

Project Title

Improving Accountability of Real-Time Locating System (RTLS) Tags at JCH Wards

Project Lead and Members

Project lead: Nurul Natasha

Project members: Loh Siao Hui, Melissa Wong, Calvin Lim

Organisation(s) Involved

Jurong Community Hospital

Healthcare Family Group(s) Involved in this Project

Healthcare Administration, Ancillary Care

Applicable Specialty or Discipline

Patient Service Associates, Operations

Project Period

Start date: June 2021

Completed date: August 2021

Aims

- 1) To standardise, as far as possible, the process of tracking RTLS tags with NTFGH Inpatient Operations
- 2) Where standardisation is not possible, to tweak workflow to enable a simple, efficient and convenient methodology for Ward PSAs to record, track and account for RTLS tags
- 3) To identify any missing tags easily based on a systematic process to record unique tag number and report them for cost recovery

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

- 1) Better visibility and overview of the number of tags returned to the wards on each day
- 2) Unaccounted tags can be identified easily based on what is recorded in the Log Sheet

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign, Value Based Care, Operational Management, Inventory Management, Logistics management

Keywords

Missing RTLS Tag, Log Sheet

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IMPROVING ACCOUNTABILITY OF RTLS TAGS AT JCH WARDS

MEMBERS: PSA LOH SIAO HUI, PSA MELISSA WONG, NURUL NATASHA AND CALVIN LIM

- SAFETY
- PRODUCTIVITY
- QUALITY
- COST
- PATIENT EXPERIENCE

Background and Project Aims

Background

Once patients are discharged from the inpatient wards at JCH, the RTLS tags will be removed from patient and placed in a box, sorted according to functional and faulty tags, and returned to Tower B Inpatient Operations. However, there is no structured process to account for tags that are missing.

Aims

- To standardise, as far as possible, the process of tracking RTLS tags with NTFGH Inpatient Operations
- Where standardisation is not possible, to tweak workflow to enable a simple, efficient and convenient methodology for Ward PSAs to record, track and account for RTLS tags
- To identify any missing tags easily based on a systematic process to record unique tag number and report them for cost recovery

Solution

- Implementation of digital tracking sheet using Microsoft Excel serves to provide standardisation and validation to recorded data.
- Utilising NUHS Drive for collaborative work between Ward PSAs and supervisors.

WARD C05 RTLS TAGS LOG SHEET							To fill Only if No Tag on Arrival		
Date	Logged By	No. of Discharges (Cut Off at 4 PM)	Number of Tags Returned	Number of Unaccounted tags	Reason(s)	MAC Address of unaccounted tag(s)	Patient 1 CSN	Patient discharged from (e.g. ED, NTFGH Ward 8 Bed 4)	Patient 2 CSN
1-Aug-21									
2-Aug-21	Asizah Alene Jennifer								
3-Aug-21	Hidayu Khair Farina Melissa								
4-Aug-21									

