Root Cause Analysis on patient identification errors in Wockhardt Hospital Nagpur

Guided by :
Dr. Susmit Jain

Dr. Garima Pandey
PGDHM 17

About the organisation : Wockhardt, Nagpur

A super speciality hospital

118 bedded

Located in Nagpur

VISION :"Wockhardt Hospitals will strive with excellence to fulfill the needs of the community in its chosen field of medical treatment"

MISSION :"To serve and enrich the quality of life of patients suffering from diseases, through the efficient deployment of technology and human expertise, in a caring and nurturing environment with the greatest respect for human dignity and life."

A Failure Mode Effect Analysis on patient identification errors Wockhardt Hospital Nagpur

Introduction

- **Root cause analysis** (**RCA**) is a method of problem solving that tries to identify the root causes of faults or problems.
- Through RCA practice we solve problems by attempting to identify and correct the root causes of events, as opposed to simply addressing their symptoms.
- A tool in the systems approach to prevention of adverse events.
- A process for identifying basic or contributing causes.
- A process for identifying what can be done to prevent recurrence.
- A process for measuring and tracking outcomes.

Aim Of the study:

To identify the failure modes in Patient identification process.

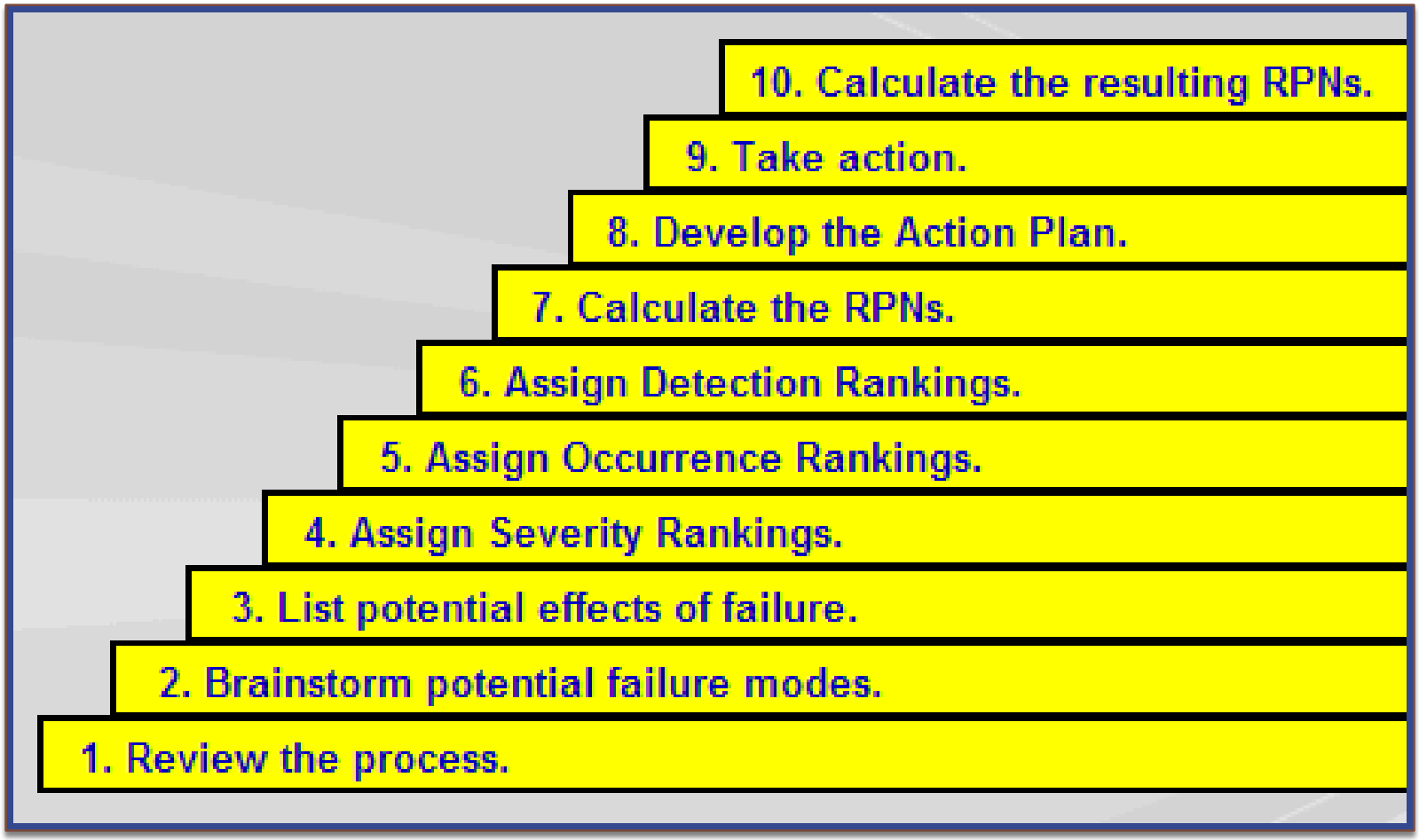
Research Questions:

