



Reduce Waiting Time during Intravesical Therapy in Urology Clinic

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INTRODUCTION & BACKGROUND

Intravesical Bacillus Calmette-Guerin (BCG) is the most common intravesical immunotherapy indicated for treating patient with superficial bladder cancer. Intravesical is a method in which a medication is instilled in the bladder through a urinary catheter. BCG works to prevent cancer from returning following a bladder tumor resection.

BCG is known to affect the cell in the bladder resulting to minor side effects such a low grade fever, urinary urgency, increased urinary frequency and presence of small amount of blood in the urine which could last up to 48 hours following instillation and generally well tolerated by patients. To date, there were no severe complications recorded among patients who underwent Intravesical BCG in SKH. There was an average of 4 patients scheduled for BCG per week.

Currently, total duration of the journey from the time of registration to discharge is approximately 3 hours and 55 minutes. This project was embarked to enhance the patient's waiting time during BCG therapy in urology clinic. This project aimed to shorten the journey of patient's waiting time during BCG therapy session. Prospective data were collected from every step of the journey to understand and improve patient's experience.

CURRENT WORKFLOW & MOTIVATION

Current workflow shows the timing of each journey spent by patient undergoing Intravesical BCG therapy. The whole journey of 3 hours and 55 minutes of patient's waiting time in clinic results to increase anxiousness, inconvenience and unnecessary exposure in the clinic environment. Retrospective data shows no significant post void residual urine (PVRU) result among all patient undergone BCG instillation.

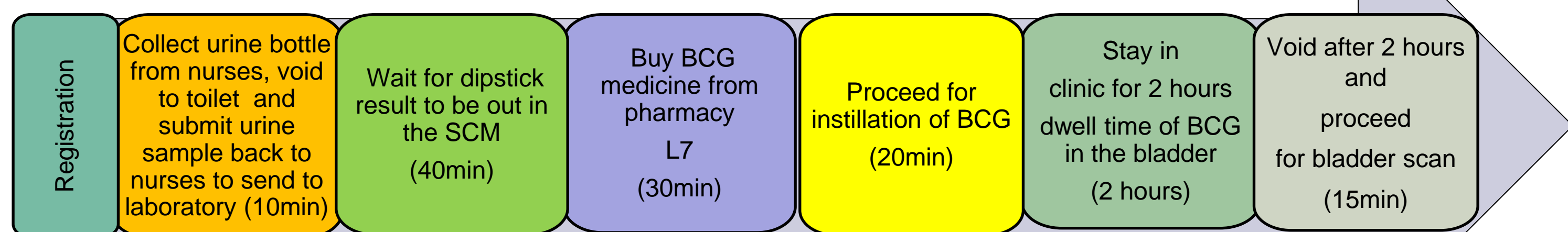


Image 1: image showing the time spent for the current journey during Intravesical therapy

