

Draft Impact Assessment Report of
ESIC Hospital
Medical Equipment
Enhancement, Faridabad

Project Code: C0112



Table of Contents

Chapter 1: Project Background and Overview	5
1.1 CSR Initiatives of HDFC Bank	6
1.2 Alignment with CSR Policy	7
1.3 Alignment with ESG Principle	8
1.4 Alignment with SDGs.....	8
Chapter 2: Design and Approach for Impact Assessment	10
2.1 Objectives of the study.....	11
2.2 Evaluation approach, methodology and framework	11
2.3 Stakeholder mapping	12
2.4 Theory of change	12
Chapter 3: Impact Findings	14
3.1 Relevance	15
3.2 Effectiveness	15
3.3 Efficiency	16
3.4 Coherence	17
3.5 Impact.....	18
3.6 Sustainability	19

List of Tables

Table 1: Abbreviations	4
Table 2: List of equipment	7
Table 3: Alignment with schedule VII	8
Table 4: Alignment with SDGs	9
Table 5: Qualitative sampling	12
Table 6: Equipment checklist	17
Table 7: Alignment with national policies	18

List of Figures

Figure 1: Diagnostic facilities at ESIC hospital Faridabad	16
Figure 2: Equipment at the ESIC hospital, Faridabad	17

Abbreviations

Abbreviations	Details
AB-PMJAY	Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana
CARM	Centre for Adverse Reactions Monitoring
CSR	Corporate Social Responsibility
ESIC	Employees' State Insurance Corporation
ICP	Intracranial Pressure
OTAs	Operating Theatre Assistants
OTTs	Operating Theatre Technicians
POCUS	Point-of-Care Ultrasound
USG	Ultrasound

Table 1: Abbreviations



Chapter 1:

Project Background and Overview

1.1 CSR Initiatives of HDFC Bank

HDFC Bank is actively contributing to the improvement of the lives of millions of Indians through its social initiatives. These endeavours, collectively known as 'Parivartan,' are designed with the objective of fostering sustainable empowerment within communities, thereby making significant contributions to the economic and social development of the nation.

HDFC Bank has a long-standing commitment to corporate social responsibility (CSR), and healthcare is one of its key focus areas. The bank has implemented a number of CSR projects in the healthcare sector, with the goal of improving access to quality healthcare for underserved communities.

The themes of HDFC's CSR project include:



Rural Development

HDFC Bank team believes in including villages in economic progress for overall development. The Bank's Holistic Rural Development Programme (HRDP) addresses the specific needs of each village through carefully planned interventions developed in consultation with the community and stakeholders.



Skill Development and Livelihood Enhancement

In the realm of Skill training and livelihood enhancement, Parivartan provides backing for numerous projects. This initiative encompasses capacity building, the promotion of financial literacy, credit, and entrepreneurial endeavours, along with enhancing skills for agricultural and related practices.



Promotion of Education

The bank's educational initiatives are designed to foster learning by establishing a conducive and efficient learning atmosphere in schools. Within the second pillar of education in Parivartan, the interventions concentrate on teacher training, incorporating alternative methods, promoting innovation, and enhancing school infrastructure through refurbishment. HDFC Bank Parivartan has introduced smart classes in various states, aiming to integrate technology with education.

Healthcare and Hygiene



In the area of Healthcare and Hygiene, primary efforts revolve around supporting the Indian Government's Swachh Bharat Abhiyan through initiatives that raise awareness, induce behavioural change, and construct toilets. Additionally, to foster healthcare and hygiene, the Bank regularly conducts health camps, raises awareness about nutrition, ensures access to clean drinking water, and organises blood donation drives. Moreover, the Bank equipped the ESIC hospital with high-end equipments and supplies to improve the treatment of COVID-19 related complications.

