

Implementation of Quality Improvement Tools: 2020-2021

Background

Quality Improvement is a major area of the Laqshya program which was launched in the year of 2017 to improve the quality of care for women visiting maternity wards across different delivery points in Madhya Pradesh. We strive to support and help the facilities get certification through constant engagement in bettering infrastructure, capacity building, improvement in clinical processes, availability of resources, forming steady relationships between the staff nurses and administration, formation of a quality circle and so on. To sustain the changes made in facility level, we realised there was a need for a monitoring system from within the facility to aid the upkeep of the facility according to national standards. Consequently, we thought of utilising Rapid Quality Improvement Cycles as a form of bringing in a change within the facility through the staff of the facility itself. Quality Circle is a monthly meeting which takes place amongst the staff nurses of maternity wing, the concerned doctor/gynecologist, the RMO, Civil Surgeon and staff of all related wards like SNCU, laboratory, blood bank, store incharge and cleaning staff supervisor to discuss process related issues and solve them. It is an integral part of laqshya and related hospital processes which aids the Quality Improvement cycles. Through the implementation of Laqshya program, we could help the facility staff in internal processes like advising on clinical practices, setting up of the labour rooms, increasing availability of resources, increasing availability of funds and conducting Quality Circle meets. Quality circle meetings act as a tool to discuss specific issues and helps in taking follow ups; thus using Quality Improvement tools help to streamline these processes better and helps in forming a culture of keeping the hospital up to required standards.

Project Igunatmac, as mentioned above works as a technical and clinical support for the several facilities to get it accredited with Laqshya certification and in the recent past we have realised the importance of using Quality Improvement tools in our frame of work to improve quality of care. Currently Igunatmac is functioning in 10 CHCs and 5 District hospitals for comprehensively improving their quality of care keeping with Laqshya standard. Our close interaction with the facilities over the years have led us to realise that there are a few common problems across all these facilities. The issue of stock out of drugs and consumables at L.R is one such which can be addressed with timely indenting processes and right calculation of indenting. For the last two years we as a team have explored ways to be able to solve it through better coordination with the state, compilation of a list of drugs and consumables according to delivery load and looked into the funding opportunities of the state. Thus, we devised an intervention to be done through the facility internally as it will better aid a change procedure, through implementation of Quality Tools. We spearheaded a common QI project starting with Umariya DH on drug and consumables since we observed that there were frequent stock outs at L.r amongst all the facilities.

Hence, to have an in-depth understanding of these quality tools and its application, we started internal training of our core team members since the lockdown struck us in late March. After studying several case studies, capacity building sessions, and cross learning from teaching each other, our team was ready to implement it at the facilities. To build a culture of quality we started with virtual training classes and exercises for the staff nurses in the facilities from the month of September 2020 since the lockdown continued. As our visits started we started with the in-person training at each facility respectively.

Overview of the Project Conducted -

1. What is Quality Improvement?

Quality Improvement is a framework used to aid process excellence of any activity conducted. In health care, it can be used for refining the process of care provided to

patients in a systematic and measurable way. For example, through correcting the indenting process befitting the number of patients visiting a ward, improving time management of clinical processes and emergencies, capacity building and training of government staff which is often not possible for the government to conduct, a QI project will benefit the stakeholders as well as the benefactors of the process. For this particular project we have used four QI tools which will lead us to solve the identified problem. The tools are Process Mapping, Root Cause Analysis, Prioritisation and Smart Objective formation and Plan Do Check Act.

2. What is the selected topic and why we selected it?

Selection of the topic of drug stock-out is based on the team's continuous engagement with district hospitals over the last four years. It has been observed there lies a recurring issue of drug and consumable stock out at the maternity wing. For this project we will focus on the list of 28 drugs and consumables mandated by Dakshta for labour rooms. Conducting it at multiple hospitals will give us the required understanding of this multi pronged problem and levels at which interventions can be planned and executed. At first the process of indenting was understood in detail to identify the issues. A root cause analysis of the issues were performed from which we prioritised the main issues in the indenting process and planned for a PDCA cycle.

