Ensuring Correct Medication Dosage And Schedule For Patients On IVF Program

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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 receives 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 take the right medication at the right timing, this may have affect the treatment outcome.

PDSA CYCLES

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

Diagram 3: 1st PDSA cycle

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 Changes we have made:

1. IVF Stimulation Chart -

2. Treatment schedule -

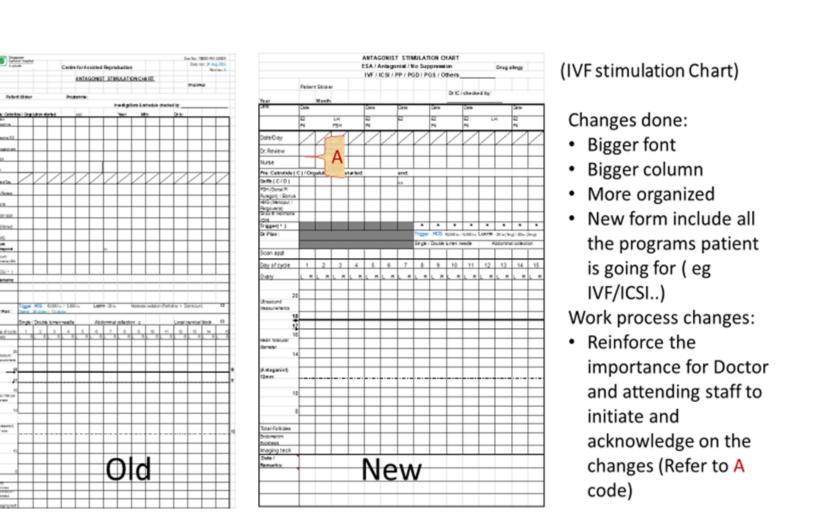
Patients' are now actively

instead of separate forms.

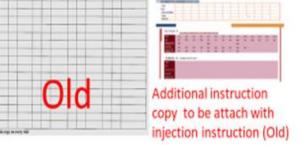
involved during their program.

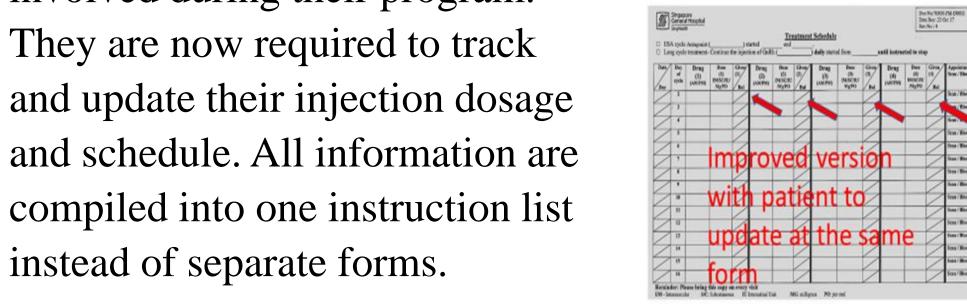
They are now required to track

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





- Nurses will write the injections patient is on.
- Patient's not aware the important of this chart.

New Form

- Nurses to do checking together with the stimulation chart then write the injections patient is on into the
- Patient must write the balance medication they have
- Pharmacy to note balance drug and supply medication that is enough till next visit. This reduce wastage and save cost for patient.
- Instruction on the chart is clear and important to look at the new chart was reinforced before they have their
- Work process change:
- Patients have to fill up the dosage given and any remained dosage left.
- Patients tracking their medication usage on the new form instead of another additional instruction schedule