Financial Literacy and Inclusion



They hold the belief that the initial stride toward financial inclusion involves fostering financial literacy. Through HDFC Bank's extensive network of over 5,400 branches, millions have gained insights into fundamental concepts like savings, investment, and accessing organised financial resources via financial literacy camps conducted nationwide. Moreover, their branches emphasise delivering basic financial services and implementing capacity-building programmes

The HDFC Bank's Parivartan initiative has a commitment to providing medical facilities for all. In line with this, HDFC Bank supported the efforts of government hospitals and community health centres through the supply of medical equipment. The ESIC hospital was chosen to acquire cutting-edge equipment and supplies to improve the treatment of COVID-19-related complications. This effort, a component of HDFC Bank's COVID-19 Support Programme within HDFC Parivartan, sought to strengthen healthcare facilities and ensure they are prepared to deliver high-quality care in future outbreaks.

List of equipment provided to the ESIC hospital, Faridabad

Equipment	Quantity
C Arm Cios FIT (Siemens)	1
Ultra Sound Machine (Portable) Fuji Film Sonosite Edge II	1
500mA High Frequency Xray Machine Fuji Film FDR Smart F	1
Anaesthesia Work Station (Portable) Draeger	2
Total	5

Table 2:List of equipment

1.2 Alignment with CSR Policy

Schedule VII (Section 135) of the Companies Act, 2013 specifies the list of the activities that can be included by the company in its CSR policy. The below-mentioned table shows the alignments of the intervention with the approved activities by the Ministry of Corporate Affairs.

Sub-Section	Activities as per Schedule VII	Alignment

(i)	Eradicating hunger, poverty, and malnutrition (Promoting health care, including preventive Health) and sanitation (Including contribution to the Swachh Bharat Kosh set up by the Central Government for the promotion of sanitation) and making available safe drinking water;	Completely
-----	---	------------

Table 3: Alignment with schedule VII



1.3 Alignment with ESG Principle

The project's intervention also aligns with the ESG Sustainability Report of the corporate. Particularly, concerning the Business Responsibility & Sustainability Reporting Format (BRSR) shared by the Securities & Exchange Board of India (SEBI), the project aligns with the principle mentioned below:

PRINCIPLE 2
Businesses should provide goods and services in a manner that is sustainable and safe.