3. Why are we doing a common QI project?

Team Igunatmac has decided to conduct this QI project at every DH we are engaged with to solve a common issue of drug stock-out. This will help the Quality Consultants to identify drivers and significant change makers at their respective facilities. This will prepare the team to better support the facility to lead QI projects in near future.

Outcomes

1. Comprehensive learning of practical issues while implementing a QI project across districts

2. In Depth understanding and capacity building of the core team as well as the staff nurses of the facility in order to conduct a QI process.
3. Reporting to the government on how facilities are dealing with conducting QI projects and its viability on the ground. If it makes sense for these projects to be a part of Laqshya and can be implemented to improve processes or if it is merely a burden on the staff nurses to get certified.
4. We could provide valuable feedback to the government if QI projects could be absorbed by the system to bring about long term changes, as they plan it to be.

Steps of QI tools -

Process Mapping : A process map helps us in understanding any activity in a detailed and graphic way for us to identify the loop holes in it. A good process map has all the necessary information and even guides us to possible solutions. To make a process map of indenting, staff interview and record review was done. The team member had to shadow a staff nurse to thoroughly understand the process of indenting which is minutely different for every DH. In a record the daily stock register was checked if it was maintained according to Laqshya or any register that recorded daily drug count and buffer stock. It is these two important pointers that will indicate if there is a stock out at the L.R. Find this document in annexure I.

Root-cause Analysis : Once the problems were identified, a root-cause analysis gave us a better understanding of every identified issue. Staff interviews were conducted to get to the bottom of the problems. At this juncture, it can be observed that the problem is spread between the indenting process, record keeping, buffer calculation, duty dispersal at labour room level administration; purchase order amount, dispersal of drugs & consumables to L.R, buffer calculation and stock storage at the store level

administration; and supply issues at the government's level. Find this document in annexure II.

Prioritisation and Smart Objectives : Using the tool of Prioritisation and Smart objectives helps in guiding towards selecting a problem which we can work on. Prioritisation was based on the nature of the problem where the intervention needed to be tested. Smart objectives were formed on the basis of the data collected in the set time period. Stock-out was calculated as many times the chosen drug had been declared nil by the staff nurse in the stock register. Find this document in annexure III.

Plan-Do-Check-Act : PDCA is a four step management method for continuous improvement of a process. In the initial phase of PDCA, one has to assign duty to one specific staff to be able to track the process and fix a particular date in the month to regularise the process. She has to be trained as to how to make calculations of the drug that has been chosen through the project. One has to assure that this drug is present in the CS store before a staff nurse begins the indenting process. It has to be made sure that staff nurse indents on the given date. Data needs to be collected after a month to see if the process is effecting in no stock out of that particular drug. It needs to be repeated to regulate buffer management for the next month. This time can be used to prepare and train facility staff for the next cycle of PDCA. Find this document in annexure IV.

This common structure of Rapid Quality Improvement Cycles will be followed and repeated in other districts to arrive at a common conclusion.

Expected Challenges

1. Unavailability of a dedicated staff nurse to finish the project due to turn over of staff.
2. Stock-out related issues might not be solved at some facilities since stock related budget management rests on a delicate balance between the state and the district.

3. Since stock management is a sensitive issue and involves stakeholders of all levels in a facility, it might be difficult to buy in higher officials.
4. Full cycle of QI projects can emerge as a difficult process for staff nurses to conduct and get results without our support in some facilities.

