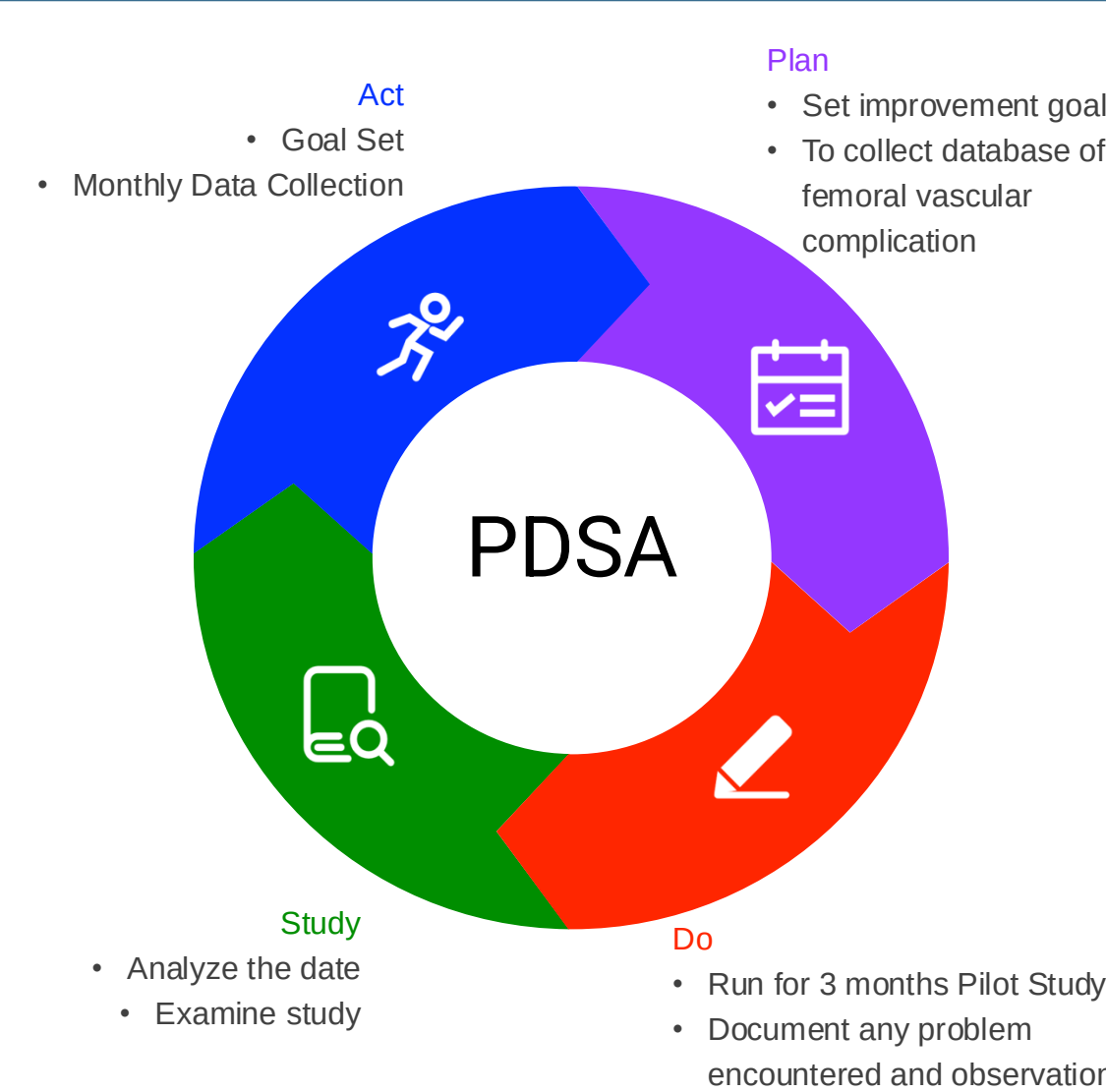
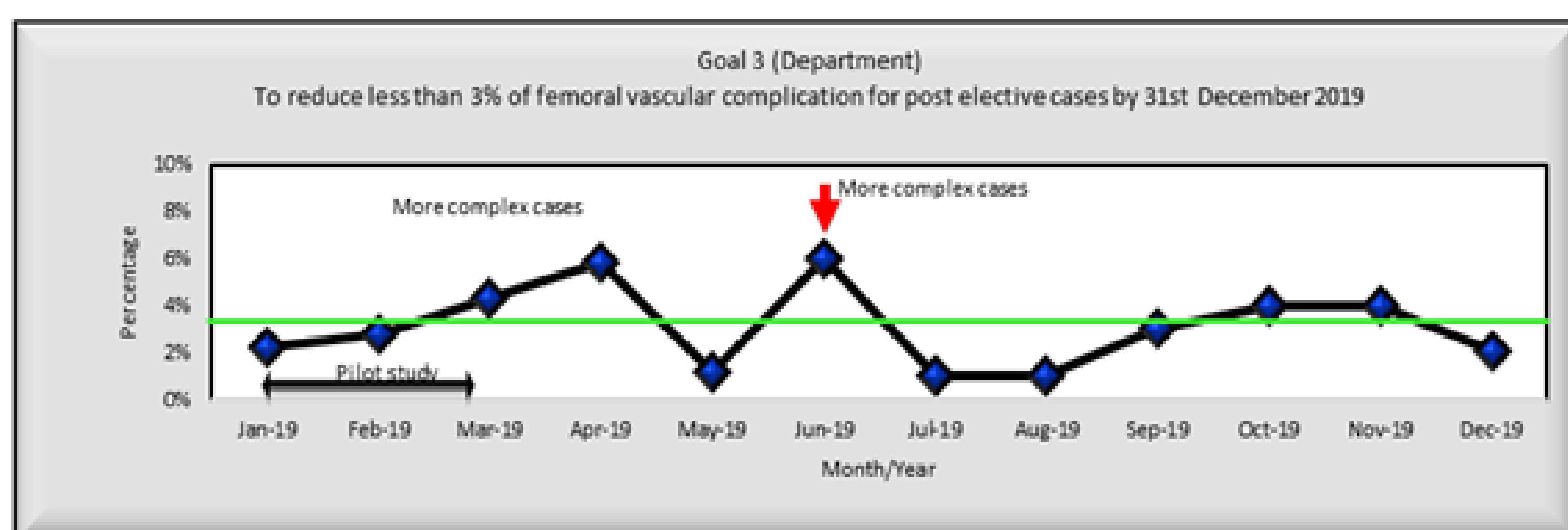
To maintain patient safety, clinical management has set a goal of reducing femoral artery vascular complications to less than 3% in post elective procedure patients.