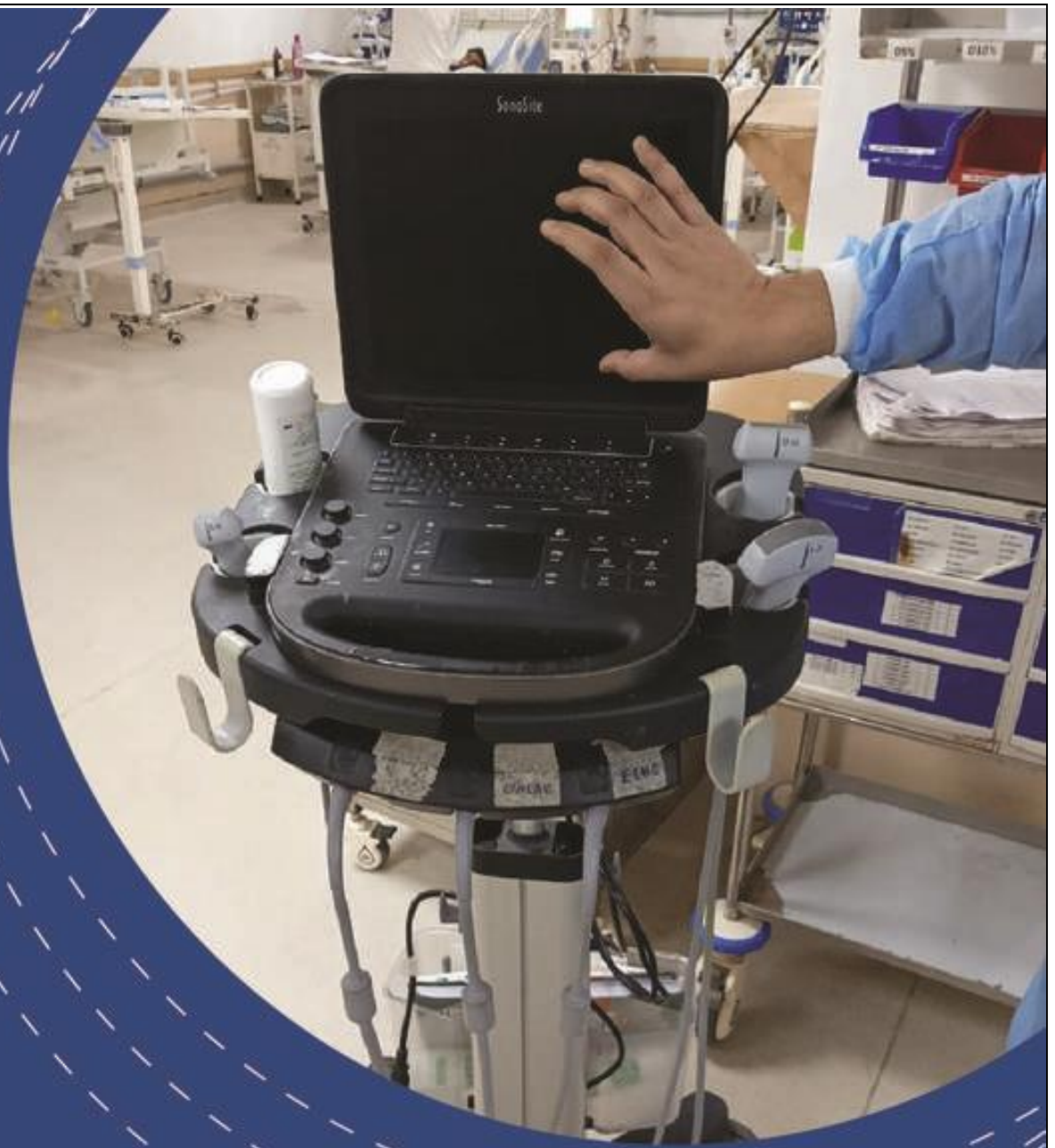
1.4 Alignment with SDGs

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2016 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

Sustainable Development Goal	Target	Alignment
	<p>Goal 3: Good Health and Well-being 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.</p>	Completely
	<p>Goal 9: Industry, Innovation and Infrastructure 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.</p>	Completely

<p>17 PARTNERSHIPS FOR THE GOALS</p> 	<p>Goal 17: Partnership for the goals</p> <p>17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p>	<p>Completely</p>
---	---	-------------------

Table 4: Alignment with SDGs



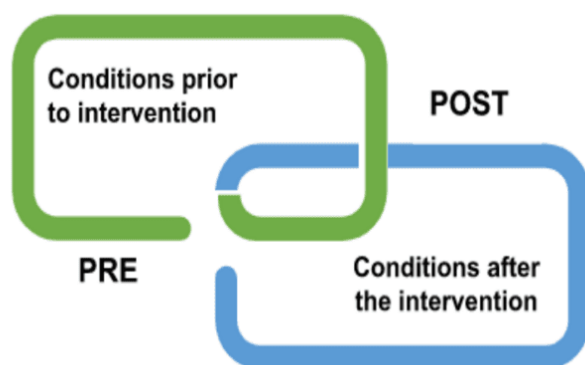
Chapter 2:

Design and Approach for Impact Assessment

2.1 Objectives of the study

- To evaluate the effectiveness, efficacy of the project interventions and sustainability of the project outcomes.
- To evaluate how the HDFC Bank, with additional equipment, supported patients during the critical pandemic times in 2021 and onwards.
- To know how the support helped the hospital and community centres in providing the necessary services.

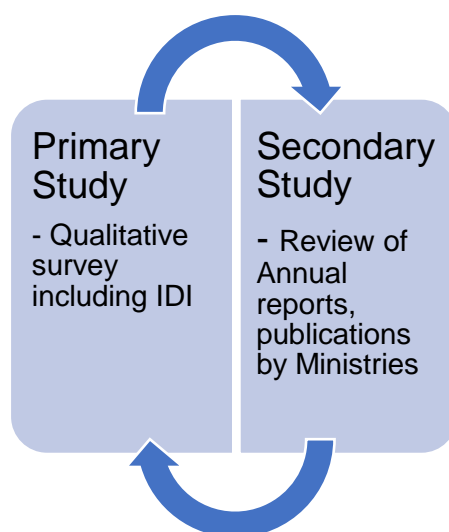
2.2 Evaluation approach, methodology and framework