Future of QI projects

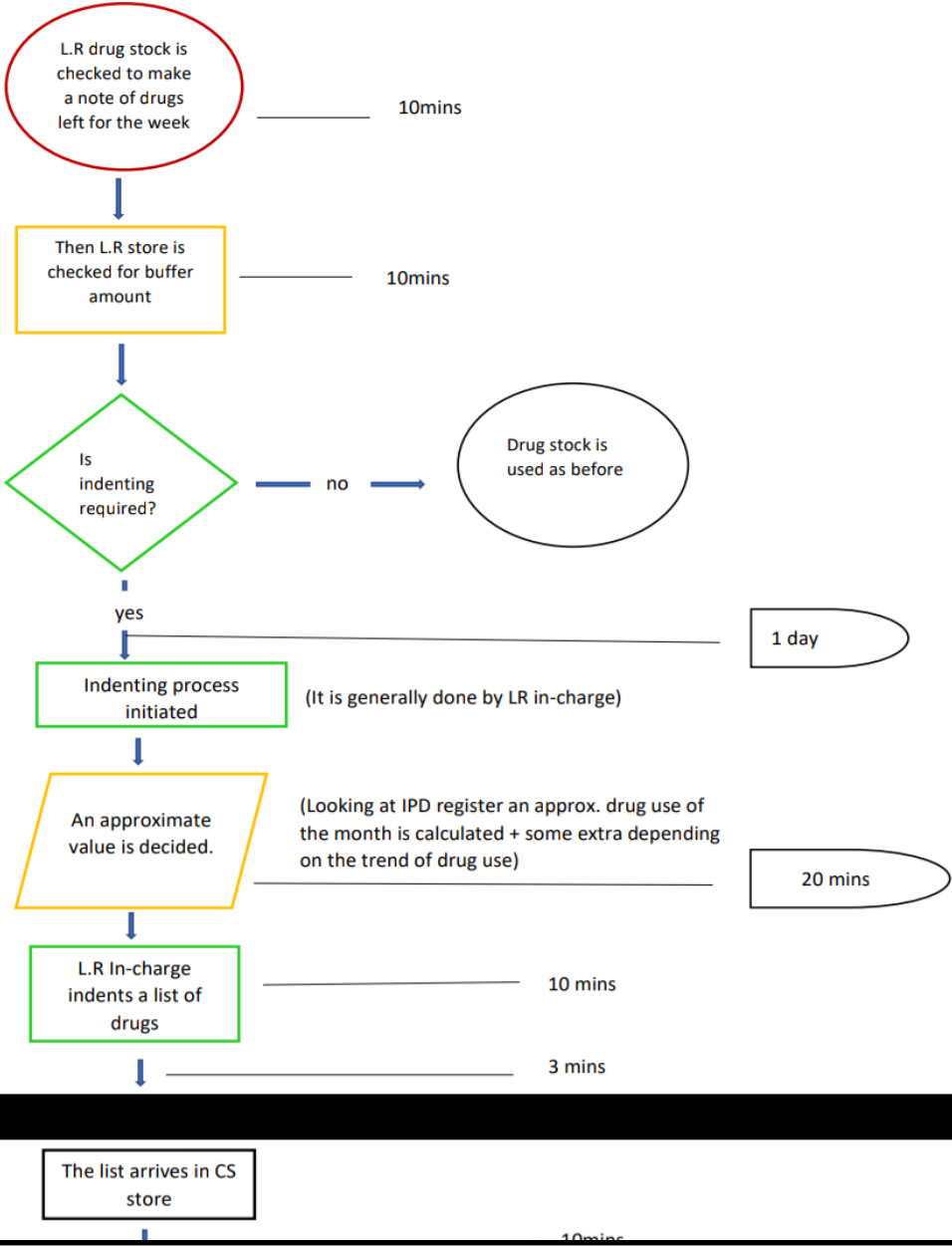
1. This QI project becomes an integral part of hospital processes in the public health sphere and continues to be so without our support.
2. The QI project will overall aid in providing better health care administered to ladies coming to the maternity wing.
3. This can fill the gap in medicine unavailability of all drugs and consumables in all supportive wards of the maternity wing.
4. Our structure of QI projects can be scaled up to solve other process related issues in the hospital.

