Summer Training at
Fortis Escorts, New Delhi

Effective Communication and Documentation of Critical Result

By
Prateek Lehri

Under the guidance of
Dr. Jagjeet Prasad Singh

MBA Hospital and Health Management
2015-2017

The IIHMR University, Jaipur
2016

INSTITUTE OF HEALTH MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Dr. Prateek Lehri** student of **MBA Hospital and Health Management** from the IIHMR University; Jaipur has undergone summer training at **Fortis Escorts Heart Institute, OKHLA, New Delhi** from 1st April to 31st May, 2016.

The candidate has successfully carried out the study designated to him during summer training and his approach to the study has been sincere, scientific & analytical.

The internship is in fulfilment of the course requirements.

I wish him all success in all his future endeavours.

Col. (Dr.) Ashok Kaushik
Dean (Academics & Student Affairs)
IIHMR University, Jaipur

Jagjeet Prasad Singh
Associate Professor
IIHMR University, Jaipur

Institute of Health Management Research • JAIPUR •

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur-302029, Rajasthan, India.
Ph.: 0141-3924700, 2791431- 32, Fax:0141-3924738,E-mail: iihmr@iihmr.edu.in,Web: www.iihmr.edu.in

Fortis Escorts
HEART INSTITUTE

Escorts Heart Institute and
Research Centre Ltd.
Okhla Road, New Delhi - 110 025 (India)
Tel. : +91-11-47135000
Emergency Tel. : +91-11-105010
Fax : +91-11- 2682-5013
Email : contactus.escorts@fortishealthcare.com
Website : www.fortisescorts.in
A NABH and JCI Accredited Institute

May 31, 2016

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Prateek Lehri**, student of Indian Institute Of Health Management Research, Jaipur has successfully completed his internship in **Quality** department at **Fortis Escorts Heart Institute, New Delhi,** during the period from April 01, 2016 to May 31, 2016.

During his tenure he was found to be diligent, hardworking & sincere.

We wish him all the best for his future endeavor.

For **FORTIS ESCORTS HEART INSTITUTE**

AUTHORISED SIGNATORY

NABH Accredited

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May 31, 2016

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Prateek Lehri**, student of Indian Institute of Health Management Research, Jaipur has successfully completed his project on **"Effective Communication and Documentation of Critical Result"** at Fortis Escorts Heart Institute, Okhla, New Delhi from April 01, 2016 to May 31, 2016.

During the project work his communication & co-ordination with respective departments was found to be effective. He was diligent, hardworking & sincere during his tenure.

We wish him all the best for his future endeavor.

AUTHORISED SIGNATORY
Quality Department

NABH Accredited

ACKNOWLEDGEMENT

I owe a great debt to all professionals at **FORTIS ESCORTS HEART INSTITUTE, OKHLA ROAD, NEW DELHI** for generously sharing their knowledge and time, which inspired me to do my best at this project study.

My heartfelt gratitude to **Dr. Ajay Singh (Deputy Manager-Quality), Fortis Escorts Heart Institute, Dr. Neha Arora (Team Leader-Quality)**, **Dr. Deepa Rao (Head-Lab), Sister Sophy Lawrence and Dominic Savio (Quality Department)** for showing their keen interest in the study and for sharing their views in spite of their very busy schedule. It has been my privilege to work under their dynamic supervision at the Hospital.

I am extremely grateful to **Dr. Anand Bansal** (Medical Director), **Mr. Balkishan Sharma** (Head of HR Department), **Ms. Mallika Singh** (Assistant Manager) for the constant support and encouragement. This study would not have been possible without their support.

My sincere gratitude to **Dr. Ashok Kaushik (Professor Dean, IIHMR, Jaipur)** for his relentless support and guidance. My regards go to my guide at institute **Dr. J.P Singh** for his very helpful attitude and valuable suggestions.

Dr. Prateek Lehri
MBA- HM 20 (2015-2017)
IIHMR, Jaipur

ABBREVIATIONS

CCU	Cardiac Care Unit
CSSD	Central Sterile Supply Department
CT	Computed tomography
ECG	Electrocardiography
HCC	Heart Command Centre
HDU	High Dependency Unit
IPD	In-patient Department
ICU	Intensive Care Unit
JCI	Joint Commission International
LT	Liver Transplant
MRI	Magnetic Resources Imaging
NABH	National Accreditation Board for Hospital and Healthcare Providers
NABL	National Accreditation Board for Testing and Calibration Laboratories
OPD	Out-patient Department
OT	Operation Theatre
RR	Recovery Room

HOSPITAL PROFILE

ESCORTS HEART INSTITUTE AND RESEARCH CENTRE (EHIRC) is a renowned name in the field of cardiac surgery, interventional cardiology and cardiac diagnostic. The institute formally came into existence in October 1988; and was set up as a dedicated cardiac hospital to bring to India the best cardiac care, training of cardiac surgeon and cardiologists and also to conduct research of international standards. The Fortis group took over the hospital on 10th September 2005.

Now the *Escorts Institute and Research Center* is popularly known as ***Fortis Escorts Heart Institute*** (FEHI) which is pioneer in the field of fully dedicate cardiac care facility in India. Fortis health care is the fastest growing hospital network in India. Fortis Healthcare is led by the vision of late Dr. Parvinder Singh for creating an integrated healthcare delivery system in India.

Fortis Escorts Heart Institute has a vast poof of talented and experienced team of doctors, who are further supported by a team of highly qualified, experienced & dedicated support staff & cutting edge technology like the recently installed Dual CT Scan Currently, more than 200 cardiac doctors and 1600 employees work together to manage over 14,500 admissions and 7,200 emergency cases in a year.

The hospital today has an infrastructure comprising of around 310 beds, 5 CATH Labs, 9 Operation Theatres, 2 Heart Command Centers, and 2 Heart Stations besides an array of other world-class facilities. FEHI provides top and services in areas of acute care, invasive and non-invasive cardiology and state of the art surgical procedures, besides playing a leading role in prevention, early detection and the renewal of heart disease. A consumer forum (VOICE) has ranked its patient care and nursing services as No.1 in Delhi.

To spread cardiac care to more and more people FEHI has vast network of hospitals across the country. Also to cater the far flung areas, the institute has started with Community Outreach Programme. It provides high-class emergency services to patient including the facility for air ambulance. The institute also offers many cardiac preventive health checks.

FEHI launched its **Community Outreach Programme ,** which started out with a vision to reach out to the health needs of population in the remotest community of the country, and has covered the states of Uttar Pradesh, Punjab, Bihar, Madhya Pradesh, Himachal Pradesh and Rajasthan.

MISSION

To be a globally respected healthcare organization known for Clinical Excellence and Distinctive Patient Care.

VISION

To create a world-class integrated healthcare delivery system in India, entailing the finest medical skills combined with compassionate patient care.

VALUES

Patient Centricity

- Commit to 'best outcomes and experience' for our patients.
- Treat patients and their care givers with compassion, care and understanding.
- Our patients' needs will come first

Integrity

- Be principled, open and honest.
- Model and live our 'Values'.
- Demonstrate moral courage to speak up and do the right things.

Teamwork

- Proactively support each other and operate as one team.
- Respect and value people at all levels with different opinions, experiences and backgrounds.
- Put organization needs' before department / self-interest.

Ownership

- Be responsible and take pride in our actions.
- Take initiative and go beyond the call of duty.
- Deliver commitment and agreement made.

Innovation

- Continuously improve and innovate to exceed expectations.
- Adopt a 'can-do' attitude.
- Challenge ourselves to do things differently

HOW FEHI HAS ACHIEVED THIS

- By providing state-of-the-art world standard healthcare that exceeds expectation of patients and families.
- Pursuing independent as well as collaborative research in all aspects of cardio-thoracic medicine and surgery.
- By establishing a network of joint ventures and satellite content to extend the availability of quality health care to the population at their doorstep.
- Providing expert training for medical, paramedical, nursing and other professionals in the field of heart care.
- Networking with other organizations to promote health and well being in society through education, preventive checkups and community outreach programs.

Accreditations

Joint Commission International, USA

Fortis Escorts is a Joint Commission International (JCI) accredited hospital. JCI is the highest global accreditation body to recognize hospitals adhering to patient care and safety norms. The receiving of the JCI accreditation is a vindication of our excellence in medical services and the care we provide to each of our patients.

NABH

National Accreditation Board for Hospitals & Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for healthcare organizations. The board is structured to cater to much desired needs of the consumers and to set benchmarks for progress of health industry.

Fortis Escorts is proud to announce the comprehensive NABH Accreditation (Effective June 16, 2008)

NABH (Blood Bank) Accreditation

Blood is a Drug which has to be administered with great caution. This life saving exits can save lives but can also prove fatal for the recipient.

Effective Quality assurance is essential to ensure transfusion of safe, high quality blood and its components.

National Accreditation Board for Hospital and Healthcare providers (the highest quality assurance wing of Quality Counsel of India) after a thorough check of processes and procedures being practiced at BHIRC Blood Bank appreciated the high standards being maintained and were pleased to great NABH accreditation. The Blood Bank was among the first few in the country to achieve this honour. The ensure the highest safety of blood the bank carries out Leuco depletion on all the blood donated at this centre and tests the block by NAT Technology, the highest disease marking test available in the world, in addition to mandatory regulatory requirement of testing.

(Effecting January 28, 2009)

International Organization for Standardization (ISO) 9001:2000 Certification

Fortis Escorts has been certified by ISO 9001:2000 ensuring compliance across multiple criteria including improved patient satisfaction, effective Quality Management System, efficient management of our processes and contribution improvement of the system.
(Effective Feb 17, 2009)

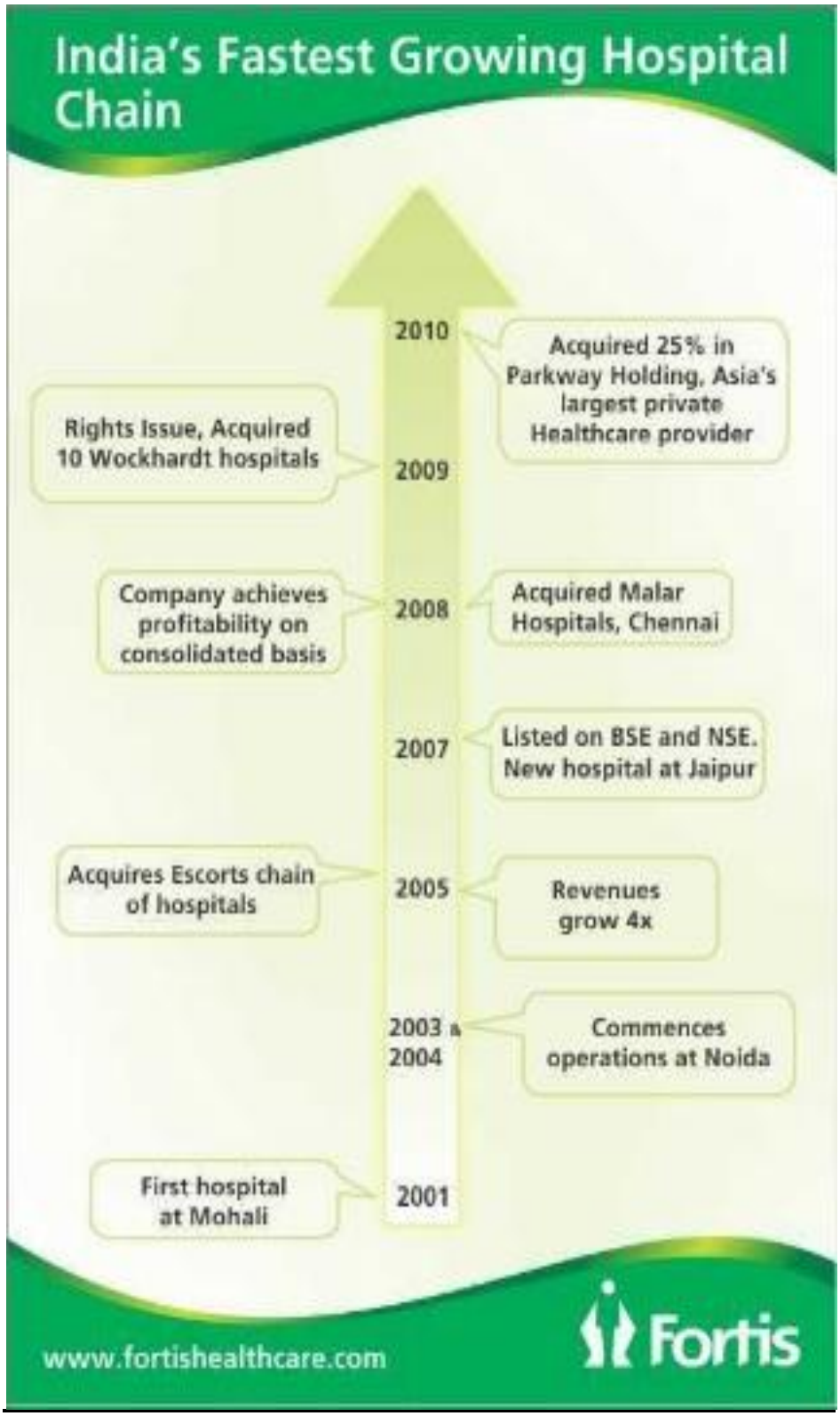
Superbrand 2008 Award

Fortis Escorts Heart Institute- Honored with Super brand 2008 Award Regional Director, Mr. Ashish Bhatia receives a Super brand Award form Shri L.K. Advani, Former Deputy Prime Minister and Leader of the Opposition and was the Chief Gluest for the Award Ceremony in the evening held at Ashoka Hotel, Chanakyapuri.

The 'Super brand' is a concept that evolved in the UK in 1993. Super brand India was launched in December 2002. The 1st edition of Business Superbrand India was out in September 1995. An independent panel of judging experts called the Brand Council awards the Superbrand status. The people of the panel represent the finest brand management practices in the country. Each member has outstanding records of creating and nurturing brands. Every country has its own jury. A superbrand is one, which has established the finest reputation in its field. It offers customers significant emotional and/or tangible advantages over its competitors, which (consciously or sub-consciously) customers want and recognize.

HISTORY

India's Fastest Growing Hospital Chain



HOSPITAL LAYOUT

FEHI is a renowned name and has 2 buildings. The main building and the rehabilitation centre both the block as are on the opposite sides of the road which is connected through an underground tunnel which is basically meant for shuttles to take patients from one building to another. Each of the blocks would be dealt in details below for understanding it's relation to patient satisfaction:

REHABILITATION BLOCK/OPD BLOCK (Red Building)

INTRODUCTION

It is very significant that, FEHI is paying much attention to the proper planning, designing, organization and functioning of the outpatient department as any other department.
The outpatient department of FEHI, Delhi has a separate building for outpatients with Upper Basement, Ground Floor and First Floor having all the important service like Executive Health Checkup (EHC), various tests like X-ray, TMT, Echo, ECG etc, OPD consultation, Comprehensive Cardiac Checkup (CCC), Pharmacy etc.

FLOOR WISE DISTRIBUTION OF REHAB BLOCK

- **Lower Basement**
  Medical Records department
  Pathology Laboratory

- **Upper Basement**
  Executive Health Centre

- **Ground Floor- (OPD Block)**
- Help Desk
- OPD Billing
- Sample Collection Room
- X-Ray

- Echo
- ECG
- TMT
- Mammography
- Bone Densitometry
- Pharmacy
- Report Room
- Dialysis Centre
- Consultant Rooms
- Physiotherapy

First Floor- (OPD Block)

- OPD Billing
- Three nurse counters
- Two helping desk
- Nineteen consultation chambers where specialized doctors in the following fields are available-
    - Pulmonologist
    - Neurology
    - Gastroenterology
    - Ophthalmology
    - Laparoscopic and General Surgery
    - Psychiatry
    - Thoracic Surgery
    - Pediatric surgery
    - Urology
    - Dermatology
    - Diabetology
    - Cardiology
    - Cardiac surgery
    - Vascular surgery
    - Pediatric cardiac surgery
    - Pediatric cardiology
    - Pacemaker Clinic.

Second Floor

- Cafe Jam Ja Jee

Third Floor

- Centre for sight

Fourth Floor

- Urology & Nephrology

Fifth Floor

- Liver & Digestive Disease Institute

Sixth Floor

- Under Construction

IPD Building

IPD Block Floor Wise Plan-

Basement-

- Blood bank
- Laboratory
- Pediatric Echo Lab
- Laundry
- Purchase Department
- Stores
- Library
- Auditorium
- ZD's Office
- Board Room
- Administration Block
- Biomedical Engineering

Ground Floor-

- Emergency
- Heart Command Centre I, II
- Heart Station I and II
- ICU-I

- Patient Care Service
- Medical Director's Office
- Food and Beverages
- Cafeteria
- Dietician
- Security
- Pharmacy
- Counseling
- Billing
- Lounge
- International desk.
- TPA department

First Floor-

- Recovery I, II
- ICU-II and ICU-III
- Anesthesia Room
- OT
- IT department

Second Floor –

- CSSD
- Board Room
- Doctors Office
- Catheterization Lab
- CATH Recovery

Third Floor-

- Day Care Center
- Block A (Old) Ward-Bed no 301-331F
- Block B (New) Ward-Bed no. 332-359.

