

Learning from the Trenches in Singapore

Aug 29th 2025

Hospital Operations & Provider Efficiency

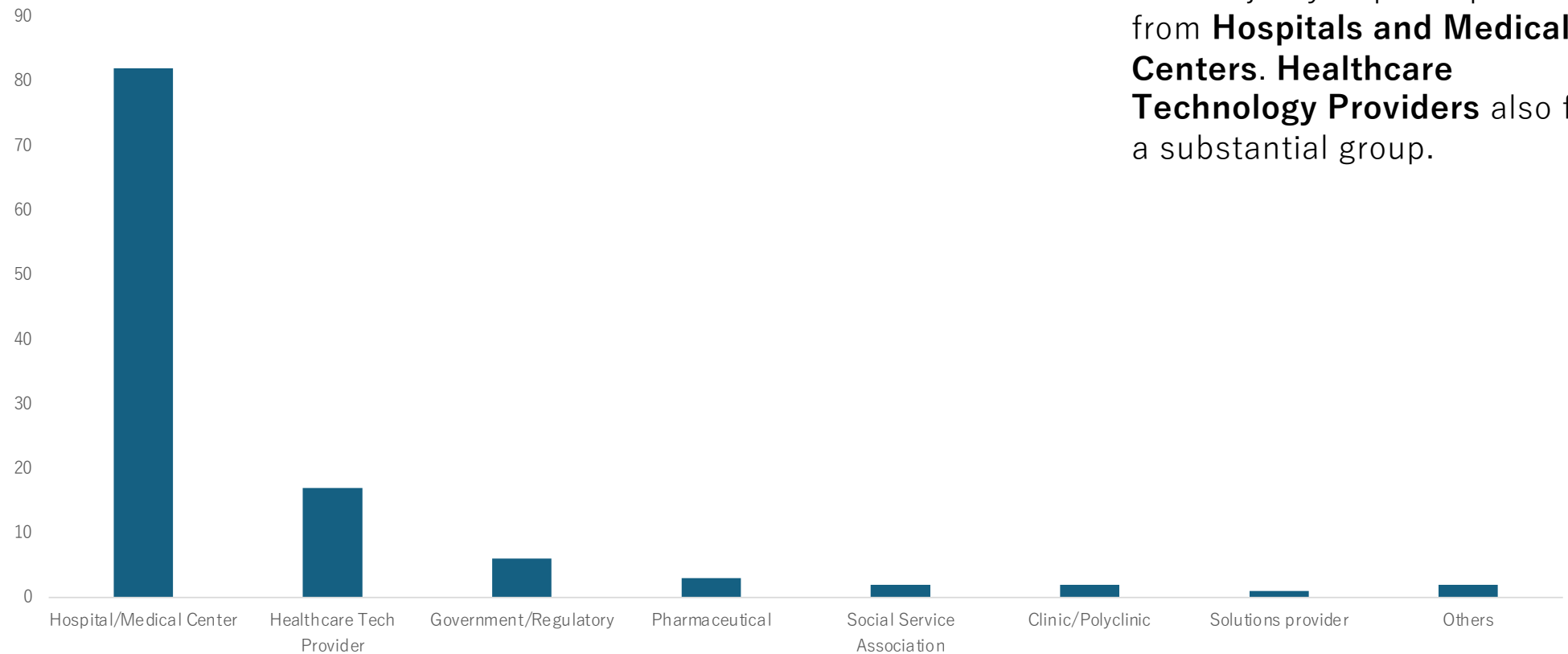
Share stories from Japan and learn about opportunities for Disha to provide near-term benefits and tangible wins at the edge of care in Singapore - Opportunities which are low-resistance, high-impact scenarios which can pave the way to build a useful, accessible, and scalable system that adapts to the habits of providers.

Because

"Happy Providers make Happy Patients"

