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Going Digital - Patient, not paperwork

THE DIGITAL BRIEFING CHECKLIST

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Introduction

Radiotherapy is a complex process whereby briefing is crucial in helping patients gain a better understanding of their treatment. Prior to the patient's arrival, a paper based briefing checklist (P-BC) has to be pre-filled by a radiation therapist (RT) with patient's vital information which is available on our treatment management system. This information is specific to the site of the treatment and complexity of the procedure. In keeping with our department's aim to constantly streamline work processes, with patient safety as our top priority, we decided to focus on the first aspect of the patient's journey with the RT - at the CT Simulation unit.

Aim

Reduce tedious paperwork which requires computer and manual paper documentation for RTs to allow more time to provide the **Best Care** for patients.

- 1) Streamline work process to an all computer based platform.
- 2) Reduce time on manual paper documentation and allocate more time to provide quality treatment briefing.

Methods

We constructed a process map of the current workflow with P-BC, beginning from the preparation of the briefing checklist on the day of CT Simulation. The total duration taken for preparation was recorded.

Digital briefing checklist (D-BC), with the ability to extract information from our treatment management system, was utilized to streamline the entire process.

After we created D-BC, similarly, we constructed a new process map and recorded the time taken to prepare the briefing checklist.

A 4 week pilot test was conducted involving 2 CT simulation RTs; first 2 weeks with P-BC and last 2 weeks with D-BC. An independent RT recorded the time taken to prepare the checklist.

We also gathered feedback from the RTs involved in preparing the 2 different checklists.

Conclusion

Although 7 of the processes that were streamlined, were mainly administrative, we are working towards automating more areas of the briefing preparation. The D-BC has led to an average time of 5 minutes saved per patient. This would equate to a total of approximately 216 hours per year and all this time should be better utilized to provide better quality care and in-depth briefing for the patients. Furthermore, the D-BC can be accessed from any computer terminals thus making briefing preparation very efficient and convenient.

Results

There were a total of 24 processes involved in just the entire preparation scheme with P-BC. We analysed that 7 of them can be streamlined with D-BC.

No.	Step	Personnel Involved
1	Patient arrives at the department	
2	Financial counselling	Front Counter
3	Hand over case notes to nurses to set IV plug	RT
4	Set IV plug	Nurse
5	Go to printing terminal	RT
6	Key in patient ID	RT
7	Print label forms	RT
8	Locate correct paper briefing checklist (site dependent)	RT
9	Paste patient label on P-BC	RT
10	Fill in treatment site in P-BC	RT
11	Fill in laterality in P-BC	RT
12	Check date and signature on written consent in case notes	RT
13	Fill in consent date in P-BC	RT
14	Check system/case notes for previous known RT	RT
15	Fill in previous known RT in P-BC	RT
16	Check system for fasting instructions (CT & Treatment if needed)	RT
17	Fill in fasting instructions in P-BC	RT
18	Check system/case notes for special medication instructions (e.g. stop metformin or take prednisolone)	RT
19	Fill in medication instructions in P-BC	RT
20	Check system/case notes for asthma indication	RT
21	Fill in asthma history if any in P-BC	RT
22	Check last menstrual period (LMP) for female patients	
23	Check system/case notes for drug allergy indication	RT
24	Fill in drug allergy in P-BC	RT
25	Check with nurses regarding plug insertion successful or nurses to inform RT	RT/Nurse
26	Identify patient	RT
27	Verify treatment information, instructions, medical history and patient compliance to preparation	RT

Fig. 1A.1: Workflow with P-BC

No.	Step	Personnel Involved
1	Patient arrives	
2	Financial counselling	Front Counter
3	Send case notes to nurses for setting of IV plug	RT
4	Set IV plug	Nurse
5	Launch D-BC	RT
6	Check consent date in case notes	RT
7	Fill in consent date in D-BC	RT
8	Check system/case notes for previous known RT	RT
9	Fill in previous known RT in D-BC	RT
10	Check system for fasting instructions (CT & Treatment if needed)	RT
11	Fill in fasting instructions in D-BC	RT
12	Check system/case notes for special medication instructions (e.g. stop metformin or take prednisolone)	RT
13	Fill in medication instructions in D-BC	RT
14	Check system/case notes for asthma indication	RT
15	Fill in asthma history if any in D-BC	RT
16	Check LMP for female patients	
17	Check system/case notes for drug allergy indication	RT
18	Fill in drug allergy in D-BC	RT
19	Check with nurses regarding plug insertion successful or nurses to inform RT	RT/Nurse
20	Identify patient	RT
21	Verify all treatment information, instructions, medical history and patient compliance to instructions	RT

Fig. 1A.2: Workflow with D-BC

This resulted in a 33% (5 mins) reduction in preparation time.

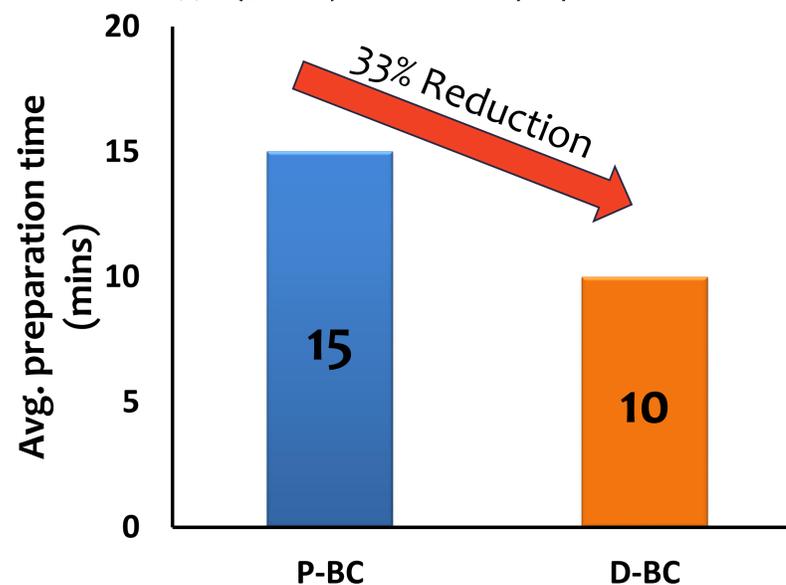


Fig. 1B: Average preparation time for P-BC vs D-BC

Feedback from RTs involved in the pilot study were mostly positive revealing that D-BC has potential to improve efficiency in our work process.



Fig. 1C: RTs feedback regarding D-BC