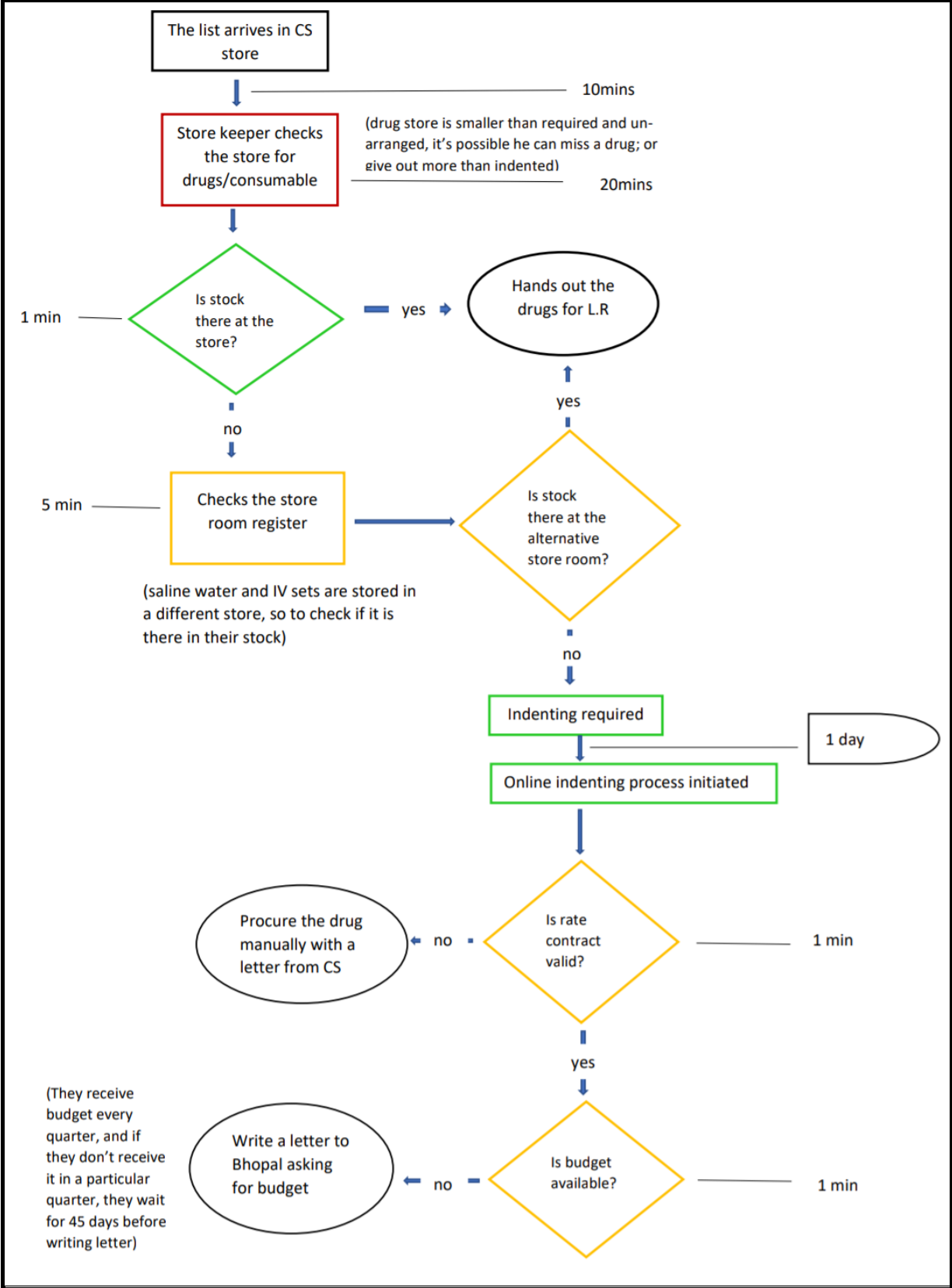
Annexure I

Process Mapping of indenting procedure- DH Umaria

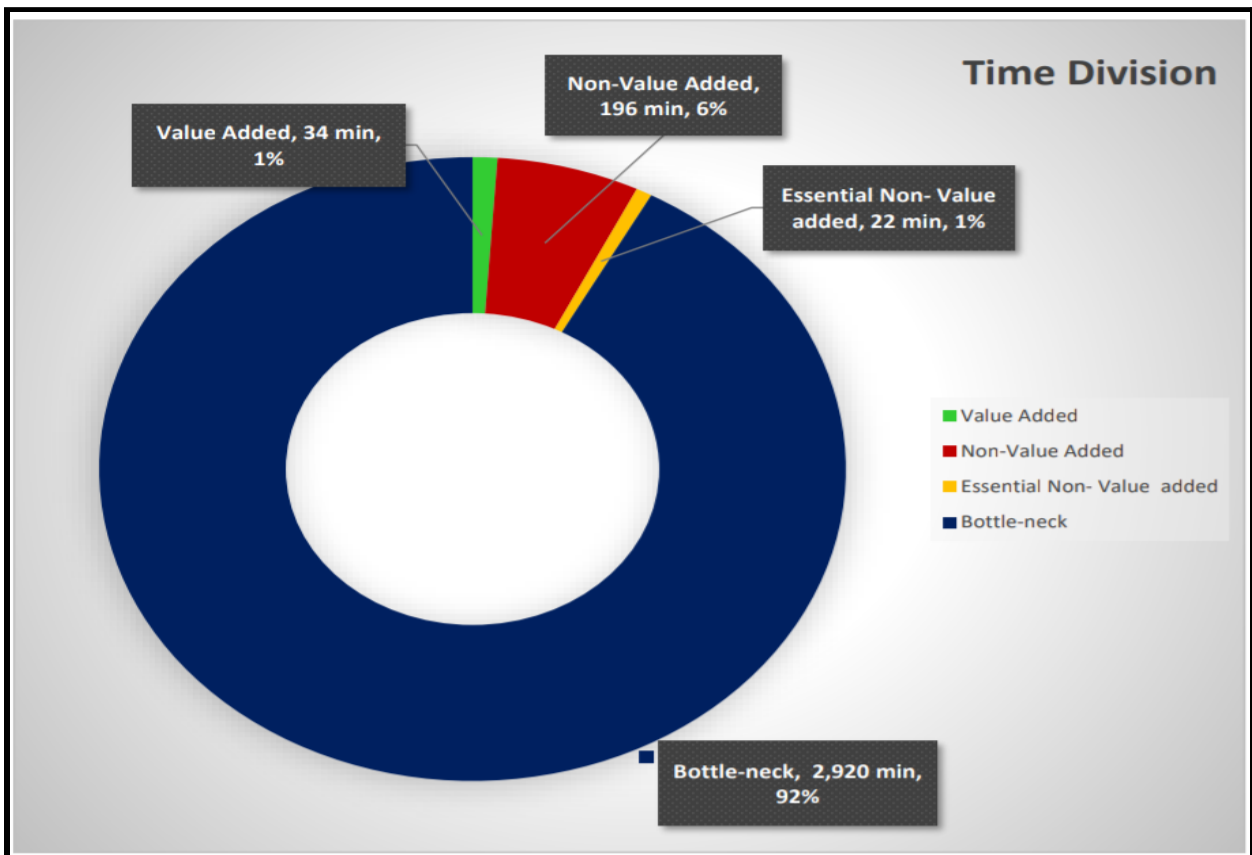