Fourth Floor-

- Cardiac Care Unit.
- Block A (Old) Ward-Bed no. 401 to 431F
- Block B (New Ward-Bed no. 432 to 453, PS I and II

Fifth Floor-

- Pediatric ICU –I.
- Pediatric Ward

ABSTRACT

CRITICAL RESULTS: Those test results that fall significantly outside the normal range and/or may represent life-threatening values, even from routine tests and that require rapid communication of results to the responsible caregiver. A delay in taking action to respond to the result may result in a serious adverse outcome for the patient.

Despite the importance of critical values in patient care and requirements to identify and promptly communicate critical results to healthcare providers, there is little standardization of procedures.

This was a cross sectional study, where all critical results telephoned by laboratory and radiology department were observed for one month.

The objective of this study was to ensure accurate, prompt communication of results by the laboratory to the primary consultant and the unit nurse. To ensure that critical result is documented & highlighted in the patient record & Lab Investigation chart. Necessary corrective actions to be taken by the duty doctor in consultation with primary consultants.

Accurate, timely and prompt communication of diagnostic findings to the clinician by the laboratory/radiology department is of extreme importance.
Standardization of processes related to critical tests, results, and values can positively affect quality of care and patient safety. First, facilities must develop a critical test list and identify critical values or results. Next, implementation of processes that quickly document and communicate critical values to healthcare providers caring for the patient may reduce harm to patients.

The purpose of this study was to serve as a resource to help **FEHI** in implementation of new methods for effective critical result communication and its documentation**.**

INTRODUCTION:

Effective communication **(IPSG GOAL 2)** is defined by the Joint Commission as timely, accurate, complete, unambiguous, and understood by the recipient. Standardization of communication and documentation of critical results by the responsible provider may improve patient safety and quality of care.

INTENT OF IPSG 2.1

The reporting of critical results of diagnostic tests is also a patient safety issue. Diagnostic tests include, but are not limited to, laboratory tests, radiology exams, nuclear medicine exams, ultrasound procedures, magnetic resonance imaging, and cardiac diagnostics. This includes critical results from any diagnostic tests performed at the bedside, such as point-of-care testing, portable radiographs, bedside ultrasounds, or trans-esophageal echocardiograms. Results that are significantly outside the normal range may indicate a high-risk or life-threatening condition. A formal reporting system that clearly identifies how critical results of diagnostic tests are communicated to health care practitioners and how the information is documented reduces patient risks.

Measurable Elements of IPSG.2.1

1. The hospital has defined critical values for each type of diagnostic test.
2. The hospital has identified by whom and to whom critical results of diagnostic tests are reported.
3. The hospital has identified what information is documented in the patient record.

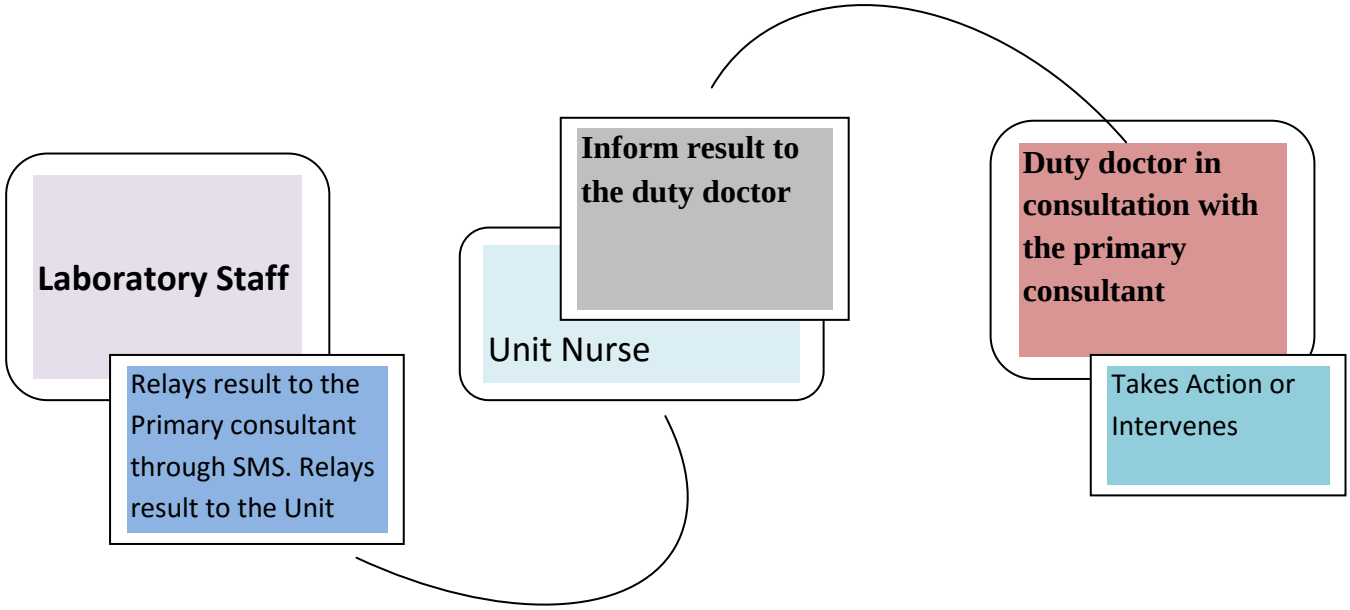
Laboratory test/Imaging test results support clinical decision making in the majority of clinical interventions. Thus when a life threatening result is generated on a patient, it is important that the result is promptly delivered to a clinician who can take the appropriate action to improve patient care and avoid an adverse outcome. Laboratory/Radiology staff document the patient name, critical value, date and time communicated to the provider, and the provider's name who received the critical value

In 2008, a report published by the World Health Organization World Alliance for Patient Safety identified poor test follow-up as a major cause of harm for patients around the world.

The Joint Commission recognizes a clear difference between critical tests and critical values. Facilities need to establish a critical test list and a critical values list, also known as critical results. Critical tests are tests that always require immediate communication of the results, even if the results are normal. Critical values are test results that are significantly outside the normal range and may represent life-threatening values.

The concept of critical values was first introduced by Lundberg in 1972. A critical value is a pathophysiological state at such variance with normal as to be life-threatening unless something is done promptly and for which some corrective action must be taken. It is a life-threatening situation requiring immediate intervention. Laboratories/Imaging centre must have procedures in place for promptly passing on critical results to the responsible practitioner.

The prompt communication of critical, life-threatening test results is crucial to reduce harm to patients. This study focuses on how to improve processes related to laboratory/radiology critical values. The same principles may be applied to radiology and other diagnostic departments. Specifically, development of a standardized list of critical tests and results and methods to document and communicate the critical results promptly to healthcare providers may reduce harm to patients. The scope of this study will focus on laboratory tests and Imaging tests.



OBJECTIVES:

1. To make sure that the current practice of Laboratory relaying result to the Primary consultant through SMS and the respective Medical Unit is being followed.

2. To identify the gap in effective communication and documentation of critical result, which is: Critical result communicated by the laboratory to the primary consultant and the unit nurse are not documented and highlighted properly in patient's record.

3. To improve the gap by:

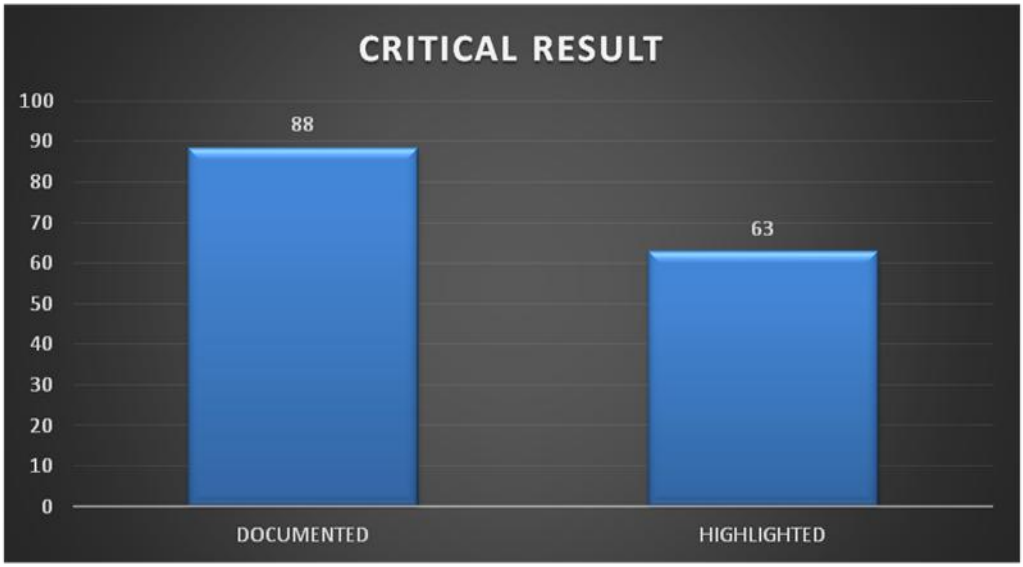
- Ensuring that critical result is documented & highlighted in the patient record & Lab Investigation chart.
- Ensuring that necessary corrective actions are taken by the duty doctor in consultation with primary consultants.

METHODOLOGY:

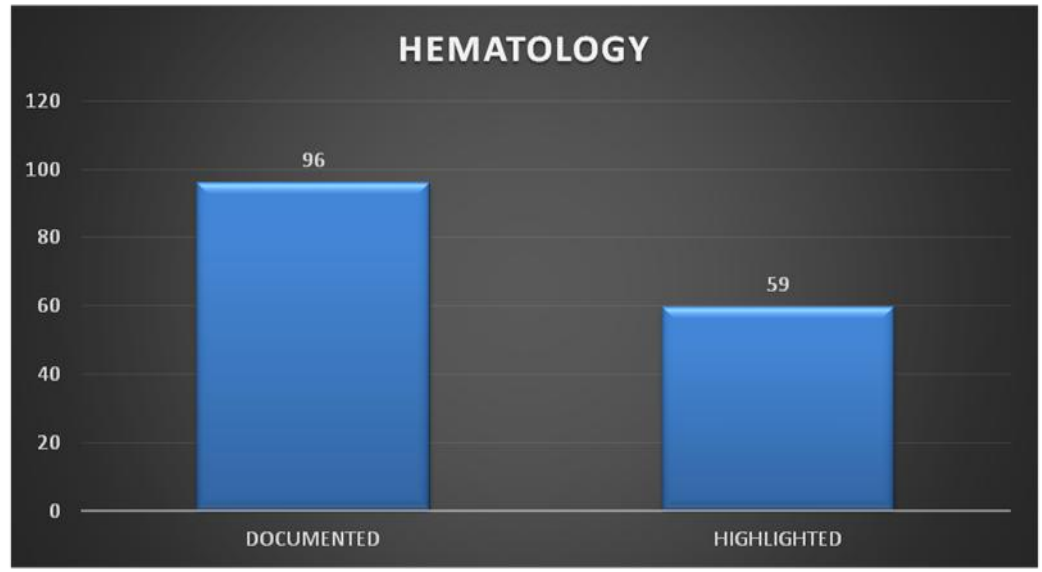
- **STUDY AREA –** Fortis Escorts Heart Institute, Okhla, New Delhi.
- **STUDY DESIGN –** Pre and post test study design
- **STUDY PERIOD-** 05th April- 28th May
- **STUDY POPULATION –** IPD Patients
- **SAMPLE SIZE –** 300
- **DATA COLLECTION –** The study will be done by audit of files by a checklist. Data was collected from patients file on each floor.
- **DATA ANALYSIS –** Using Microsoft Excel.

OBSERVATIONS:

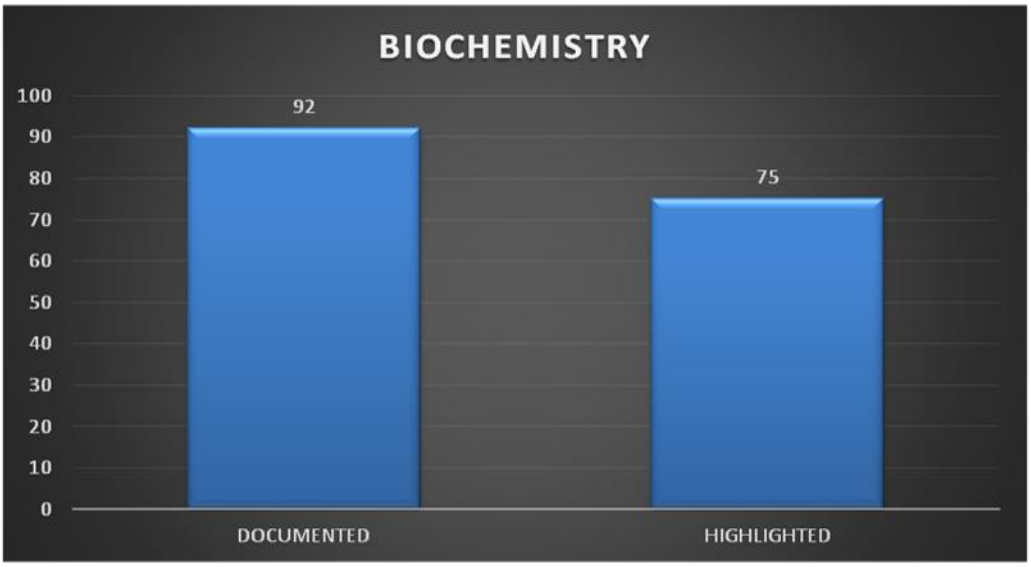
Total No. of Cases- 200



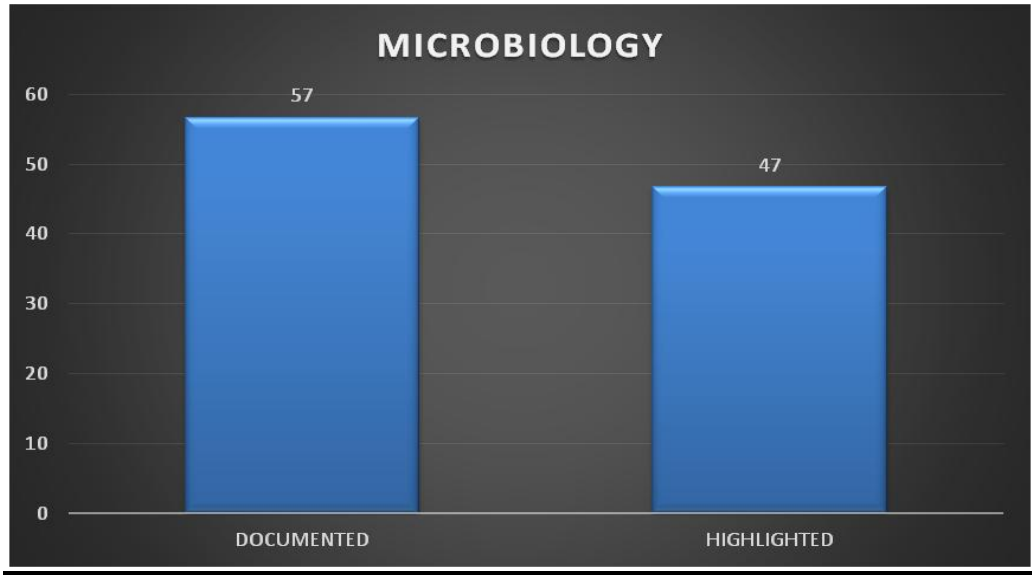
- Critical result documented- 88%
- Critical result highlighted in lab investigation chart- 63%



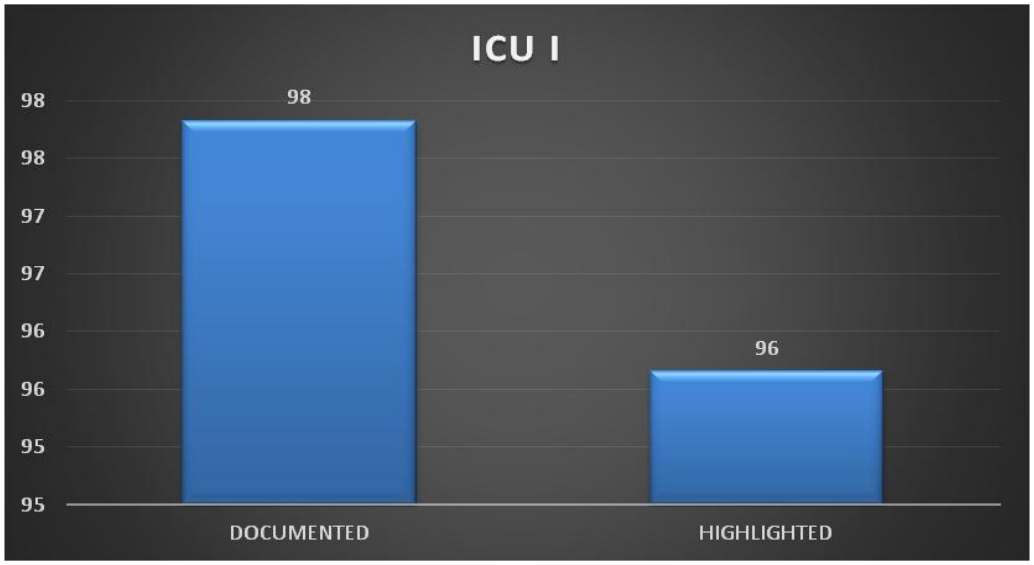
- Critical result documented- 96%
- Critical result highlighted in lab investigation chart- 59%