- What causes error in the patient identification ?
- What improvements need to be done in the process to reduce the errors?

Objectives :

- To analyze the existing filters for patient identification process in the wards, radiology department and the customer care department.
- Department wise process analysis to identify the point of error.
- To identify errors in each of the processes.
- To provide possible solutions to overcome patient identification errors.
- To analyze the patient identification process of the hospital and find out the challenges at each step of the process .
- To suggest strategies to reduce errors in the process, if required.

STEPS


10. Calculate the resulting RPNs.
9. Take action.
8. Develop the Action Plan.
7. Calculate the RPNs.
6. Assign Detection Rankings.
5. Assign Occurrence Rankings.
4. Assign Severity Rankings.
3. List potential effects of failure.
2. Brainstorm potential failure modes.
1. Review the process.

Methodology

- Departmental process review for the following departments :

1. Radiology
2. Customer care
3. Wards

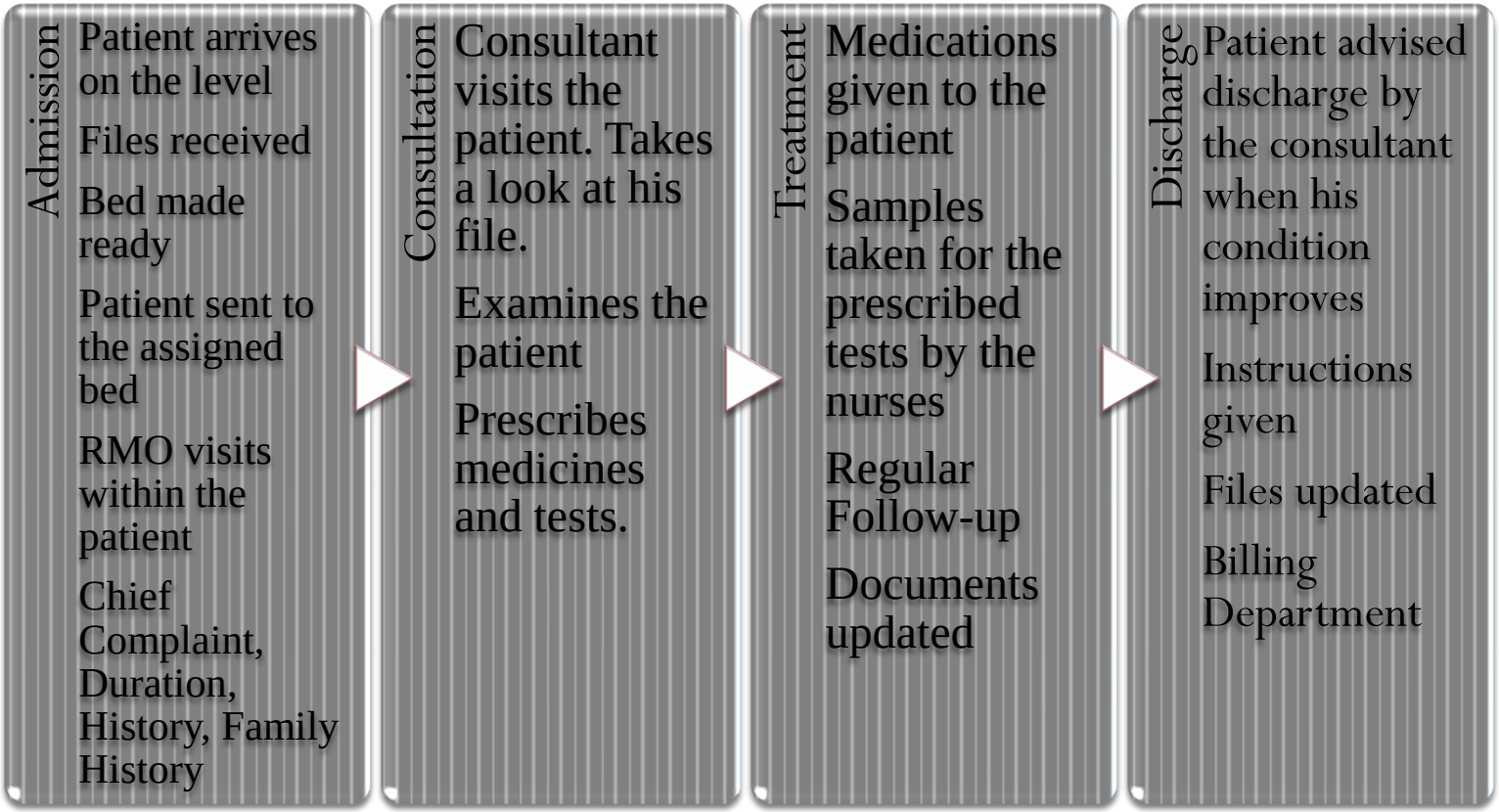
- Reviewed the current patient identification process.
- Process mapping of 150 patients.
- Observation and taking notes.
- Datasheet for recording data.
- Informal Interviews.
- Potential errors analyzed after the departmental process review and physical observation.
- Nurse, customer care staff, duty doctors and staff of the radiology department.

