# **100% Elimination of Paper Waste from Normal General X-ray Reports**

# Singapore Healthcare Management 2017

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# BACKGROUND

Normal reports that require no further intervention are printed out, sorted and filed into the respective patient case-notes stored at Medical Records Office.

An average of 20 Normal General X-ray reports are printed and filed in a day. In a week, there are up to 100 print-outs.

These are redundant steps as finalised reports are electronically available on Citrix SCM for viewing by the referring clinician.

# PLAN

	Type of Waste Identified	Process Description	Time Taken/Day	Time Taken/Mth
	Excess Processing	Printing of normal X-ray reports when the reports are already available in SCM.	20min	400min
	Transportation	Staff have to consolidate and dispatch the reports to Medical Records Office.	5min	100min
	Excess Processing	Staff have to sort and organize the reports.	10min	200min
	Inventory	Filling and Storage of the printed reports.	60min	1200min
	Total Time Taken per Month			<u>31.6 hours</u>

# Waste Identified

- **Unnecessary paper-consumption**
- Transportation Waste of staff dispatching x-ray reports Motion Waste of staff sorting and filing x-ray reports

**Storage Waste** 

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Why print Normal Report? The ask why technique was used to drill deeper into the reason for the practice of printing hard copies of the normal reports. It was found that the normal reports are being printed due to doctors' preference in reading hard copy reports.

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Feedback was consolidated from senior consultant doctors (Cardiology and Cardiothoracic Surgery Division) on eliminating the printing of Normal General X-ray reports completely.

Doctor read from case notes? Paper based practice Doctors' preference

In alignment to NHCS goals to be a digital hospital, actions are to be taken to change the process of printing normal reports to reduce waste.

# DO

## INTERVENTION 100% elimination of Normal X-ray reports

Backroom @ Cardiac Radiology

20-25 Normal X-ray reports generated and uploaded on SCM per day

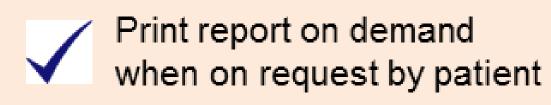


No more printing of Normal X-ray reports

No more dispatch and filing

Doctor's Consultation

Referring doctors at clinic view reports through SCM



Medical Record Office

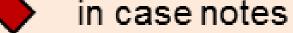
Strong support was given to this paperless operation which cuts down on excess processing and paper cost. As NHCS is progressing in the direction of digital clinical documentation, printing of results to keep in the case notes is to be discouraged.

## CHECK RESULTS

# **380 Man Hours Saved Per Annum!!**

✓ Increase in staff productivity as staff can channel their time to other value-added tasks

✓ Increase in job satisfaction as the new workflow is redesigned for a better work co-ordination and teamwork ✓ Seamless healthcare service provided by investing time and money in paper-less operation which supports the digital heart centre initiatives Paper savings by printing fewer reports which supports our green building initiative



No filing in case notes

Adhoc printing upon patient request at MRO

#### ACT FOLLOW-UP

#### Spin-off

Collaboration with Medical Records Office to extend the project to include other Normal pathology and lab results. **Sustainability** 

Work-in-progress to convince all doctors to practice print-on-request for medical reports and all other Normal reports, results and ClinDoc notes which are available electronically so as to discourage print outs for filing.