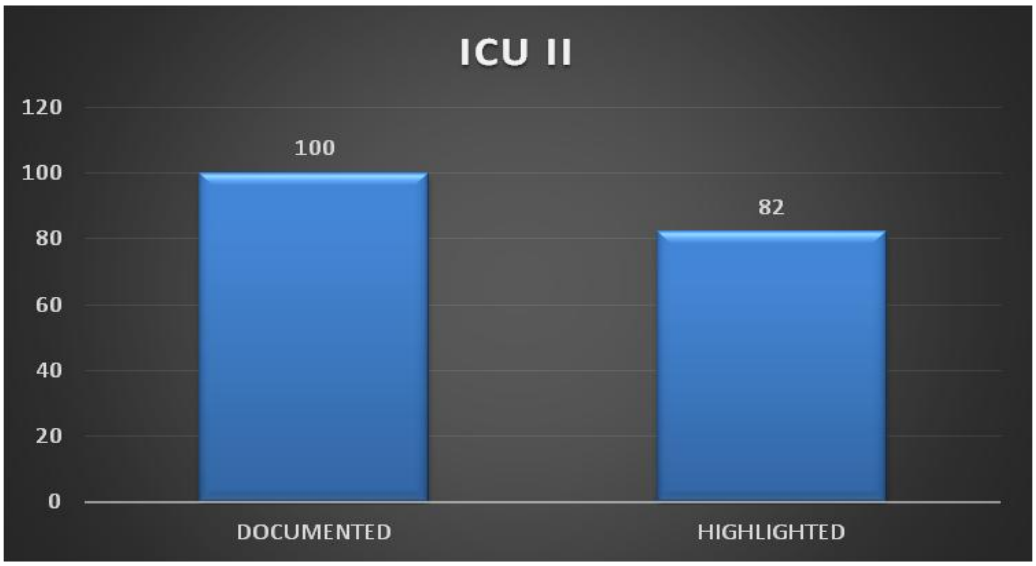
- Critical result documented- 92%
- Critical result highlighted in lab investigation chart- 75%



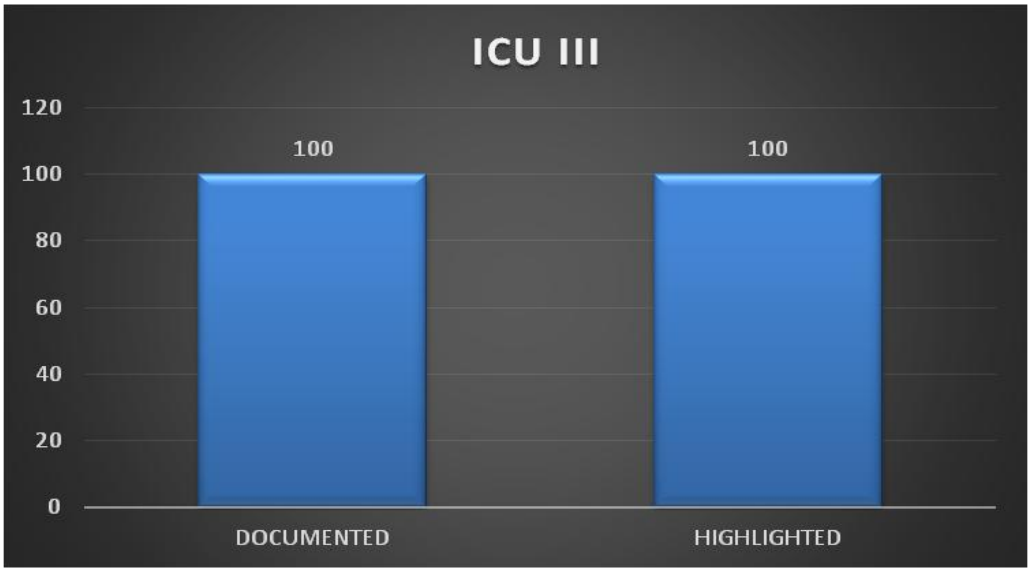
- Critical result documented- 57%
- Critical result highlighted in lab investigation chart- 47%



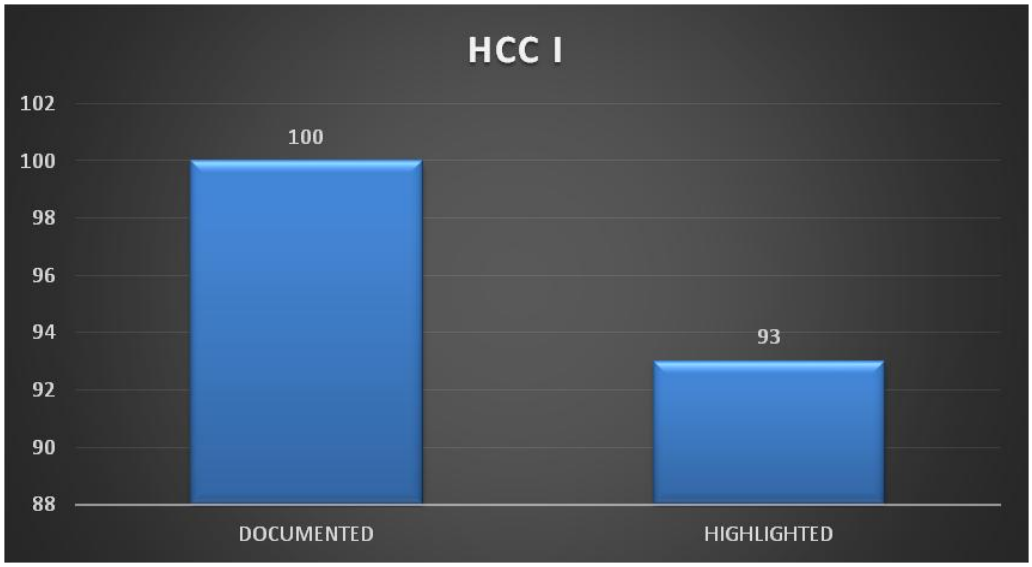
- Critical result documented- 98%
- Critical result highlighted in lab investigation chart- 96%



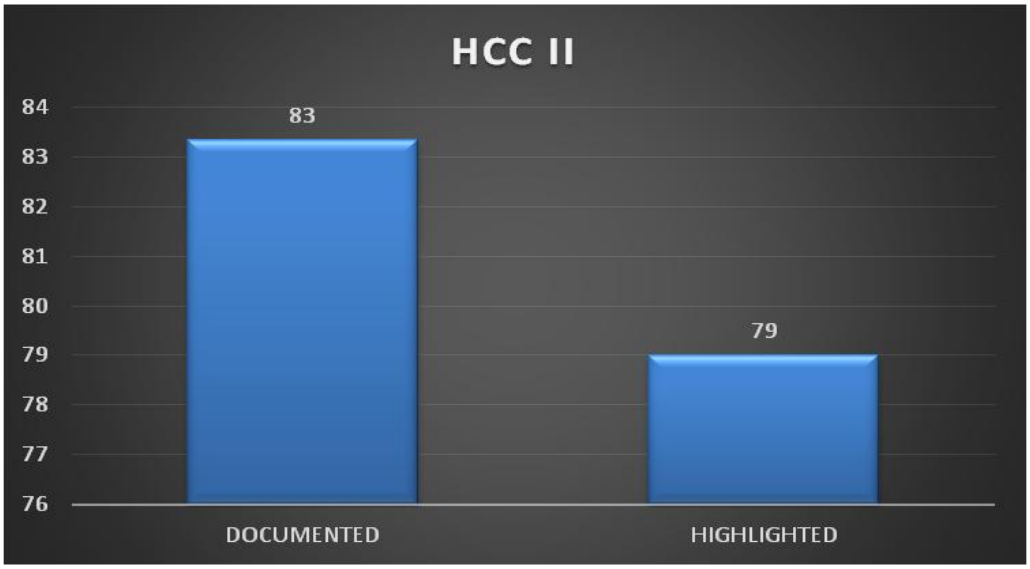
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 82%



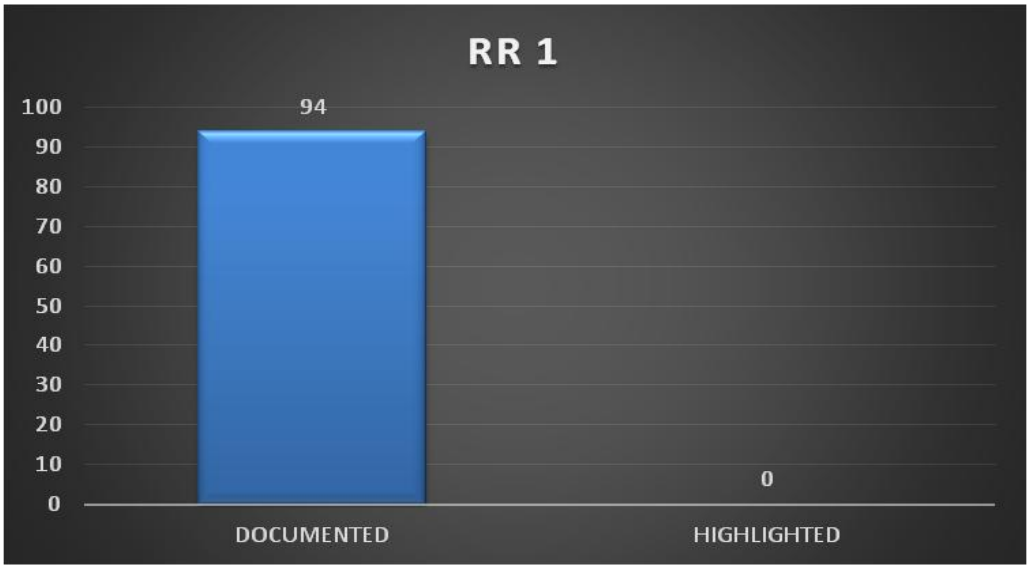
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 100%



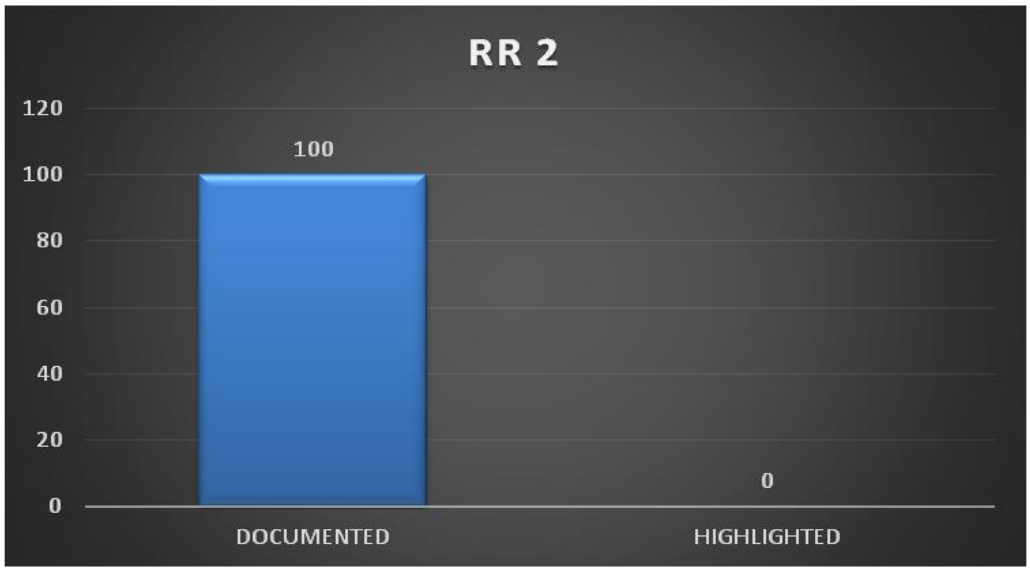
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 93%



- Critical result documented- 83%
- Critical result highlighted in lab investigation chart- 79%

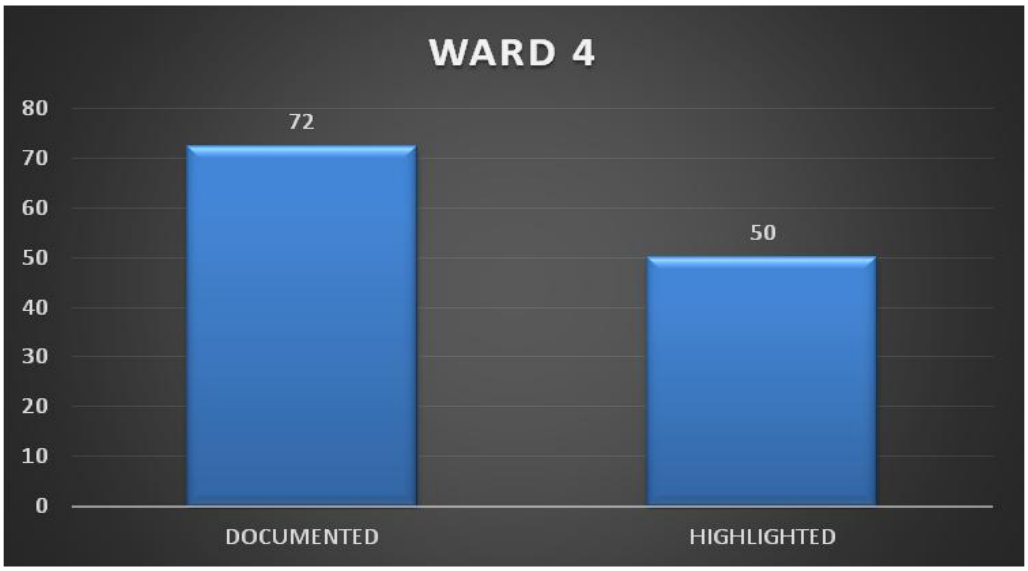


- Critical result documented- 94%
- Critical result highlighted in lab investigation chart- 0%

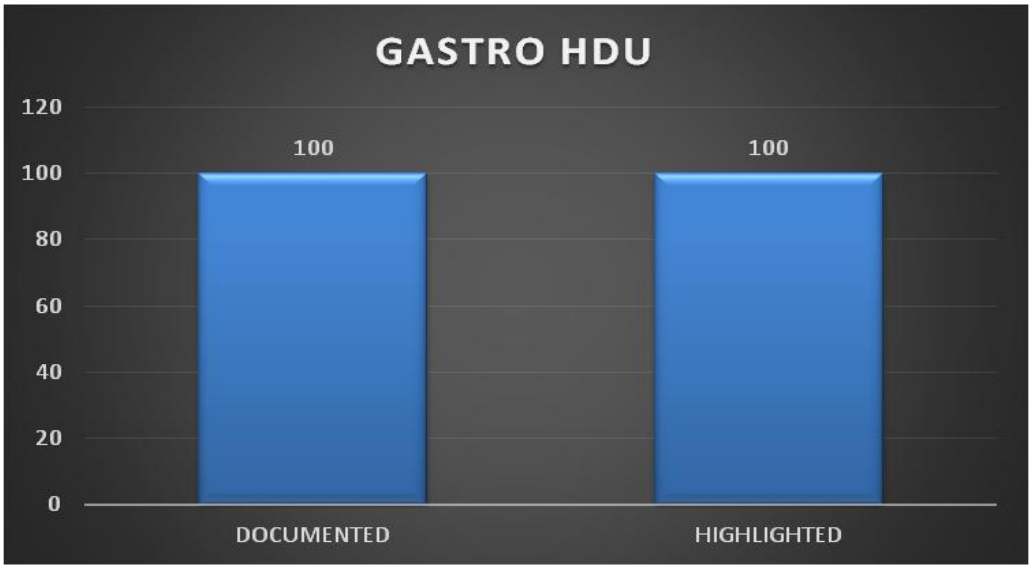


- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 0%

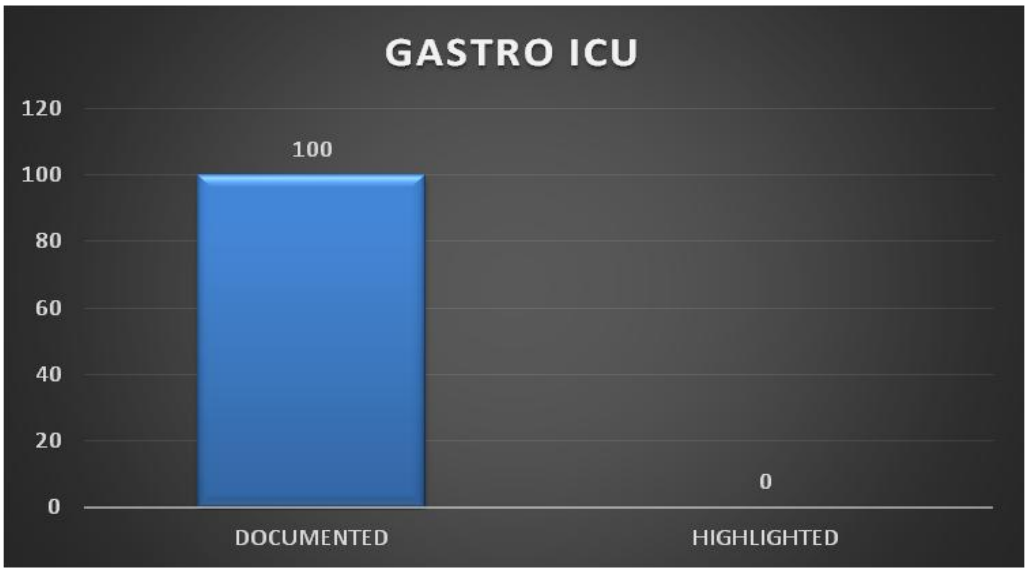
- Critical result documented- 88%
- Critical result highlighted in lab investigation chart- 38%