Diagram 4: 2nd PDSA cycle

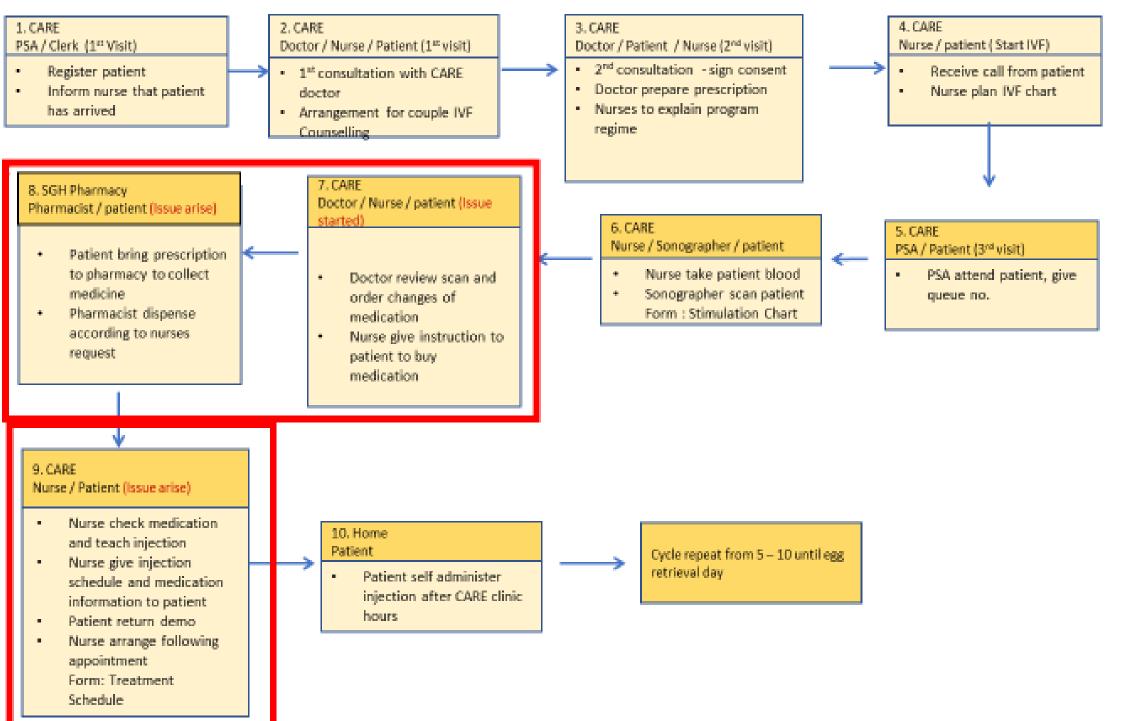
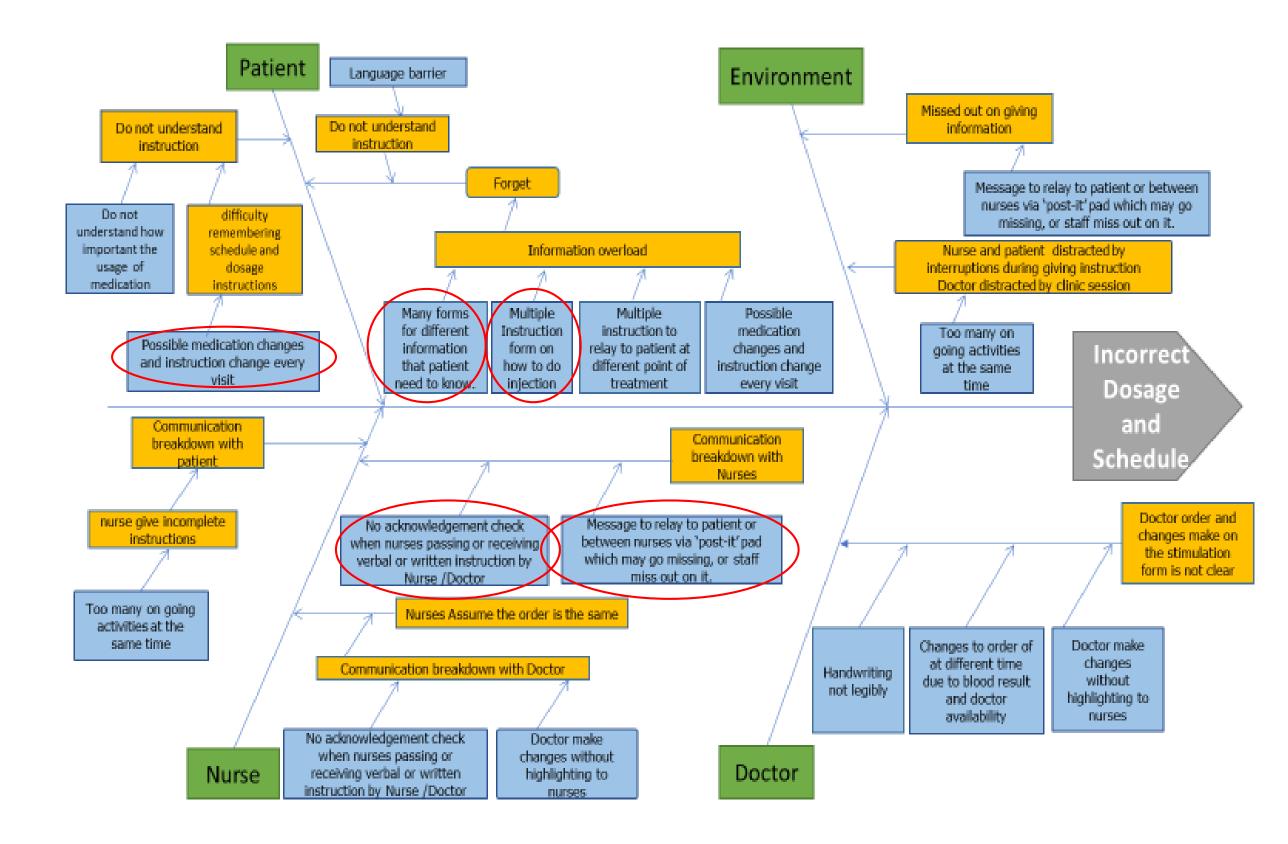