Long-tail distribution of the workshop participants

Sector-wide interest



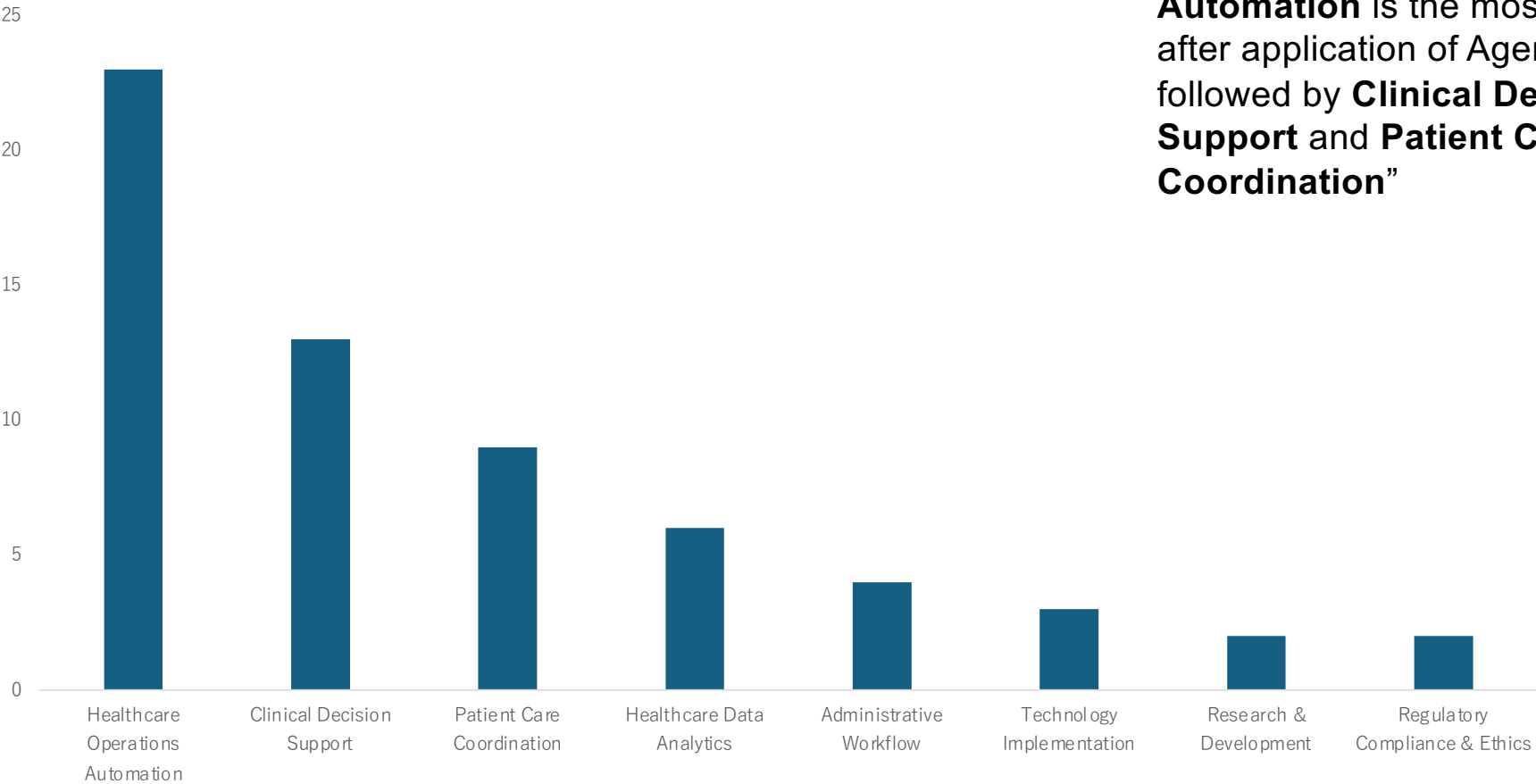
Interest across the entire healthcare value-chain

The majority of participants are from **Hospitals and Medical Centers. Healthcare Technology Providers** also form a substantial group.

Long-tail distribution of the participant interest

Key Areas of Interest in Agentic AI

“**Healthcare Operations Automation** is the most sought-after application of Agentic AI, followed by **Clinical Decision Support** and **Patient Care Coordination**”



Stories from the stations

Keio University Hospital

Keio University is an academic medical science center and tertiary medical institution affiliated with Keio University, and is a long-established university hospital in Tokyo, celebrating its 125th anniversary.

Location: Tokyo, Japan
Number of Beds: 1071

The CMRI hospital in Kolkata

A well-known private hospital in Kolkata and was established by the CK Birla Group.

Hospital: CMRI (Calcutta Medical Research Institute)

Location: Kolkata, India
Number of Beds: 440

The SRM Medical College Hospital & Research Centre

The hospital has a total of 1,590 beds dedicated to tertiary care, with some sources also listing 1,540 beds (1,290 teaching beds and 250 non-teaching beds)

Location: Chennai, India
Number of Beds: 1590



Keio University Hospital

慶應義塾大学病院

業種 : 医療

病床数 : 950床 (2023年4月現在)

患者数 : 外来患者数 延べ人数 : 836,773人 / 1日平均 : 3,088人

入院患者数 延べ人数 : 283,696人 / 1日平均 : 777人
(2021年度)



目的 同意書や紹介状などの紙の診療諸記録を電子化し、電子カルテとひも付けることで医療現場を支える。

対応 スキャンセンターにA3フラットベッド付きモデルのスキャナーなど4台、医療連携推進部にA4モデルのスキャナーなど5台、臨床検査科にA4高速スキャナー1台を導入。