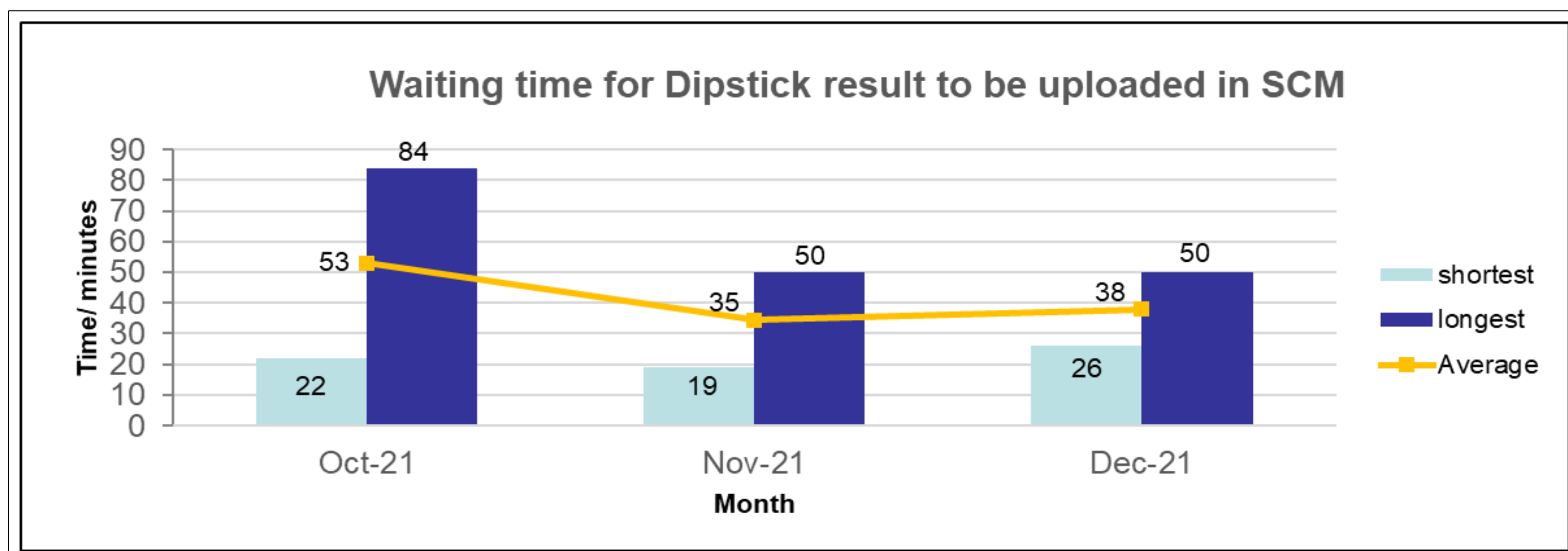


Image 2: Showing a baseline study of the waiting time for urine dipstick result to be uploaded in SCM is shown above. The rest of the process durations are standard and do not vary as much as the wait for Dipstick result

