



Background

Ward 55B is a designated Urology ward. We receive significant number of referral letters from various disciplines regularly on Gross Hematuria (high concentration of blood in the urine) which requires immediate intervention – Manual Bladder Washout (MBWO). Out of all the patients suffering from Gross Hematuria, 40% of them are referrals from overflow inpatients.

MBWO is a specialized procedure which requires non-standard requisites from Urology – Ward 55B. Overflow inpatients from other wards do not carry such requisites in their stock order. Hence, most of the time, Urology ward needs to loan out non-standard requisites that are needed during MBWO.

Problems identified

Due to the lack of requisites, nurses from overflow wards need to loan it from Ward 55B. Hence,

1. **Time taken to intervention (MBWO) is prolonged** – due to lack of non-standard requisites in overflow wards
2. **Increased incidences of undercharging of patients on requisites** – overflow wards do not have charging code on non-standard requisites borrowed
3. **Prolonged time taken to return loaned requisites to Ward 55B** – overflow ward nurses unsure of ordering code of specialized non-standard requisites borrowed. Hence, more time will be needed to find out and order borrowed requisites from MMD.

Mission Statement

To decrease time taken from order of MBWO to intervention for overflow inpatients by 60% within 3 months.

To eliminate incidences of under charging of requisites for overflow inpatients by 60% within 3 months.

Analysis

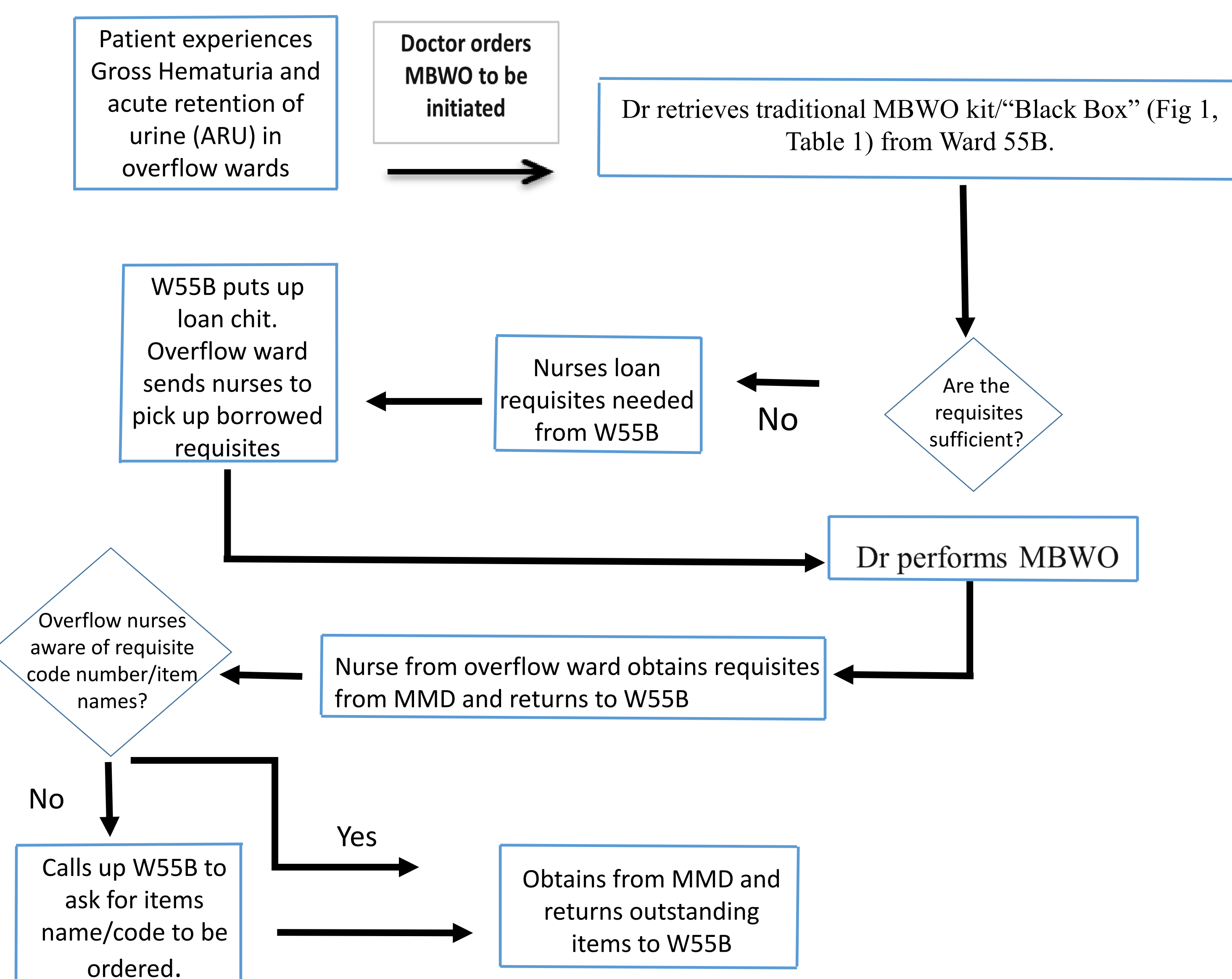
Periodically, considerable amount of time would be taken for the Ward nurses/ Doctors to receive the MBWO kit (Figure 1) from overflow wards. In addition, there were also frequent incidences of under charging of requisites that are loaned, as there were no proper documentation of the requisites being brought over to overflow wards.



