

TIME MOTION STUDY TO STREAMLINE PROCESS FLOW IN THE HEALTH CHECK DEPARTMENT OF A MULTISPECIALTY HOSPITAL IN MUMBAI

Dissertation Submitted to



The IIHMR University, Jaipur

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Master of Business Administration (MBA)

in

Hospital and Health Management

By

Rashi Mohan Shirke

Under the Supervision and Guidance of

Dr. Deepti Sharma

2024

**P. D. HINDUJA NATIONAL HOSPITAL
& MEDICAL RESEARCH CENTRE**

(Established and managed by the National Health & Education Society)

VEER SAVARKAR MARG, MAHIM, MUMBAI - 400 016, INDIA
PHONE : 2445 1515, 2445 2222, 2444 9199 FAX : 2444 9151



Date: 29/06/2024

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Rashi Shirke** in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur has successfully completed her internship at P.D Hinduja Hospital, Mahim during **01-04-2024 to 30-06-2024** as an Administrative Intern.

During this period, **her** assignment was as follows:

1. Assessment of Nutritional Care Compliance in Inpatient medical records
2. Time-motion study to streamline process flow in the Health-check department:
Root-Cause analysis, Value stream mapping and Strategies
3. Evaluation of OPD new registration turnaround time and strategies to reduce registration time

I wish **her** all the success in future endeavours.

Joy Chakraborty
Chief Operating Officer

Dr. Preeti Goraksha
Assistant Director Quality &
Clinical Administration

DECLARATION BY STUDENT

I hereby declare that this dissertation titled **“Time Motion study to streamline process flow in the Health Check department of a Multispecialty hospital in Mumbai”** is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



Dr. Rashi Shirke

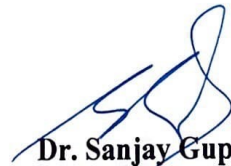
Date: 02/07/2024

CERTIFICATE

This is to certify that dissertation titled **“Time Motion study to streamline process flow in the Health Check department of a Multispecialty hospital in Mumbai”** is a record of the research work undertaken by **Dr. Rashmi Shirke** in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

Dr. Deepti Sharma
Associate Professor (Faculty Guide)
IIHMR University, Jaipur

Date

A handwritten signature in blue ink, appearing to read 'Sanjay Gupta', written over the printed name.

Dr. Sanjay Gupta
School Dean
IIHMR University, Jaipur

Date 02/07/2024 .

Abstract

Title:

Time motion study to streamline process flow in the health check department of a multispecialty hospital in Mumbai

Author Name: Dr. Rashi Shirke

Advisor Name: Dr. Deepti Sharma

Keywords:

Process Mapping, Lean Healthcare, Value stream mapping, Root-Cause Analysis, Health check department, Waiting time

Background:

The Health Check Department plays a crucial role in prevention of diseases. Efficient operations within this department are vital to ensure high quality care for patients. However, hospitals often face challenges such as long waiting times, inefficient use of resources, etc. that hinders overall service delivery. This study aims to streamline the process flow in the department to enhance operational efficiency, reduce patient waiting times, and ultimately improve patient experience.

Objectives:

1. To evaluate procedure-wise process time and waiting time
2. To evaluate health package wise waiting time
3. To analyze staff survey to identify administrative factors leading to prolonged waiting time

Methodology:

Cross-Sectional Observational study

Results/Findings:

1. Waiting time was highest for doctor consultation followed by USG Pelvis, Post prandial blood, X-ray, ECG, and Audiometry
2. For Long health packages, the highest and lowest waiting time was 4hrs 18mins and 2hrs 39mins respectively, whereas, for Short health packages, the highest and lowest waiting time was 6hrs 39mins and 3hrs 42 mins respectively.

3. Administrative factors that prolonged waiting time were Delay in receiving reports, Patient tracking, Busy telecom lines and Doctors reporting time.

Conclusion:

The study findings underscore the need for streamlined process to enhance operational efficiency and patient satisfaction. Value stream mapping not only streamlines the process but also sets a precedent for adopting lean principles across healthcare operations, promoting continuous improvement and setting efficient healthcare management practices.

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I am deeply grateful for the support and guidance I have received during my research study. This thesis would not have been possible without their encouragement, expertise, and assistance.

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Additionally, I would like to express my gratitude to the administrative and support staff at both IIHMR University and P.D Hinduja Hospital for their assistance in facilitating various aspects of my research. Your cooperation and efficiency made the research process smoother and more manageable.

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Finally, I am profoundly grateful to my family and friends for their unwavering support, understanding, and encouragement throughout this journey. I extend my deepest appreciation to everyone who contributed, directly or indirectly, to the successful completion of this thesis. Thank you for your invaluable support and encouragement.

Dr. Rashi Shirke

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Abbreviations

BMD	Bone Mineral Density
USG	Ultrasonography
LFT	Lung Function Test
PP	Post Prandial
USC	Urine Sample Collection
IEC	Information Education Communication
RFID	Radio Frequency Identification
VAR	Value Added Ratio
VAT	Value Added Time
NVAT	Non Value Added Time

Chapter 1

Introduction

In today's fast-paced healthcare environment, the Health Check Department in hospitals is essential for preventive care and early disease detection. This department is frequently utilized by executives, senior citizens and others who participate in routine health assessments. However, a significant issue within these departments is the prolonged waiting times experienced by patients.

Waiting time refers to the duration patients spend awaiting various medical services, from initial registration to diagnostic tests and consultation. In many health check departments, waiting periods often surpass the actual time required for medical procedures. This discrepancy not only causes patient frustration but also highlights inefficiencies in hospital operations.

The healthcare industry is increasingly recognizing the importance of reducing waiting times to enhance patient satisfaction and operational efficiency. Using lean healthcare concepts, like value stream mapping, to find and reduce non-value-added tasks in healthcare procedures is one of the current trends. The primary **purpose of this research** is to conduct a comprehensive time motion study aimed at analyzing and optimizing process flows within the Health Check Department of a prominent multispecialty hospital in Mumbai. The study seeks to identify inefficiencies leading to prolonged waiting times and to propose targeted interventions through root cause analysis to enhance operational efficiency.

Addressing inefficiencies in the Health Check Department is crucial for improving patient satisfaction, optimizing resource utilization, and enhancing overall healthcare service delivery. By streamlining processes and reducing waiting times, the hospital can potentially increase patient throughput and satisfaction, timely delivery of services ,and maintain competitive advantage in the healthcare market.

This research **aims** to conduct a detailed time motion study to assess current process flows and waiting times within the Health Check Department and investigate significant challenges faced by health check department related to prolonged waiting times.

Objectives of this study are:

- To evaluate health package wise waiting time
- To evaluate procedure wise process time and waiting time
- To conduct staff survey to have an insight on administrative factors contributing to increased waiting time.

Description of the Health Check Department:

The Health Check department at the multispecialty hospital in Mumbai operates 6 days a week. It is operational every day from 7am onwards, the patients usually report between 7am to 10am as they must fast overnight for fasting blood sample collection. The patient first reports to the 7th floor for appointment confirmation, registration, billing, sample collection and have breakfast. Later he/she go across the 3rd, 4th, 5th and 6th floors for various tests included in their package, have lunch on 7th floor and finally report to 10th floor for doctor consultation. The health check department offers various health packages, of which 11 packages are taken in this study (see table 1 for details). The waiting time differs as per the health package.

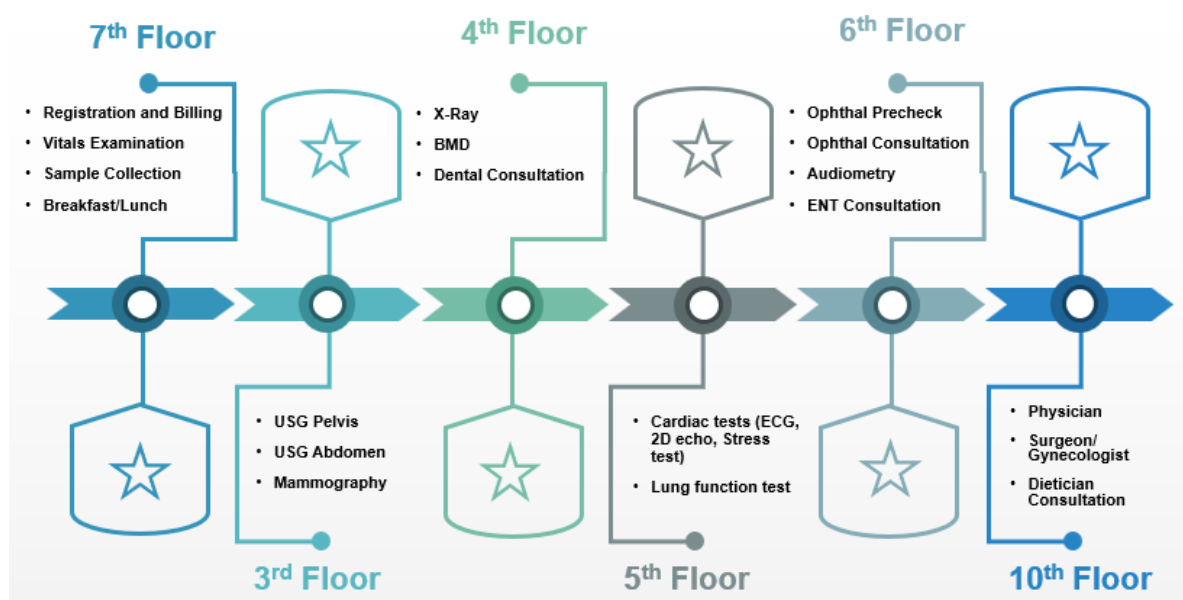


Figure 1.1: Patient flow process

Table 1.1: Health Package details

Tests	Health Package										
	Active	Active Plus	BPCL 1F/1M	BPCL 4F/4M	BPCL GM	IOCL Comp	IOCL Retired	ONGC/ONGC Jeevansa	Perfect	Prime	Sure
Vitals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sample	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
USG Pelvis			✓	✓	✓			✓	✓		✓
USG Abdomen			✓	✓	✓	✓	✓	✓	✓		✓
Mammography			✓		✓			✓	✓		
X-ray	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BMD									✓		
Dental						✓	✓		✓	✓	✓
ECG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2D Echo		✓		✓	✓			✓ *	✓	✓	✓
Stress test		✓			✓			✓ *	✓		✓
LFT		✓	✓		✓	✓		✓	✓	✓	✓
Ophthalmology Precheck							✓	✓	✓	✓	✓
Ophthalmology consultation							✓	✓	✓	✓	✓
Audiometry								✓	✓	✓	✓
ENT									✓	✓	✓
PP Blood	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Physician	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Surgeon	✓	✓				✓	✓	✓	✓	✓	✓
Gynecologist	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dietician			✓	✓					✓		

Chapter 2

Review of literature

Authors (Year)	Study Location	Sample Size	Sampling technique	Salient features
Dr. Kannan V (2017)	Health checkup department at a multispecialty hospital in Coimbatore, India	40	Convenience Sampling	Length of stay at hospital is 8hrs, Total service time 2.57hrs, waiting time 5hrs and Time taken for registration is 57mins. Future state VSM estimates to reduce length of stay to 5hrs, Total service time 2.28hrs and Waiting time to 2.72hrs.
N. Junior Sundresh (2016)	Tertiary care hospital in India	100	Convenience Sampling	Mean waiting time of ECG, Dietician consultation, X-ray, PFT are less than 15 minutes. Diagnostics test like ECHO, USG, TMT take 33.55, 44.45, 48.95 minutes respectively. Physician consultation took 45.5 minutes mean waiting time, maximum 90 minutes waiting was recorded. Patients spend more time in waiting for their reports, mean waiting time 108.15 minutes, with minimum of 30 minutes and maximum of 180 minutes were recorded
Dr. Pramod Kumar Mishra, Dr. Jagadessha M (2021)	Apollo Preventive Healthcheck Department, Gandhinagar, Gujarat	300	Random Sampling	4% of clients visiting the hospital for health check-up services are highly satisfied with the waiting time, 8% clients are satisfied, 12% clients are moderately satisfied, 32% clients are unsatisfied with the waiting time and 44% clients are highly unsatisfied with the

				waiting time. Staff communication is the most important factor which manipulate of patient satisfaction with health care services in a health care organization. Communication with patients can greatly affect the healing process. Clear, communication is vital to delivering service satisfactions in the hospital setting.
Wongsammacheep T, Weerawat W (2011)	Private hospital in Thailand	Not Specified	Not Specified	Policy 1: As-is terms. Policy 2: The entire abdomen should only undergo one ultrasound examination. Policy 3: Provide diagnosing doctors to Station 6 based on a first-come, first-served schedule. Policy 4: Arrange for patients to arrive at different times of the day. Policy 5: Enact all policies at the same time. Results: Compared to other policies, Policy 4's equal arrival rate every hour can cut down on overall waiting time. Due to the similar processing times for two ultrasound tests and one test, Policy 2's requirement that each patient only undergo an ultrasound test once cannot significantly cut down on waiting times. Because medical resources are pooled and patients are assigned diagnosis doctors based on first-come, first-served basis, Policy 3 is more successful than Policy 2.