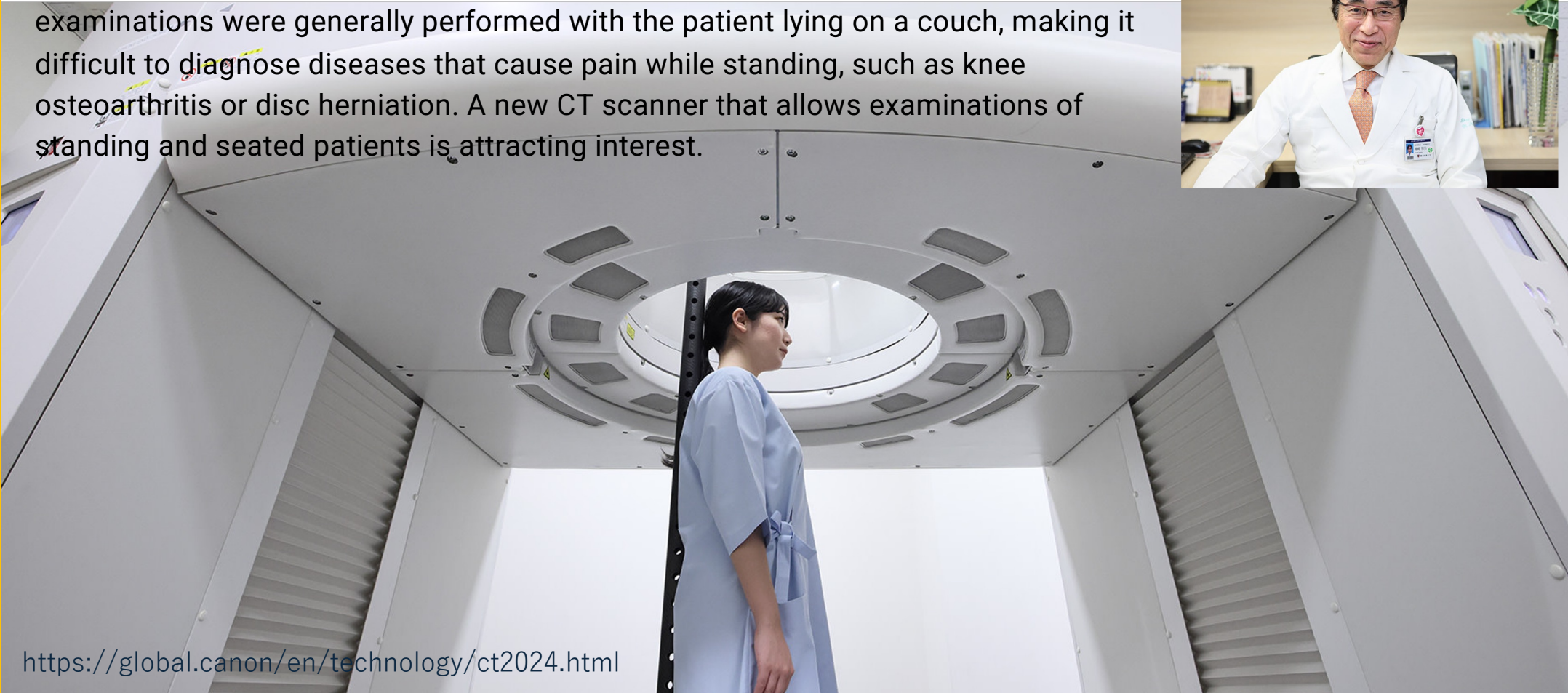
効果

- 電子カルテから診療諸記録の参照が可能になり、病院全体で共有
- 紙の診療諸記録をe-文書法に沿った電子データとして保存、さらに管理や検索にかかる業務負担を軽減

A CT system for scanning standing patients



A CT scanner uses X-rays to obtain cross-sectional images of the body, enabling visualization of lesions just a few millimeters in size within the body. Until now, examinations were generally performed with the patient lying on a couch, making it difficult to diagnose diseases that cause pain while standing, such as knee osteoarthritis or disc herniation. A new CT scanner that allows examinations of standing and seated patients is attracting interest.



