



GRACE HOSPITAL

Group AC

BUSINESS PROCESS ANALYSIS

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HOSPITALSECURITIES

01

HOSPITALSECURITIES



HOSPITALSECURITIES

● *HospitalSecurities*

Our mission is to identify and address inefficiencies, such as non-value-adding steps, waste, and bottlenecks. We strive to minimize complaints, boost satisfaction, and optimize hospital operations for an efficient and effective experience.

● *Background*

Founded in 2010 by a team of two consultants, two software engineers, and one technology management expert, we specialize in digital process automation and dynamic case management applications.

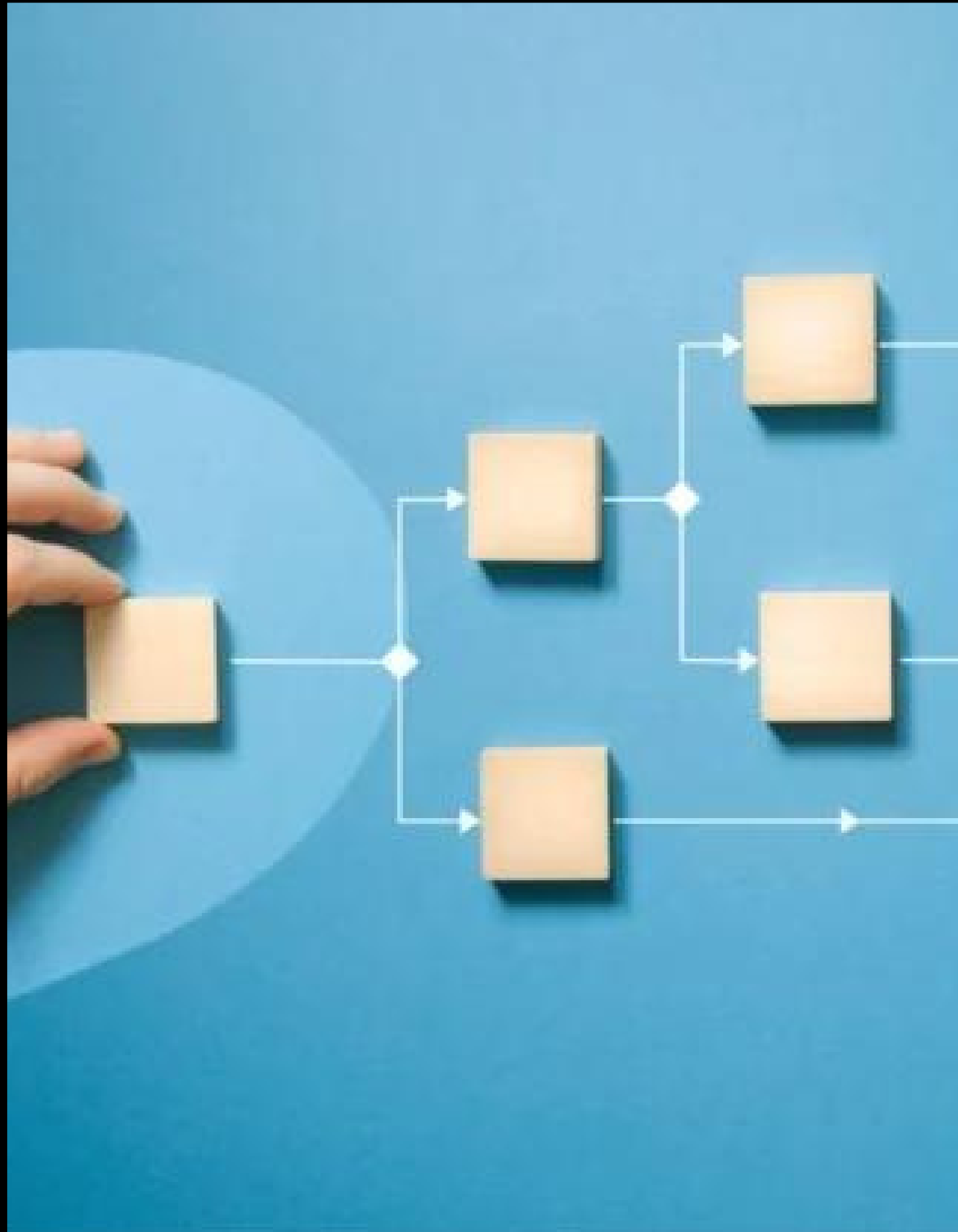
Our goal is to improve business processes of the respective Hospitals, providing solutions by optimizing teams, making processes more intuitive and efficient.



HOSPITALSECURITIES

02

GRACE HOSPITAL PROBLEMS





GRACE HOSPITAL PROBLEMS

Customer dissatisfaction due to the **time consuming** from the **process of the attending patients**.

Customer dissatisfaction about the **delays of the medical consultation**.