Chapter 3

Methodology

It is a **Cross-Sectional Observational** study. The patients were personally observed and tracked across all tests for collecting data related to process and waiting time, for a period of three weeks.

Key Research Question:

What are the factors contributing to increased waiting time in the health check department?

Research Hypothesis:

- Null hypothesis - There are no significant factors contributing to increased waiting times in the health check department
- Alternate hypothesis - There are significant factors contributing to increased waiting times in the health check department

Research Design:

Cross-Sectional Observational Study

Study Setting:

Health check department of a multispecialty hospital in Mumbai

Study Population: 450

(Average 20 patients/day on weekdays + 50 on Saturdays = 150 x 3 weeks)

Sample Size: 50

(3-4 patients were personally tracked and observed each day for three weeks)

Study Duration: 5 weeks

(3 weeks – Data Collection, 2 weeks – Data Analysis)

Sampling Technique:

Convenience Sampling Technique as the study patients were selected in the order they entered the department, making sure that the observer is available to track the patient from the start of the process.

Research approaches:

- Both Qualitative and Quantitative approaches for data collection were used in the study
- Quantitative data on start and end time of each process and Qualitative data through staff survey were collected.

Study Instrument:

1. Time-Motion data were collected and analyzed in MS Excel.
2. Structured questionnaire formulated to conduct staff survey. (see Annexure 1)
3. Fish bone/Ishikawa/Cause effect framework for Root cause analysis
4. Value stream map for process mapping to calculate value added and non-value added time

Operational definitions:

1. Time-motion study: This method involves tracking, measuring, and analyzing how long it takes to do different actions within a workflow in a methodical manner.
2. Ishikawa/Fishbone framework: It is a graphic aid for methodically identifying and outlining the sources of a certain issue.
3. Value Stream Mapping: This lean management technique examines and plans the information and material flow needed to provide a service to a customer.
4. Value added time is the term used to describe the amount of time spent on tasks that directly help to satisfy the needs or demands of the client. From the standpoint of the client, these actions provide value and are necessary for the finished good or service.
5. Non value added time: Time spent on activities that don't add value, such that elimination of these activities improves efficiency of the process

Statistical Methods:

1. Statistical methods like Mean were used to calculate Health package wise average waiting time and Median to calculate Department wise process and waiting time
2. Pareto chart for analyzing Staff survey data

Ethical Considerations:

- Informed consent was taken from staff participating in survey
- No discrimination against any patient based on age, ethnicity or medical condition
- Data security and confidentiality is ensured

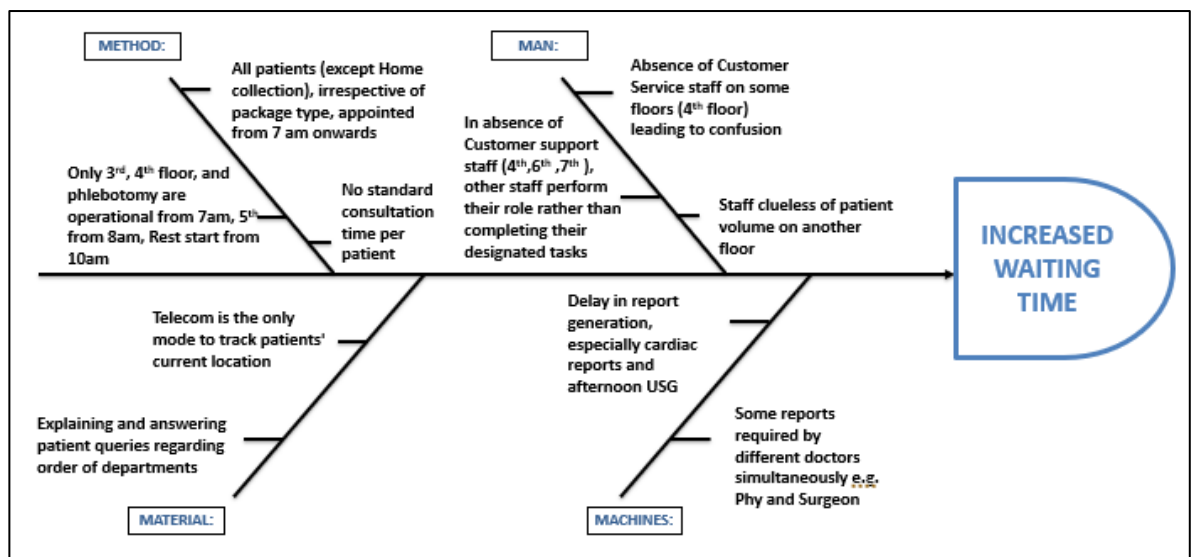


Figure 3.1: Root-Cause Analysis/Ishikawa/Fishbone diagram

Chapter 4

Results

1. Value Stream Mapping

Current and Future Value Stream Map for Active health package is depicted below in Figure 4.1 and 4.3. Procedures requiring maximum waiting time which contributes to non value added time is shown by Pareto Chart in figure 4.2