In line with the study's objectives and key areas of investigation, the evaluation's design prioritised learning as its primary goal. This section outlines our strategy for developing and implementing a robust, dynamic, outcome-focused evaluation framework/design. To gauge the impact, the study adopted a pre-post programme evaluation approach, relying on the recall capacity of the respondents. Under this method, stakeholders were surveyed about their conditions before and after the programme intervention. Analysing the difference helps to discern the

programme's contribution to enhancing the intended condition of the stakeholders. While this approach can effectively comment on the programme's role in improving living standards, it may not entirely attribute all changes to the programme.

For the assessment of the programme, the team employed a two-pronged approach to data collection and review that included secondary data sources and literature, as well as primary data obtained through qualitative methods of data collection. The figure below illustrates the study approach used in data collection and review. The secondary study involved a review of the functioning of the equipment provided and other studies and research by renowned organisations available in the public domain for drawing insights into the situation of the area.



The primary study comprised a qualitative approach to data collection and analysis. The qualitative aspects involved in-depth interviews (IDIs) with the Medical Superintendent and Key machine operator.

In addition to primary data collection, the consultants studied various project documents like Project Proposals, Project log-frame (Logical Framework Analysis), and other relevant reports/literature related to the projects.

OECD-DAC Framework

To determine the Relevance, Coherence, Effectiveness, Efficiency, Impact and Sustainability of the project, the evaluation used the OECD-DAC framework. Using the logic model and the criteria of the OECD-DAC framework, the evaluation assessed the HDFC team’s contribution to the results while keeping in mind the multiplicity of factors that might have affected the overall outcome. The social impact assessment hinged on the following pillars:



2.3 Stakeholder mapping

SN.	Name of the hospital	Stakeholder	Tool Type	Sample
1.	ESIC Faridabad Hospital	Medical Superintendent	IDI	1
2.		Medical Officer	IDI	1
3.		Machine operators (Radiologists)	IDI	1
4.		Nurse	IDI	1
5.		HDFC project team	KII	1
6.		Implementing partner	KII	1
			Total	

Table 5: Qualitative sampling

2.4 Theory of change



Improving access to life-saving resources

Improved patient outcome through precise diagnosis and treatment

Improvement in response time during surgery



Increase in Referrals from small ESIC to ESIC Faridabad

Decrease in the response time during the emergency



15% increase in the overall footfall

Anaesthesia work station (portable) being used in 11 operation theatres

20% increase in the footfall for ultrasound

1150 patients treated since the installation of C-arm

6000-6500 ultrasounds conducted since the installation

1500-1600 utilised Anaesthesia service treated since inception



Supply of critical hospital equipment-C Arm, Ultrasound Machine (Portable), 500mA High- Frequency Xray machine, Anaesthesia workstation (Portable)



Chapter 3: **Impact Assessment Findings**

3.1 Relevance

During the second wave of COVID-19 in 2021, hospitals nationwide experienced a significant surge in both cases and fatalities, pushing the country to its limits. The ESIC hospital in Faridabad was strategically identified for support, with consensus reached to provide it with high-end equipment and consumables to enhance its efficiency. This was aimed at ensuring smoother management of any COVID-related complications in patients. The significance of this hospital as a regional healthcare provider has been identified through qualitative interactions, with the majority of individuals seeking treatment being ESIC workers earning less than **INR 21,000 per month**. These patients, including both men and women from the organised sector, often travel from **Delhi NCR and the catchment areas of Faridabad** to access the services provided by this facility. Understanding these travel patterns helps in assessing the hospital's reach and accessibility to its target population.

3.2 Effectiveness

Decrease in turn-around time for patients

Following the installation of the equipment, there has been a reduction of **over 50%** in the turnaround time for patients, as indicated by the hospital's medical staff. Previously, patients faced extended waiting times due to limited equipment availability, resulting in delays in accessing services and surgeries. However, with the implementation of advanced equipment, the waiting period for both services and surgeries has significantly decreased.