Customer dissatisfaction about the **lack of information from the staff**

Customer dissatisfaction about the **inefficient to make a new appointment after payment**, they need to go to **another department**.

Customer don't know how much time they must wait.

Employees dissatisfaction with the **lack of communication service between the patient and the hospital**.

Grace Hospital wastes materials like **paper , printer and toners**, this is bad for the environment and have costs associated.

Grace Hospital is not focused on the **customer service process**.

03

GRACE HOSPITAL

RESOURCES MANAGEMENT



GRACE HOSPITAL RESOURCES MANAGEMENT

Regarding Average Time:

AS-IS TO-BE

Grace Hospital: 32.49 minutes → 30.16 minutes
Admission Process: 5.12 minutes → 2.71 minutes
Call Patients: 0.51 minutes → 0.52 minutes
Make Consultation: 16.24 minutes → 15.55 minutes
Finalize Consultation: 5.95 minutes → 3.54 minutes

Regarding Average Time Waiting:

AS-IS TO-BE:

Admission Process: 2.97 minutes → 0.59 minutes
Call Patients: 0.01 minutes → 0.02 minutes
Make Consultation: 3.13 minutes → 0.36 minutes
Final Consultation: 3.18 minutes → 0.77 minutes

Regarding Total Time Waiting:

AS-IS TO-BE

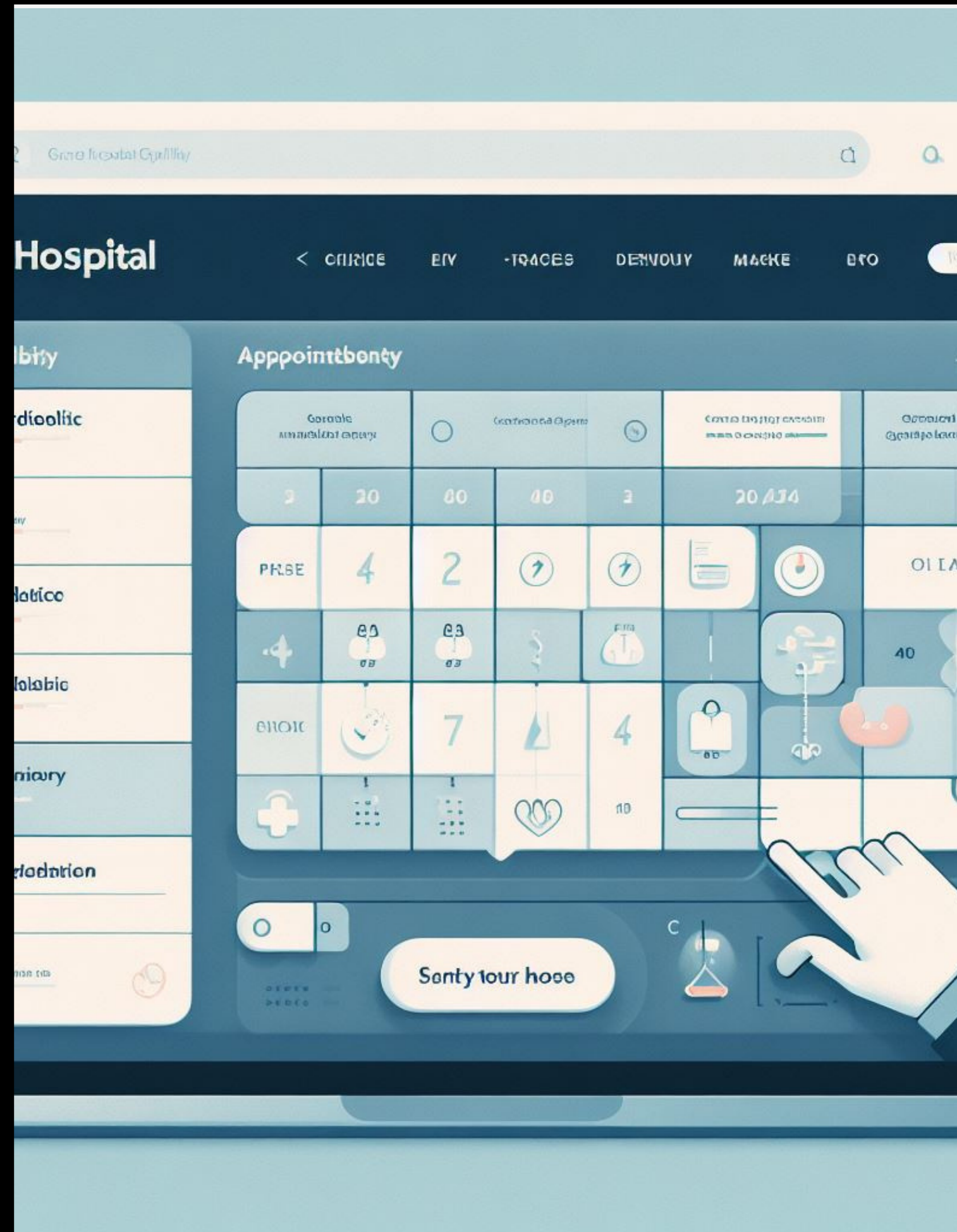
Grace Hospital process: 1667.25 minutes → 313.59 minutes
Admission Process: 594.40 minutes → 118.59 minutes
Call Patient: 1.23 minutes → 3.8 minutes
Make Consultation: 559.71 minutes → 62.02 minutes
Finalize Consultation: 511.82 minutes → 129.19 minutes