Format used for FMEA analysis:

Failure Mode: First Evaluate failure mode before determining potential causes	Potential Causes	Scoring			Decision Tree Analysis			
		Severity	Occurence	Detectability	RPN score	Existing Control Measure		

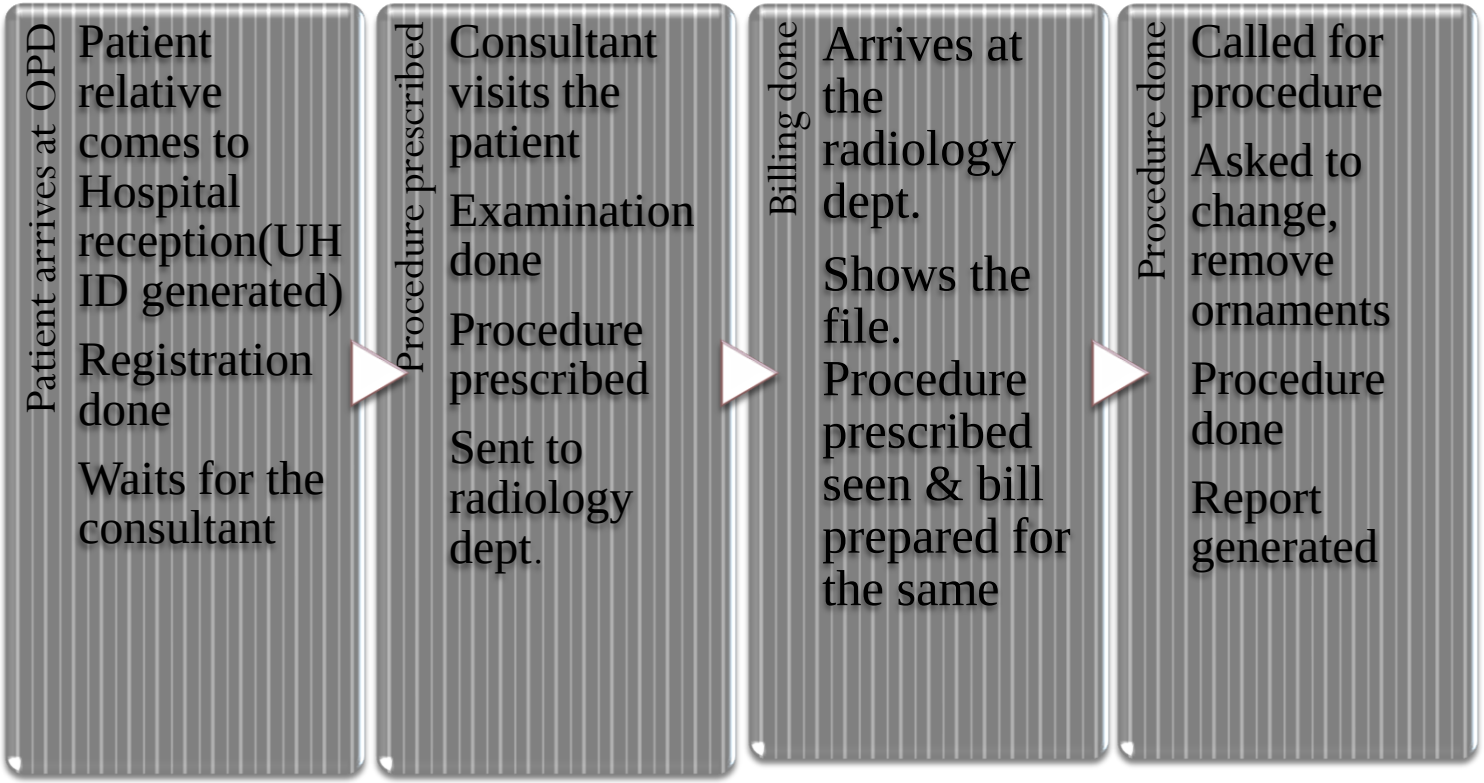
Process and sub process

- ***Wards***



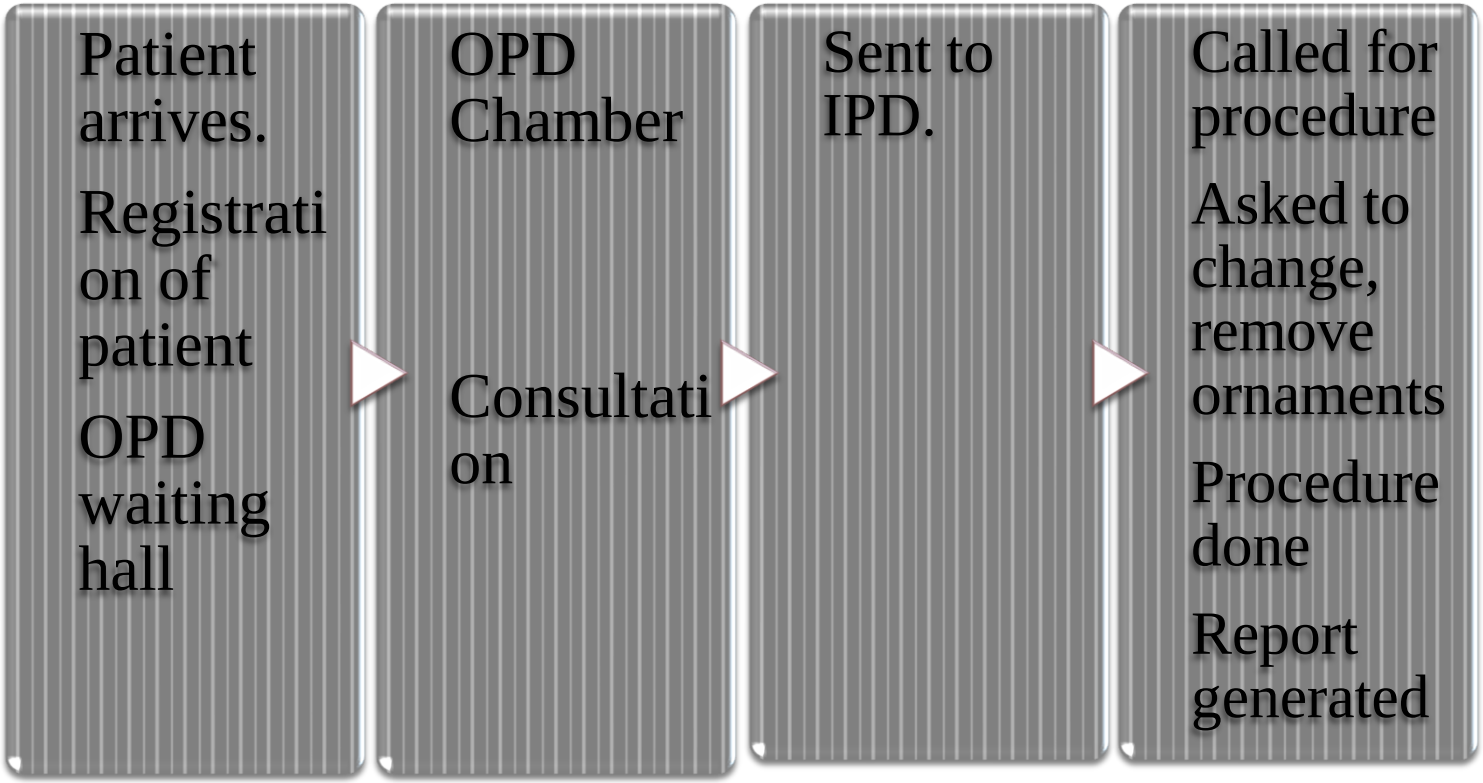
Process and sub processes cont

- ***Radiology***



Process and sub processes cont

- ***Customer care***



Steps taken for root cause analysis

- Observation of the departmental processes.
- Identification of the issue and its root cause.
- Calculation of the RPN score with the help of FMEA.
- Identification of the main grey areas on the basis of RPN score.
- Formulation of their potential solutions.

Results:

- The failure modes with max. RPN scores are as follows:

Failure mode : Bed number used for patient identification

Potential cause	Severity	Occurrence	Detectebility	Total Score
Bed number is easy to remember	**5**	**5**	**4**	**100**

- Addressing patient with the bed number might create confusion and identification error.