ROOT CAUSE ANALYSIS

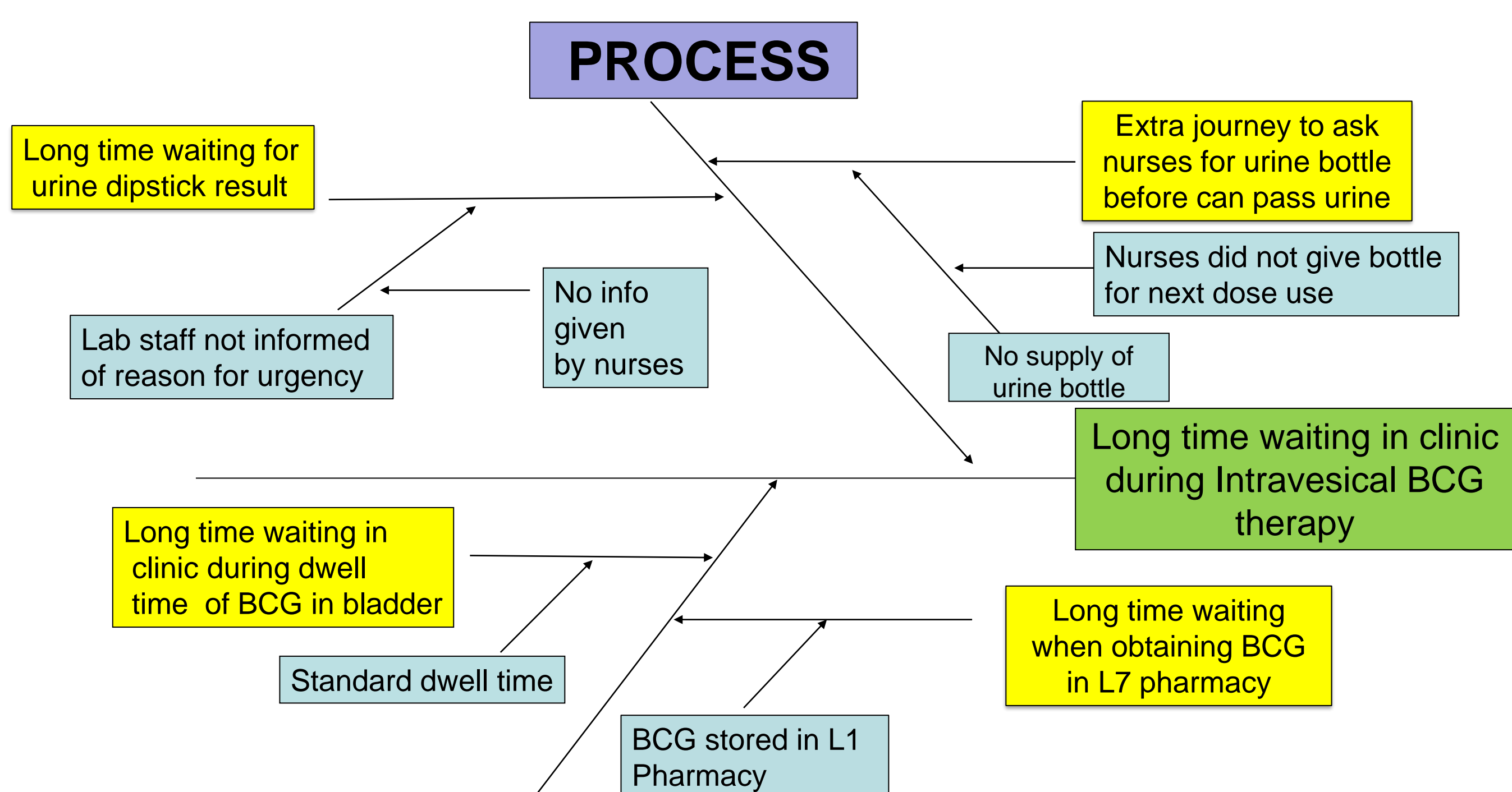


Image 3: Four main root causes (in yellow boxes) were identified

GOALS

Reduce patient's waiting time in SKH clinic during Intravesical therapy in Urology clinic by 50% in 6-month time

METHODOLOGY

PDCA 1		Issuing urine specimen bottles to patient to use for immediate submission of urine sample for dipstick. next therapy to shorten the second journey.
PDCA 2		Partnered with laboratory dept. to expedite the processing of urine dipstick test for patients requiring urine dipstick result prior to BCG therapy. Memo will be attached to specimen bag as a label for speeding up the test.
PDCA 3		Partnered with Pharmacy to set a new workflow in collecting BCG medicine whereby patient is able to obtain the BCG medicine while waiting for urine dipstick result.
PDCA 4		Initiated HPI (Home post instillation) trial with Urologist. Patients will be sent home after instillation of BCG for dwell time and first void. 2 hours follow up call will be done.