Name	Type	Instances started	Instances completed	Avg. time (m)	Avg. time waiting for resource (m)	Total time waiting resource (m)
Grace Hospital AS-IS Process	Process	200	195	32.49		1667.15
Receive Patient	Start event		200			
Admission Process	Task	200	200	5.12	2.97	594.40
Patient is admitted?	Gateway	200	200			
Patient Left Hospital	End event		21			
Wait for Doctor's Availability	Intermediate event	179	179			
Call Patient	Task	179	179	0.51	0.01	1.23
Make Consultation	Task	179	176	16.24	3.13	559.71
Patient realized immediately the payment?	Gateway	176	176			
Patient Left Hospital	End event		15			
Finalize Consultation	Task	161	159	5.95	3.18	511.82
Patient Left Hospital	End event		159			

Table 1: Output of Simulation of Grace Hospital without System (AS-IS)

Name	Type	Instances started	Instances completed	Avg. time (m)	Avg. time waiting for resource (m)	Total time waiting resource (m)
Grace Hospital TO-BE Process	Process	200	188	30.16		313.59
Patient Received	Start event		200			
Admission Process	Task	200	198	2.71	0.59	118.59
Patient pays for the Consult?	Gateway	198	198			
Patient Left Hospital	End event		21			
Patient Consult Payment Realized	Intermediate event	177	177			
Call Patient	Task	177	176	0.52	0.02	3.8
Wait for Doctor's Availability	Intermediate event	176	174			
Make Consultation	Task	174	168	15.55	0.36	62.02
Finalize Consultation	Task	168	167	3.54	0.77	129.19
Patient Left Hospital	End event		167			

Table 2: Output of Simulation of Grace Hospital with System (TO-BE)



04

IMPROVEMENT FINANCIAL ANALYSIS



IMPROVEMENT FINANCIAL ANALYSIS

Business Process Management - Grace Hospital

Alteration	Expected Effect	Cost/Gain
Device Implementation (Hospital HealthCare Medical Self-Service Kiosk) Hongzhou CO.,LT	Increase cost in short term, but decrease in the long term	\$9500 One-time (10 devices for the hospital)
System Implementation (patient scheduling system) Booknetic CO.,LT	Increase cost in short term, but decrease in the long term	\$79 One-time
Dismissing 1 Internal Staff	Decrease Costs	\$750 per month
Reduction of Prints and paper	Decrease Costs	---

RETURN OF INVESTMENT (ROI) **MUST BE HIGHER THAN 7%:**

- *Amount Gained: 750\$ x 14 months = **10500 \$***
- *Amount Spent: 9500+79 = **9579 \$***

RETURN OF INVESTMENT (ROI):

$$\text{ROI: } \frac{(\text{AMOUNT GAINED} - \text{AMOUNT SPENT})}{\text{AMOUNT SPENT}} \times 100 = ?$$

$$\text{ROI: } \frac{(10500 - 9579)}{9579} \times 100 = \mathbf{9.61\%}$$

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CONCLUSION





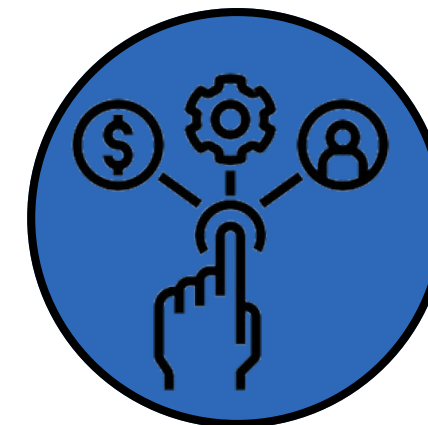
CONCLUSION

● **Conclusion**

In conclusion, it is necessary for Grace Hospital to invest much on the system. Although this improvement means a considerable investment , in the long term, the hospital can save costs and improve the patient experience.



Turn the process of ticket collection more efficient.



Better allocation of the resources available.



Innovate the information technology system.



Reduce the cost of paper and support the ecological footprint.

A nurse in light blue scrubs with a stethoscope around her neck is attending to a male patient lying in a hospital bed. The room is bright, with a large window in the background showing a city skyline. Medical equipment, including an IV stand and a monitor displaying vital signs, is visible. A blue banner with white text is overlaid on the image.

Thank You!