<https://global.canon/en/technology/ct2024.html>

Creating a seamless workflow from sample application to reporting

検体塗布から報告まで、シームレスなワークフロー構築へ

G) 微生物検査室

Microbiology
Laboratory

BD キエストラ™ ReadA 自動撮影機能付きふらん器

- ➡ 培養時間の管理・自動撮影
- ➡ ピークタイムの処理遅延を防ぐ独立レーン構造
- ➡ 微生物検査をデジタル化・業務の見える化



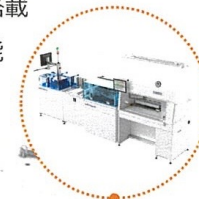
BD キエストラ™ IdentifA 全自動釣菌装置

- ➡ 検査技師の指示を元に自動で動作
- ➡ プロセス間のトレーサビリティ確保



BD キエストラ™ Inoqua 全自動塗布装置

- ➡ 容器変更を必要としない半自動モード搭載
- ➡ 国内容器もバリデーション後に使用可能
- ➡ 分離精度向上による再検査低減



EHR + Scanner

Ricoh FI Scanner System

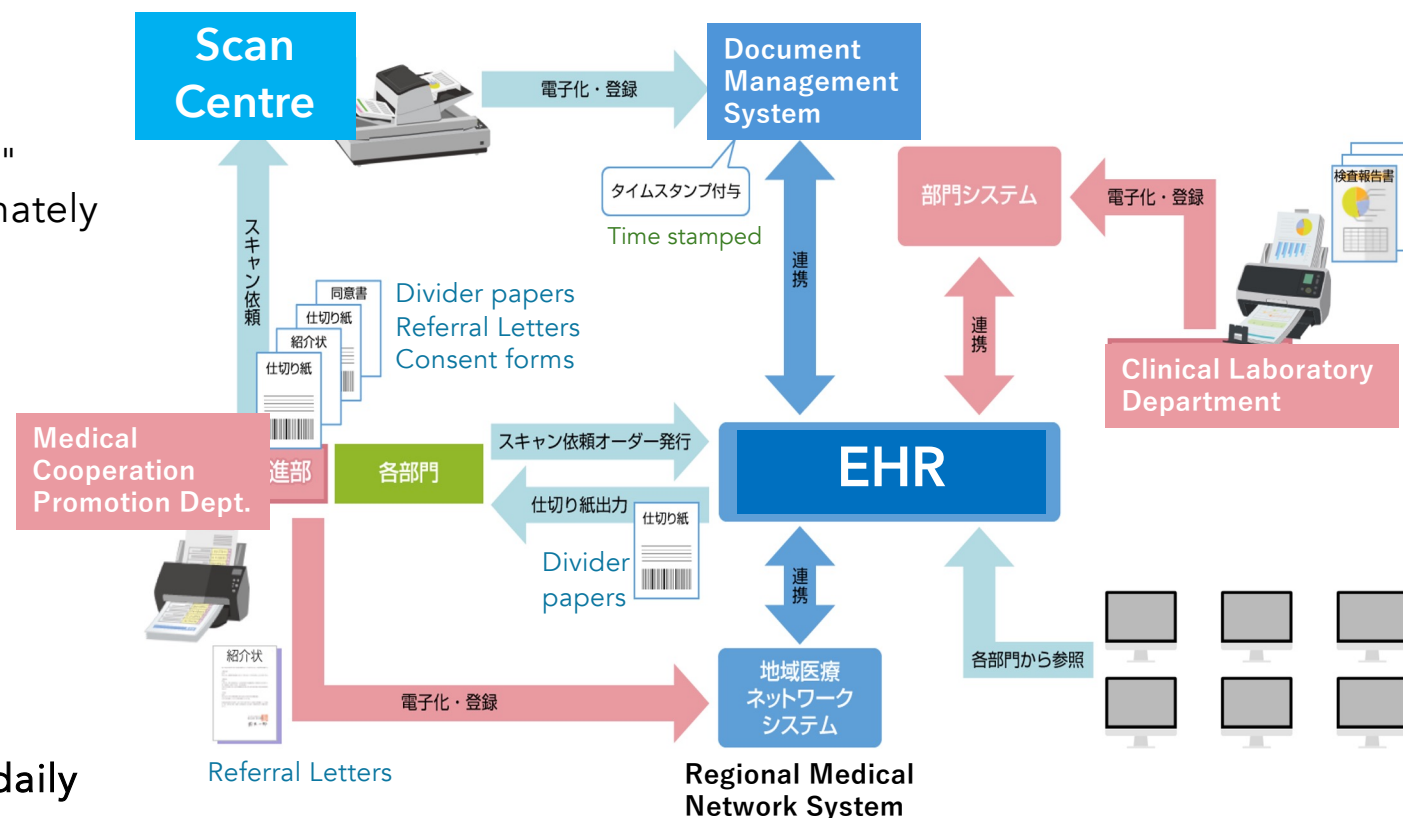
As a "special function hospital," it serves an average of approximately 3,000 outpatients per day.

2012: Installed

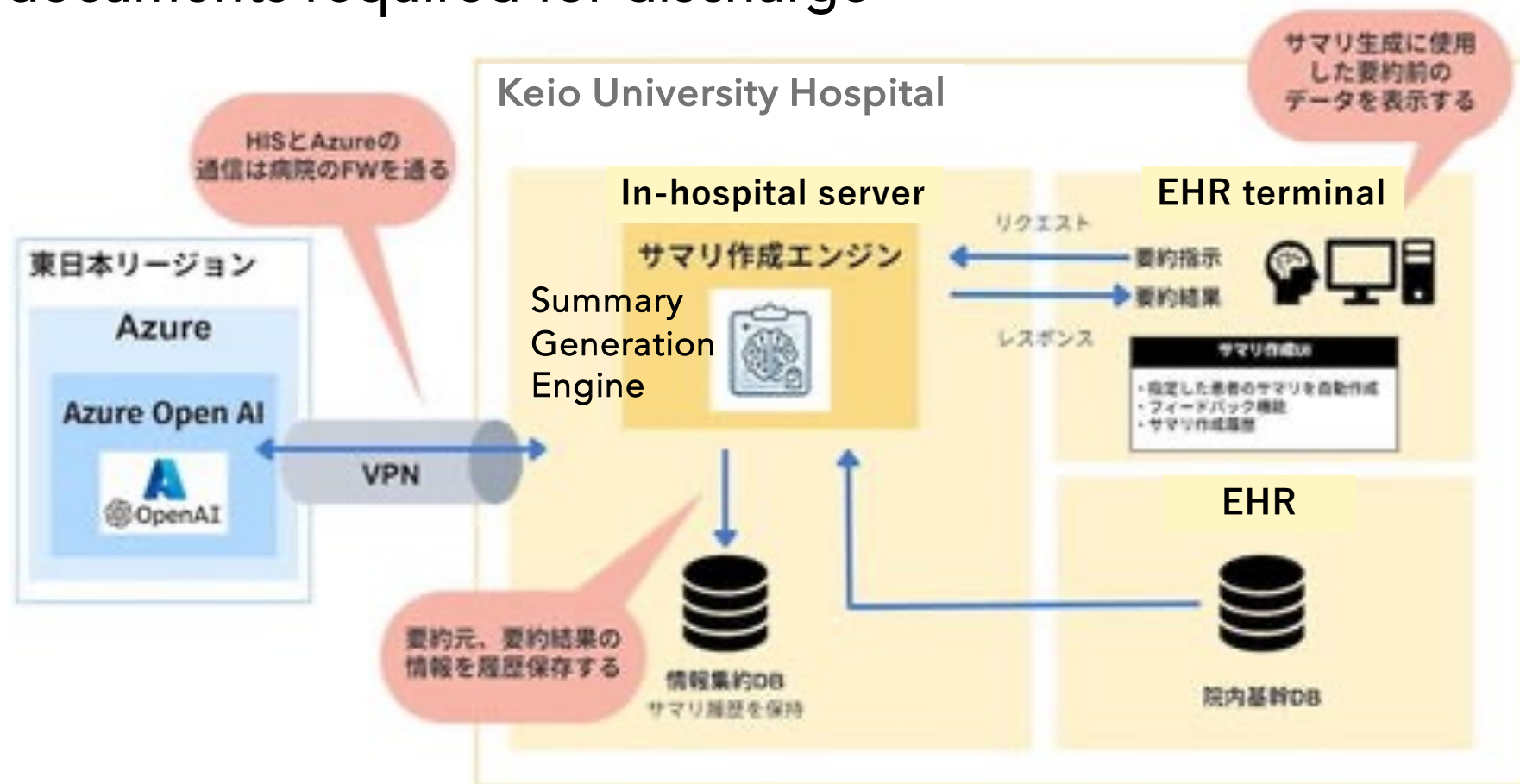
- an electronic medical record system
- a Fi series commercial scanner.