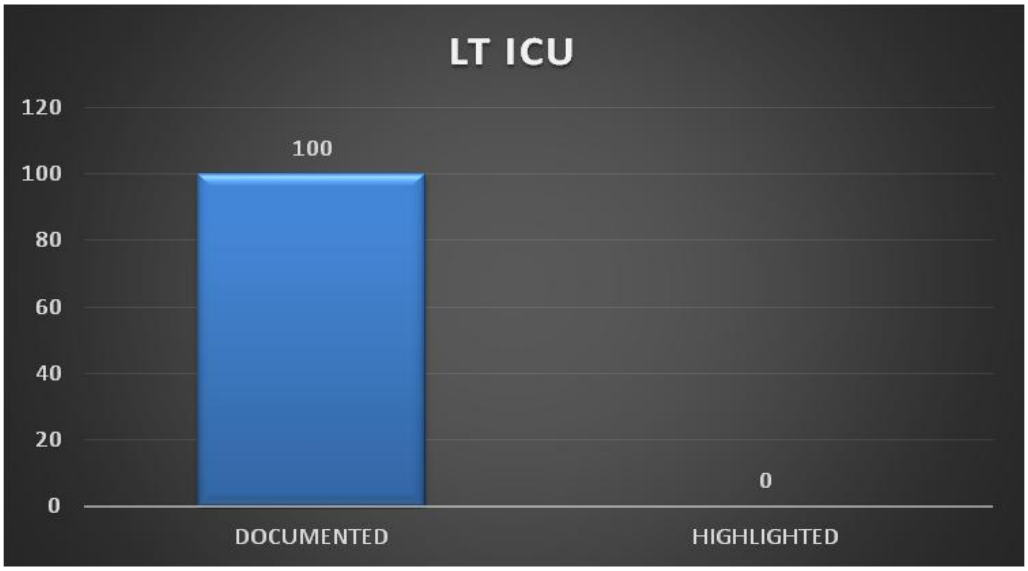
- Critical result documented- 72%
- Critical result highlighted in lab investigation chart- 50%



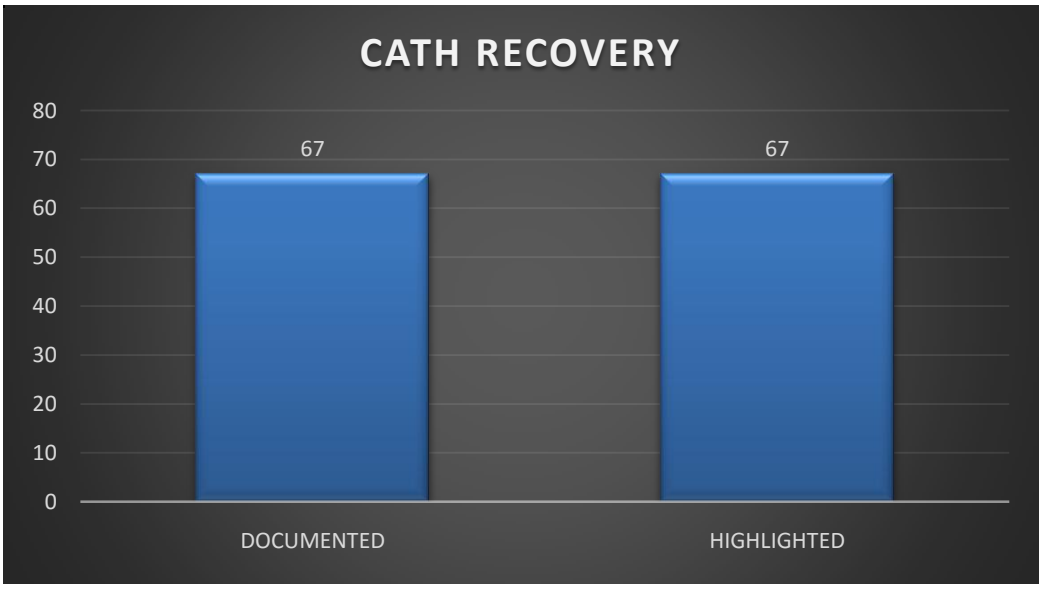
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 100%



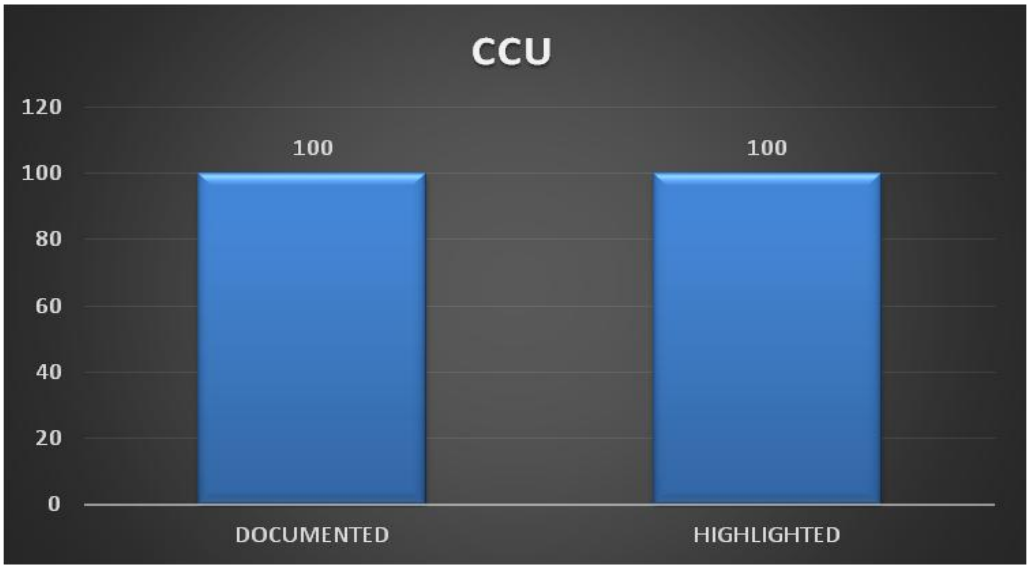
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 0%



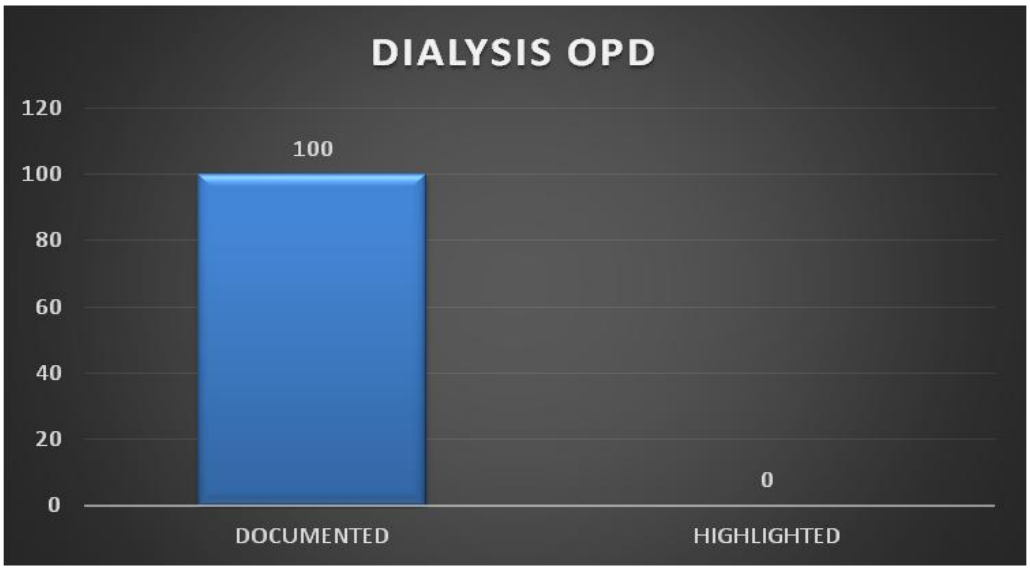
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 0%



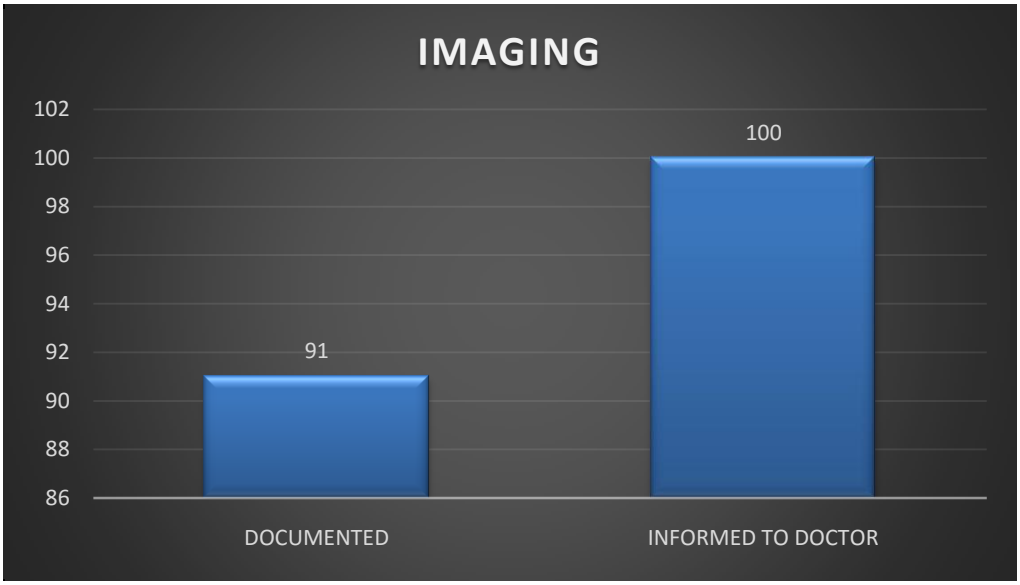
- Critical result documented- 67%
- Critical result highlighted in lab investigation chart-67%



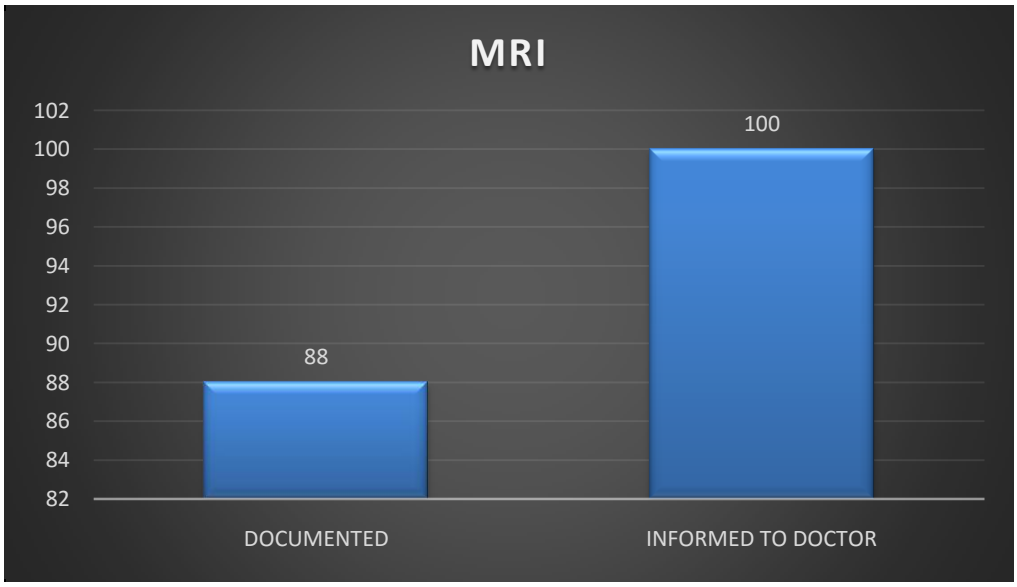
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-100%



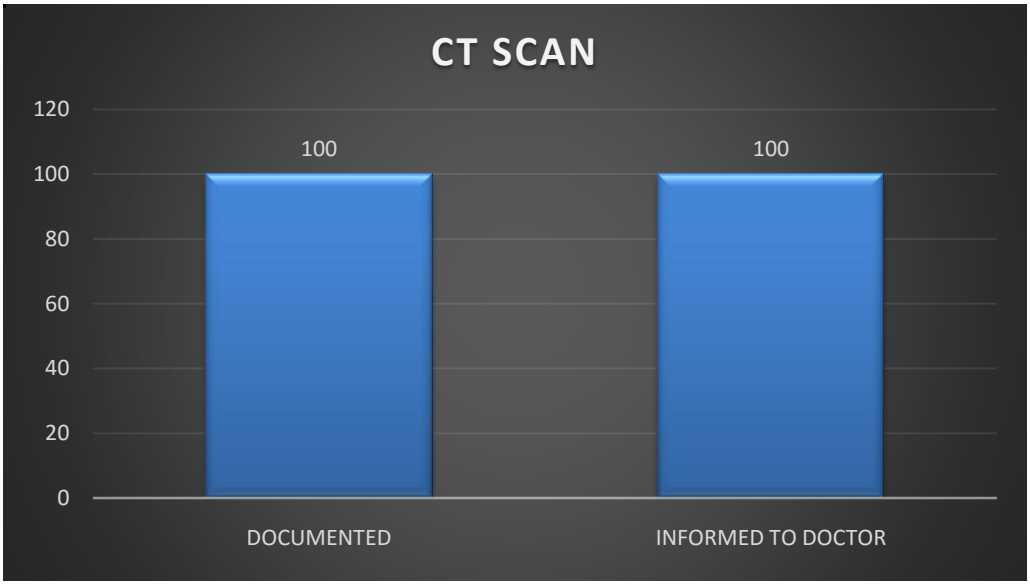
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-0%



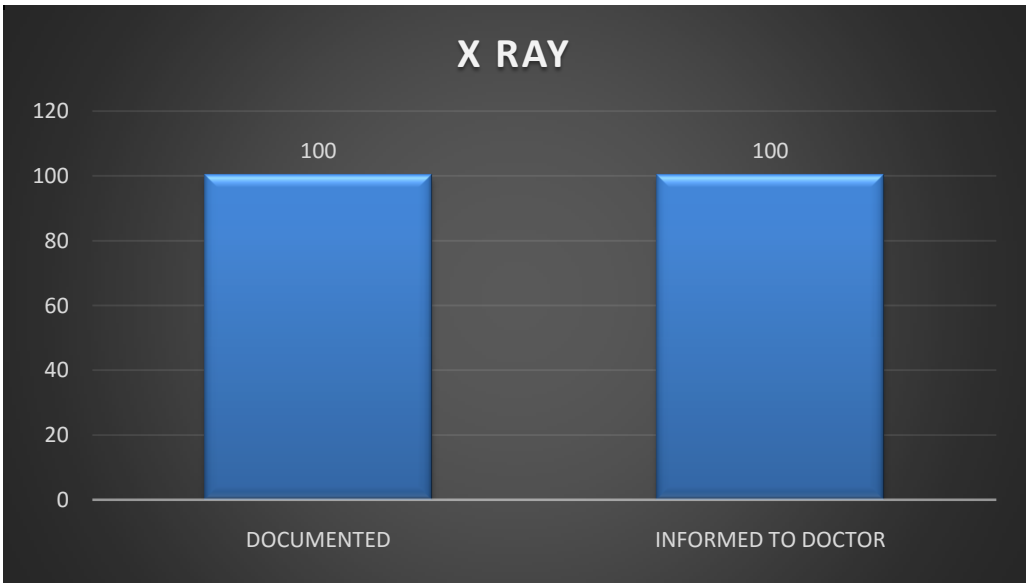
- Critical result documented- 91%
- Critical result informed to the doctor-100%



- Critical result documented- 88%
- Critical result informed to the doctor-100%



- Critical result documented- 100%
- Critical result informed to the doctor-100%



- Critical result documented- 100%
- Critical result informed to the doctor-100%

IMPLEMENTATION:

The following strategies are implemented to enhance the communication, documentation and to improve timeliness of patient treatments

- Orientation and education on procedures for communicating and documenting critical test results to all health care providers is provided.

  -Nurses are responsible for notifying the clinician about critical laboratory results, which they receive via phone calls from the laboratory. So the nursing staffs along with the doctors are trained and classes are taken for them regarding the importance of documenting and highlighting the critical result in patient's record.