Staff can select name easily from drop down list

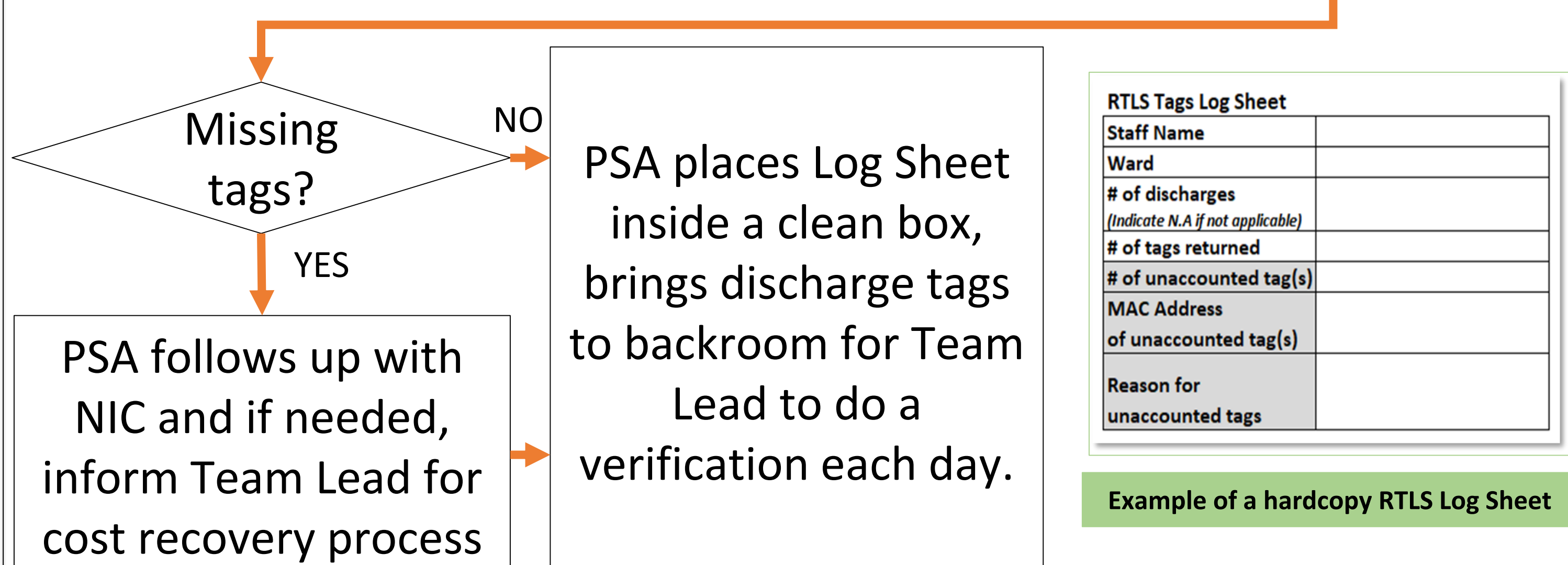
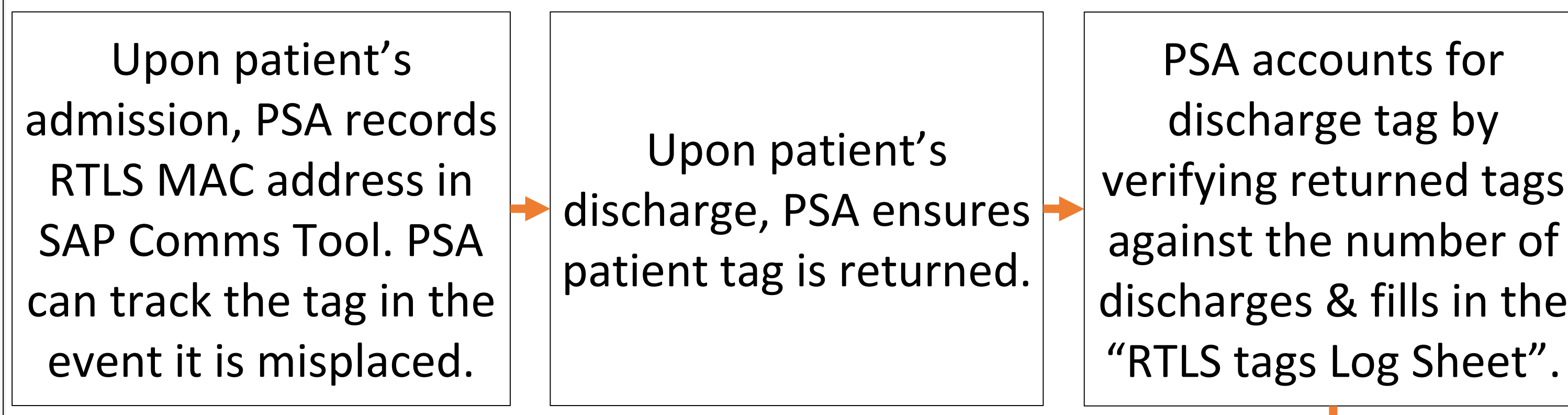
Cells can only accept whole numbers for data integrity

Added in columns to record patients (from PDCA cycle 2) who does not come with an RTLS tag from NTFGH

Excel file is then uploaded to NUHS Drive. PSA cross covering wards can also access file easily

Learning from Current Practice

Learning from current tracking process at NTFGH Wards



RTLS Tags Log Sheet	
Staff Name	
Ward	
# of discharges (Indicate N.A if not applicable)	
# of tags returned	
# of unaccounted tag(s)	
MAC Address of unaccounted tag(s)	
Reason for unaccounted tags	

Example of a hardcopy RTLS Log Sheet

Plan-Do-Check-Act Cycle 1: June 2021

PLAN

- Discuss with NTFGH IP Ops to standardise tracking of RTLS tags at the wards

DO

- Pilot run at JCH Wards C05 and C06

CHECK

- PSAs can verify returned tags against the number of discharges
- However, creating the hardcopy Log Sheet takes time
- Also, some patients discharged from NTFGH did not come with RTLS tag; PSA had to re-issue a new tag from the JCH stock.
- PSA is unable to document this scenario inside the Log Sheet

ACT

- Converted Log Sheet to softcopy excel
- Upload file to NUHS Shared Drive for easy collaboration



Plan-Do-Check-Act Cycle 2: July 2021

PLAN

- Highlighted to NTFGH that there are some patients who are admitted to JCH without a RTLS tag. NTFGH requested for specifics of such cases.

DO

- Created fields inside the Excel file to track the numbers so that there are specific cases to feedback to NTFGH

CHECK

- Upon patient's admission, PSA records RTLS MAC address
- PSAs verify returned tags against the number of discharges
- If there are patients admitted without the tags, PSA will document accordingly inside the Excel file
- At the end of the week, supervisor will collate and send the data to NTFGH

ACT

- To implement this tracking system at all JCH Wards and JCH Ops-managed NTFGH wards located at JCH Levels 7 and 8 by end August 2021

Results & Benefits

- Better visibility and overview of the number of tags returned to the wards on each day
- Unaccounted tags can be identified easily based on what is recorded in the Log Sheet
- JCH is able to feedback easily to NTFGH (either Inpatient or ED) if patient did not arrive with an RTLS tag. NTFGH team would then be able to investigate the reason(s) for such incidents.
- Log Sheets can be updated easily on the shared drive, minimising the need to prepare and use hard copy log sheets. In a rare event of a downtime, PSA can record on a manual form and transfer the data once system is up.