Data collected through the E-Document Act is stored.

Referral letter generation 250 daily



Keio University Hospital develops generative AI system to draft documents required for discharge



GE Healthcare Japan Supports Keio University Hospital in Implementing Data-Driven Hospital Operations

タイトル名	内容
★Capacity Snapshot	病院全体の稼働状況をリアルタイムで可視化
★Capacity Forecast Analyzer	病床稼働率の過去データから稼働傾向分析と予測をタイルに表示
★Discharge Tasks	退院を阻む要因を特定し、優先度の高い課題を示し、DPC II 期間内の退院を目指す
Inpatient Growth	病棟・診療科毎の入院患者数稼働率実数を表示
Staffing Forecast	看護師の忙しさを把握し、病床毎に対応する人的資源を可視化
Unit Event	入院患者の検査区分ごとの予約状況を可視化
NEWS Scoring	重症患者に焦点を当てた可視化ツール。RRTチームでも活用
Patient Flow	入院/退院/転入/転出情報の一覧表示

Capacity Snapshot (病床稼働率の把握)

CAPACITY SNAPSHOT

Printed Flow

ICU/ISU Loading

Discharge Tools

Unit Events

Staffing Forecast

Systemed Growth

666

予見患者数

666

高床患者数

病棟名	稼働病床数	現在の患者数	利用率	空き合計	4床男	4床女	4床V男	4床V女	3床	一般病室	重症病室	緊急受け入れ	本日予定入院数	翌日予定入院数	空床数(10/1)
ICU	8	4	<div><div></div>50%</div>	5	0	1	2	1	0	0	1	0	0	0	--
HCU	6	5	<div><div></div>83%</div>	7	2	2	1	1	0	0	1	0	0	0	--
急性期	14	9	<div><div></div>64%</div>	3	1	0	1	0	0	1	0	0	0	0	-
4A	38	32	<div><div></div>84%</div>	5	1	0	3	1	0	0	0	4	1	4	-2 1
4B	42	41	<div><div></div>98%</div>	7	1	0	2	2	1	1	0	1	0	2	-2 2
5A	44	40	<div><div></div>91%</div>	10	3	1	1	2	1	1	1	1	2	0	3 -3
5B	44	43	<div><div></div>98%</div>	5	2	1	1	1	0	0	0	2	0	1	--
6A	44	41	<div><div></div>93%</div>	8	1	2	0	3	1	1	0	6	1	1	1 1-
6B	44	39	<div><div></div>89%</div>	6	4	1	0	1	0	0	0	2	0	1	2 3 3

Capacity Forecast Analyzer (病床稼働率傾向分析+予測)



Discharge Tasks (退院疎外要因特定&DPC期間)

患者氏名	性別	DPC	クリニカルCA	手術実施日	Device	退院予定日	最終退院日
SA 530A 1	男	心不全なし DPC期間: 1	under -3	2021/9/19	1	0	
SA 509A 1	女	心不全なし DPC期間: 1	under -9	2021/9/24	1	0	
SB 507B 1	男	脳梗塞(その) DPC期間: 1	over: 462	2020/5/10	3	6	2021/9/28
SB 528B 1	女	脳梗塞なし DPC期間: 1	over: 45	2021/8/1	2	1	2021/9/14
SB 505B 1	女	脳梗塞なし DPC期間: 1	over: 45	2021/7/29	2	1	2021/9/14
7B 700B 3	男	脳梗塞(出血を含む) DPC期間: 1	over: 9	2021/9/1	1	1	2021/10/1 2021/9/15

<https://prtimes.jp/main/html/rd/p/000000117.000051346.html>

Discharge Summary

1. Hand-written Draft
2. Typed by Nurse
3. Checked by Junior Doctor
4. Confirmed by Referrals

DISCHARGE SUMMARY.