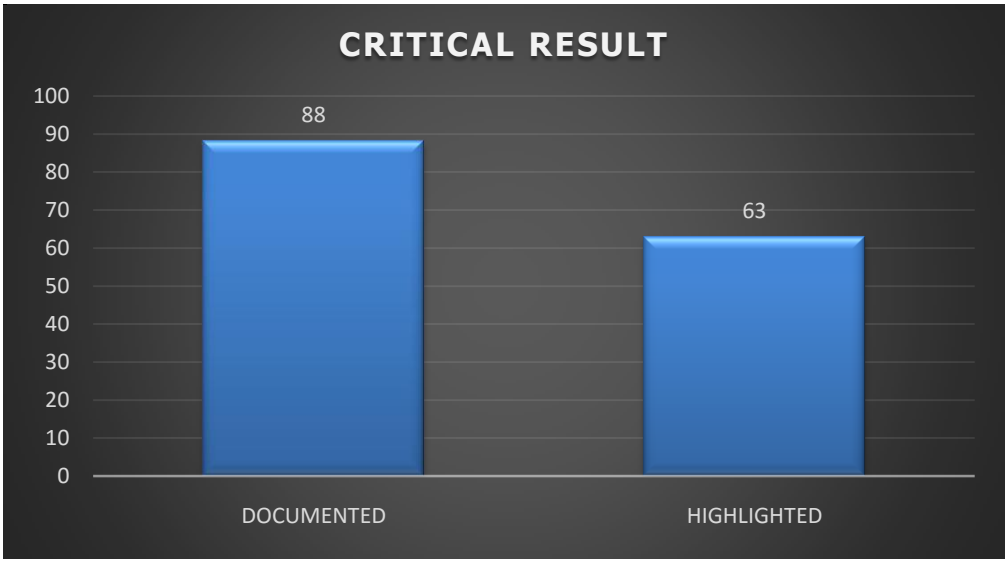
  Provide orientation and continuing education on:
  - How to communicate and document critical test results
  - How to respond to critical test results
  - Principles of communication and teamwork for clinical emergencies

- Reminders and awareness until practice changes.
  - Implement face-to-face reminder.
  - Regularly measure and assess documentation and communication processes as part of an established quality assurance program.

OBSERVATIONS:

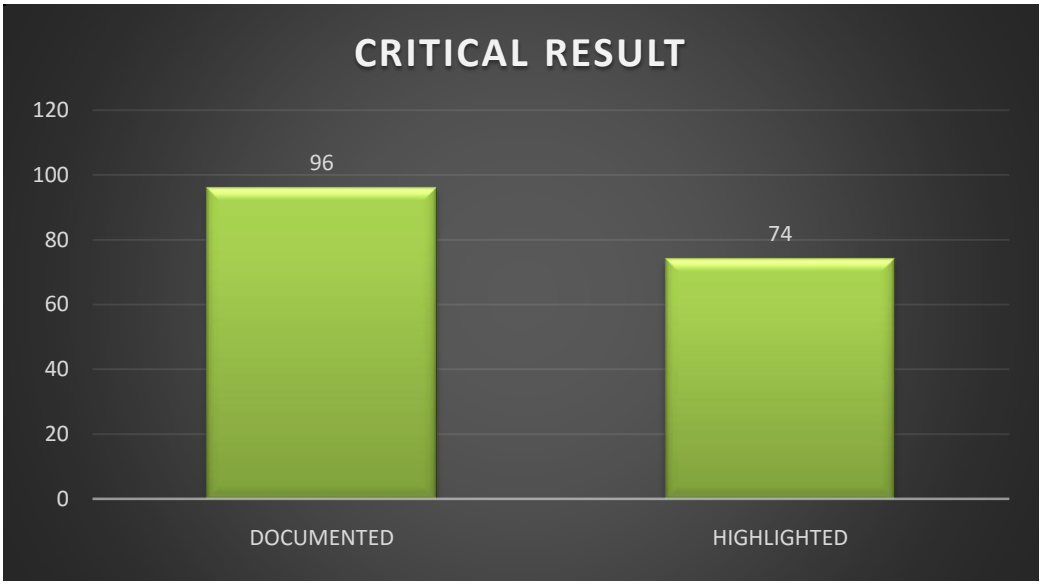
Total No. of Cases-100

Pre-Implementation



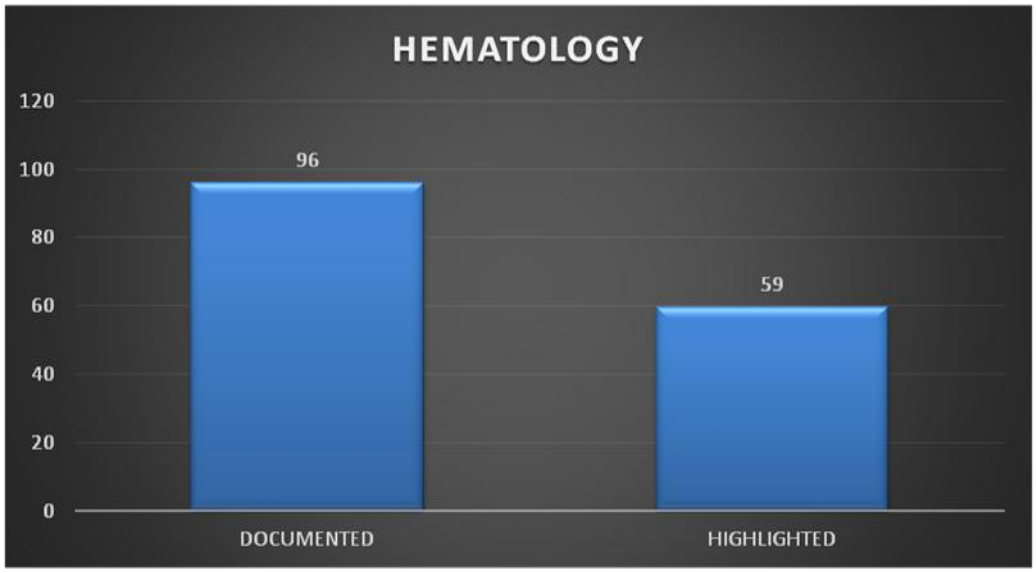
- Critical result documented- 88%
- Critical result highlighted in lab investigation chart-63%

Post-Implementation



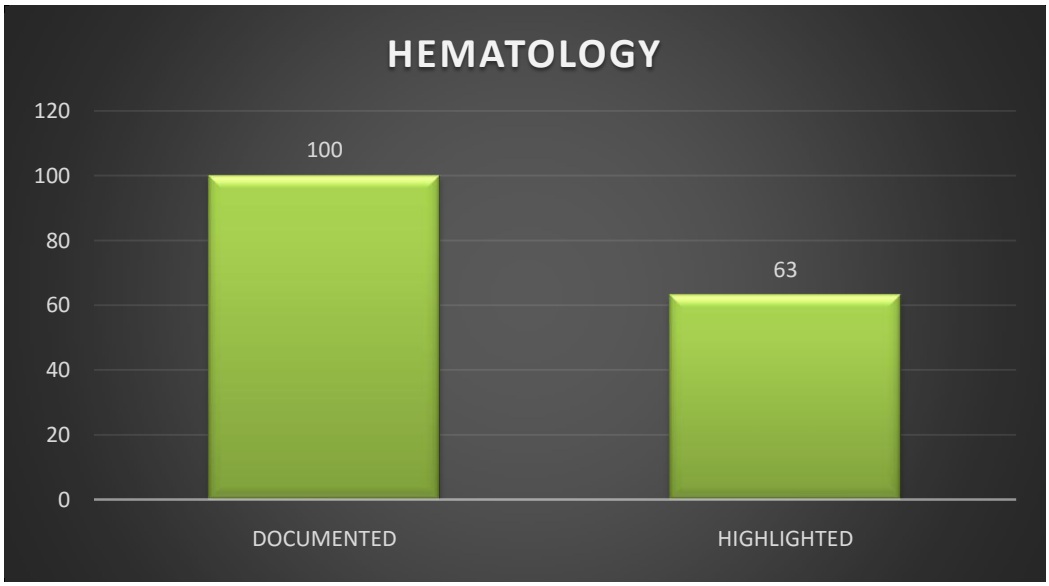
- Critical result documented- 96%
- Critical result highlighted in lab investigation chart-74%

Pre-Implementation



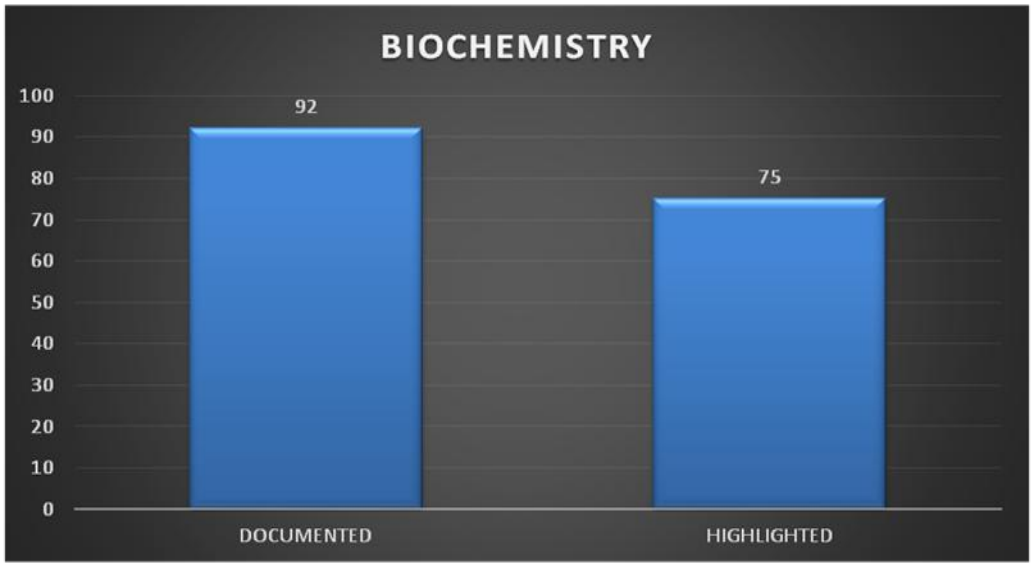
- Critical result documented- 96%
- Critical result highlighted in lab investigation chart-59%

Post-Implementation



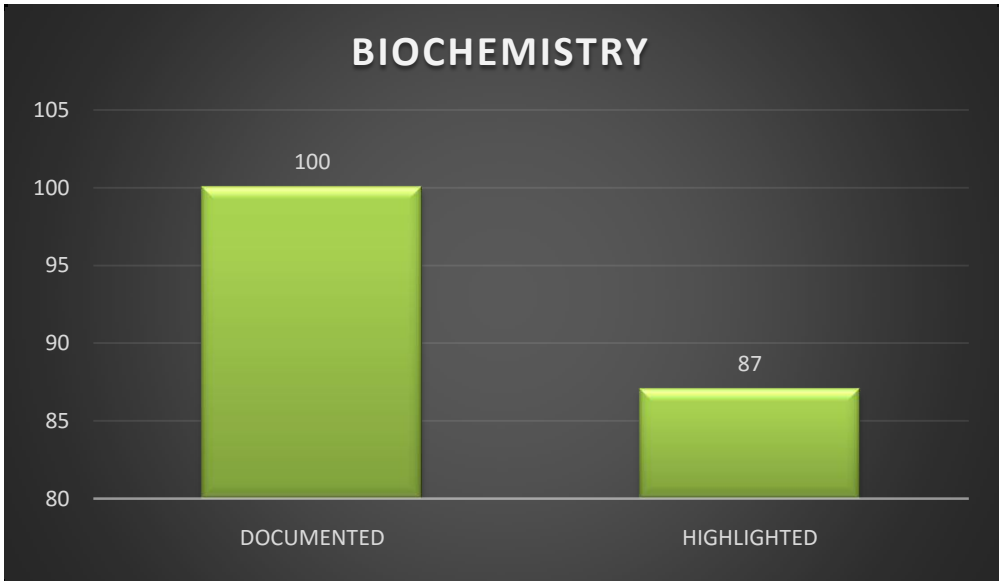
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-63%

Pre-Implementation



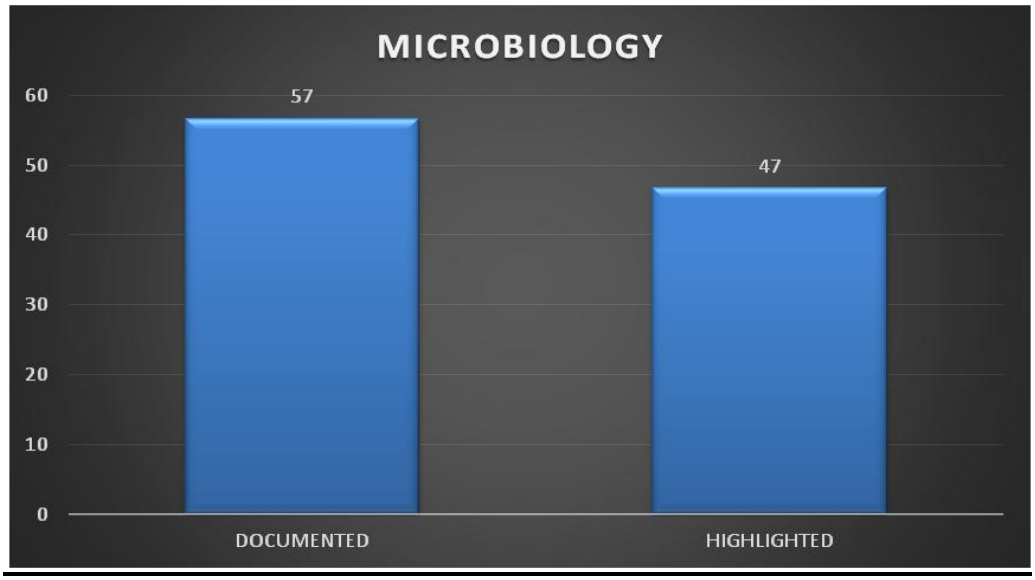
- Critical result documented- 92%
- Critical result highlighted in lab investigation chart-75%

Post-Implementation



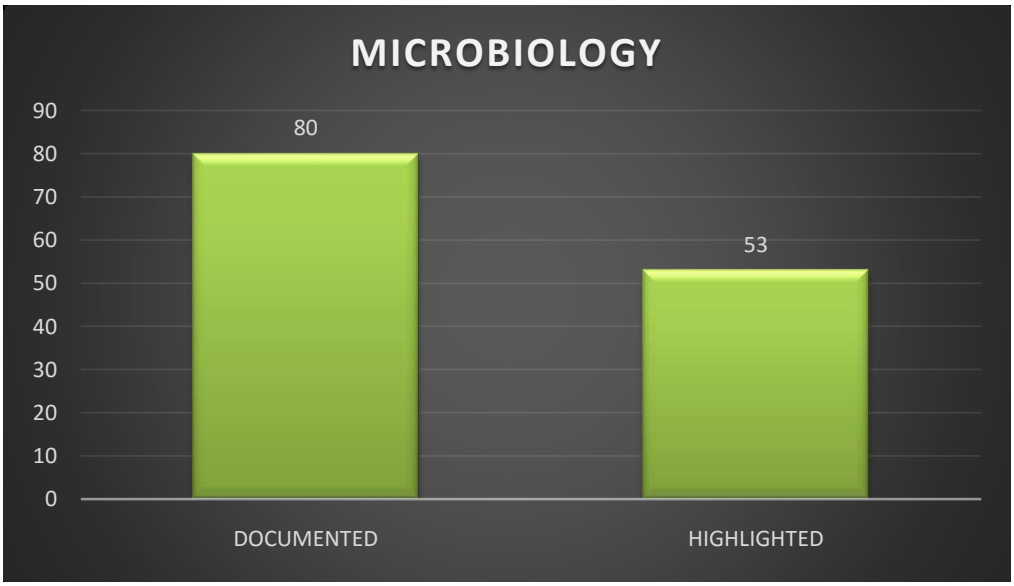
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-87%

Pre-Implementation



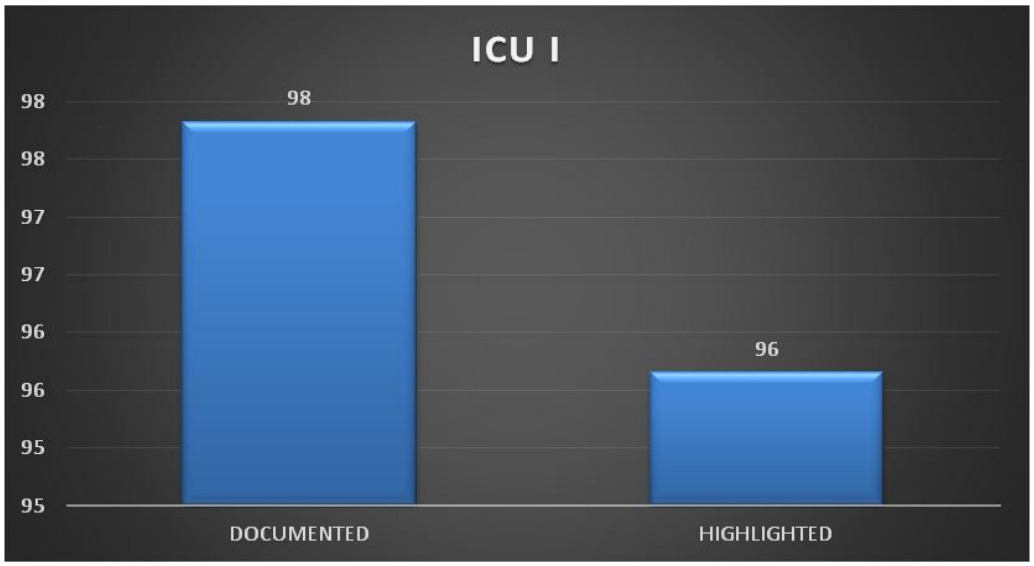
- Critical result documented- 57%
- Critical result highlighted in lab investigation chart-47%