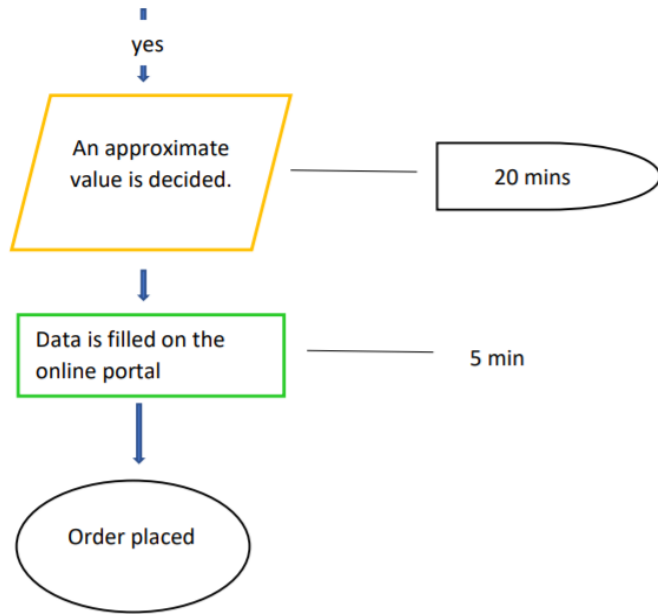
Objective: To create a process map of indenting procedure of Dh Umaria to find what are the reasons leading to stock out

