



Singapore Healthcare  
Management 2019

# Ensuring Correct Medication Dosage And Schedule For Patients On IVF Program

Kate Chen Quilan / Dr Serene Lim  
Nurliah Binte Mohamed Noor  
Tee Yong Wei / Zhang Xue Mei



## INTRODUCTION

The Centre of Assisted Reproduction (CARE) is an outpatient fertility clinic which manages 400 IVF cycles a year, our IVF team comprises doctors, nurses, sonographers, pharmacists and embryologists.

The IVF treatment cycle requires accurate communication between staff at various stages to ensure patients consume the correct medication dosages according to planned schedule. During each visit, patients receive multiple forms and instructions from nurses to guide them with self-administration of medication at home. However, information and communication breakdown at various stages of the IVF treatment process have resulted in medication errors leading to patients not taking the right medication at the right timing, this may have affected the treatment outcome.

## OBJECTIVES

To achieve 100% correct medication dosage and schedule for CARE patients on IVF program within 6 months.

## METHOD

A flowchart (Diagram 1) was used to map out the IVF treatment process and identify points in service delivery causing communication breakdown within the IVF team and between the team and patients. These are highlighted in red.

A fishbone diagram (Diagram 2) was used to brainstorm for the root causes leading to patients consuming the wrong medication dosage at the wrong timing. The top 5 root causes identified by group voting are highlighted in red.