RESULTS



Since the start of the trial in 2019, femoral artery complications have steadily decreased.

METHODOLOGY



In this project, Plan-Do-Study-Act (PDSA) method was applied. Vascular problems in the femoral artery have been observed to range between 2% and 4% in patient having diagnostic and interventional procedures form January to March 2019 (a pilot study). Significant causes for femoral complications will be recorded, including;

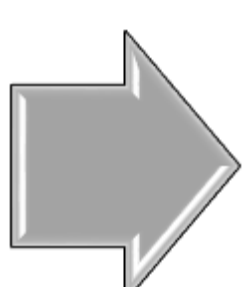
- i. Numerous punctures
- ii. Failed closure devices
- iii. Obesity
- iv. High blood pressure
- v. Dialysis patients, and others

There are inclusion and exclusion criteria measured that exclude;

- i. Primary or Emergent Percutaneous Coronary Intervention (PCI) procedures
- ii. Electrophysiology (EP) and Right and Left Heart Catheterization procedures
- iii. Vascular complication was resolved in 6 hours

CONCLUSIONS

Continuous monitoring by the primary team and the ICL team is vital for reducing femoral artery complications



Patient and family education involvement plays an essential role in understanding the causes of femoral artery complications and developing prevention interventions

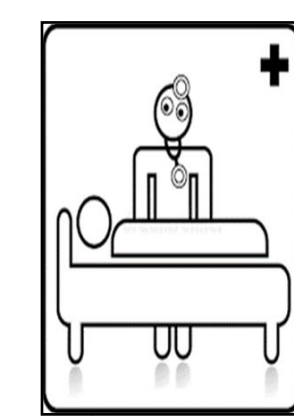


The engagement of all stakeholders fostered a cultural shift, confirming the view that vascular complications are everyone's business.

CONTINUAL IMPROVEMENT INIATIVES



Reinforce staff to raise Vascular Complication Form for complication occurred



Routine ward round by ICL Nurses after all procedures are completed



Established ICL
Vascular Complication
Task Force Team



Femoral artery puncture
under fluoroscopy
guidance by primary
team



For difficult case to puncture under peripheral ultrasound



Policy review on sheath removal by physician

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