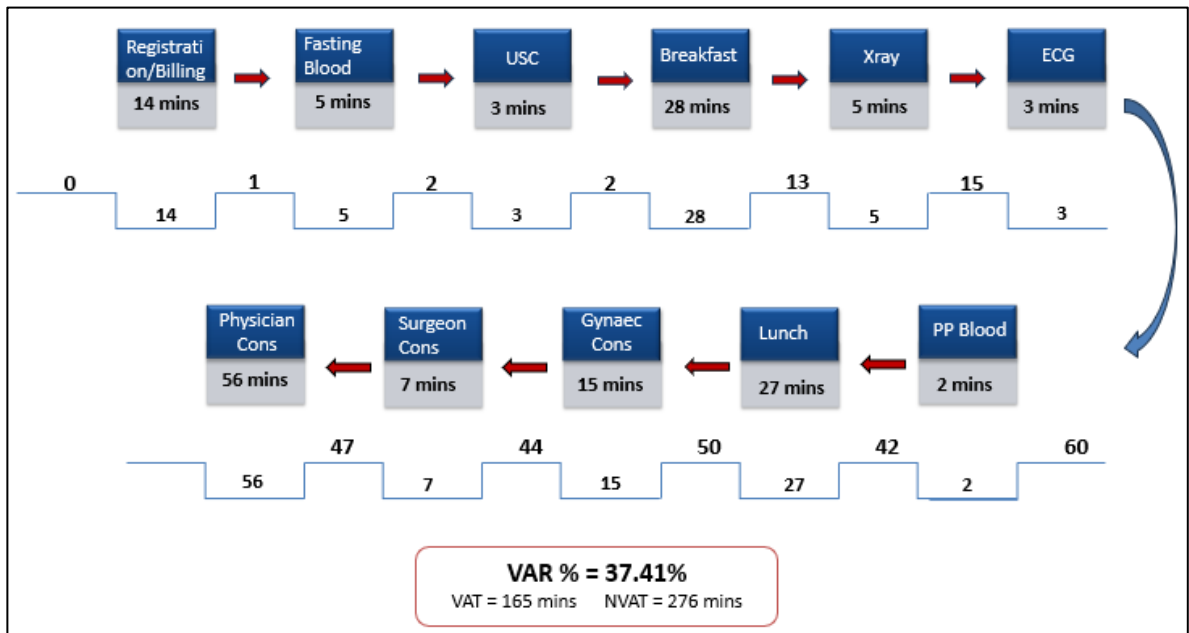


Figure 4.1.1 Current Value Stream Map for Active health package

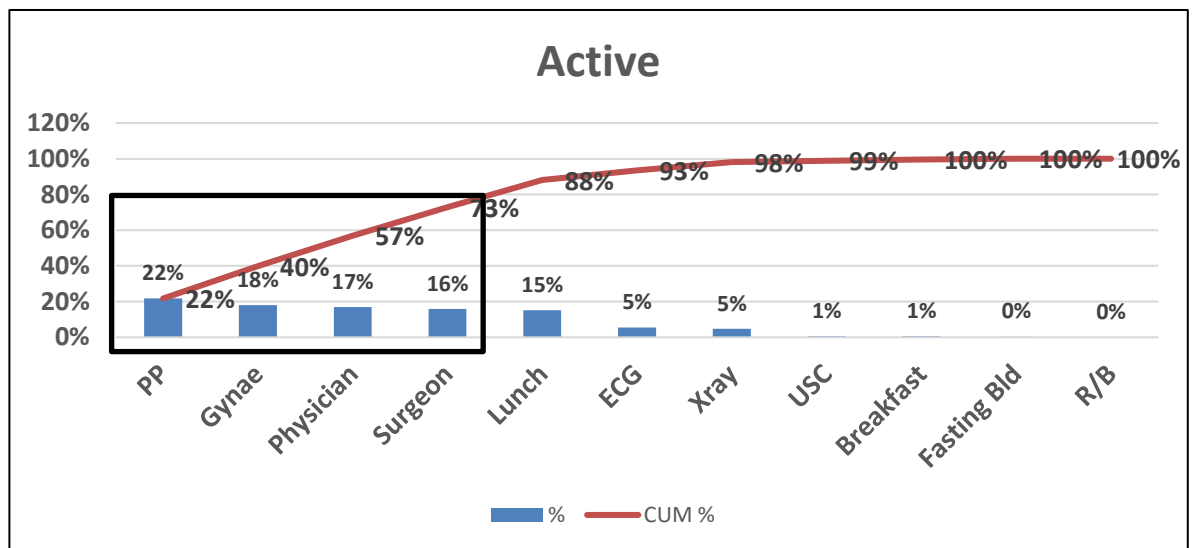


Figure 4.1.2 Pareto chart for Active health package

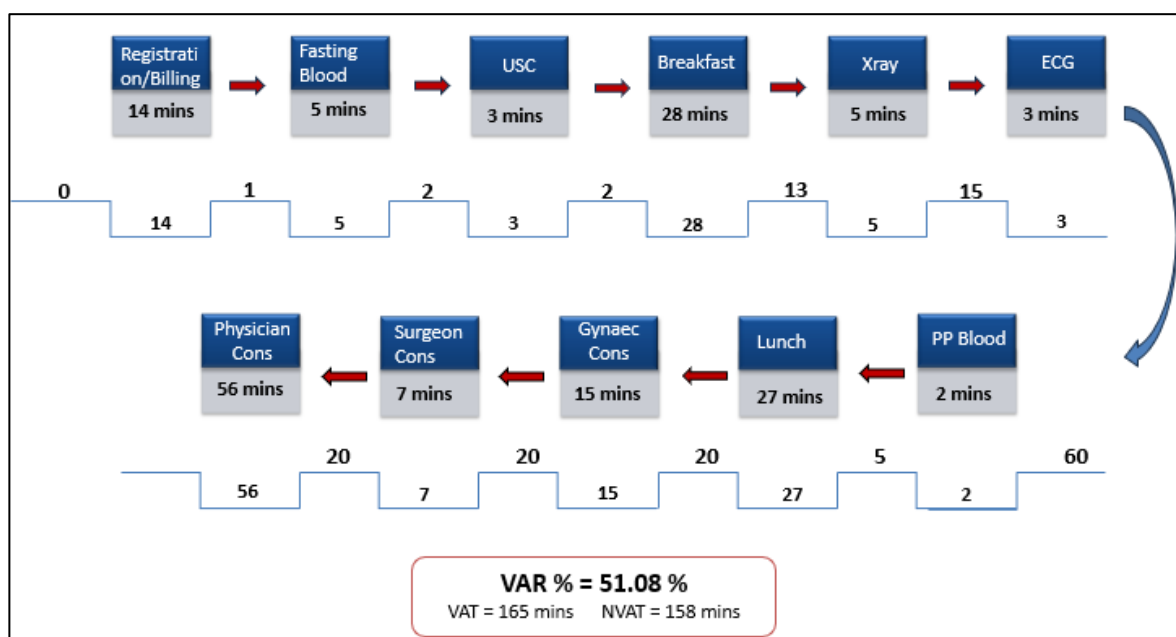


Figure 4.1.3 Future Value Stream Map for Active Health package

Similarly, Current and Future Value Stream Maps are prepared for all the health packages under study (refer Annexure 2)

2. Health package wise waiting time

Health package wise waiting time is depicted below in table 4.1 and figure 4.2

Table 4.1 Health package wise waiting time (in hours)

Health Package	Average Process time	Average Waiting time
Active	02:39	04:42
Active Plus	03:01	04:19
BPCL 1F/1M	02:46	05:06
BPCL 4F/4M	03:07	06:08
BPCL GM	03:45	02:39
IOCL Comp	02:26	06:39
IOCL Retired	04:19	03:46
ONGC/ONGC Jeevansathi	04:19	06:00
Perfect	04:29	04:34
Prime	03:54	03:35
Sure	04:03	04:52

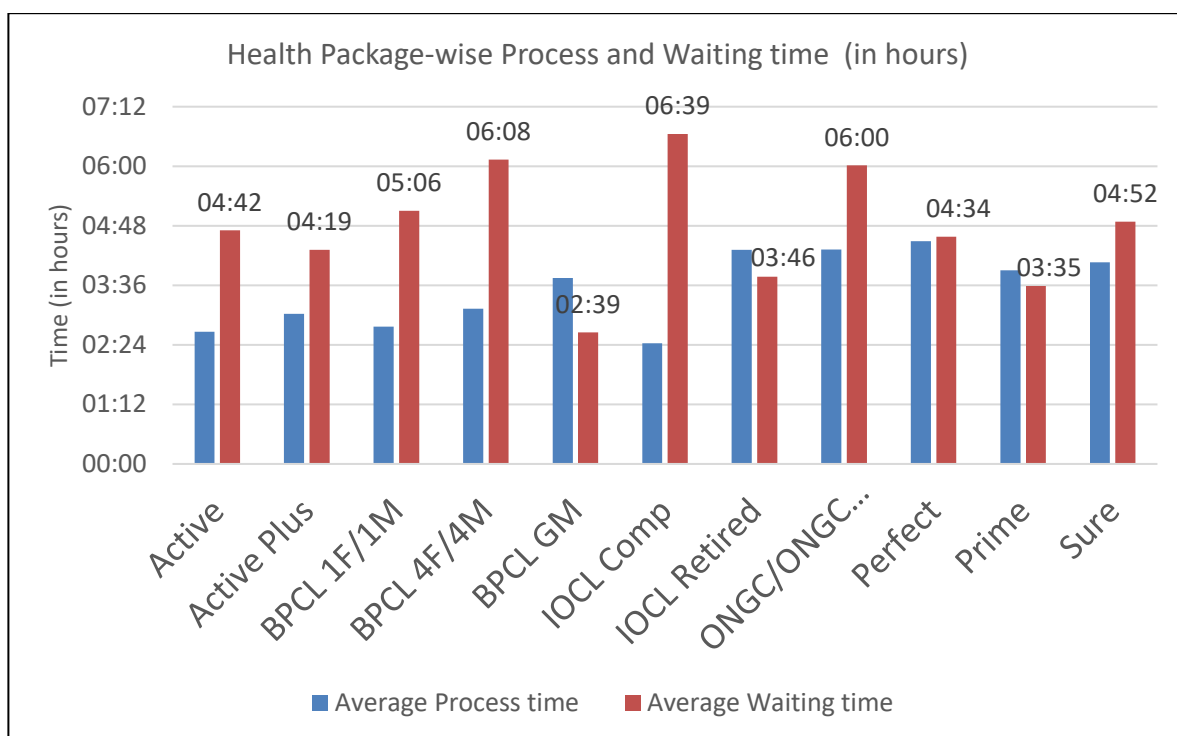


Figure 4.2 Health package wise waiting time

3. Procedure wise process and waiting time

Procedure wise process and waiting time are depicted in Table 4.2 and Figure 4.3

Table 4.2 Procedure wise process and waiting time (in mins)

Procedures	Process time	Waiting time
Registration/Billing	00:11	00:00
Fasting blood	00:05	00:01
PP blood	00:02	00:12
USC	00:04	00:01
Breakfast	00:22	00:02
Lunch	00:32	00:05
Xray	00:06	00:13
BMD	00:08	00:01
Mammo	00:13	00:11
USG P	00:13	00:33
USG A	00:05	00:03

Table 4.2 Procedure wise process and waiting time (contd.)

Procedures	Process time	Waiting time
Dental	00:05	00:05
ECG	00:03	00:08
PFT	00:09	00:04
2D Echo	00:15	00:06
Stress	00:28	00:13
Audiometry	00:04	00:06
Opthal PC	00:12	00:07
Opthal Cons	00:05	00:08
ENT Cons	00:07	00:04
Physician Cons	00:27	00:41
Surgeon Cons	00:13	00:15
Gynae Cons	00:12	00:18
Dietician Cons	00:11	00:09

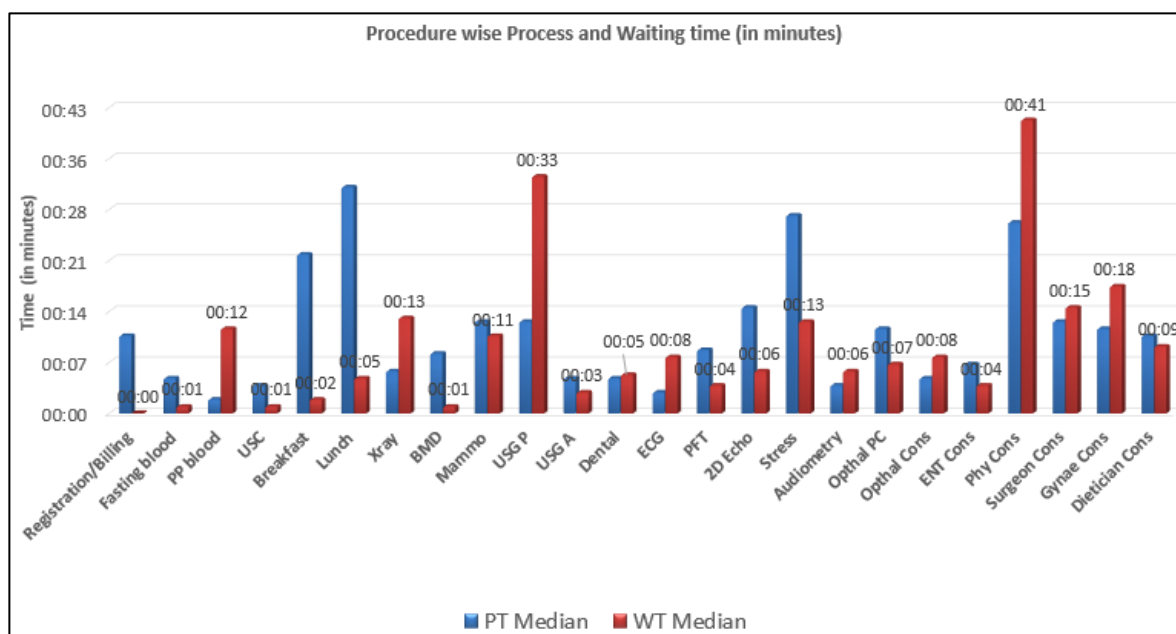


Figure 4.3 Procedure wise process and waiting time

4. Administrative factors leading to increased waiting time identified through staff survey

Some of the administrative factors leading to increased waiting time are identified through staff survey and depicted by Pareto Chart below in figure 4.4

Table 4.3 Pareto table for administrative factors

Administrative factors	Frequency	Freq %	Cumulative freq %
Reports delay	7	24%	24%
Waiting time related	5	17%	41%
Patient tracking	5	17%	59%
Busy lines	4	14%	72%
Doctors time	2	7%	79%
Patient queries	2	7%	86%
Lengthy proformas	2	7%	93%
Slow system	1	3%	97%
Counting cash	1	3%	100%
Total	29		

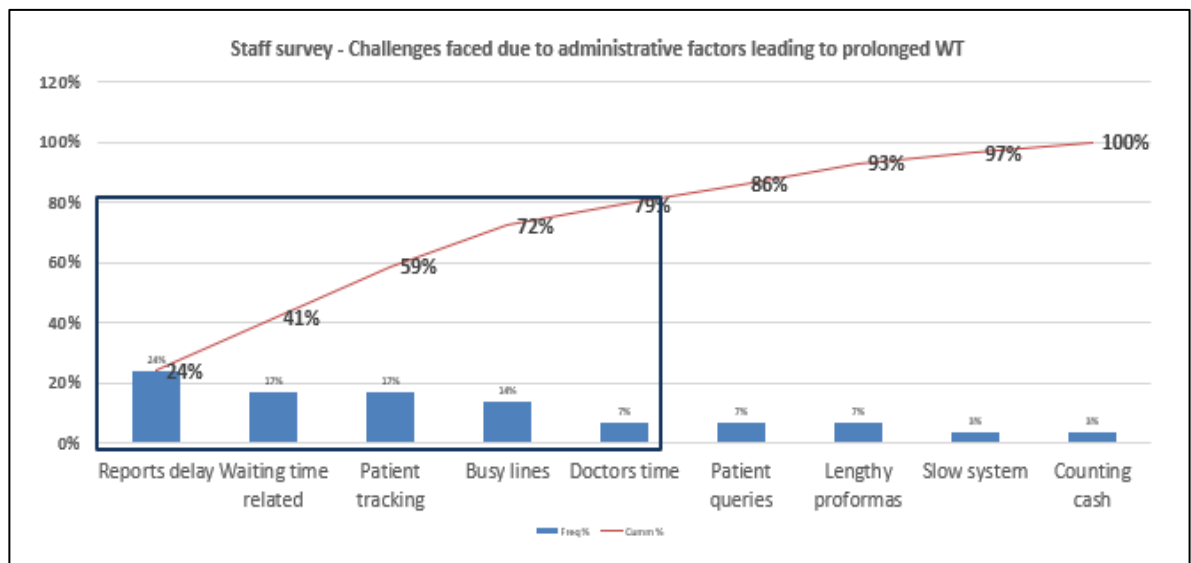


Figure 4.4 Administrative factors increasing Waiting time

Chapter 5

Discussion

- Root cause analysis was done to identify factors leading to increased waiting time in the health check department. Factors were identified pertaining to Man, Method, Material and Machine as per the 5 M model. These factors were then considered to develop targeted solutions
- The Current Value Stream Map and Pareto analysis for Active Health package identified following areas for improvement to reduce waiting time –
 1. Post Prandial blood collection
 2. Gynecologist consultation
 3. Physician consultation
 4. Surgeon consultation

“The study of optimization of master health checkup process at a multispecialty hospital in Coimbatore” (2017), identified the following areas of improvement in their current value stream map for reducing waiting time – Registration process, TMT/Echo, Sequencing the process.