Figure 1: MBWO Kit

3-way Catheter (Sz16-24)
Nelaton Catheter (sz16-24)
60 mls catheter tip syringe
Catheter Introducer
Surgical Blade
Surgical Suture

Table 1: Contents of Existing MBWO Kit



- Average time taken from order of MBWO kit till intervention: 40 mins
- Average number of patient in 1 month: 5
- Total time spent in a month: 3 hours 20 mins

Interventions / Initiatives

1. Traditional "Black Box" is flimsy and small. It will be substituted with a bigger clear plastic box (Figure 2) so as to better visualize and house additional requisites.
2. Added requisites (Table 2) for a better equipped MBWO kit.
3. With more requisites added, MBWO kit may be too heavy to be carried around. A trolley will be attached to box for easy transportation to overflow wards.
4. Checklist with codes (Figure 2) will be placed in the MBWO kit to facilitate overflow wards in charging/obtaining requisites from MMD to return to Ward 55B.

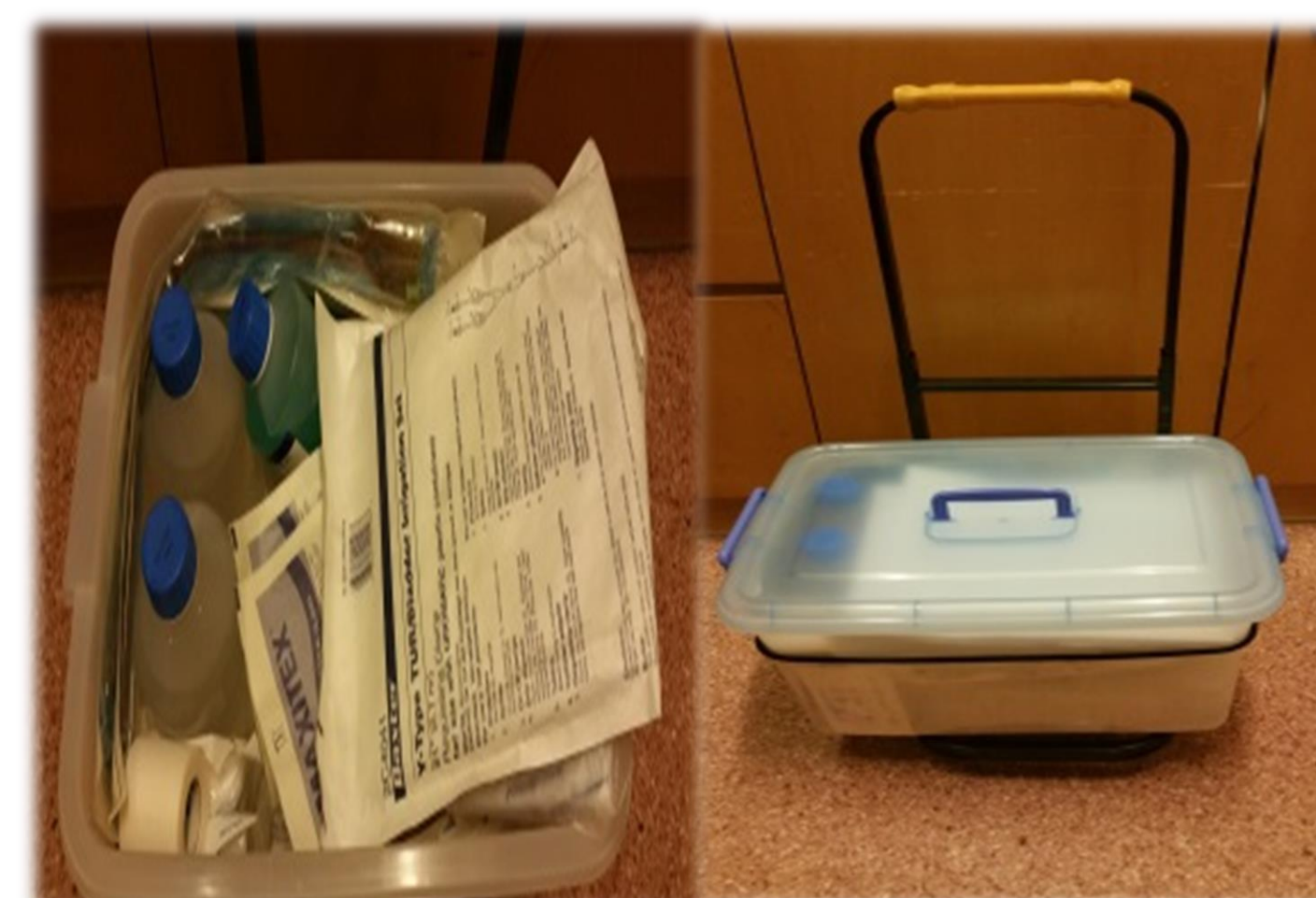


Figure 2: New MBWO Kit

3-way Catheter (Sz16-24)
Nelaton Catheter (sz16-24)
Catheter Introducer
Surgical Blade
Surgical Suture (prolene 2.0 & 3.0)
3x Lignocaine Gel
2x 20 mls syringe
2x 10 mls syringe
2x Sodium Chloride (1000mls)
Chlorhexidine 0.05%
2 x 60 mls catheter tip syringe
2 x Water for injection (20 mls)
Sterile Gloves (size 6.5 - 7)
Urine bag
Sterile gauze
Sterile cotton balls
Sodium chloride for bladder continuous bladder irrigation (3000mls)
Bladder irrigation tube

* Newly added requisites are in BLUE font

Table 2: Contents of New MBWO Kit

No	Items	Item Code	Quantity	
<input type="checkbox"/>	1	Sodium Chloride 1000mls	0011-40-030-I	1
<input type="checkbox"/>	2	Chlorhexidine 0.05% 500mls	0013-84-103-E	1
<input type="checkbox"/>	3	Nelaton Catheter #18	1130-01-007-A	2
<input type="checkbox"/>	4	Nelaton Catheter #20	1130-01-008-A	2
<input type="checkbox"/>	5	Nelaton Catheter #22	1130-01-009-A	2
<input type="checkbox"/>	6	3-way Catheter #18	1130-03-019-A	2
<input type="checkbox"/>	7	3-way Catheter #20	1130-03-020-A	2