Diagram 1: Workflow of IVF treatment cycle

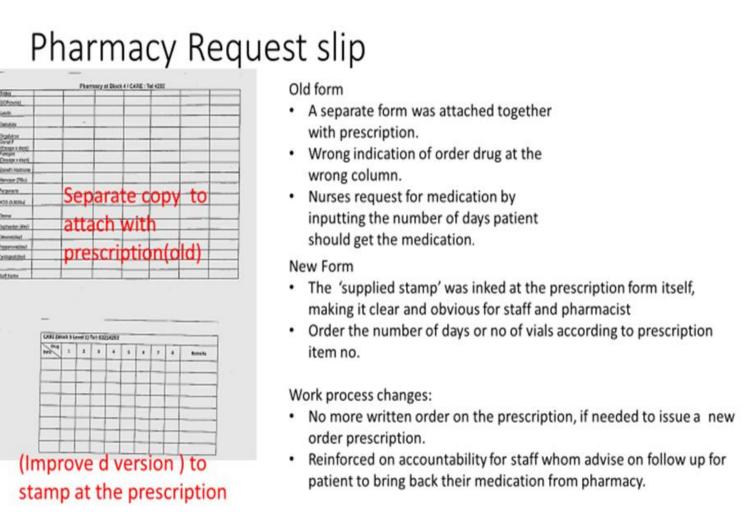
Diagram 2: root causes for wrong medication dosage consumed by patients at the wrong timing.



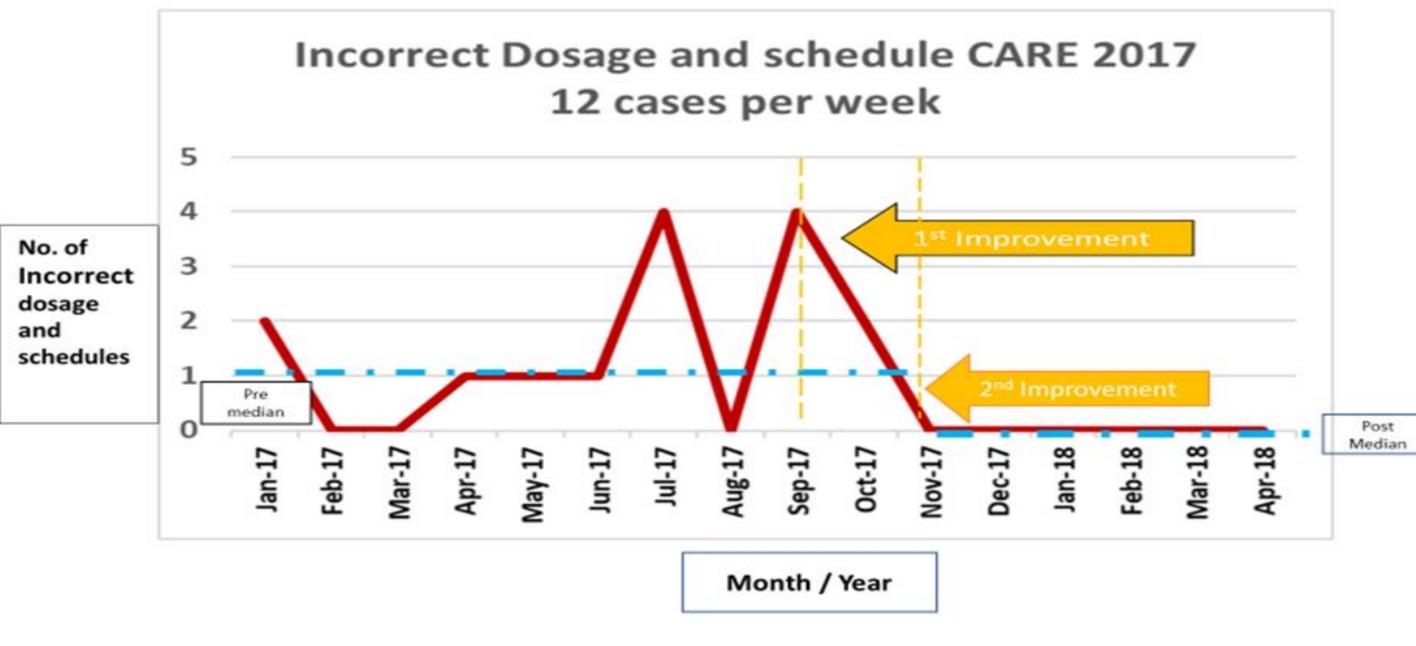
Changes we have made:

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

RESULTS



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



SUSTAINABILITY PLANS

- Weekly meeting with CARE staff to ensure consistency in workflow
- Monthly feedback from patients on the use of treatment schedule and pharmacy request slip
- 6 monthly review with doctors and staff to identify improvements 3. 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.