 - Health package wise waiting time ranges from approximately 3hrs to 7hrs, and was highest for IOCL Comprehensive package
 - For procedure wise process and waiting time, the median waiting time was seen highest for doctor consultation specifically for Physician consultation (41mins), followed by USG Pelvis (33mins), X-ray (13mins) , and Post prandial blood (12mins).

N. Junior Sundresh, (2016), in the paper titled “A study on total waiting time with respect to preventive health checkup programme” identified that Physician consultation took 45.5 mins waiting time, 44.45 mins for USG and less than 15 mins for X-ray.

 - The main administration factors identified by Pareto analysis which are leading to increased waiting time as per staff survey data are Delay in receiving reports (especially cardiac and afternoon USG), Diverting patients in case of high waiting time, Patient tracking, Busy telecom lines, and inconsistency in doctors reporting and consultation time

Recommendations to reduce Waiting time in the health check department:

➤ Method:

1. Health packages for this study can be categorized as Short and Long packages for ease of understanding (Up to 15 tests - Short package, more than 15 tests – Long package)
For Short packages, registration and billing should start from 9-10am onwards
2. There should be standard consultation time per patient
3. Home collection can be made mandatory for short packages
4. Home collection patients can be appointed as follows:
Short package: 11am – 12pm onwards
Long packages: 8am onwards
5. Appointments should be given in slots, preferably in an interval of 15mins
6. Recommended appointment schedule as per health package is as follows:

Table 5.1 Health package wise recommended appointment schedule

Health Package	Normal	Home collection
Active	10 am	12:30 pm
Active Plus	10 am	12 pm
BPCL 1F/1M	10 am	11:30 pm
BPCL 4F/4M	10 am	11:30 pm
BPCL GM	9 am	10 am
IOCL Comprehensive	10 am	12 pm
IOCL Retired	10 am	12 pm
ONGC/ Jeevansathi ONGC	9 am	10 am
Perfect	7 am	8 am
Prime	9 am	10 am
Sure	7 am	8 am

➤ **Man:**

1. At present, there are 5 customer service staff. As per the floor timings, their duty time should be as follows:

Table 5.2 Customer care staff duty timings

Floor	No. of Staff	Duty time
7 th , 3 rd , 4 th	3 (one each)	7am to 3pm
5 th	1	9am to 5pm
6 th , 10 th	1*	10am to 6pm

*1 each for 6th and 10th floor, 1 staff for assisting VIP patients

2. Dedicated customer service staff on all floors
3. 1 staff can scan and upload provisional reports in the afternoon (USG and Cardiac) which are generally required by consultants simultaneously.

➤ **Material:**

1. IEC material in waiting areas (posters, videos) on information about online registration and guidelines for health checkup
2. A dedicated desk for speech to text activity for typists
3. Address staff difficulties hindering timely generation of reports (especially afternoon cardiac and USG reports)

➤ **Machine:**

1. Health check departments constitute of various tests across floors which requires flexibility in lining patients for each test, hence token system is not applicable here
2. Provision of online Physician and Dietician consultation
3. Train doctors to use computer to access provisional reports when required during consultation
4. Patient tracking system using RFIDs for health check patients to –
 - ✓ Easily identify health checkup patients
 - ✓ Find out floor with high/low patient volume at any given point of time
 - ✓ Guide patient on where to go next

Strengths of this study:

- Accurate and real time data as the patients under study were observed and tracked personally
- The study identifies specific administrative and procedural bottlenecks that contribute to prolonged waiting time
- Identification and elimination of non value added activities by value stream mapping
- The study's findings and recommendations are based on quantitative and qualitative data collected over three weeks

Limitations of the study:

- The data collected for three weeks did not cover all health packages
- As it was conducted in one multispecialty hospital in Mumbai, the findings cannot be generalized to other hospitals and healthcare settings with different operational structures
- The presence of observer may influence the behavior of staff and patients

Chapter 6

Conclusion

The purpose of this study was to reduce waiting time in the health check department by conducting root cause analysis to identify factors leading to increased waiting time, and develop targeted solutions. Some of the administrative factors such as Delay in reports generation, Busy telecom lines, Patient tracking ,and Doctors reporting and consultation time increases the waiting time. Scheduling appointments as per health package, setting a standard consultation time, incorporating a patient tracking software are some of the ways in which waiting time can be reduced significantly.

Implications of Research:

1. The study highlights areas where future research is needed, such as impact of patient demographics and effectiveness of specific interventions on reducing waiting times.
2. The methodologies and findings of this study can be scaled and replicated in other departments within the hospital or different healthcare institutions
3. By identifying specific administrative factors that contribute to delays, the hospital can optimize the use of its resources, such as staff time, diagnostic equipment and consultation time. This can lead to cost savings and better utilization of existing resources.
4. The findings can help in the development or revision of policies aimed at minimizing delays. This can include standardized consultation time, improved report delivery process and better patient tracking system.
5. The application of value stream mapping in this study sets a precedent for adopting similar practices across other departments, fostering a culture of continuous improvement in the healthcare setting.

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Annexure 1

Staff Survey Questionnaire

Questionnaire for Administrative/Non-Clinical Staff

This survey is part of a study aimed at understanding and improving the process flow in the Health Check Department of our hospital. By completing this survey, you are giving your consent to participate in this study. Thank you for your time and valuable input.

Sign

Personal Background:

Name:

Position:

Experience and Role:

a. Can you briefly describe your responsibilities?

Workflow and Processes:

a. Are there any specific steps or procedures you follow for arranging order of patients?

b. How do you prioritize patient when there's a high volume of patients?

Challenges and Difficulties:

a. What are the main difficulties you encounter when handling the health checkup patients?

b. Do you face any challenges in coordinating patient orders across different departments located on different floors?

c. How do you manage the increasing waiting time for patients while handling multiple tasks?

Communication and Coordination:

a. How do you communicate with other departments or staff members to coordinate patient arrangements?

b. Are there any communication gaps or delays that you often encounter in this process?

Technology and Tools:

a. What technology or tools do you use to manage patient arrangements?

b. Do you encounter any limitations or challenges with the current technology or tools in place?

Patient Experience:

a. What feedback or complaints have you received from patients regarding your department?

Time Management:

a. Are there any time-consuming tasks in the process that could be improved?

Resource Allocation:

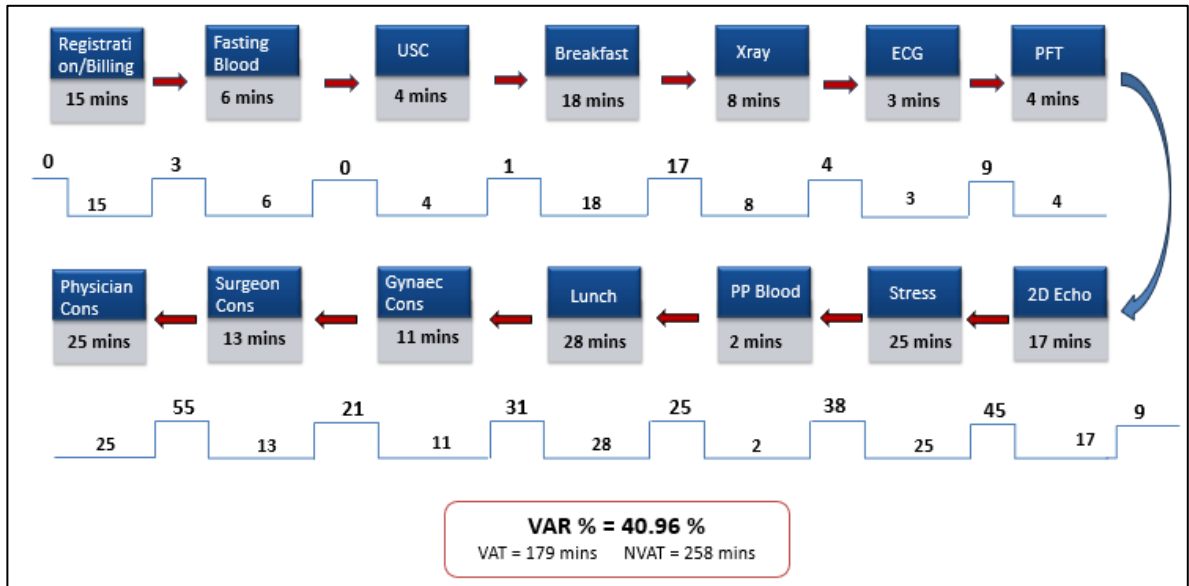
a. Do you face any resource constraints (e.g., staff, equipment, space) that affect your ability to handle patients efficiently?

Suggestions for Improvement:

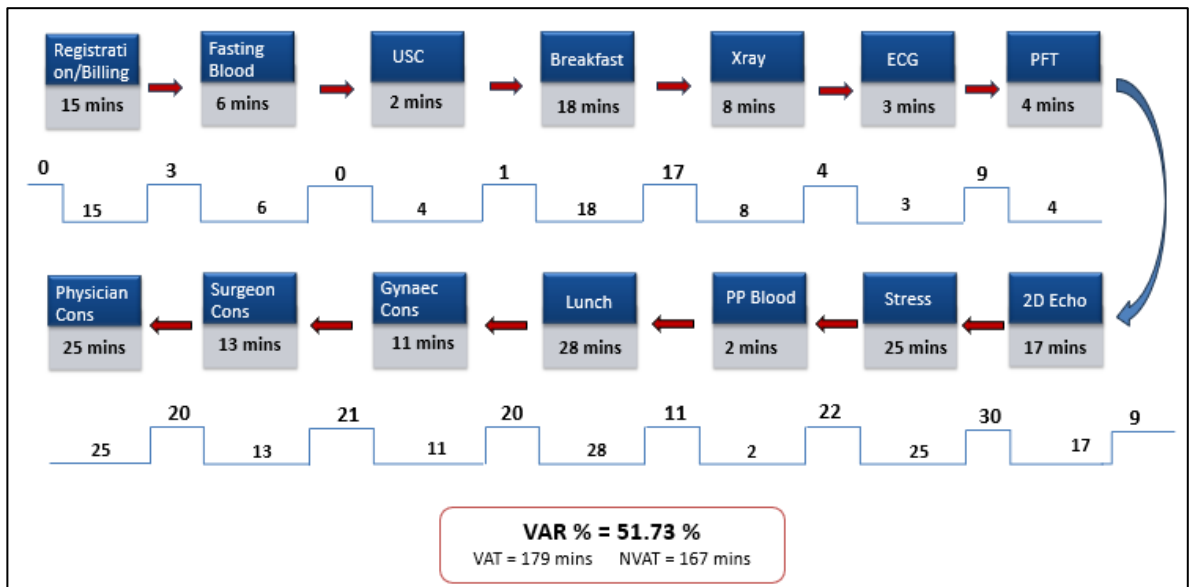
a. Based on your experience, what improvements do you think could be made to streamline the process of handling patients?