Increase in patient footfall and patient referrals

According to the interactions with the hospital staff, the hospital has seen a **15% rise** in the number of patients. This increase demonstrates the growing recognition of the hospital's improved services. Additionally, there has been a notable increase in referrals from smaller medical facilities, including other ESIC facilities, highlighting increased trust in the hospital's capabilities, likely due to advanced equipment availability.

Improvement in diagnosis capabilities

Before the introduction of advanced equipment like the Ultrasound machine and C-Arm technology at ESIC Hospital Faridabad, diagnosis relied heavily on clinical assessment, radiological suites, laboratory tests, and portable X-rays. Patients were often referred to other facilities for further treatment if the necessary equipment was unavailable onsite.

With the implementation of this equipment, there has been a significant enhancement in diagnosis capabilities. For instance, the **accuracy of trauma surgeries has improved** notably with the utilisation of C-Arm technology as it provides real-time high resolution imaging during surgeries. Additionally, the workload on **radiological staff has reduced**, indicating smoother and more efficient diagnostic processes.



Figure 1: Diagnostic facilities at ESIC hospital Faridabad

3.3 Efficiency

Utilisation mechanism of medical equipment for effective patient management

The efficiency of the project is evident in the optimal utilisation of medical equipment by hospital staff for effective patient management. By integrating state-of-the-art equipment, the hospital staff can streamline their workflow, ensuring timely and accurate diagnosis and treatment. The provided equipment has significantly enhanced the hospital's capacity to handle emergency trauma surgeries, enabling swift responses and better patient outcomes.

Maintenance of the equipment

At ESIC Hospital Faridabad, equipment maintenance is managed by dedicated staff members, typically Operating Theatre Assistants (OTAs) or Technicians (OTTs). Their primary responsibility is to regularly inspect equipment, such as the Ultrasound machine, ensuring it functions correctly. They maintain a [schedule for these checks](#) and promptly report any issues to the appropriate service personnel.

Additionally, for more extensive maintenance needs, [ESIC Hospital Faridabad engages with external companies like CARM](#). These companies conduct regular visits to the hospital to examine equipment, address any problems, and ensure smooth operation. This arrangement ensures that all equipment at ESIC Hospital Faridabad remains in optimal condition to provide quality care to patients.



Figure 2: Equipment at the ESIC hospital, Faridabad

Equipment	Total Number of patients treated (since installation)	Average per day utilisation time of the machine	Down time of the machine	Condition of equipment	Date of previous service/ maintenance	Next service	Frequency of calibration
C Arm	1150	6 hours/day	NA	Functional	Oct-23	Apr-24	As and when required
Ultra Sound Machine (Portable)	6000-6500	8-10 hours/day	NA	Functional	Feb-24	Aug-24	As and when required
500 mA High Frequency X Ray Machine	Not in use till date, machine issued on 16/04/2022						
Anaesthesia Work Station (Portable)	1500-1600	6-8 hours/day	NA	Functional	Feb-24	Aug-24	As and when required

Table 6: Equipment checklist

Challenge

The hospital has not yet begun utilising the 500 mA High Frequency X-ray machine due to internal documentation issues.

3.4 Coherence

The initiative by HDFC Bank involved supplying state-of-the-art equipment to ESIC Hospital, Faridabad, aligning seamlessly with the following policies.




Mission	Objectives
<p>National Rural Health Mission (NRHM)</p> 	<p>Improving healthcare services in rural areas, including the establishment and upgradation of healthcare facilities.</p>
<p>National Urban Health Mission (NUHM)</p> 	<p>Enhancing healthcare infrastructure and services in urban areas, including the development of critical care facilities such as ICUs in government hospitals.</p>
<p>Ayushman Bharat Pradhan Mantri - Jan Arogya Yojana (AB PM-JAY)</p> 	<p>Help reduce catastrophic expenditure for hospitalisations, which impoverishes people and will help mitigate the financial risk arising out of catastrophic health episodes.</p>

Table 7: Alignment with national policies

3.5 Impact

Diagnostic Services

Decrease in response time for diagnostic results

The equipment provided has helped in decreasing the response times during emergencies at ESIC Hospital Faridabad. By quickly identifying life threatening situations like [pneumothorax and internal bleeding](#), tools such as the Sonosite Ultrasound (USG) and C-Arm technology enable medical staff to act promptly.