Post-Implementation



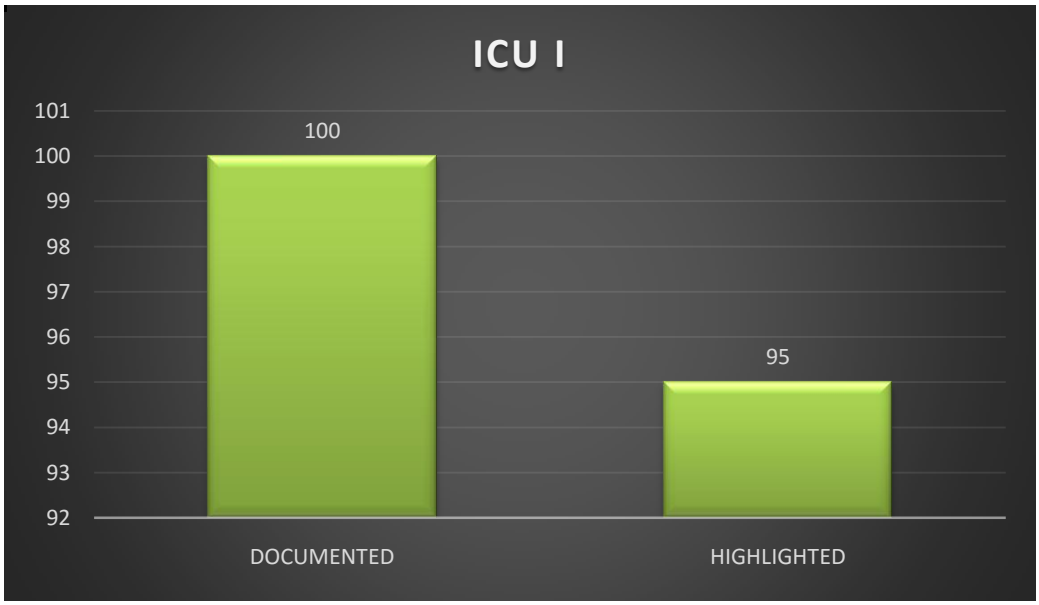
- Critical result documented- 80%
- Critical result highlighted in lab investigation chart-53%

Pre-Implementation



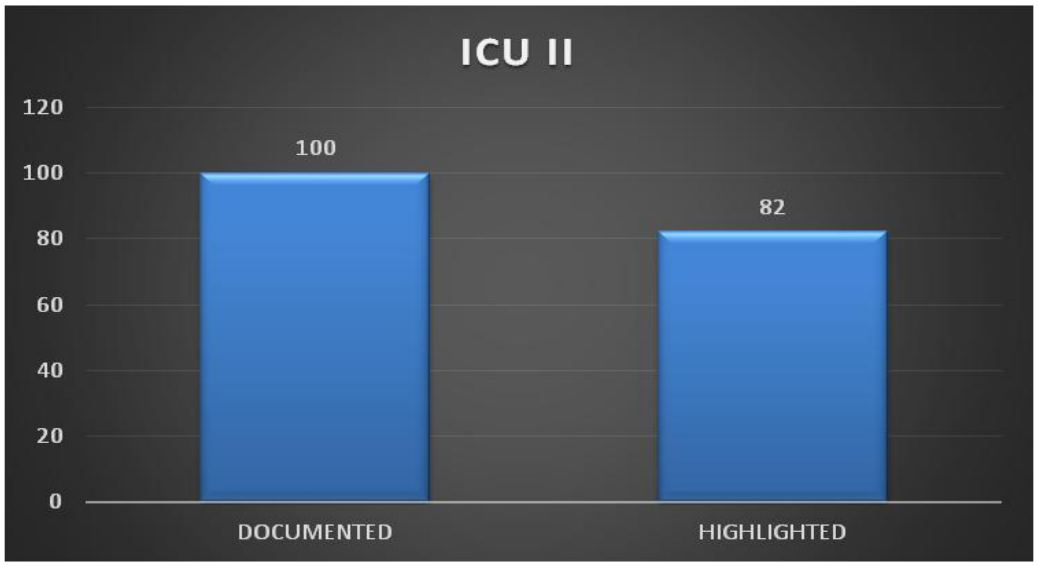
- Critical result documented- 98%
- Critical result highlighted in lab investigation chart-96

Post-Implementation



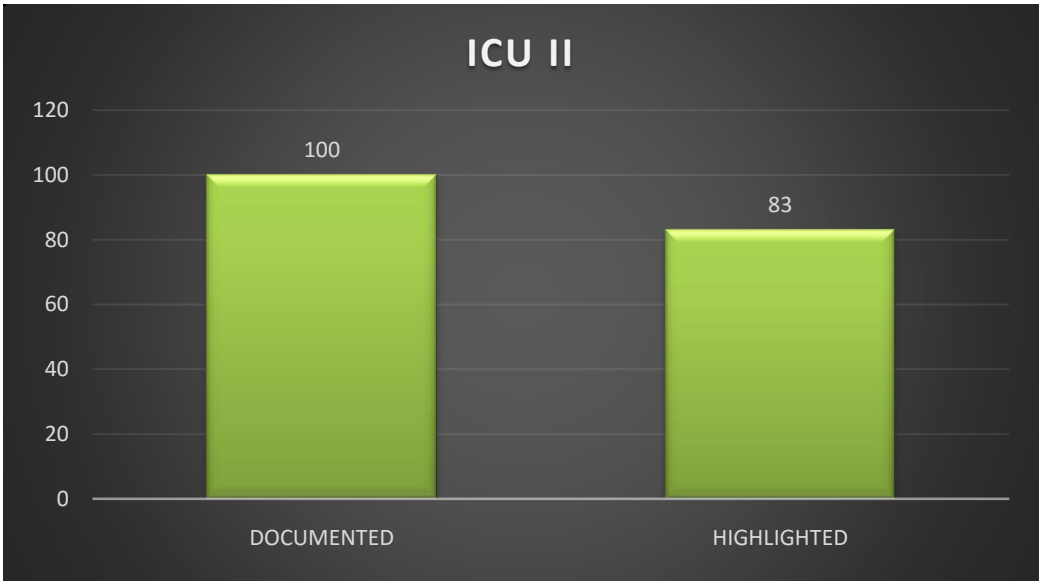
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-95%

Pre-Implementation



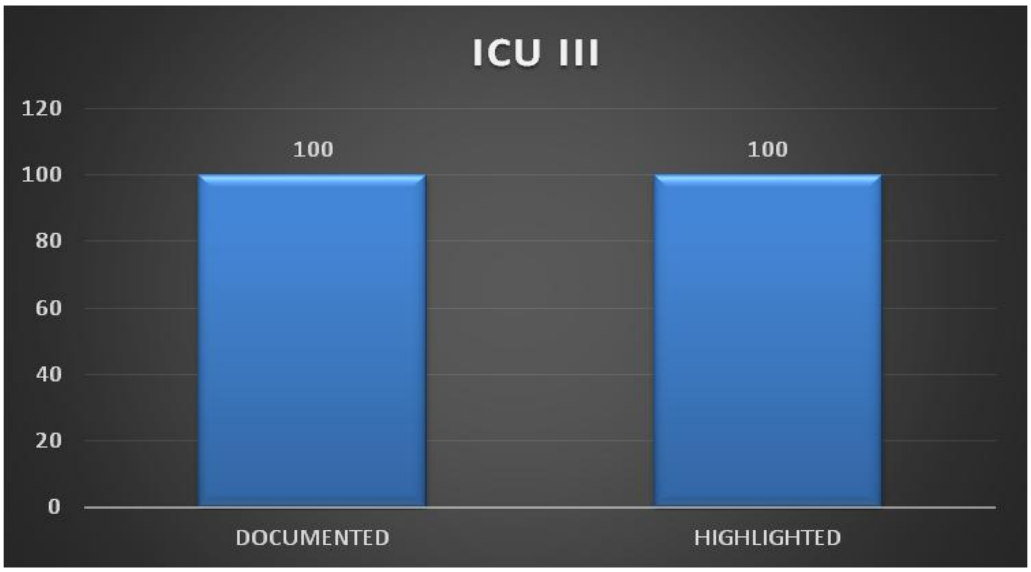
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 82%

Post-Implementation



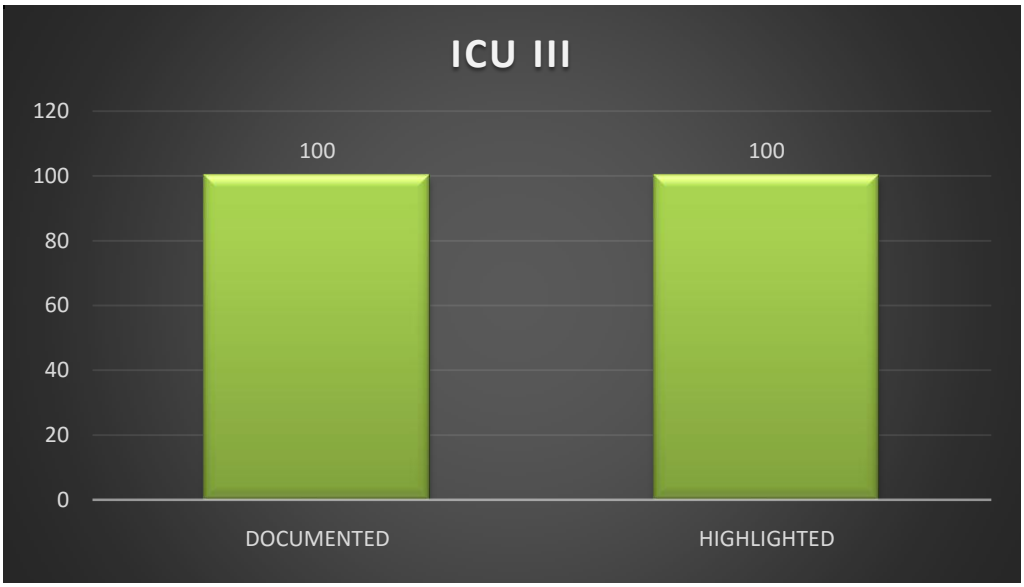
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-83%

Pre-Implementation



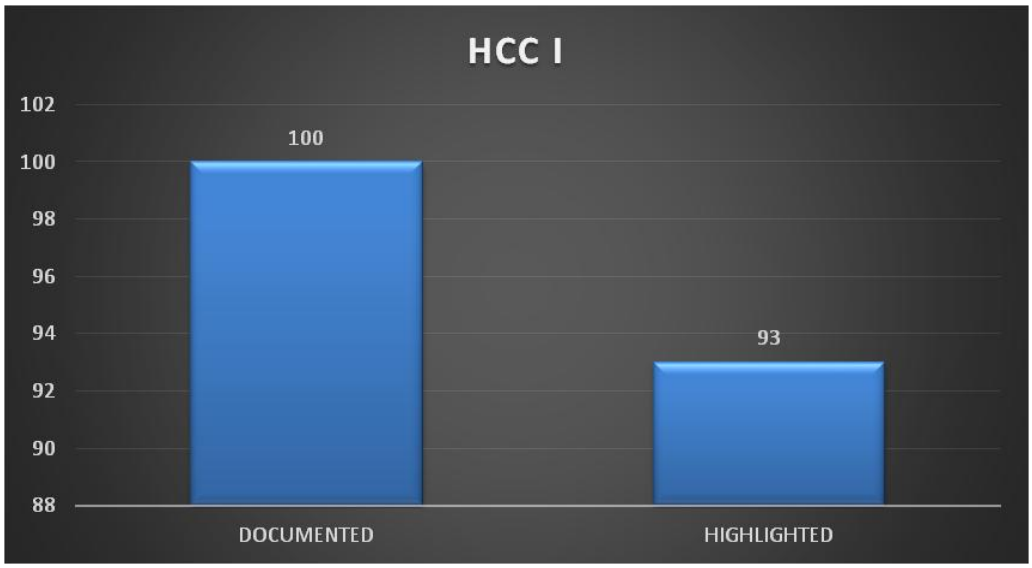
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 100%

Post-Implementation



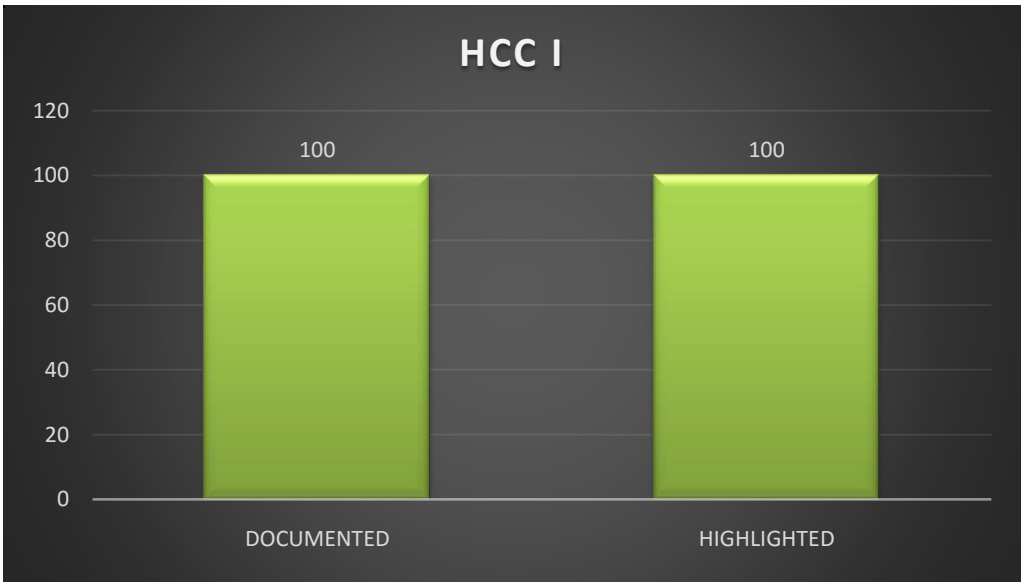
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-100%

Pre-Implementation



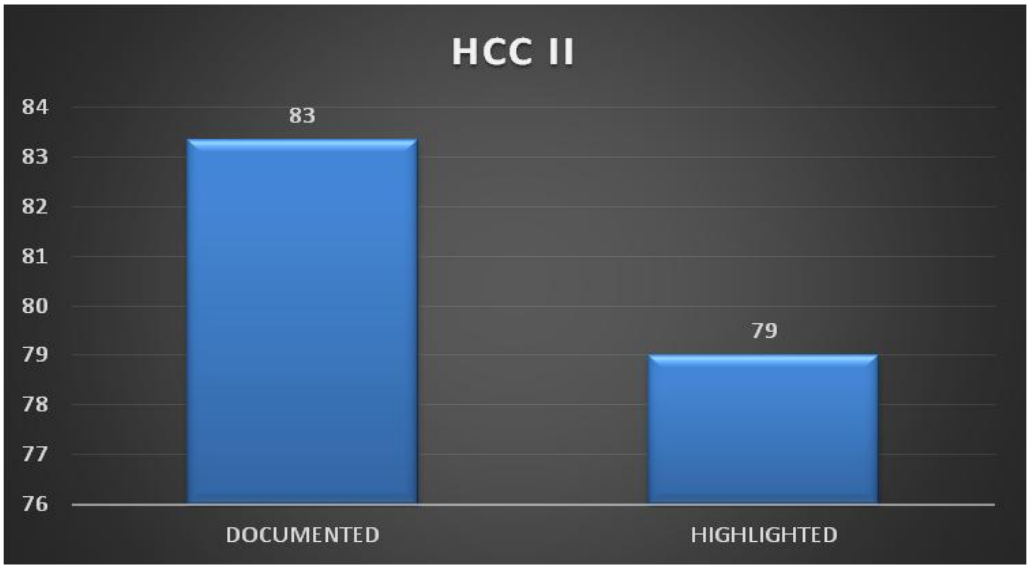
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 93%

Post-Implementation



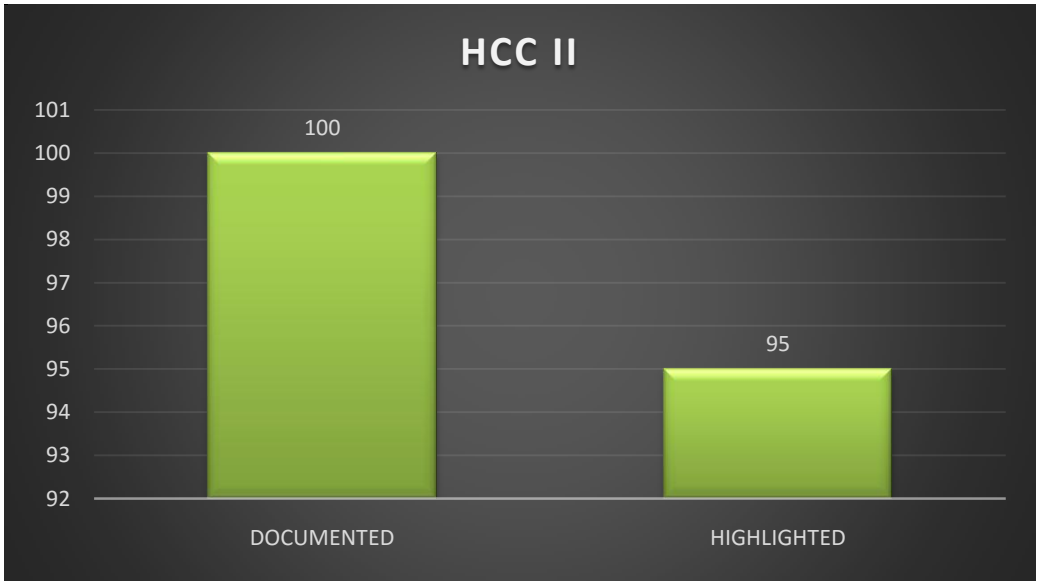
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-100%