Annexure 2

➤ Active Plus health package – Current and Future VSM

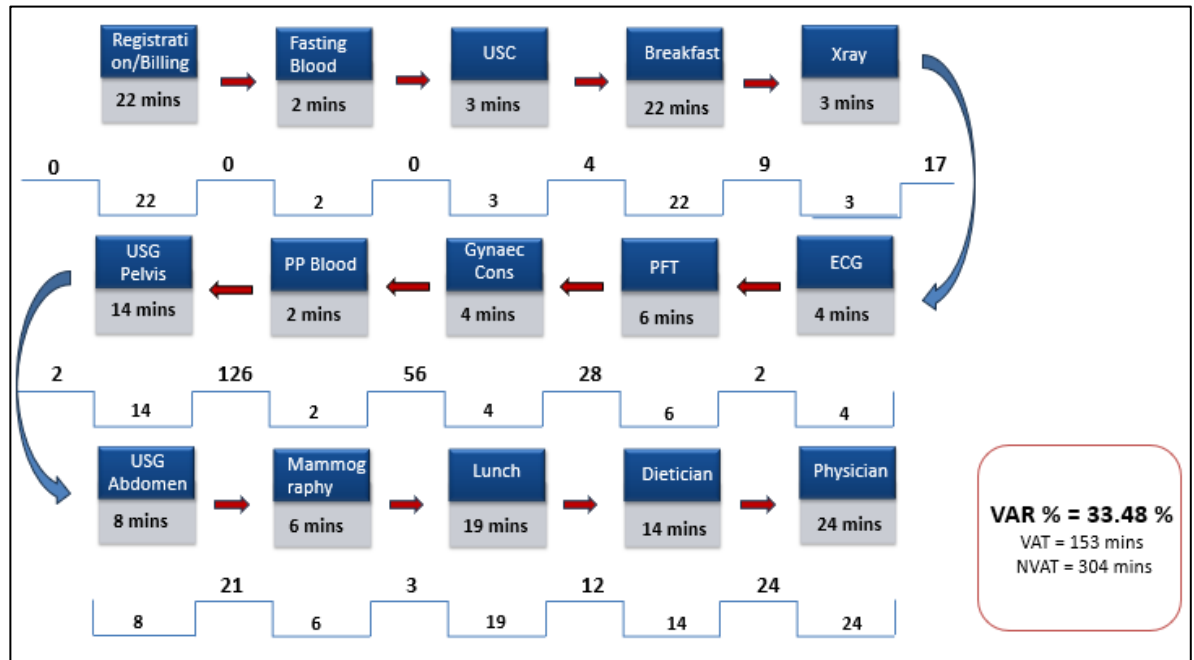


Active Plus health package – Current VSM

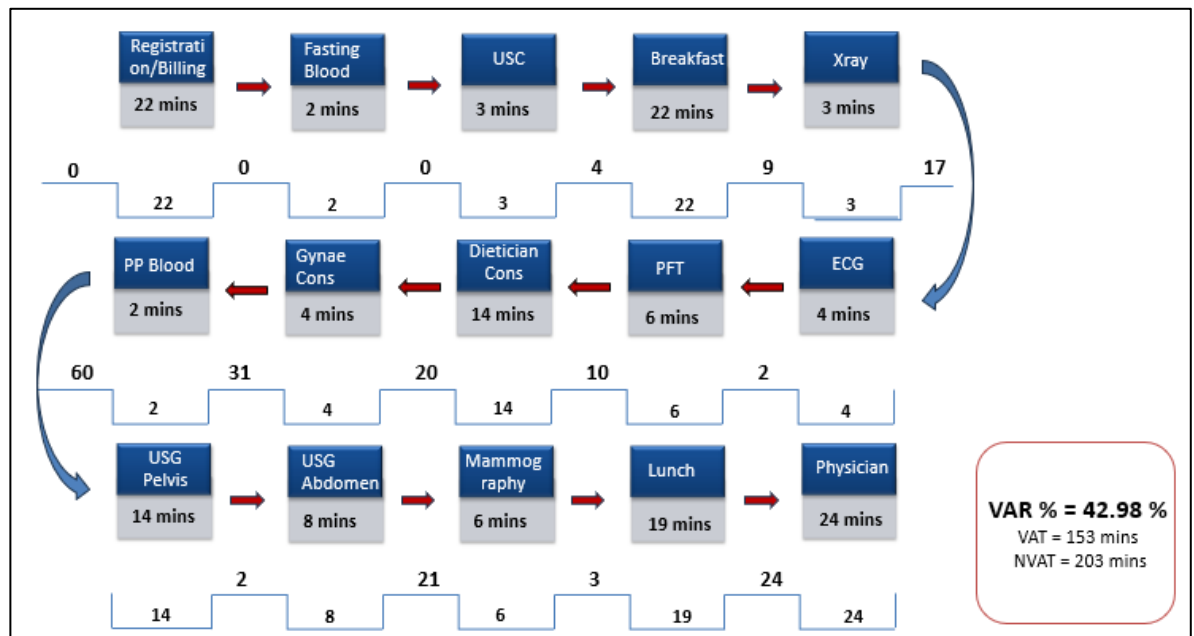


Active Plus health package – Future VSM

➤ BPCL 1F/1M health package – Current and Future VSM

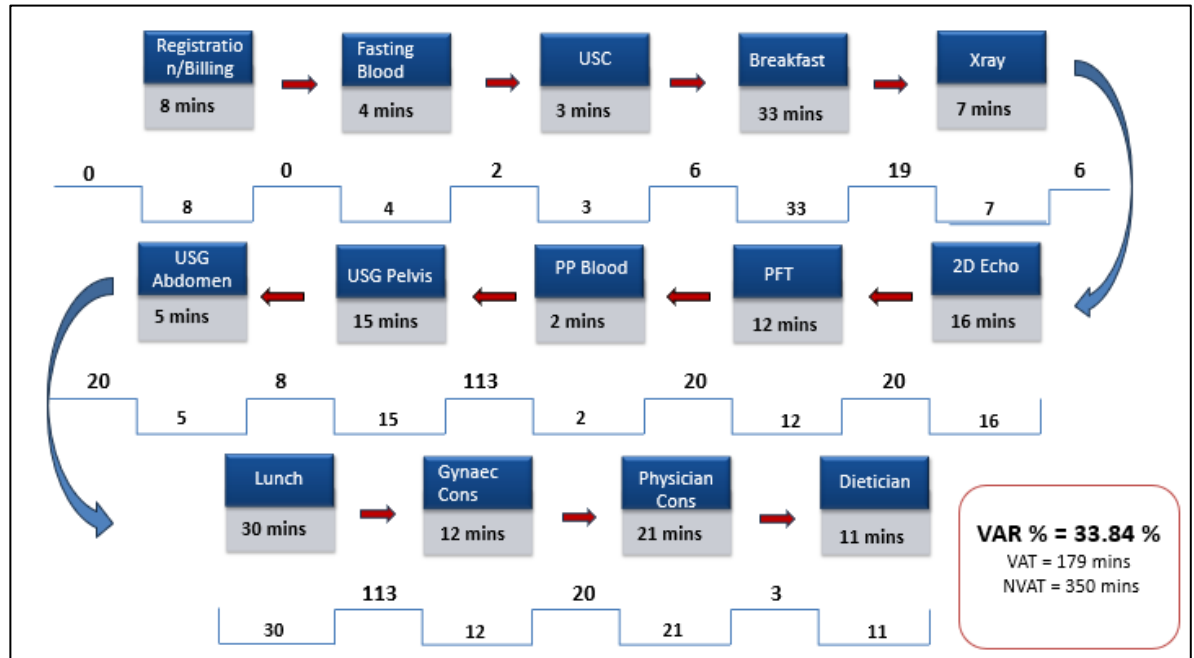


BPCL 1F/1M health package – Current VSM

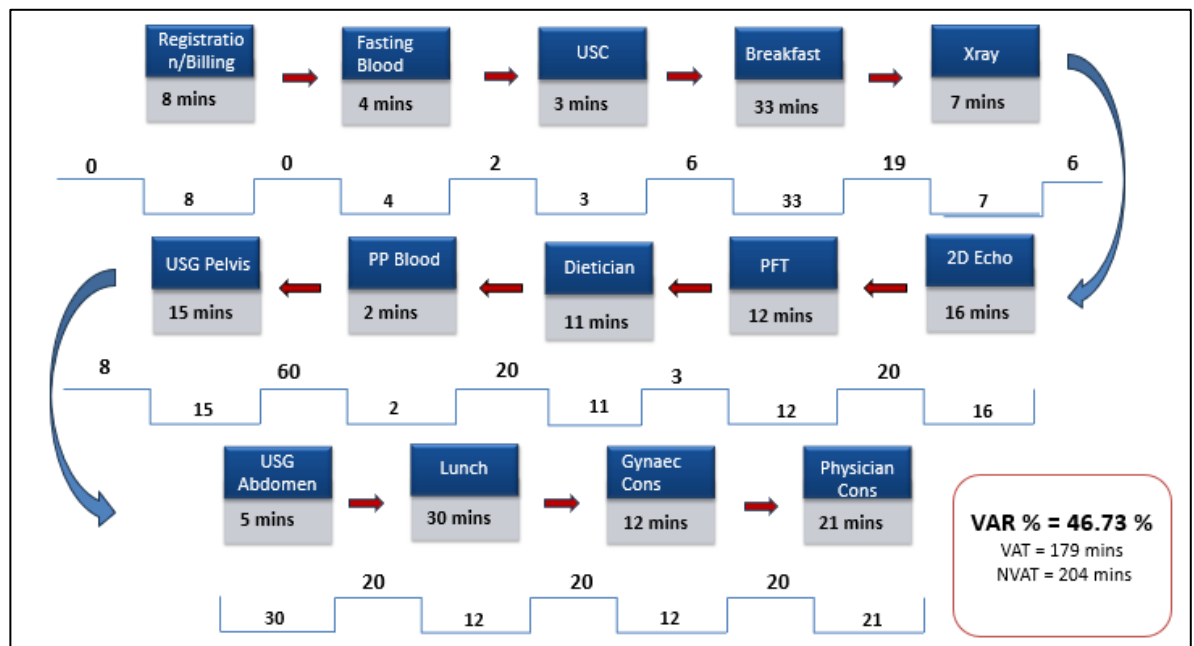


BPCL 1F/1M health package – Future VSM

➤ **BPCL 4F/4M health package – Current and Future VSM**

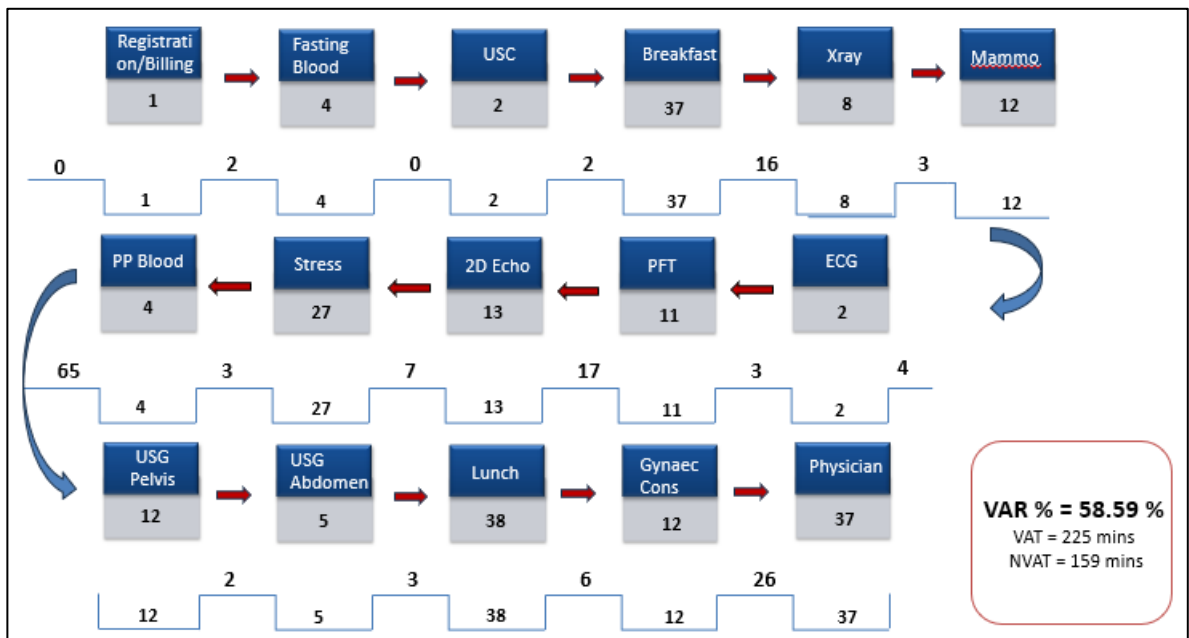