<input type="checkbox"/>	8	3-way Catheter #22	1130-03-021-A	2
<input type="checkbox"/>	9	Blade	1112-01-007-A	1
<input type="checkbox"/>	10	Catheter Tip Syringe 60 mls	1220-03-016-A	2
<input type="checkbox"/>	11	Lignocaine Gel		2
<input type="checkbox"/>	12	Water For Injection 20 mls	0010-40-050-C	2
<input type="checkbox"/>	13	20 mls Syringe	1220-02-004-A	2
<input type="checkbox"/>	14	Sterile Gloves #6.5	1162-02-031-A	1
<input type="checkbox"/>	15	Sterile Gloves #7	1162-02-032-A	1
<input type="checkbox"/>	16	Apron	1100-01-002-A	2
<input type="checkbox"/>	17	Urine Bag	6-1309-01-006-B	1
<input type="checkbox"/>	18	Microprobe Tape - 2 inches	1306-01-007-A	1
<input type="checkbox"/>	19	Sterile Gauze	1160-01-006-A	1
<input type="checkbox"/>	20	Sterile Cotton Balls	1132-02-005-A	1
<input type="checkbox"/>	21	Suture (Prolene 2.0)		1
<input type="checkbox"/>	23	Suture (Prolene 3.0)		1
<input type="checkbox"/>	24	Normal Saline for Bladder Irrigation 3000mls	0011-40-028-G	2
<input type="checkbox"/>	25	Y-tube Bladder Irrigation set	6-2237-03-001-A	1

Figure 2: Checklist with codes

Results

The interventions were piloted on 4 patients and following are the results:

1. Time taken to receive MBWO kit and perform intervention in overflow wards is minimized by 75%.

Pre-intervention - mean duration from order to intervention: 40 mins

Post-intervention - mean duration from order to intervention: 10 mins

Time difference : 40 mins - 10 mins = **30 mins (approximately 75% reduction)**

Incidences of under charging:

- ✓ **Pre-intervention** – incidences of undercharging is approximately 60% of orders from-overflow wards
- ✓ **Post-intervention** – with the help of checklist added in the MBWO kit, incidences of undercharging have been eliminated

Sustainability Plans

Follow up:

- Doctors and nurses in the department will be briefed on the new MBWO kit during department meetings and roll call respectively
- MBWO kit will be checked and topped up by high-dependency nurses every morning shift and/or after every use to ensure that requisites have not expired.