Pre-Implementation



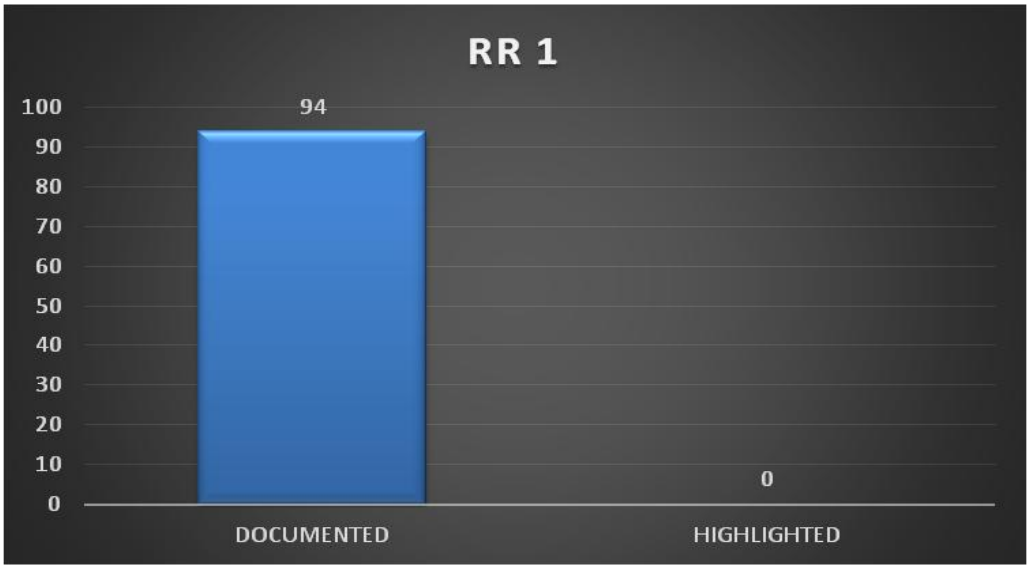
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-95%

Post-Implementation



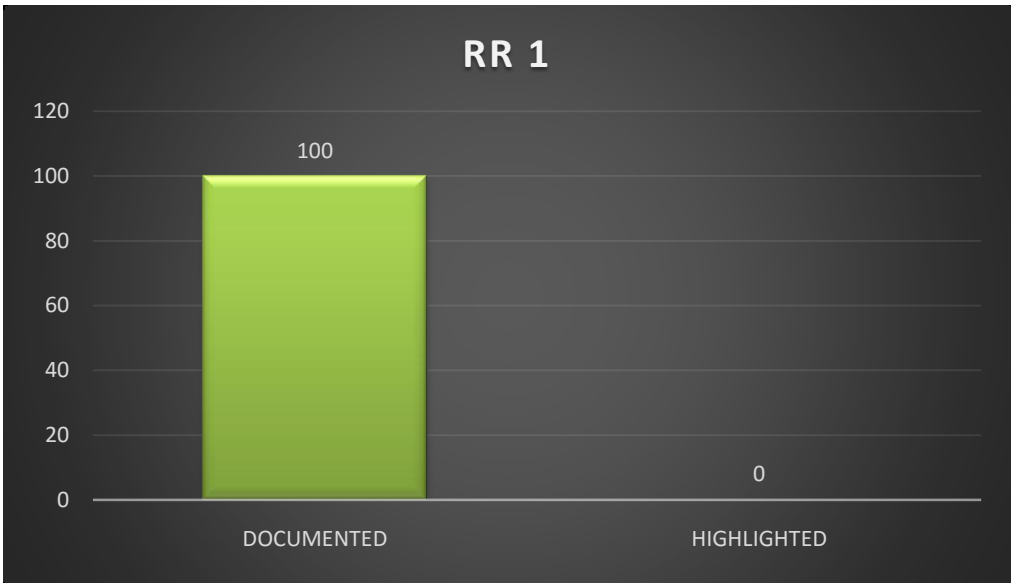
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-95%

Pre-Implementation



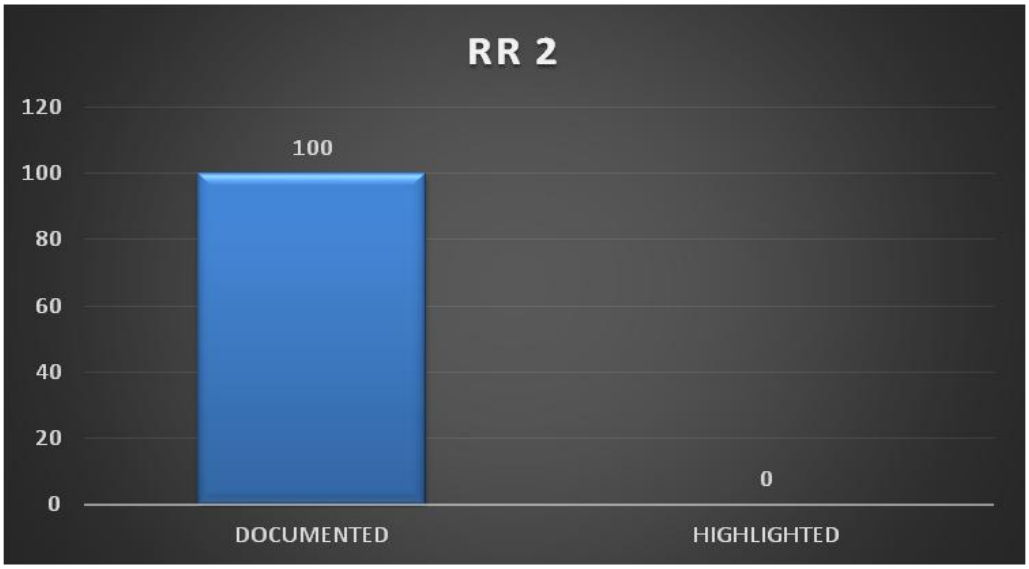
- Critical result documented- 94%
- Critical result highlighted in lab investigation chart- 0%

Post-Implementation



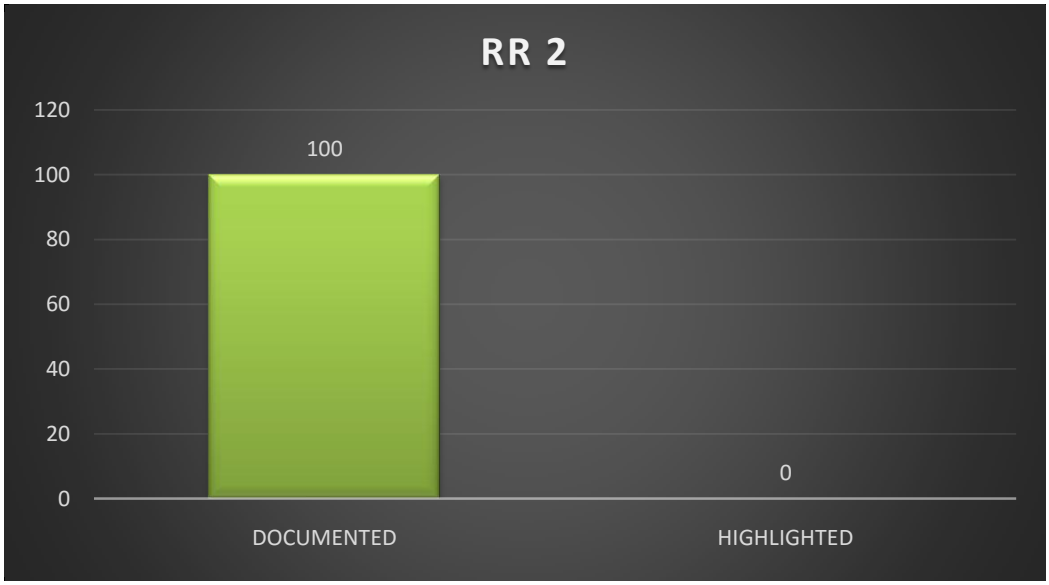
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-0%

Pre-Implementation



- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 0%

Post-Implementation



- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-0%

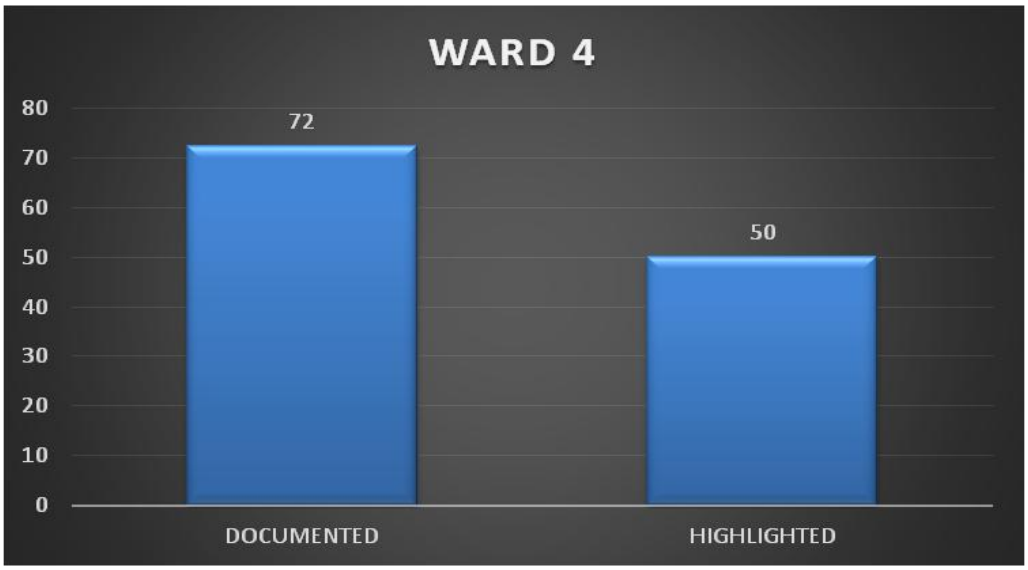
Pre-Implementation

- Critical result documented- 88%
- Critical result highlighted in lab investigation chart- 38%

Post-Implementation

- Critical result documented- 80%
- Critical result highlighted in lab investigation chart-60%

Pre-Implementation

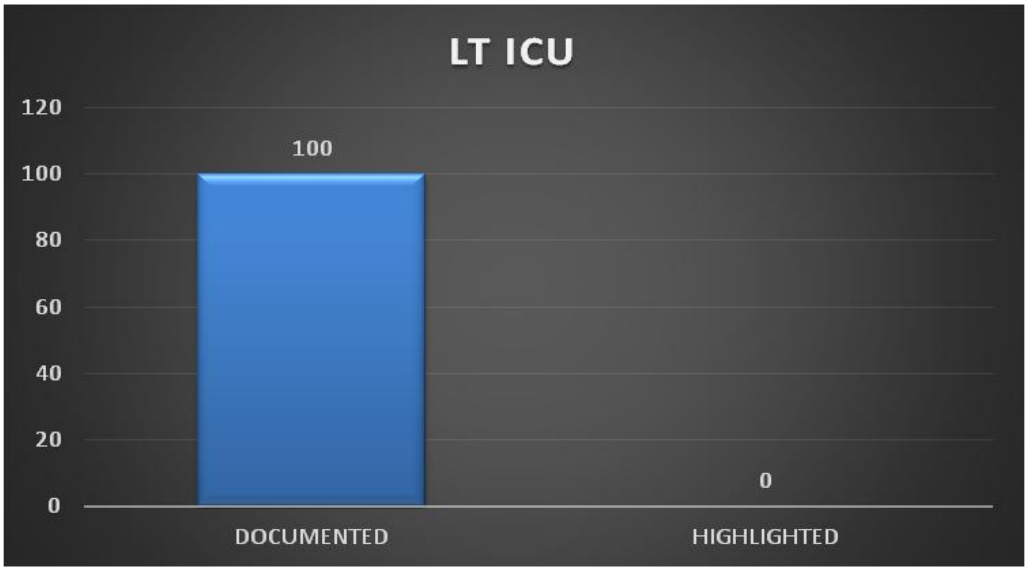


- Critical result documented- 72%
- Critical result highlighted in lab investigation chart- 50%

Post-Implementation

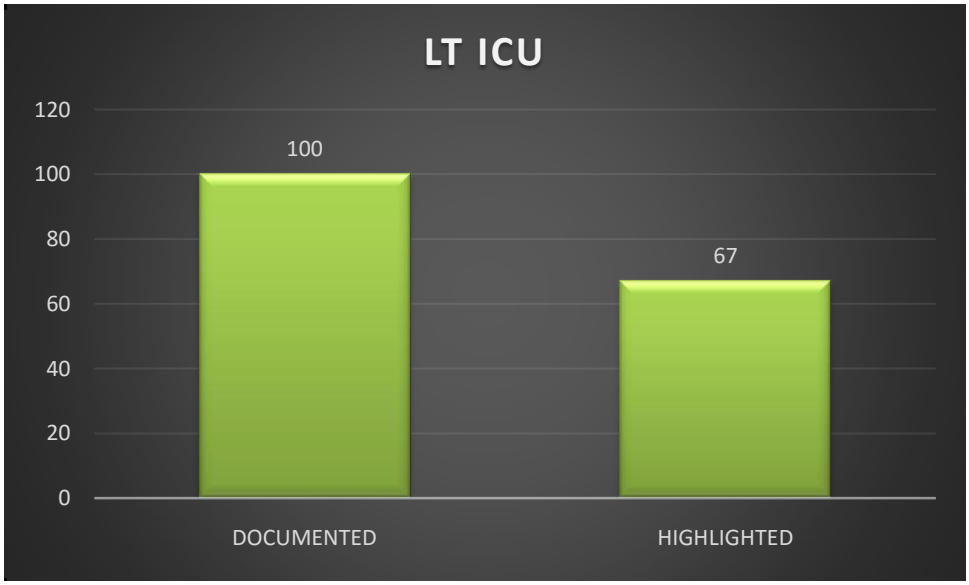
- Critical result documented- 90%
- Critical result highlighted in lab investigation chart-90%

Pre-Implementation



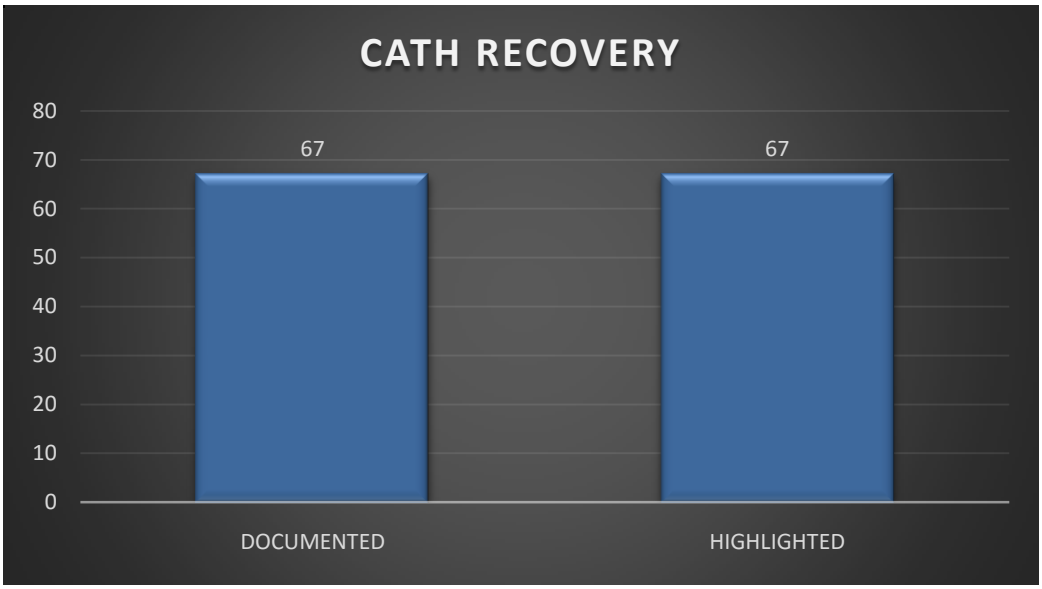
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 0%