- Value added
- Essential non-value added
- Non-value added

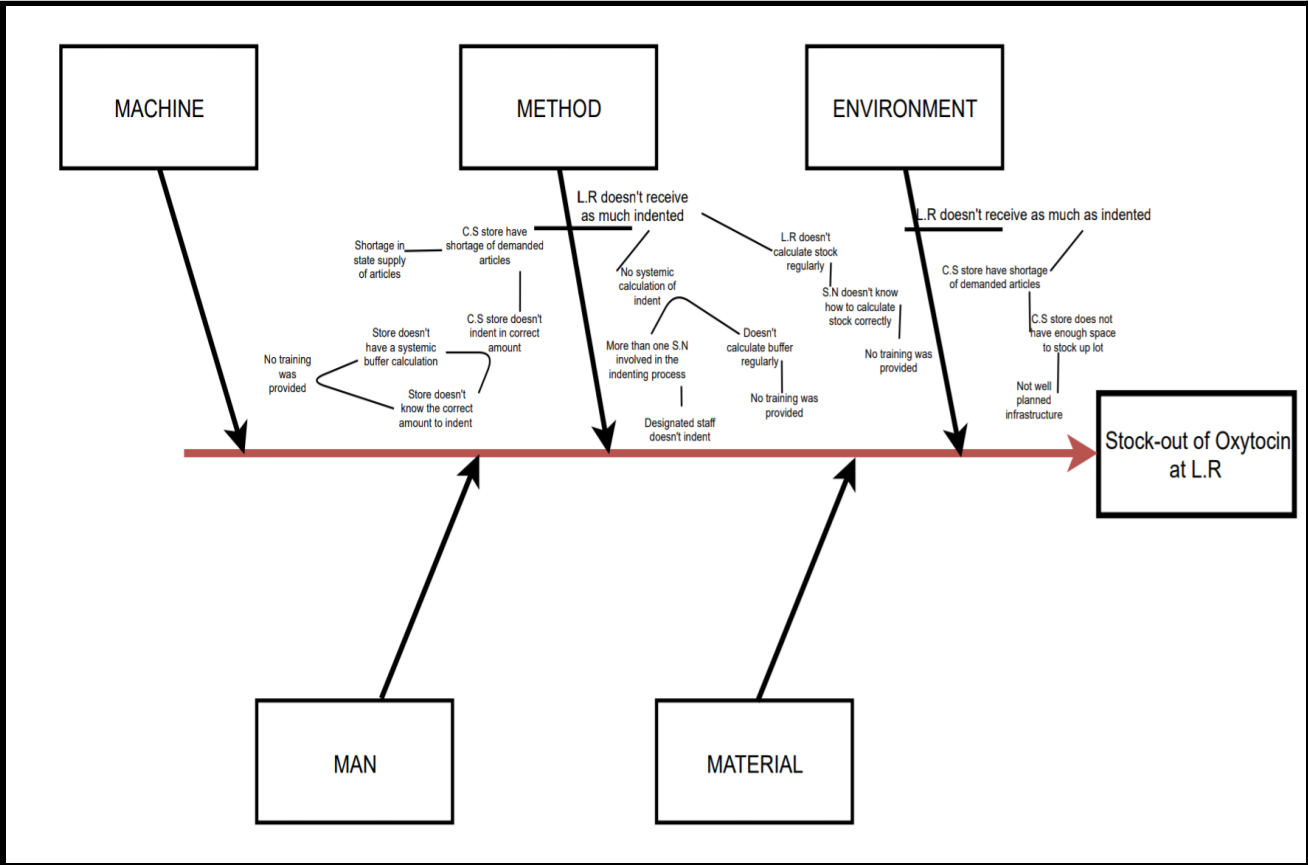




(Eg: PCM requirement is 5K in MCW for a year, similarly other dept submits how much PCM they require, the store keeper adds them up and indents around the year based on that. The process is repeated for other drugs as well)



Annexure II



Annexure III

Problem: Stock-out of Oxytocin at L.R

Problem Analysis

Method: 1. L.R doesn't receive as much indented

- Inadequate buffer calculation
- Inadequate indent calculation
- Designated staff doesn't indent

Solution: Designate duty of regular indenting to a selected staff nurse.
Train and guide staff to calculate indent according to guidelines.

2. Cs store has shortage of demanded articles

- Inadequate buffer calculation
- Inadequate calculation of stock

Solution: Train store incharge to calculate buffer according to guidelines.
Train store incharge for calculating stock according to guidelines.

Environment: 1. C.s store has shortage of space

- Not well planned infrastructure

Solution: Train & guide store incharge to implement 5s for better space management.
Arrange for a bigger store room.

Priority Matrix

<p>HIGH EFFORT LOW IMPACT</p> <p>Train & guide store incharge to implement 5s for better space management.</p>	<p>HIGH EFFORT HIGH IMPACT</p> <p>Arrange for a bigger store room.</p>