Diagnosis:
1. Acute infarct in right frontal gyrus
2. Cardioembolic stroke
3. Subacute infarct in right fronto temporal region
4. Thin layered thrombus over lateral wall of appendages
5. Hypothyroidism 6. Post DVT (metabolic value)

Chief Complaints:
Sudden onset left sided weakness and transient deviation of angle of mouth.

Examination Findings:
Temp: 36.5 °C afebrile
HR: 80 /min
RR: 16 /min
BP: 130/80 mm of Hg
Pain: 2/10
SpO2: 92 % on RA

Past History/Co-morbidity:
Hypothyroidism
Post DVT (metabolic value)

Food or Drug Interaction/Allergy (if any): Not Known

Referral Hospital:
The patient presented to the hospital with above complaints. A 2D Echo was done. LV cavity, No RWMA, LVEF - 60%, good RV systolic function, Normal function of mitral and aortic valve. Enlarged LA. CT Brain (07/08/2025) -

Cont. Course in Hospital / OT Notes:
The case was referred to Dr. Rohit Kumar for cardiology opinion and the advice was followed.
(9/8) - PT - 26.1, INR - 2.21, aPTT - 10.7
(10/8) - PT - 40, INR - 3.35, aPTT - 34.1
(11/8) - PT - 45.9, INR - 3.83, aPTT - 39.0
TEE done & LA revealed thin layered thrombus over lateral wall of appendages.
Currently, the patient is haemodynamically stable and fit for discharge.

Hb	TLC	DLG	Platelets	PT	PTT	Urine R/M
Sugar	Urea	Creatinine	Na	K	LFT	TP/A6 Trop1

Others (EEG/ECG/X-Ray/USG/CT/MRI/PFT etc.)

Condition at Discharge: ☒ Stable ☐ Fair ☐ Critical

Advice on Discharge

Medication, Diet, Activity & other Instructions:
→ T. Aspirin 4 mg, 1 tab OD
→ T. Statins 50 mg, 1 tab BD
→ T. Sampraz 40 mg, 1 tab ODAC
→ T. Enoxaparin 75 mg, 1 tab ODHS
→ T. Lantus 2.5 mg, 1 tab OD
→ T. Filmonia 50 mg, 1 tab OD, B&F
→ Syp. Adipax 5 ml BD

Diet: Soft, salt and fat restricted diet

When to seek urgent care (please specify conditions when patient has to call to Hospital):
Acute onset of weakness, deviation of angle of mouth, speech difficulty

Follow up on: After 2 weeks with Dr. S. Pal

In case of emergency such as fever > 101°F or vomiting or drowsiness or bleeding / discharge from wound or any other condition which may worry you call up +91 33 3090 3999

Sign: Adrijal **Name:** ADRIJA SEN **Date:** 11/8/25

Status : Saved

2 Typed by Nurse

DISCHARGE SUMMARY.

Diagnosis:

1. Acute infarct in right frontal gyrus
2. Cardioembolic stroke
3. Subacute infarct in right fronto temporal region
4. ~~Thin layered thrombus over lateral wall of appendages~~
5. Hypothyroidism.
6. Post DVR (metallic valve)

Chief Complaints:

Sudden onset left sided weakness and transient deviation of angle of mouth.

Examination Findings:

Temp: Afebrile

HR: 80/min

RR: 16/min

BP: 130/80 mm of Hg

SpO2: 98% on RA

Course in the Hospital:

The patient presented to the hospital with above complaints. A 2D Echo was done, which revealed - in LV cavity, No RWMA, LVEF - 60%, good RV systolic function. Normal function PHV seen in MV and AV with good bi-ventricular systolic function. Enlarged LA. CT Brain (07/08/2025) - Wedge shaped area of hypodensity of grey white matter differentiation in right frontotemporal region including perisylvian, external capsule and insular region - likely subacute infarct. Small lacunae/VR spaces in bilateral gangliocapsular region. (08/08/2025) - PT - 11.8, INR - 1.03. The patient was on anti coagulant drug therapy and PT, INR, aPTT was monitored serially for the next 3 days. CT Brain (11/08/2025) - Evolving subacute infarct in right front-temporal region including perisylvian, external capsule and insular region. Appearance of new wedge shaped area of hypodensity in adjacent right inferior frontal gyrus. No significant increase in size of the parenchymal haemorrhage. No significant change in pericardial shift. No evidence of fresh parenchymal haemorrhage in any other part of the brain. No significant change in size of the ventricles. The neuro-parenchyma shows no significant interval change. The case was referred to Dr. Rohit Kumar for cardiology.

3 Correction

DISCHARGE SUMMARY.

Diagnosis:

1. Acute infarct in right inferior frontal gyrus
2. Cardioembolic stroke
3. Subacute infarct in right fronto temporal region
4. Hypothyroidism.
5. Post DVR (metallic valve)

Chief Complaints:

Sudden onset left sided weakness and transient deviation of angle of mouth.