Post-Implementation



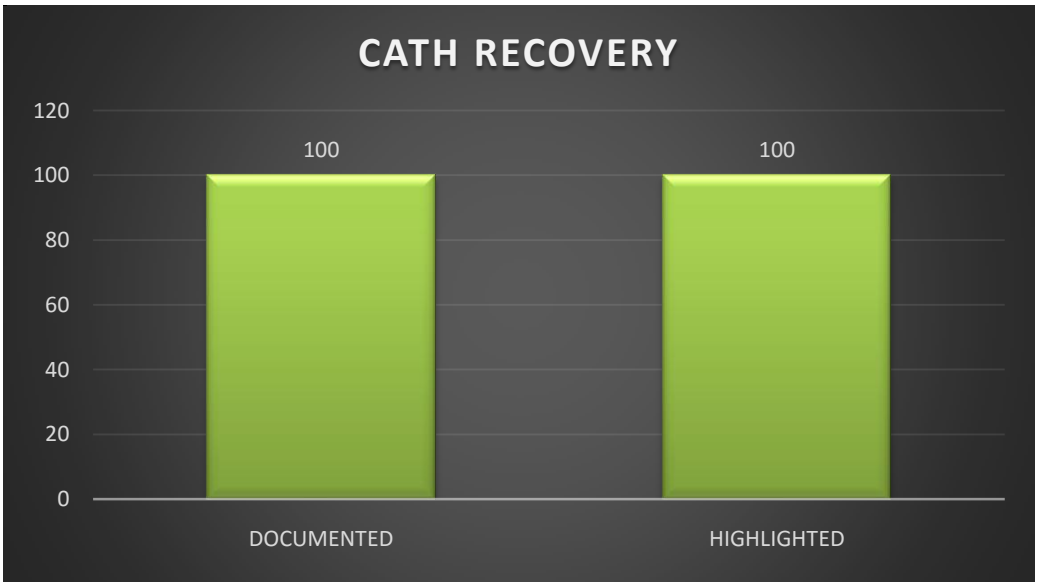
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-67%

Pre-Implementation



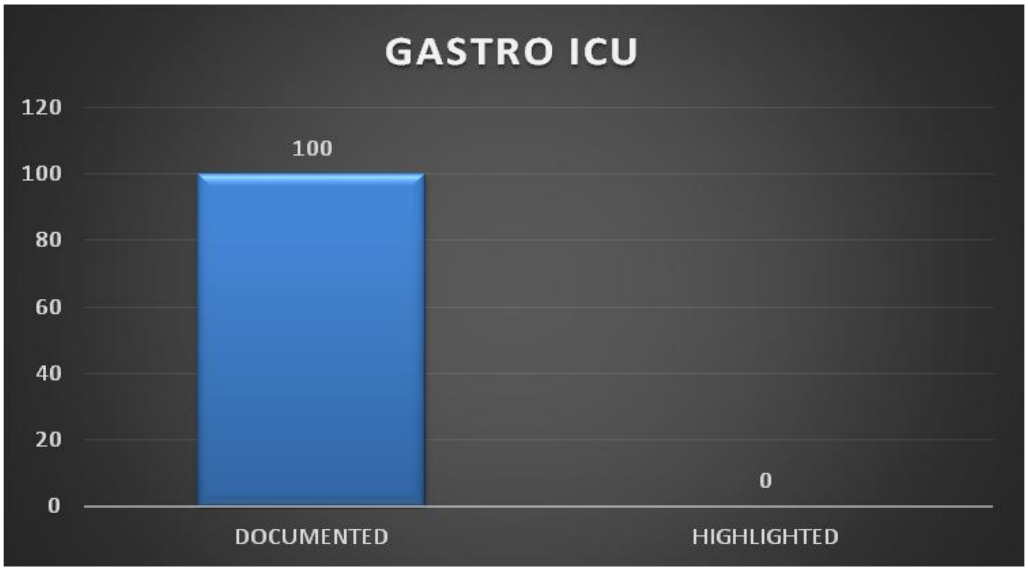
- Critical result documented- 67%
- Critical result highlighted in lab investigation chart-67%

Post-Implementation



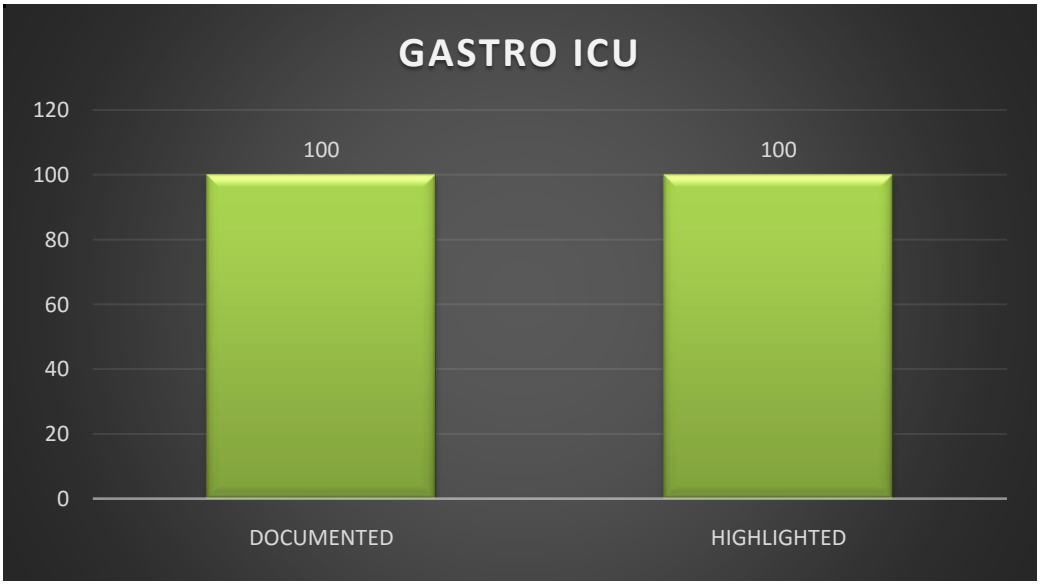
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-100%

Pre-Implementation



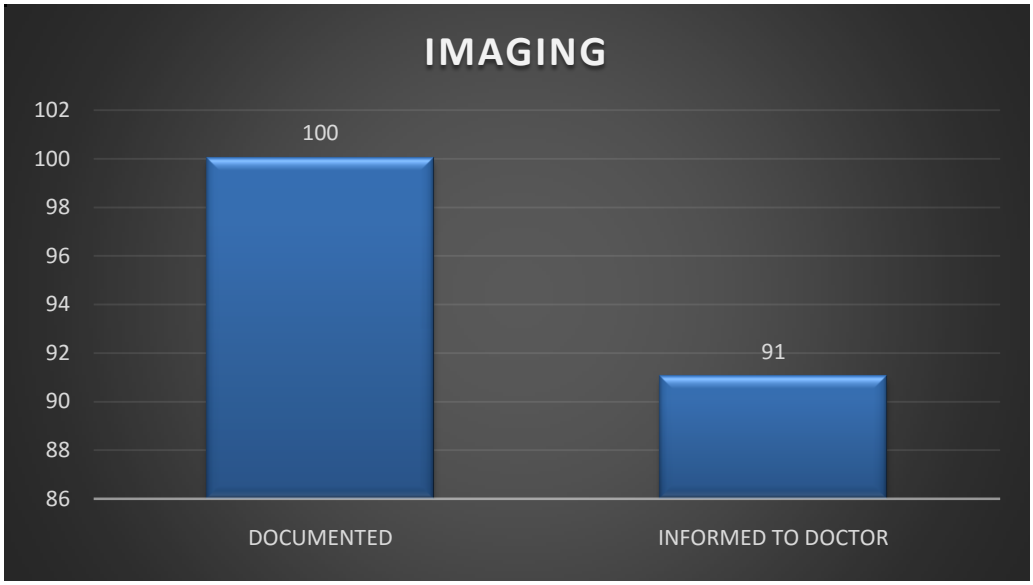
- Critical result documented- 100%
- Critical result highlighted in lab investigation chart- 0%

Post-Implementation



- Critical result documented- 100%
- Critical result highlighted in lab investigation chart-100%

Pre-Implementation

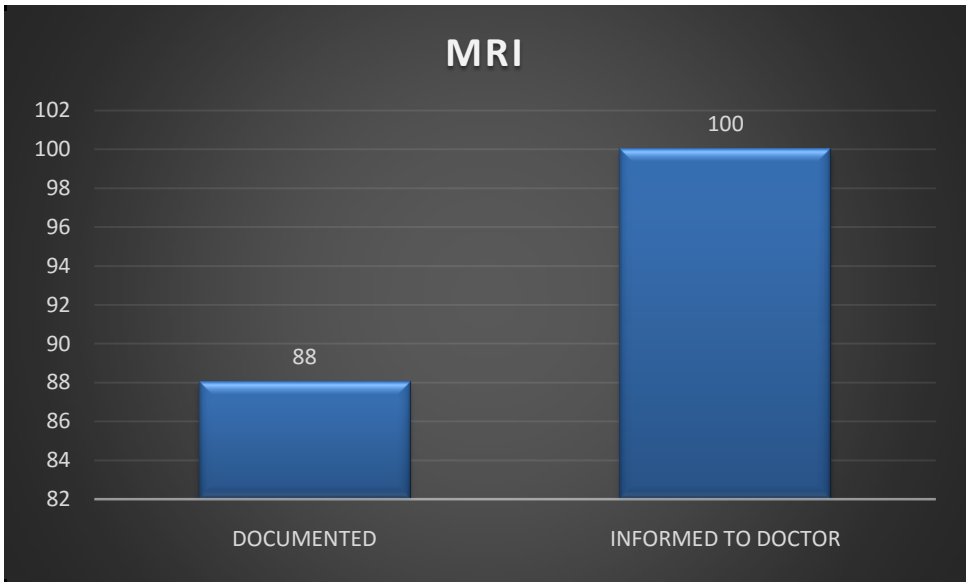


- Critical result documented- 100%
- Critical result informed to doctor-91%

Post-Implementation

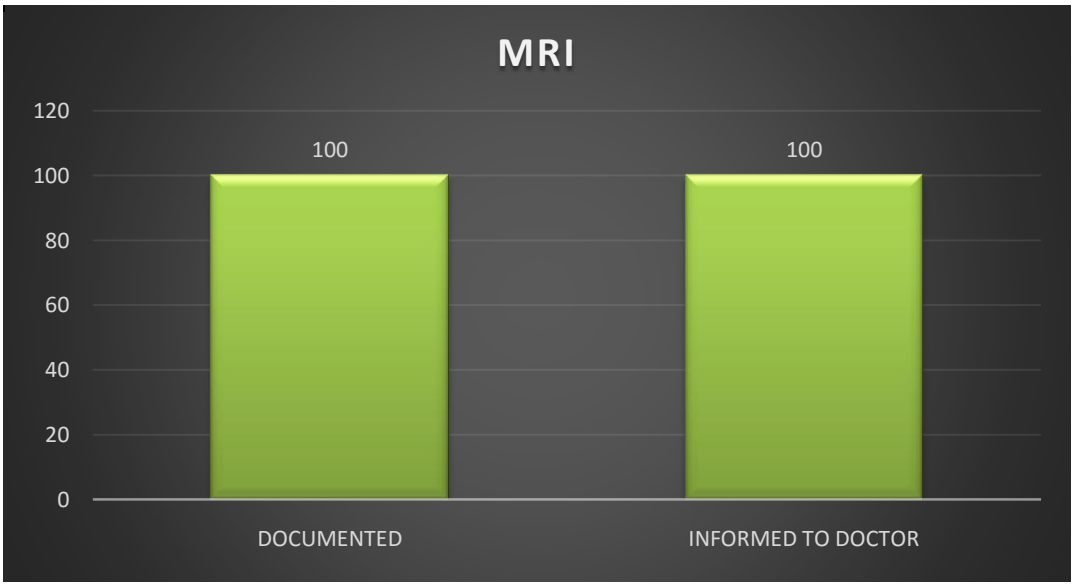
- Critical result documented- 100%
- Critical result informed to doctor-100%

Pre-Implementation



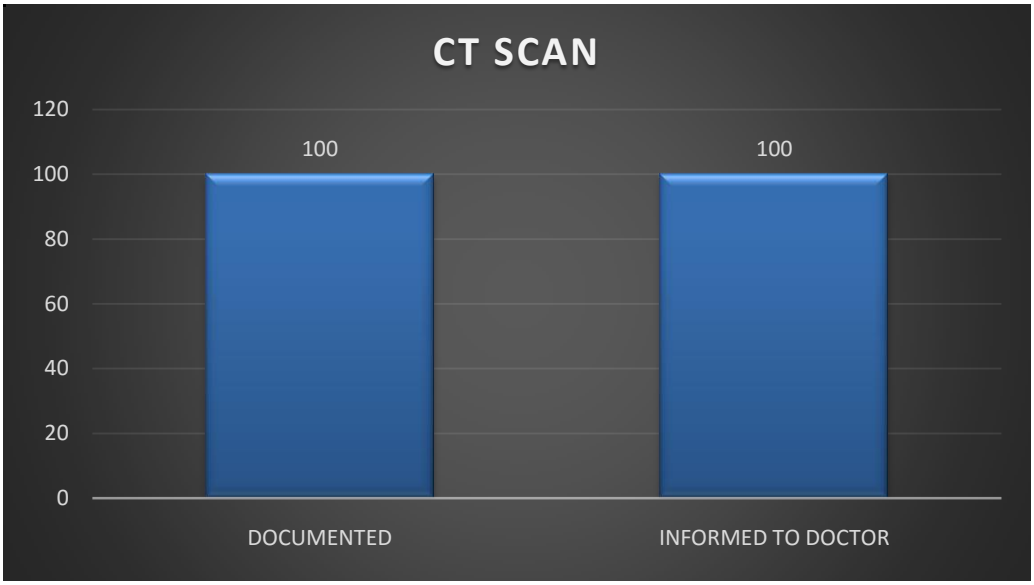
- Critical result documented- 88%
- Critical result informed to the doctor-100%

Post-Implementation



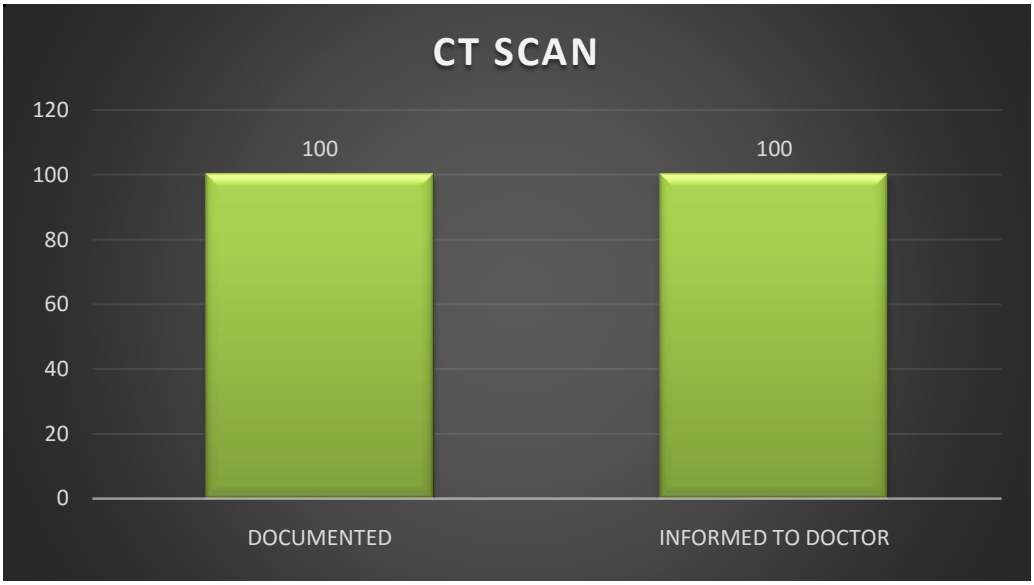
- Critical result documented- 100%
- Critical result informed to doctor-100%

Pre-Implementation



- Critical result documented- 100%
- Critical result informed to the doctor-100%

Post-Implementation



- Critical result documented- 100%
- Critical result informed to doctor-100%

RECOMMENDATIONS:

- Orientation and education on procedures for communicating and documenting critical test results to all health care providers to be provided.
- Reminders and awareness until practice changes.

CONCLUSION

Of the 189 cases (Laboratory) observed, 88% are documented and 63% are highlighted in the patient's file by the nurse. Of the 11 cases (Imaging) observed, 91 % are documented and 100% are informed to the doctor.

After Implementation, of the 97 cases (Laboratory) observed, 96% are documented and 74% are highlighted. Of the 3 cases (Imaging) observed, 100% are documented and 100% are informed to the doctor

Identification and notification of critical tests, values, and results is a complex process with potential for communication breakdown at every step. Implementation of the protocols presented here may improve patient care and reduce harm. Ongoing evaluation and improvements in identifying and reporting critical tests, values, and results will lead to accurate notification from laboratory/Radiology staff to the healthcare professionals resulting in prompt treatment, if necessary, to patients.

REFERENCES:

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http://www.jointcommissioninternational.org/

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http://ajcp.oxfordjournals.org/content/135/4/505

3. Safe Patient Outcomes Occur with Timely, Standardized Communication of Critical Values
http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2009/Sep6%283%29/Pages/93.aspx

4. An audit on the reporting of critical results in a tertiary institute.
https://www.researchgate.net/publication/24023019_An_audit_on_the_reporting_of_critical_results_in_a_tertiary_institute

5. Mayo Clinic Laboratories, FLA, MMLNE, RST
Department of Laboratory Medicine & Pathology
DLMP Critical Values/ Critical Results List
http://www.mayomedicallaboratories.com/articles/criticalvalues/view.php?name=Critical+Values%2FCritical+Results+List

6. Implementation of a Closed-Loop Reporting System for Critical Values and Clinical Communication in Compliance with Goals of The Joint Commission
http://www.clinchem.org/content/56/3/417.full.pdf+html

7. Communicating critical test results: safe patient recommendations
http://www.macoalition.org/Initiatives/docs/CTRbates.pdf

8. Critical limits of laboratory results for urgent clinician notification
http://www.ifcc.org/ifccfiles/docs/140103200303.pdf