BPCL 4F/4M health package- Current VSM

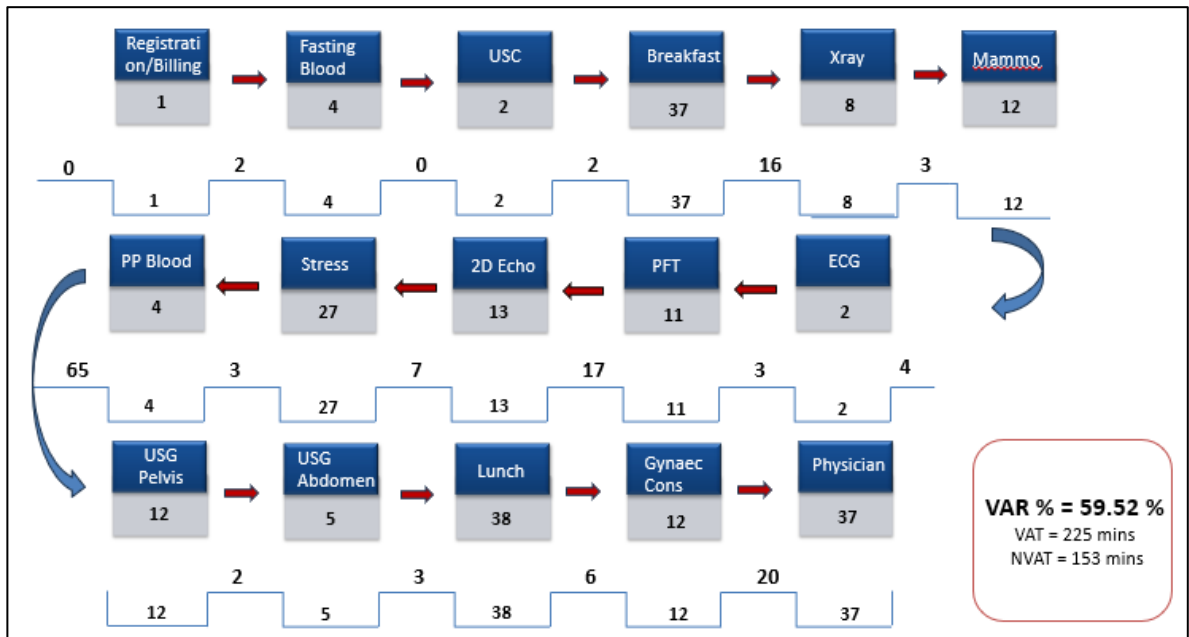


BPCL 4F/4M health package- Future VSM

➤ **BPCL GM health package – Current and Future VSM**

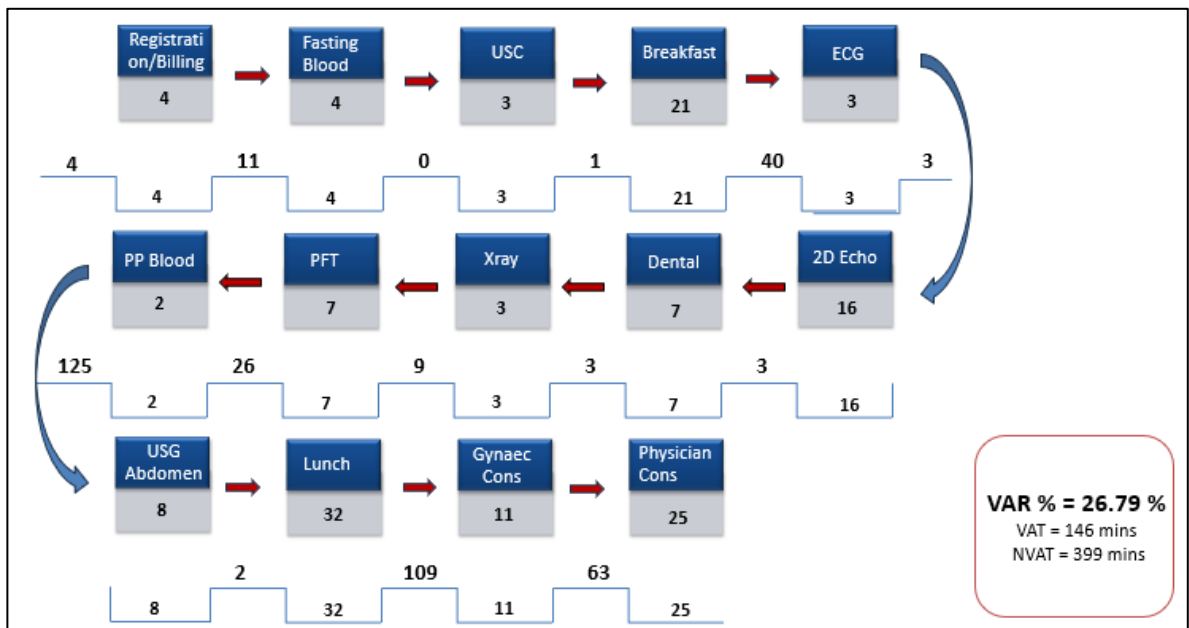


BPCL GM health package – Current VSM

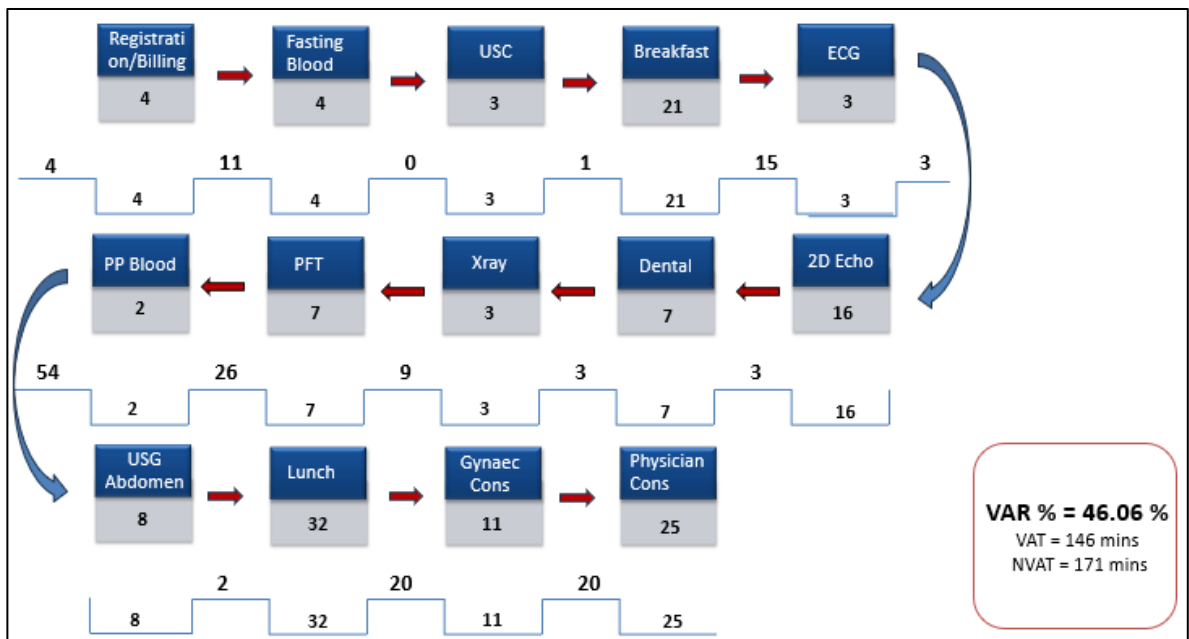


BPCL GM health package – Future VSM

➤ **IOCL Comprehensive**

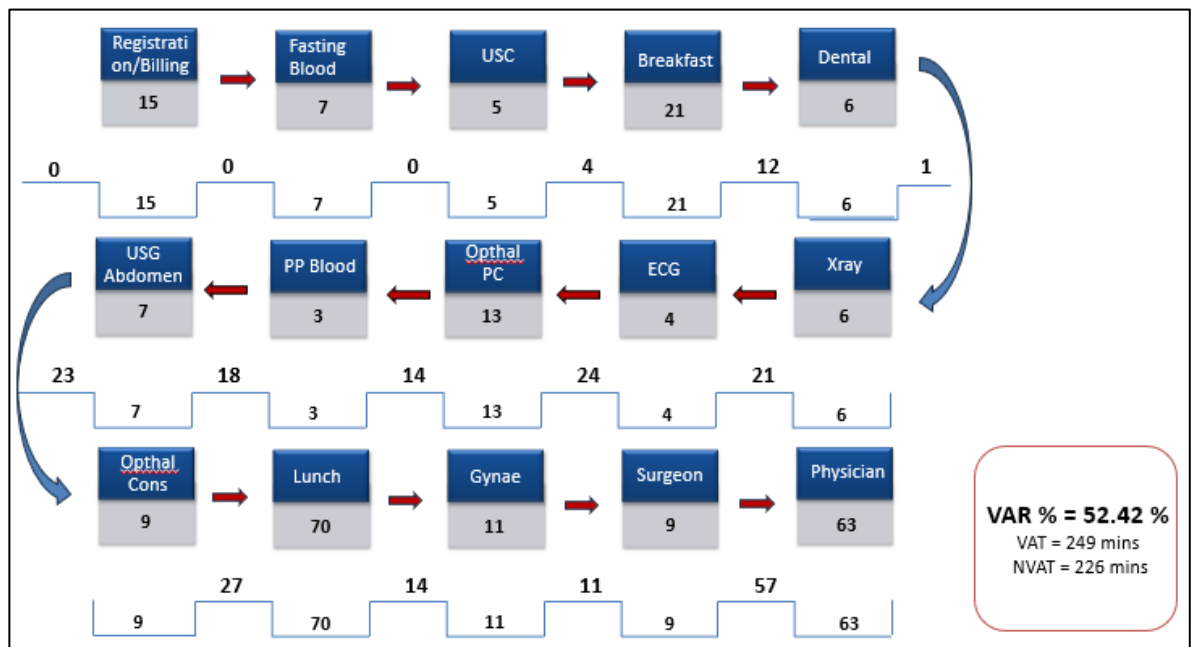


IOCL Comprehensive health package – Current VSM

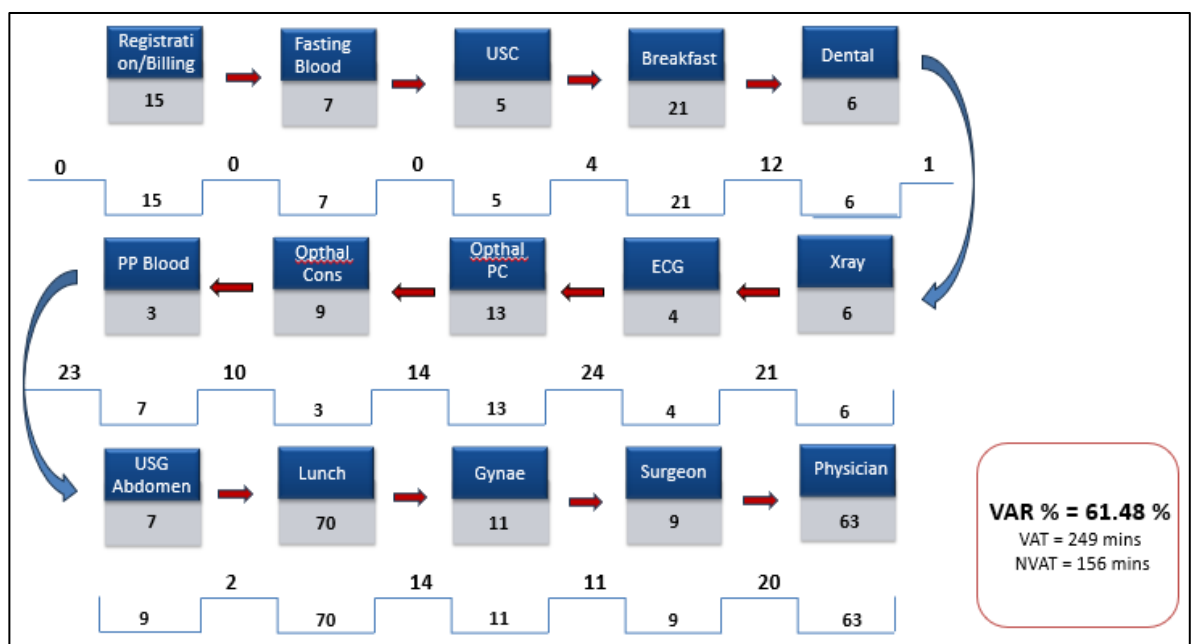


IOCL Comprehensive health package – Future VSM