Diagram 1: Workflow of IVF treatment cycle

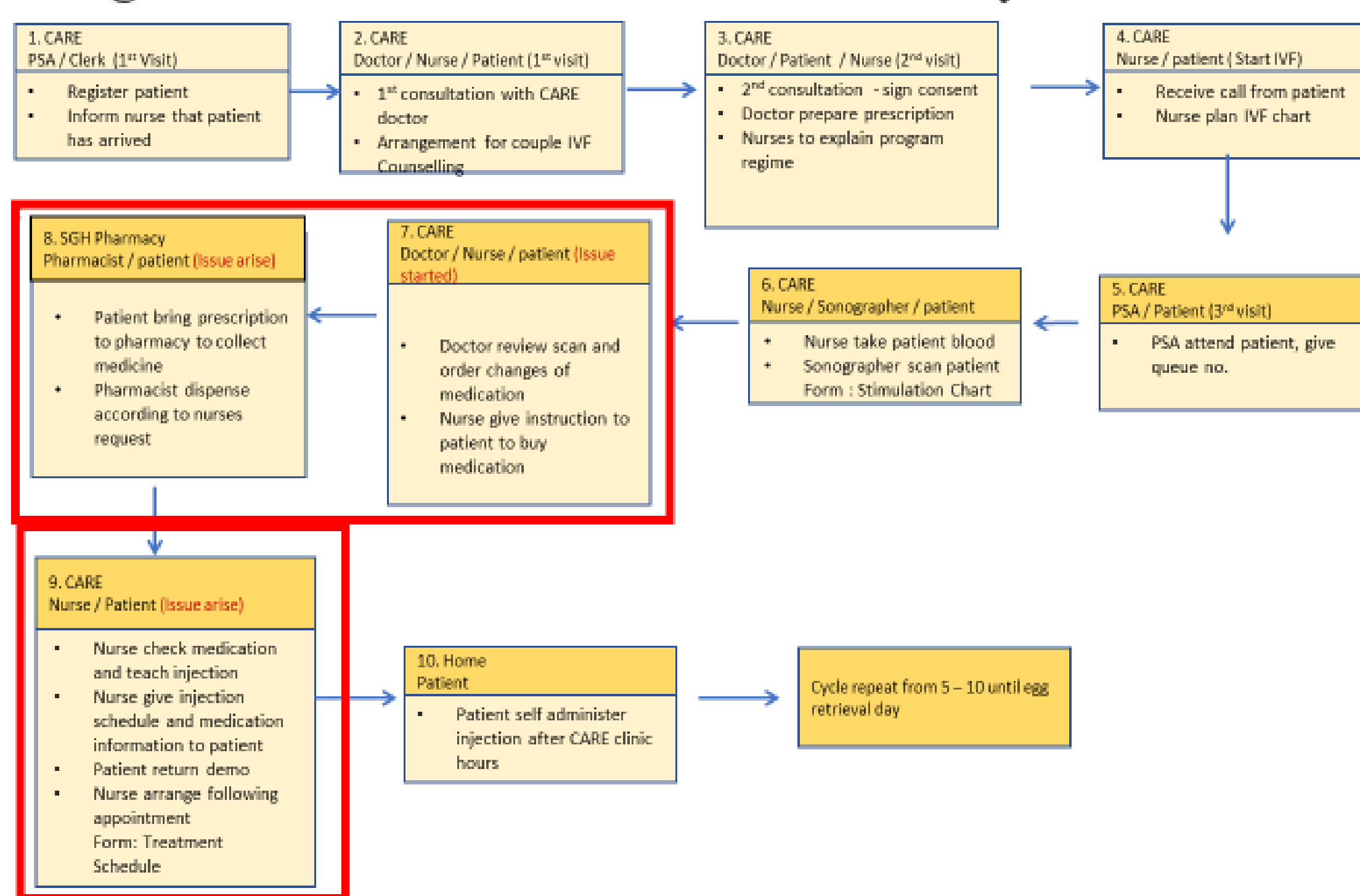
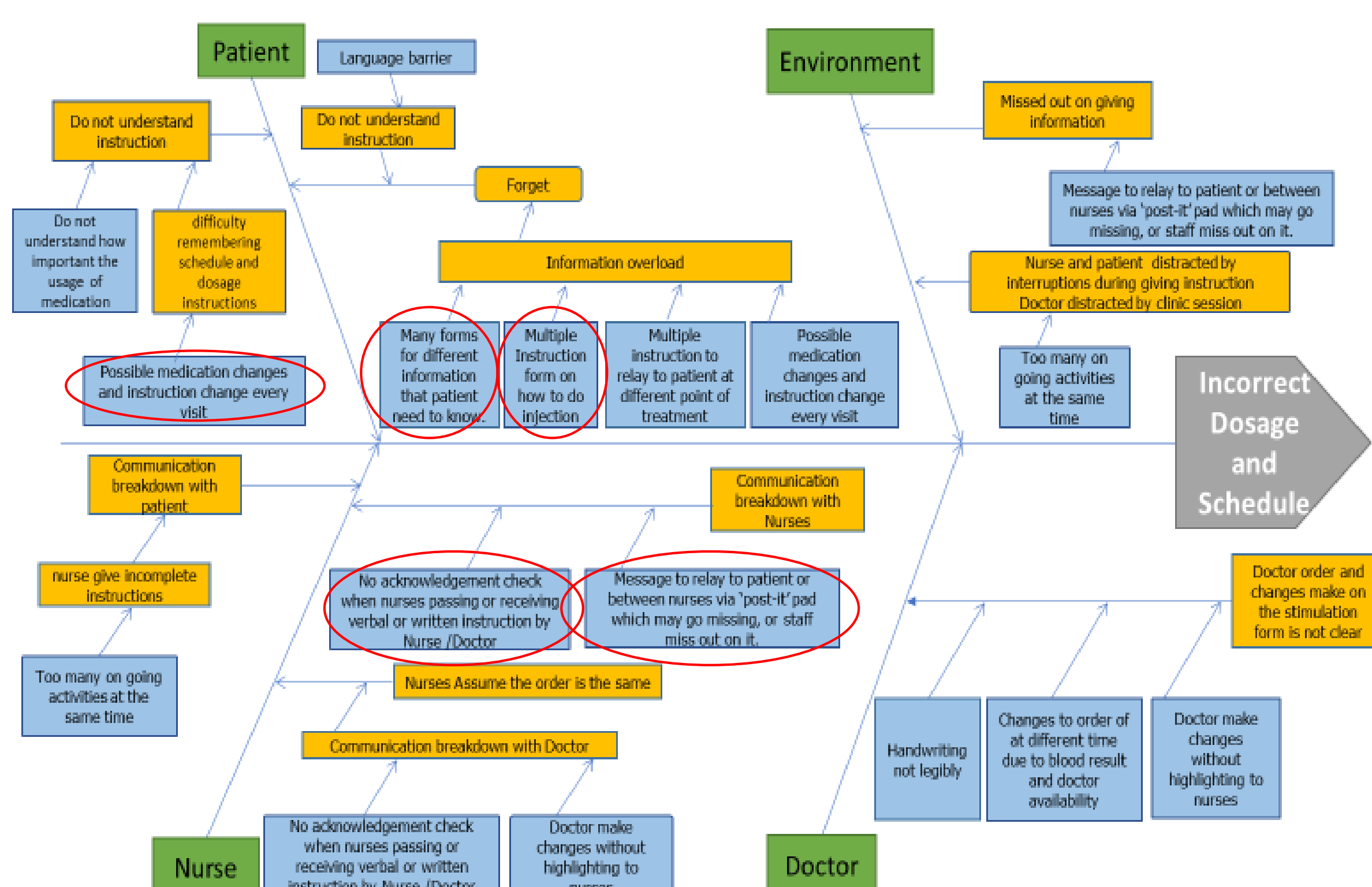


