

REDUCING UNNECESSARY RADIOLOGY FILM PRINTING

QLL20

TEAM MEMBERS

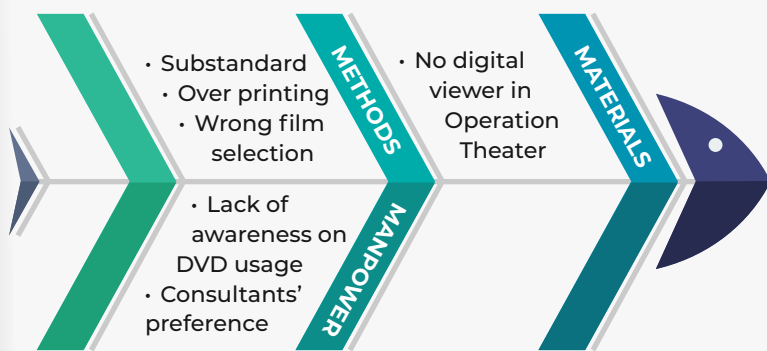
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COLUMBIA ASIA
Columbia Asia Hospital - Setapak
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INTRODUCTION

This study is to address the prevalent issue of overprinting of image films in healthcare environments, specifically focusing on the problem of double printing, and to explore strategies and interventions aimed at reducing unnecessary image film printing while optimizing resource utilization and personal data protection. To achieve a 10% reduction in the overall number of Radiology films printed within four months from July 2023 until October 2023.

GAP ANALYSIS

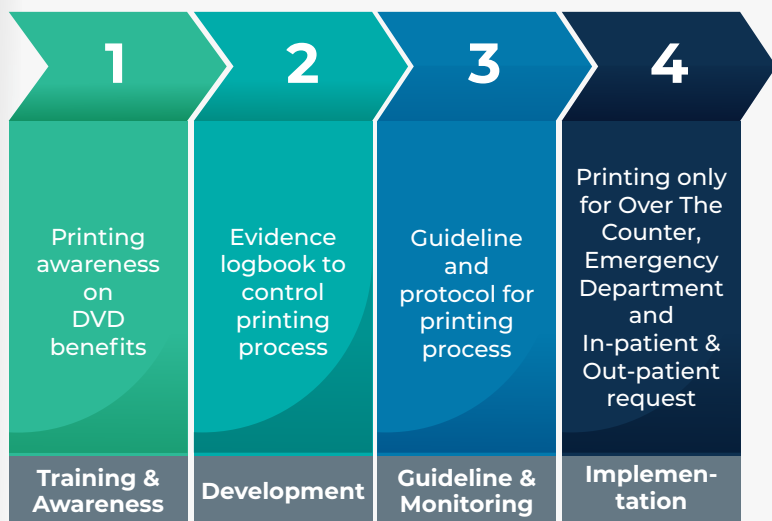


ACTION PLAN

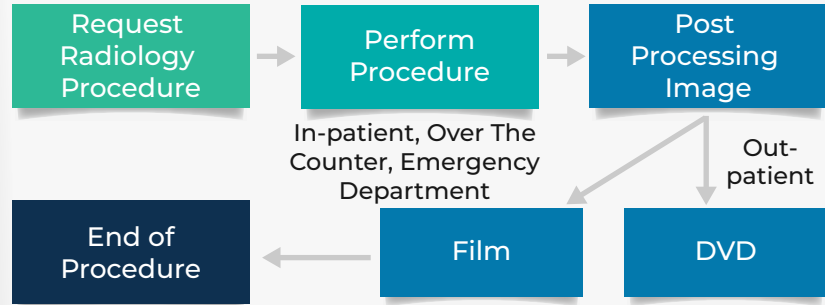
Conduct training and awareness through structured work process, standard guideline and upgrading the technology viewing image.

METHODS

An in-depth analysis of current practices, underlying factors contributing to double printing, and associated challenges, the study examines targeted interventions. It emphasizes workflow optimization and the adoption of advanced technological solutions such as digital imaging systems and Picture Archiving and Communication Systems (PACS). The approach will involve training and awareness on printing and DVD benefit, development of logbook to control printing process, guideline and protocol for printing process and implementation of printing only for Emergency Department, Over the Counter and when request by in-patient and out-patient. The sample involved is an average of 2,000 of total procedure per month for four months.



CURRENT SITUATION

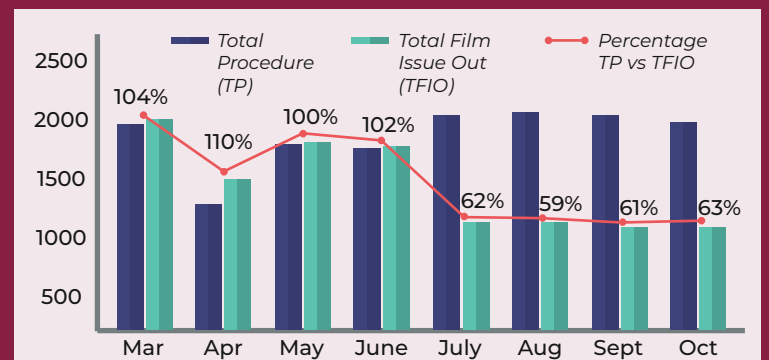


	METHODS	MANPOWER	MATERIALS
Possible Caused	<ul style="list-style-type: none"> No standardization Wrong film selection 	<ul style="list-style-type: none"> Patient request Lack of awareness on DVD usage Consultants' preference 	No digital viewer in Operation Theater
Solving Capability	Possible	Possible	Possible
Effect If Cannot Be Solved	Increase of rejected film	Increase of film printing	Continue with manual viewing
Analysis	<ul style="list-style-type: none"> Develop a standard of printed film by modalities Improve structured work process 	Develop a guideline on a post processing radiology image	Installation of digital viewer

RESULT

The implementation of the proposed strategies and interventions led to a significant reduction in unnecessary image film printing by 30%. This outcome underscores the effectiveness of the interventions in driving meaningful change and optimizing resource utilization within healthcare settings. Another improvement program that has taken place internally is the installation of a digital viewer in the operation theater room to ease viewing the radiology images during procedures.

	Before				After			
	Mar	Apr	May	June	Jul	Aug	Sep	Oct
Total Procedure	1,917	1,360	1,795	1,715	2,018	2,133	2,019	1,947
Total Film Issue Out	2,000	1,500	1,800	1,750	1,250	1,250	1,225	1,225
%	104	110	100	102	62	59	61	63



DISCUSSION

The study concludes that by fostering a culture of accountability and sustainability within healthcare institutions, primary in Columbia Asia Hospital - Setapak. This initiatives has reduced unnecessary image film printing not only result in cost savings and operational efficiencies but also promote environmental stewardship by reducing film usage and waste generation. Furthermore, collaborative efforts involving stakeholders across the healthcare spectrum are essential for sustaining these improvements and fostering a more responsible and environmentally conscious healthcare ecosystem. The process of ensuring patient data is secure and building trust between patients and healthcare providers efficiently.

REFERENCES

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- Ardelean, E., Ardelean, M., Galfi, C., Socalici, A., & Josan, A. (2023, July). Radiographic film waste management and recovery. In *Journal of Physics: Conference Series* (Vol. 2540, No. 1, p. 012041). IOP Publishing.