➤ IOCL Retired health package – Current and Future VSM

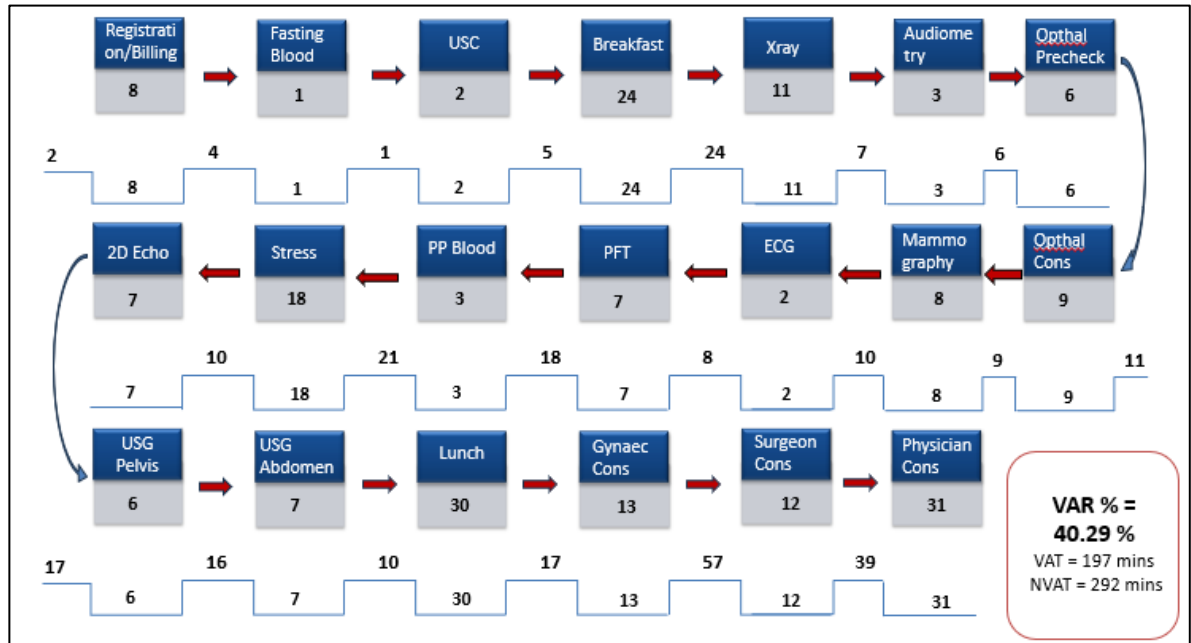


IOCL Retired health package – Current VSM

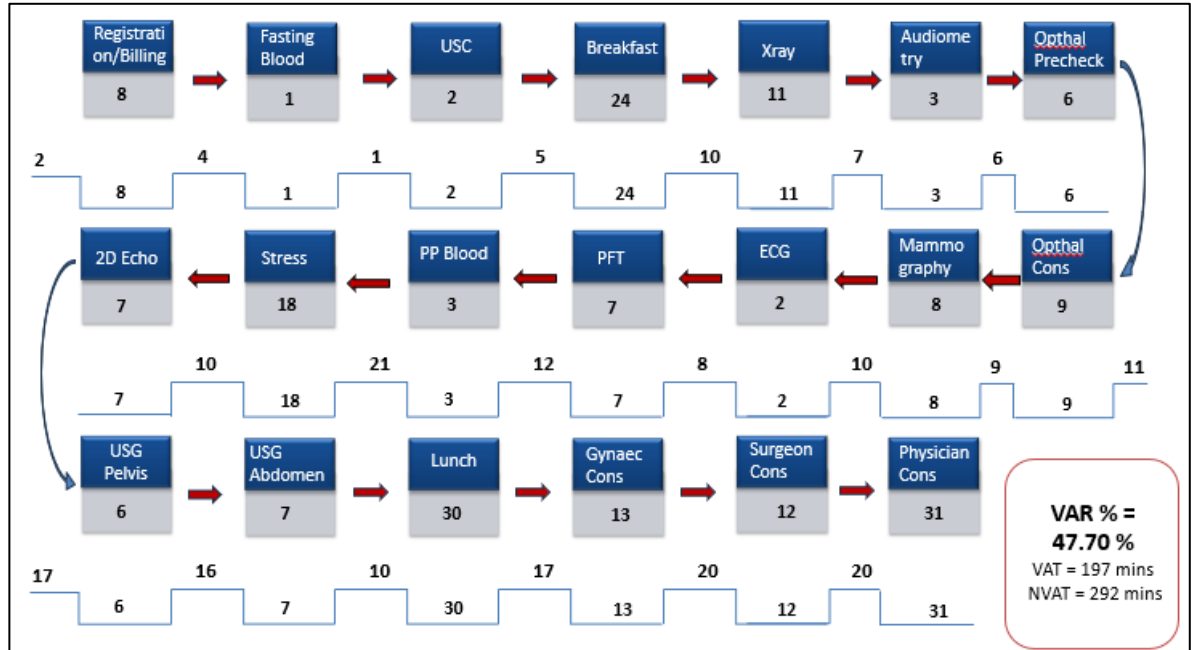


IOCL Retired health package - Future VSM

➤ ONGC/ONGC Jeevansathi health package – Current and Future VSM

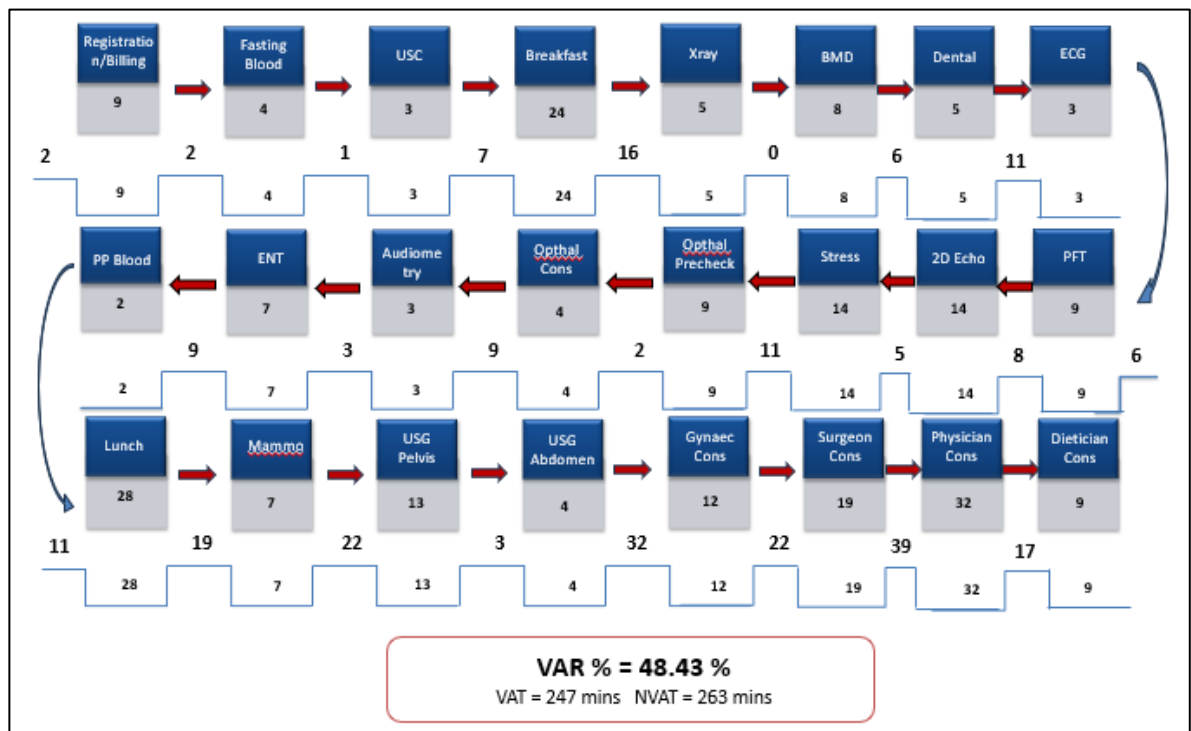


ONGC/ONGC Jeevansathi health package – Current VSM

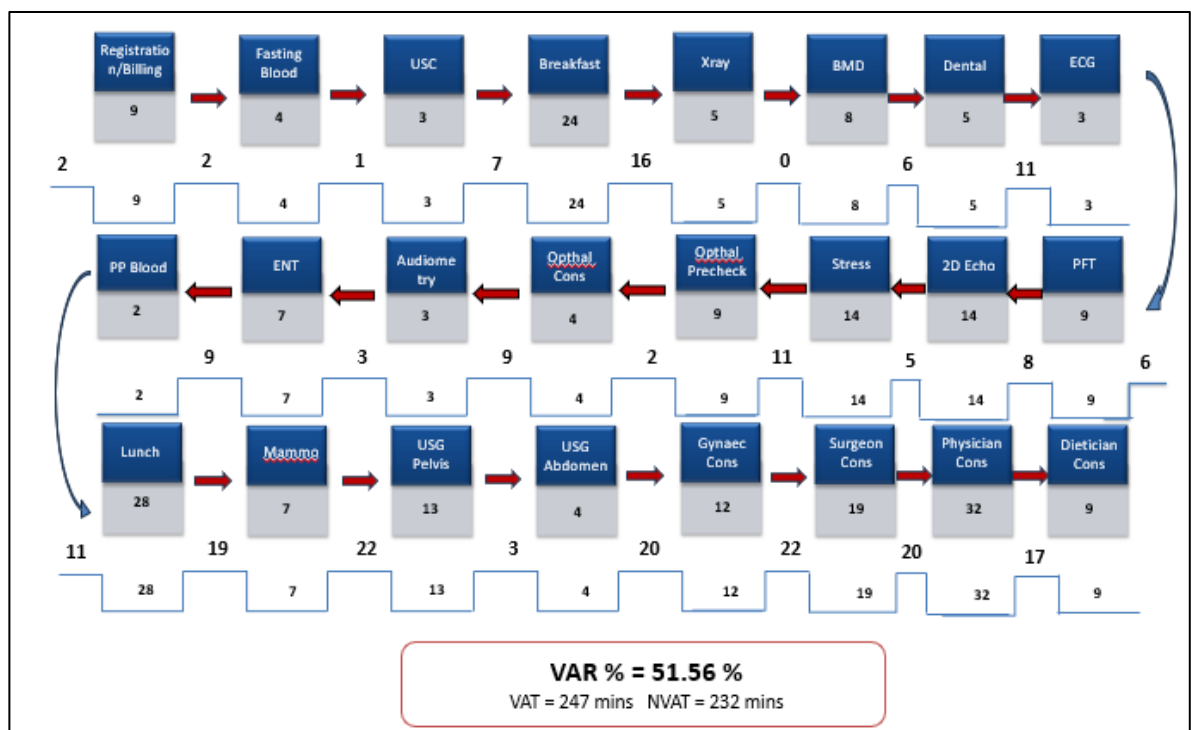


ONGC/ONGC Jeevansathi health package - Future VSM

➤ Perfect health package – Current and Future VSM