For example, the USG machine is used for tasks like [Intracranial Pressure \(ICP\) monitoring and placing central lines](#), which helps speed up response times. Similarly, C-Arm technology makes it easier to assess traumatic injuries quickly, leading to faster treatment decisions.

These improvements are evident in the reduced time it takes to get diagnostic results. With these advanced tools, the hospital can diagnose emergencies faster, ensuring patients receive timely care. This commitment to quick and effective treatment underscores the hospital's dedication to patient well-being.

Decrease in cost of diagnostic tests incurred by patients

The project has shown impressive efficiency by lowering the cost of diagnostic tests for patients. With access to advanced diagnostic technologies, the hospital has reduced the need for expensive procedures, easing the financial burden on patients. This cost-saving measure

has made quality healthcare more accessible to all, ensuring fair treatment for everyone without incurring any additional costs.

Overall Impact

The addition of advanced equipment has significantly enhanced patient care within the hospital. With approximately 6000-6500 patients diagnosed or treated using the USG yearly and 100-150 procedures conducted with the anaesthesia workstation, the impact on patient care is substantial.

One notable improvement is the overall patient care, particularly due to the implementation of the USG machine. This technology has led to quicker diagnoses and improved services, resulting in reduced waiting times for patients. Additionally, the utilisation of C-Arm technology has further enhanced services, contributing to a decrease in waiting lists for procedures.

Moreover, the newly deployed equipment has positively influenced patient outcomes and recovery rates. For instance, the USG machine aids in providing clear judgments on fluid responsiveness, lung condition, and heart condition on a daily basis. This timely and accurate information allows for faster treatment decisions, ultimately leading to improved recovery rates for patients.

3.6 Sustainability

To ensure the sustainability of the project, it's crucial to focus on maintenance, training, and continuous improvement.

1. **Regular Maintenance:** Implement a comprehensive maintenance schedule for all medical equipment provided to ESIC Hospital Faridabad. This schedule should include routine inspections, preventive maintenance measures, and prompt repairs as needed. By proactively addressing maintenance issues, the hospital can ensure the long-term functionality and reliability of the equipment.
2. **Increasing the availability of Point-of-Care Ultrasound (POCUS) machines,** such as the USG, must be prioritised to enhance time and manpower utilisation. By ensuring more of these machines are accessible throughout the hospital, medical staff would be able to efficiently conduct diagnostics and make timely treatment decisions, ultimately improving patient care.
3. **Implementing a system for regular replacement of oxygen sensors for machines,** particularly at workstations, is essential. Oxygen sensors are critical components for ensuring accurate readings and maintaining equipment performance. By adhering to a schedule for sensor replacement, potential issues can be prevented, thus ensuring the reliable and efficient operation of medical equipment.
4. **Staff Training:** Provide ongoing training programmes for hospital staff on the proper use and maintenance of diagnostic equipment. Training sessions should cover equipment operation, troubleshooting, and safety protocols. By equipping staff with the necessary skills and knowledge, the hospital can optimise the utilisation of the equipment and mitigate the risk of malfunctions or accidents.
5. **Ensuring Quality Assurance through Regular Visits by Service Personnel:** Establish quality assurance protocols to monitor the performance and effectiveness of the medical equipment. Conduct regular audits and assessments to ensure compliance with safety standards and regulatory requirements. Identify areas for improvement and implement corrective actions to enhance the quality and reliability of healthcare services provided.

6. **Feedback Mechanism:** Implement a feedback mechanism to gather input from hospital staff and patients regarding the functionality and usability of the equipment to identify any issues or challenges faced in operating or maintaining the equipment.



CSRBOX & NGOBOX

806-808, Shivalik Satyamev
Near Vakil Saheb Bridge, Bopal Rd,
Bopal, Ahmedabad, Gujarat 380058