Failure mode : Bed number used for patient identification

• **Potential cause**	•**Severity**	•**Occurrence**	•**Detectebility**	•**Total Score**
UHID difficult to remember	**4**	**5**	**4**	**80**

- Since the UHID is too long ,people find it difficult to remember. So nursing staff uses bed number to identify patients.

Failure mode : X-ray exchanged

Potential cause	**severity**	**occurrence**	**Detectability**	**Total score**
Housekeeping involved in dispatch and receipt of x ray film	5	5	3	75

Failure mode : Bed number used for patient identification

Potential cause	severity	occurrence	Detectability	Total score
IPID too long and difficult to remember	4	4	4	64

Failure mode: Wrong medication

Potential cause	**severity**	**occurrence**	**Detectability**	**Total score**
Medication given keeping bed no. In mind	5	4	3	60

Failure mode : Wrong x –ray film.

Potential cause	severity	occurrence	Detectability	Total score
X-ray misplaced	4	4	3	48

Other Failure modes Which had high RPN scores:

- These are:

Failure mode	severity	occurrence	Detectability	Total score
Nursing staff preoccupied	5	3	3	45
Patient's details not checked on the x-ray by the consultant	5	3	3	45
Files exchanged due to carelessness	5	3	3	45
X-ray put in wrong envelope	5	3	3	45

Recommendations/Suggestions

- It should be made compulsory to identify the patient with their names along with the bed number.
- One patient must be handled at a time.
- Educating the nursing staff in order to bring awareness about the errors .
- Regular checking of the ID band must be done.
- X-ray must be cross checked before putting inside the envelope.
- ICUs investigation records should be kept near the patient's bed rather than keeping them at nursing station.

- Incidents reporting should be done as and when they happen.
- Housekeeping staff should not be involved in the dispatch of x-ray films.
- Under reporting of the incidents should be cross checked.
- Staff should be motivated for the proper reporting of the incidents.

LOGOS

Figure. Patient Identification Slogan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Thank You