<p>LOW EFFORT LOW IMPACT</p>	<p>LOW EFFORT HIGH IMPACT</p> <p>1.Designate duty of regular indenting to a selected staff nurse. 2.Train and guide staff to calculate indent according to LaQshya guidelines. 3. Train store incharge for calculating stock according to LaQshya guidelines. 4. Train store incharge for calculating buffer according to LaQshya guidelines.</p>

Drug Selected

I have chosen injection Oxytocin to implement the PDCA cycle based on the data.

Annexure IV

PLAN DO CHECK ACT

Problem identification - Stock-out of Oxytocin at L.R

Smart Objective - To prevent stock-out of injection Oxytocin at L.R for a month.

Baseline data- Collected by QC for months January - November

Timeline- 30 days

PLAN	<ul style="list-style-type: none">o Identify a staff nurse for periodic indenting processo Train her about the guidelines of indenting procedure according to Dakshatao Monitor the maintenance of stock registero Fix a date in the month to indent for chosen drugs
DO	<ul style="list-style-type: none">o Take follow up of the process of indenting on the chosen dateo Follow up with the store in-charge on the processo Collect data for any unforeseen difficulty in the process
CHECK	<ul style="list-style-type: none">o Collect data for stock-out after 30 days from the stock registero Compare data with predictiono Analyze if the test can be expanded for full-scale implementation
ACT	<ul style="list-style-type: none">o Adapt, adopt or abandon the test plano Prepare for the next cycle of PDCA