Examination Findings:

Temp: Afebrile

HR: 80/min

RR: 16/min

BP: 130/80 mm of Hg

Pain: 2/10

SpO2: 98% on RA

Course in the Hospital:

The patient presented to the hospital with above complaints. A 2D Echo was done, which revealed - in LV cavity, No RWMA, LVEF - 60%, good RV systolic function. Normal function PHV seen in MV and AV with good bi-ventricular systolic function. Enlarged LA. CT Brain (07/08/2025) - Wedge shaped area of hypodensity of grey white matter differentiation in right frontotemporal region including perisylvian, external capsule and insular region - likely subacute infarct. Small lacunae/VR spaces in bilateral gangliocapsular region. (08/08/2025) - PT - 11.8, INR - 1.03. The patient was on anti coagulant drug therapy and PT, INR, aPTT was monitored serially for the next 3 days. CT Brain (11/08/2025) - Evolving subacute infarct in right front-temporal region including perisylvian, external capsule and insular region. Appearance of new wedge shaped area of hypodensity in adjacent right inferior frontal gyrus. No significant increase in size of the parenchymal haemorrhage. No significant change in pericardial shift. No evidence of fresh parenchymal haemorrhage in any other part of the brain. No significant change in size of the ventricles. The neuro-parenchyma shows no significant interval change. The case was referred to Dr. Rohit Kumar for cardiology.

When hand-written,
Obvious words omitted

Typo mistakes sneaked in when typing

2 Typed by Nurse

11.8, INR - 1.03. The patient was started on anti coagulant drug therapy and for the next 3 days. CT Brain (10/08/2025) - _____. The case was referred to Dr. Rohit Kumar for cardiology opinion and the advice was followed. (09/08/2025) - PT - 26.1, INR - 2.21, aPTT - 40.7. (10/08/2025) - PT - 40, INR - 3.35, aPTT - 34.1. (11/08/2025) - PT - 45.9, INR - 3.83, aPTT - 39.0. TEE done under local anesthesia revealed thin layered thrombus over lateral wall of appendages. Currently, the patient is hemodynamically stable and fit for discharge.

Referrals:

Dr. Rohit Kumar (Cardiologist)

Brief description of Procedure/Surgery: Nil

Condition at Discharge: Stable

and the advice was followed. (09/08/2025) - PT - 26.1, INR - 2.21, aPTT - 40.7. (10/08/2025) - PT - 40, INR - 3.35, aPTT - 34.1. (11/08/2025) - PT - 45.9, INR - 3.83, aPTT - 39.0. TEE done under local anesthesia revealed thin layered thrombus over lateral wall of appendages. Currently, the patient is hemodynamically stable and fit for discharge.

Referrals: Dr. Rohit Kumar (Cardiologist)

Condition at Discharge: Stable

3 Correction

Medications, Other instructions added at the last round of Confirmation by Referrals

Referrals: Dr. Rohit Kumar (Cardiologist)

Condition at Discharge: Stable

Discharge Advice:

Diet:

Soft, salt and fat restricted diet

Discharge Medications:

Tab Acitrom 4mg 1 tab once daily. [TARGET INR - 2-3] Check INR, PT, APTT on 15.8.25 and 18.8.25
Tab Strocit 500mg 1 tab twice daily.
Tab Sompraz 40mg 1 tab once daily before food.
Tab Ecosprin 75mg 1 tab once daily at bedtime.
Tab Concor 2.5mg 1 tab once daily.
Tab Eltroxin 50mcg 1 tab once daily before breakfast.
Syp Adiface 5ml twice daily

Other Instructions:

To Review with DR. M.K. DAGA (B.M. BIRLA) @ OPD OR ER SOS.
Follow up with Dr. Subhajit Pal after 4 weeks with prior appointment from: 9007666395
When to obtain urgent care: In case of acute onset of weakness, deviation of angle of mouth, speech difficulty.

How to obtain urgent care : In case of Emergency please contact: 033 - 40904163

Referrals: Dr. Rohit Kumar (Cardiologist)

Condition at Discharge: Stable

Discharge Advice:

Diet:

Soft, salt and fat restricted diet

Discharge Medications:

Tab Acitrom 4mg 1 tab once daily (Target INR - 2.3)
Tab Strocit 500mg 1 tab twice daily.
Tab Sompraz 40mg 1 tab once daily before food.
Tab Ecosprin 75mg 1 tab once daily at bedtime.
Tab Concor 2.5mg 1 tab once daily.
Tab Eltroxin 50mcg 1 tab once daily before breakfast.
Syp Adiface 5ml twice daily

Other Instructions:

Check INR, PT, APTT on 15/08/2025 and 18/08/2025.
Follow up with Dr. Subhajit Pal after 1 week with prior appointment from: 9007666395
To Review with Dr. M. K. Daga (B.M. Birla) at OPD or ER SOS.
When to obtain urgent care: In case of acute onset of weakness, deviation of angle of mouth, speech difficulty.