Diagram 2: root causes for wrong medication dosage consumed by patients at the wrong timing.



## PDSA CYCLES

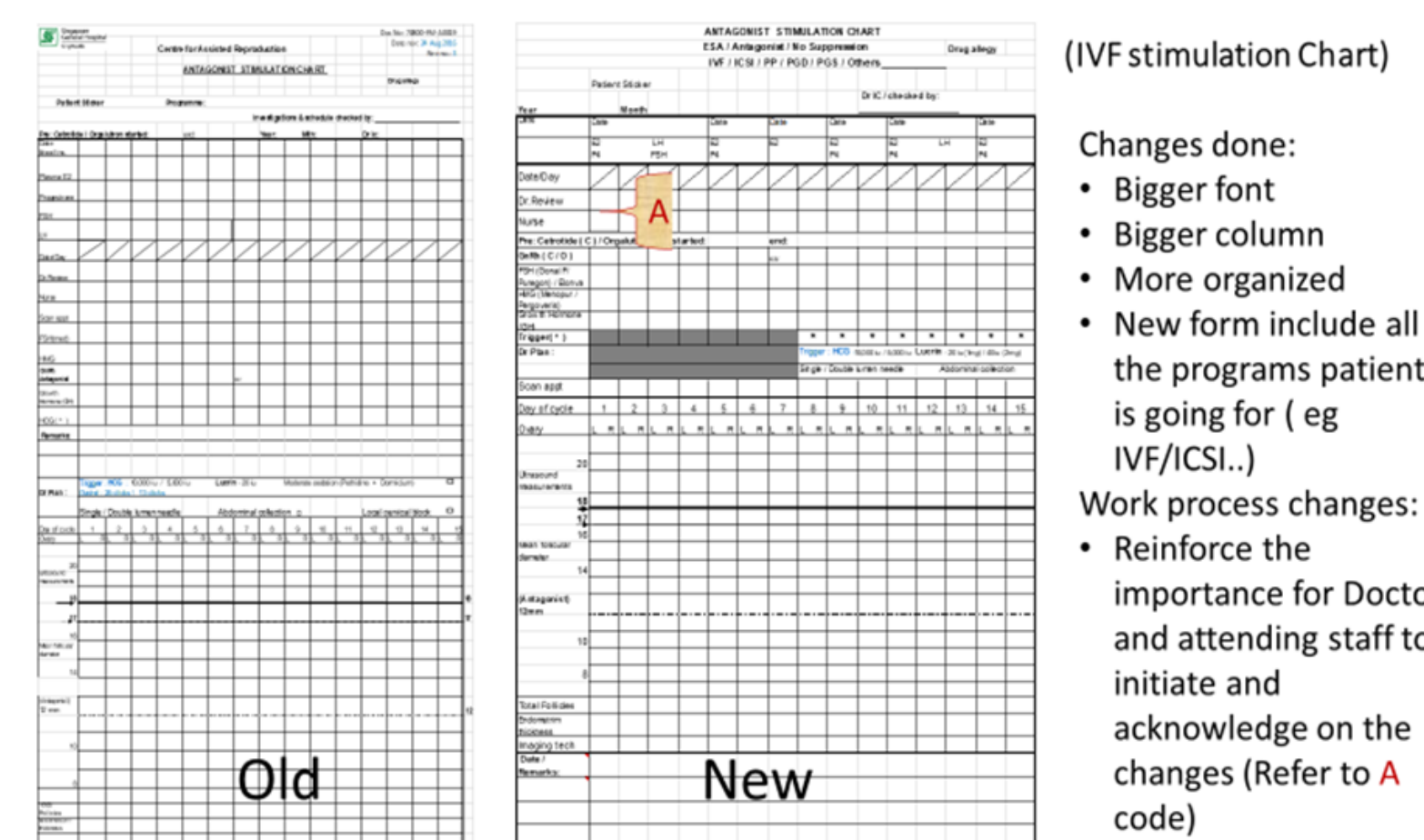
Identified, interventions were made in 2 PDSA cycles as seen in Diagram 3 & 4.