RESULTS

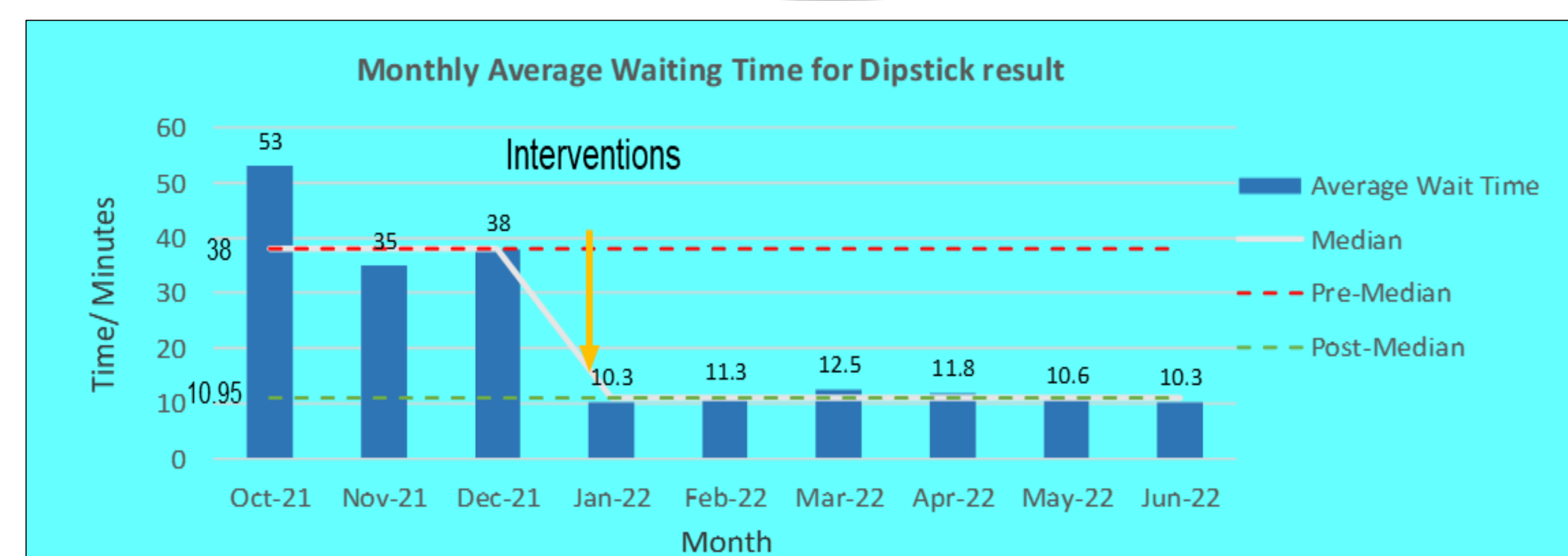


Image 4: Chart showed the data post PDCA 2

A significant drop in the median waiting time for the dipstick result, from 38mins to 10.95mins, was observed after the intervention. Post-Intervention feedback was gathered from patient and 100% were satisfied and felt positive about the experience. Patients expressed that they feel motivated to come for treatment as the enhanced workflow are more straightforward and not dragging. Resting at home while fulfilling the allotted dwell time gives them more freedom to move around, divert their attention e.g. watching TV or resting at their own bed. This new experience gave them better morale and made them less anxious. Nurses in Level 7 Urology clinic also expressed satisfaction in the new workflow as it free their time to perform post void bladder scan (15mins) & look after patients post BCG while waiting in clinic (15mins) which amount to 2 hours of saving in a week, approximately \$7,500 saved a year (\$72/hour)

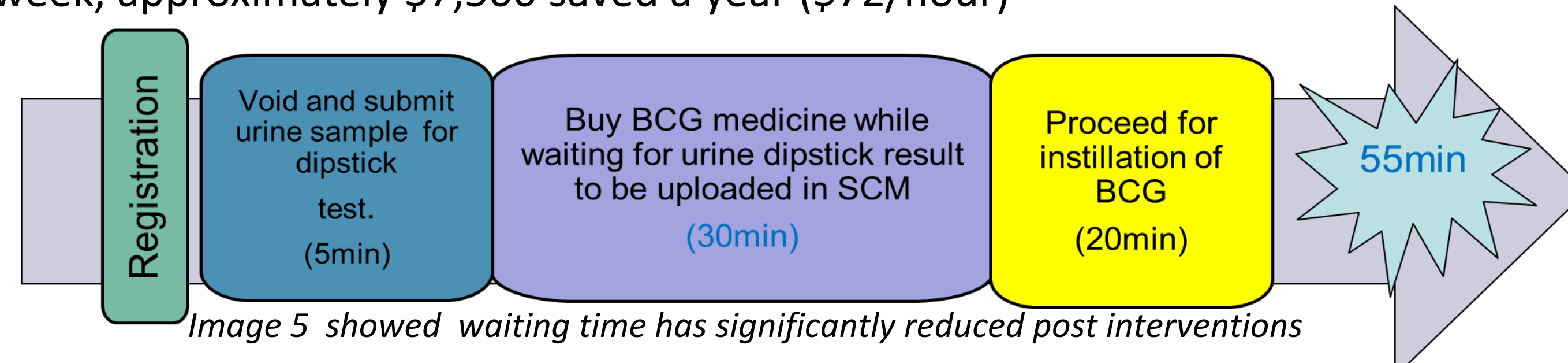


Image 5 showed waiting time has significantly reduced post interventions

CONCLUSION

Overall, 3 hours - 77% reduction in waiting time for patient undergoing Intravesical BCG therapy resulted to a more relax and controlled sessions. This project significantly achieved the goal of giving patient's best hospital experience and best clinical outcome by increasing their compliance to complete the bladder treatment with the new enhanced and more efficient work process. The new workflow was spread to all the staff of Urology clinic in L7 and reference guide was pasted on the walls of doctor's clinic, nurses' procedure room and BCG procedure room. Random audit check is ongoing to ensure that new workflow is followed. Project team continued to monitor patients under HPI (Home post instillation) and there were no recall of patients who have had issues post instillation. This initiative can be spread to other institution providing Intravesical therapy.