How to obtain urgent care : In case of Emergency please contact: 033 - 40904163

3 Corrected but further addition

4 Final Confirmation

O.P. Record Booklet

INITIAL ASSESSMENT					
Date	Pulse/min	BP (mm Hg)	Height (cm)	Weight (kg)	BMI
24/3/25	82 min	156/80	171 cm	64.7 kg	21.90
27/3/25	90 bpm	159/80	171 cm	65 kg	22.26
11/04/25	88 bpm	146/76	171 cm	63.5 kg	21.72
17/4/25	85 bpm	136/82	171 cm	63 kg	21.55

24 MAR 2025

CS UNIT-I

CIBIB

Dr. Reagan

Patient referred to Dr. Reagan

clo swelling over @ groin x 4 years

clo ↑ in size

no clo pain over swelling

the lifting heavy weights @ 250kg

old - PA - soft, BS @

no scars

(R) Inguinal - 5x5cm hemispherical

MEDICAL COLLEGE HOSPITAL & RESEARCH CENTRE
 150/001 - 2015
 150/001 - 2015
 150/001 - 2015

O.P. RECORD

UHD No : 3781840
 Date : 24-Mar-2025 08:58
 Department : General Surgery - Unit-IV
 Name : [REDACTED]
 Age : [REDACTED]
 Marital Status : Married
 Name of F/M/H/O : S/O ANGAPPA
 Contact No : [REDACTED]
 Address : [REDACTED]
 City : Salem
 State : Tamil Nadu

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 www.srmhospital.edu.in

24 MAR 2025

INIT-I

Case Seen by Dr. Reagan Jose

(R) Inguinal hernia

Adverse

Plm for Lap/Dien

Inguinal hernia

Admission #

GS - I

9 reasons why Healthcare AI fails in the real world even when the model is flawless

- 1. It adds steps, not decisions.*
- 2. It's built beside the workflow, not into it.*
- 3. The success metric is academic.*
- 4. It solves a problem no one owns,*
- 5. It automates analysis, not action*
- 6. It requires clinician behaviour change.*
- 7. It doesn't integrate with core systems.*
- 8. There's no trigger for action*
- 9. It forgets that success is invisible.*

Points to Ponder

Healthcare is
Risk-based not
opportunity-based

Risk flows to
providers

Intelligence comes in
all sizes (S,M,L)

Any agent on
existing system is
easier to deploy and
distribute

Thermostats not
thermometers

AI is not about
automation only, its
about access

Technology is
fragmented driven by
constrained
procurement

Integration trumps
innovation

Lessons to Learn

Healthcare moves
at the speed of
Trust

AI
Assurance of
Intelligence

Interfaces are an
obstacle course

Deployment
Dilemma

Low-stake
environments

Overcoming
Trust Gap

Local Intelligence

Re-claiming Silos

Can we work together?

Jobs most likely (and least likely) to be replaced by AI

DEZERV

Professions with the highest and lowest risk of AI-driven disruption:

Job Title	% of tasks AI can do
Interpreters and Translators	98
Historians	91
Mathematicians	91
Proofreaders and Copy Markers	91
CNC Tool Programmers	90
Writers and Authors	85
Sales Representatives of Services	84
Technical Writers	83
News Analysts, Reporters, Journalists	81
Passenger Attendants	80
Telephone Operators	80
Farm and Home Management Educators	77
Political Scientists	77
Broadcast Announcers and Radio DJs	74
Brokerage Clerks	74
Customer Service Representatives	72
Ticket Agents and Travel Clerks	71
Concierges	70
Telemarketers	66
Hosts and Hostesses	60
Massage Therapists	10
Eye Care Technicians	4
Surgical Assistants	3
Tire Assembly Workers	3
Helpers-Roofers	2
Roof Mechanic	2
Maids and Housekeeping Cleaners	2
Motorboat Operators	1
Oil Field Workers	1
Logging Machine Operators	1
Gas Plant Operators	1
Road Construction Workers	1
Factory Mold Workers	0
Bridge Operators	0
Dredge Operators	0
Rail-Track Maintenance Workers	0
Water Plant Operators	0
Flooring Workers	0
Foundation Equipment Operators	0
Hospital Support Staff	0

MOST LIKELY
LEAST LIKELY

Source: Microsoft Research

Disha - New Directions

1. From dreaming of breakthroughs to delivering near-term benefits that accelerates a long-term vision
2. From the private sector progressing technology independently to public-private ecosystems driving shared objectives and benefits
3. From fighting on infrastructures to winning on services
4. From leaders with good intentions to leaders who make responsible technical decisions
5. From waiting for guidelines to proactively building trust
6. From dispersed data to deliberate integration

Disha - New Directions

Lighthouse Projects

Collaborate with hospitals
& clinics to develop,
deploy and test
Disha Agents

Global Group Hosital Foundation, india
<https://www.globaluniversityfoundation.com/>

Hopeful Aging, USA
<https://hopefulaging.com/>

The University of Osaka, Faculty of medicine

SRM Medical College Hospital &
Research Centre
<https://medical.srmist.edu.in/>



Hopeful Aging
Innovative Solutions to Enhance Quality of Life
Hopeful Aging, USA
<https://hopefulaging.com/>



SRM Medical College Hospital &
Research Centre
<https://medical.srmist.edu.in/>

HIGHLY CONFIDENTIAL





in a world
of machines...

Thank You

humanity
becomes the
competitive
advantage.