Diagram 3: 1<sup>st</sup> PDSA cycle

Changes we have made:

### 1. IVF Stimulation Chart -

Form is changed to ensure that messages and medication orders made by doctors are clear to follow. It is also easier for doctors' and staffs' to acknowledge the changes at all point of service.



Treatment schedule for patient

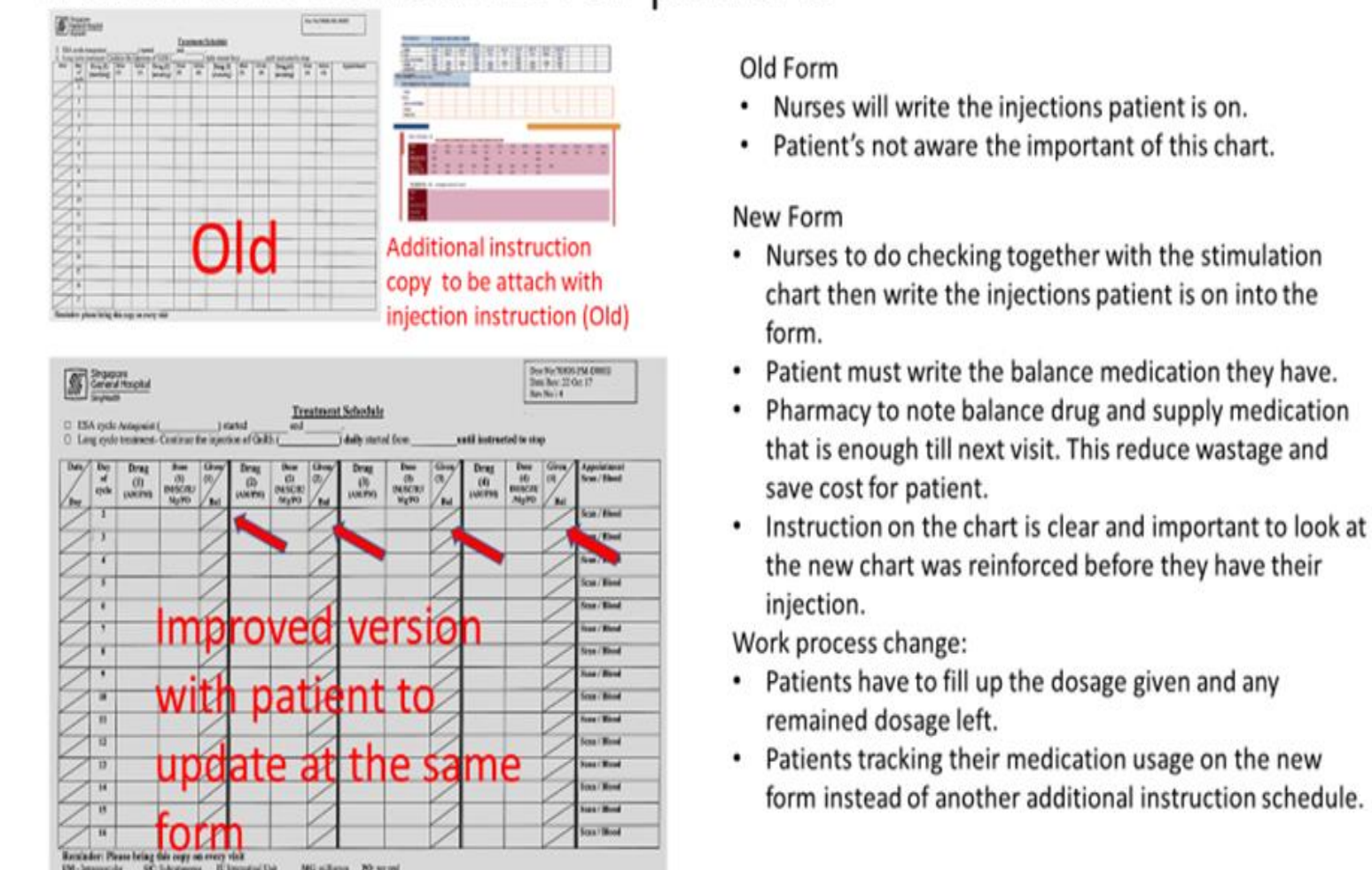
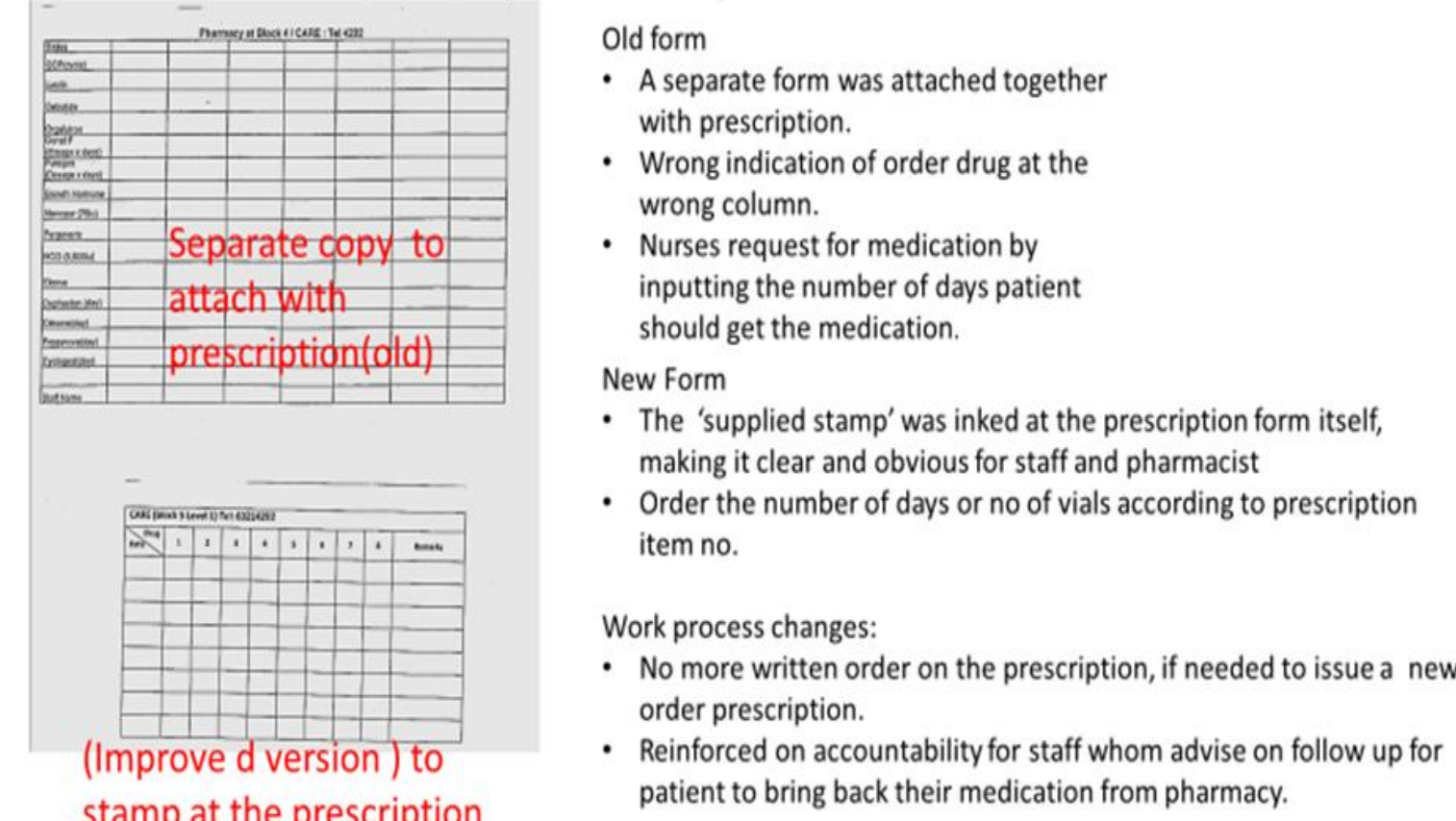