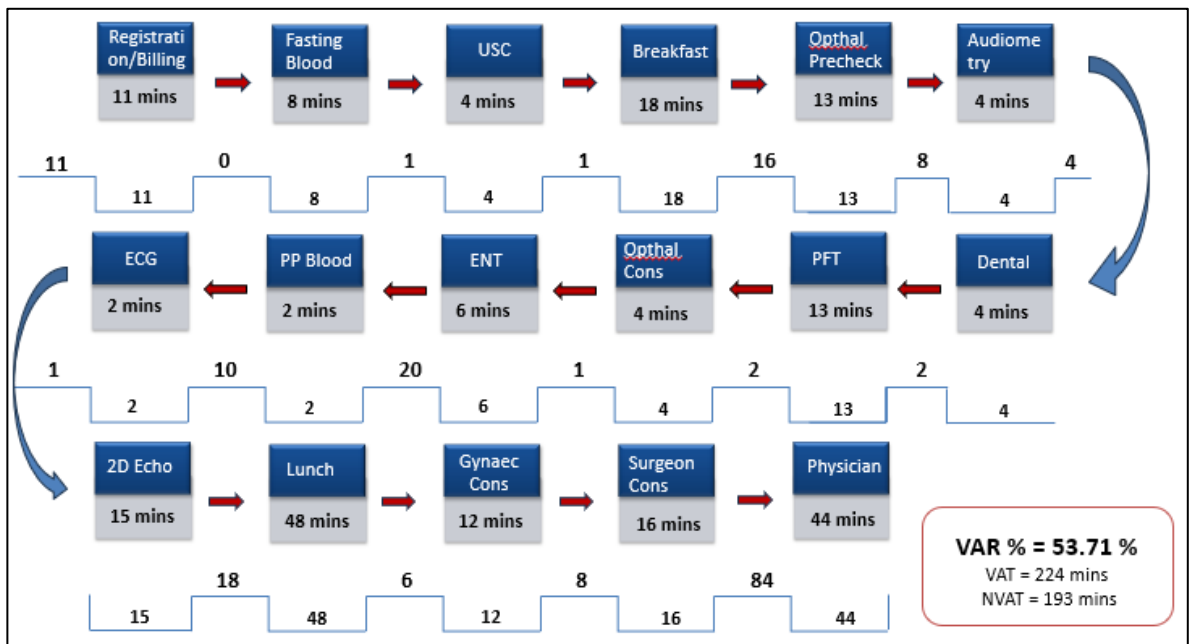


Perfect health package – Current VSM

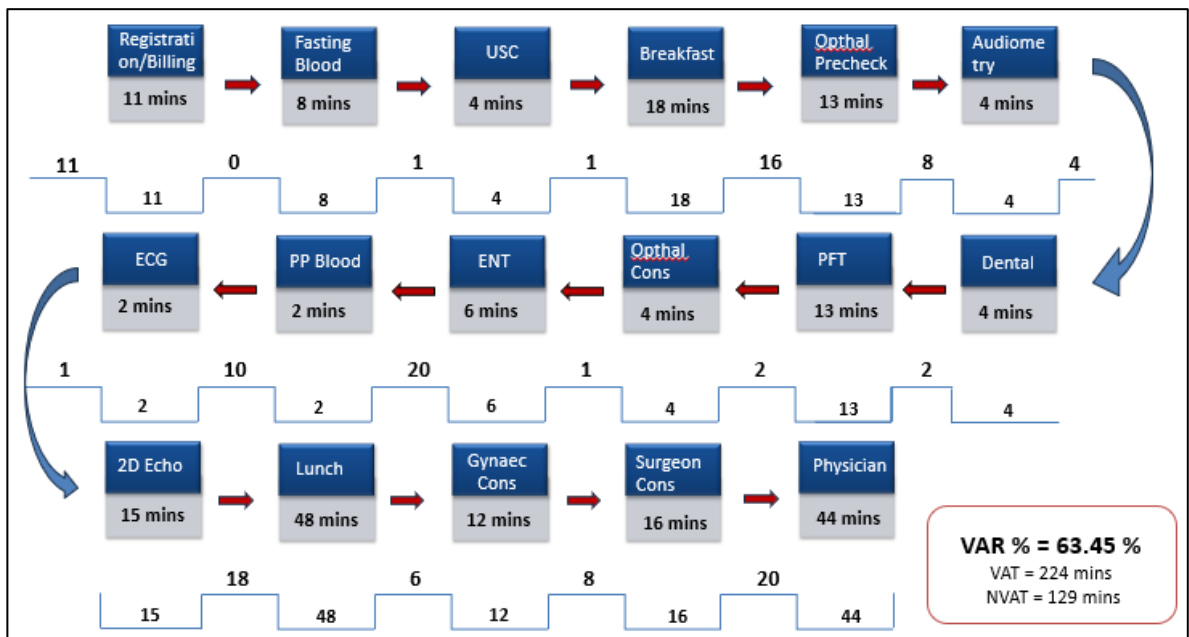


Perfect health package - Future VSM

➤ Prime health package – Current and Future VSM

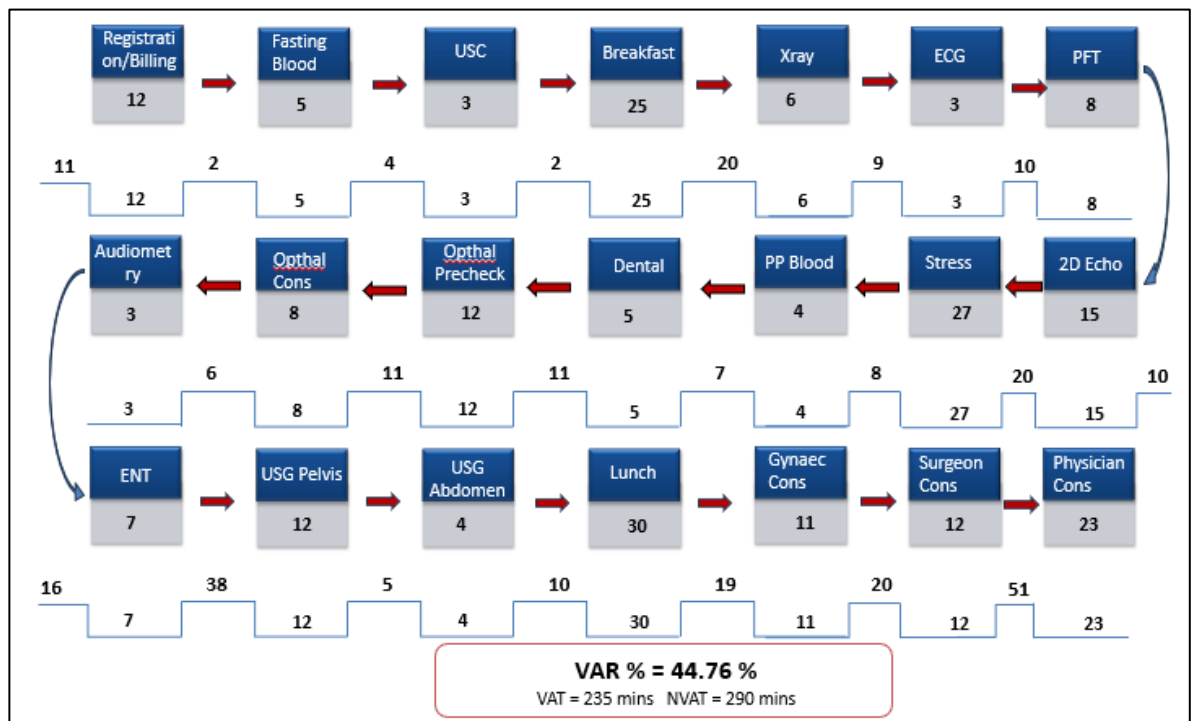


Prime health package – Current VSM

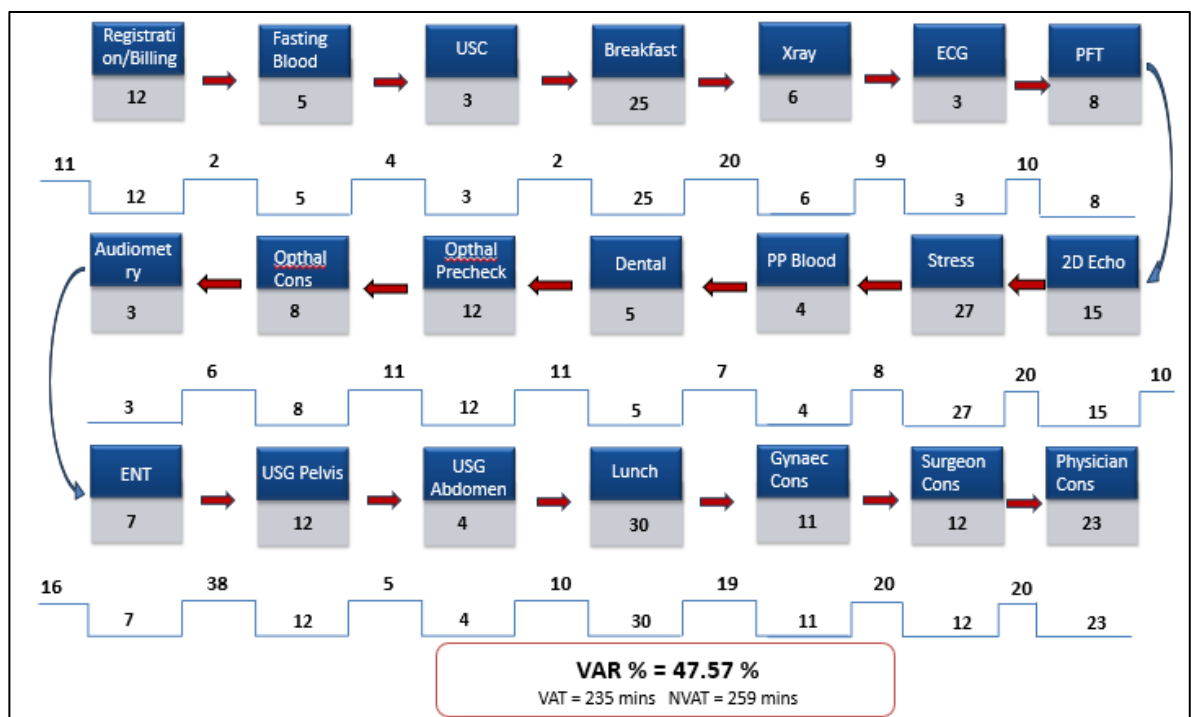


Prime health package - Future VSM

➤ Sure health package – Current and Future VSM



Sure health package – Current VSM



Sure health package - Future VSM

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