Diagram 4: 2<sup>nd</sup> PDSA cycle

Changes we have made:

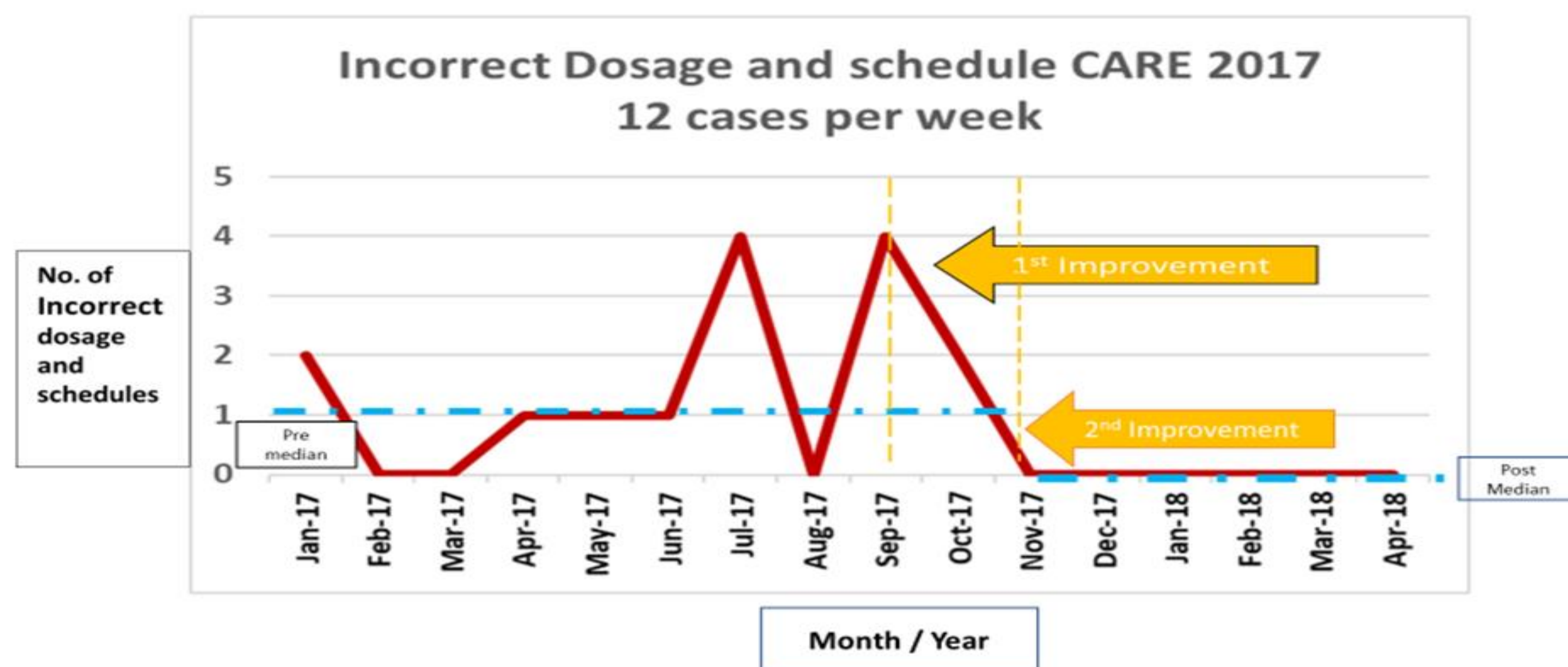
**1. Pharmacy request slip** – The new process make it easy and clear for nurses to follow medication order made by doctors.

Pharmacy Request slip



## RESULTS

We have achieved 100% correct dosage and medication schedule for CARE patients on IVF program within 6 months



## SUSTAINABILITY PLANS

1. Weekly meeting with CARE staff to ensure consistency in workflow
2. Monthly feedback from patients on the use of treatment schedule and pharmacy request slip
3. 6 monthly review with doctors and staff to identify improvements required for the patient program sheet, in order to ensure that we will continue to meet our 100% target for correct dosage and medication schedule to CARE patients.