

Project Title

Improving patient care delivery through streamlining and standardising processes at an outpatient Day Rehabilitation Centre

Organisation(s) Involved

St Andrew's Community Hospital: Day Rehabilitation Centre;
Agency for Integrated Care

Project Period

Start date: Oct 2016

Completed date: Mar 2017

Aims

- To map and analyse gaps of the current work processes in DRC:
 - clinical staff (rehabilitative services)
 - Non- clinical staff/patient service assistant (reception services)
- Study the utilization of professional staff, particularly Physiotherapists, Occupational Therapists and Therapy Assistants (TAs)

Lessons Learnt

- To review the current work processes in our daily work and identify the wastes which can be removed or minimize in order to improve work efficiency
- To have standard work procedures and work flow so that staff can follow and improve the quality of patient care
- To delegate the work duties to our therapy assistants so as to up skill their knowledge and clinical skills to assist the patients and therapists more effectively. Challenges involve the team's acceptance to changes in work processes and work as a team to improve the processes. Also the constant monitoring and evaluation of improved work processes to ensure long term sustainability

Additional Information

- Poster presentation in the IHI International in London
- Received the Team Winner Award in the AIC Excellence Award Ceremony

Project Category

Process Improvement, Productivity, Job Redesign

Keywords

Process Improvement, Workflow Redesign, Workspace Redesign, Job Redesign, Productivity, Quality Improvement, Lean Methodology, Community Hospital, Patient Service Delivery, Rehabilitation, Operations, Time Saving, Staff Training, Staff Empowerment, St. Andrew's Community Hospital, Day Rehabilitation Centre, Reception Services, Value Stream Mapping, Gemba Walk, 6S, Visual Management, Therapy Support Associate, Motion Waste, Waiting Time, Reduce Non-value-added Work, Spaghetti Mapping, Job Satisfaction, Quality of Care, Standardized Protocol of Practices, Streamline Processes

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Improving Patient Care Delivery through Streamlining and Standardising Processes at an outpatient Day Rehabilitation Centre

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Background / Define the Problem

St. Andrew's Community Hospital (SACH) Day Rehabilitation Centre (DRC) provides outpatient rehabilitation services for patients who require additional therapy after being discharged from a hospital.

In tandem with Singapore's rapidly ageing population, the demand for rehabilitation services is expected to rise. To cope with the increasing number of patients visiting SACH DRC, the team embarked on a work improvement project to review and analyse the work processes of therapy and support staff as well as implement solutions to improve patient service delivery and workflow efficiency.

Goal / Objective

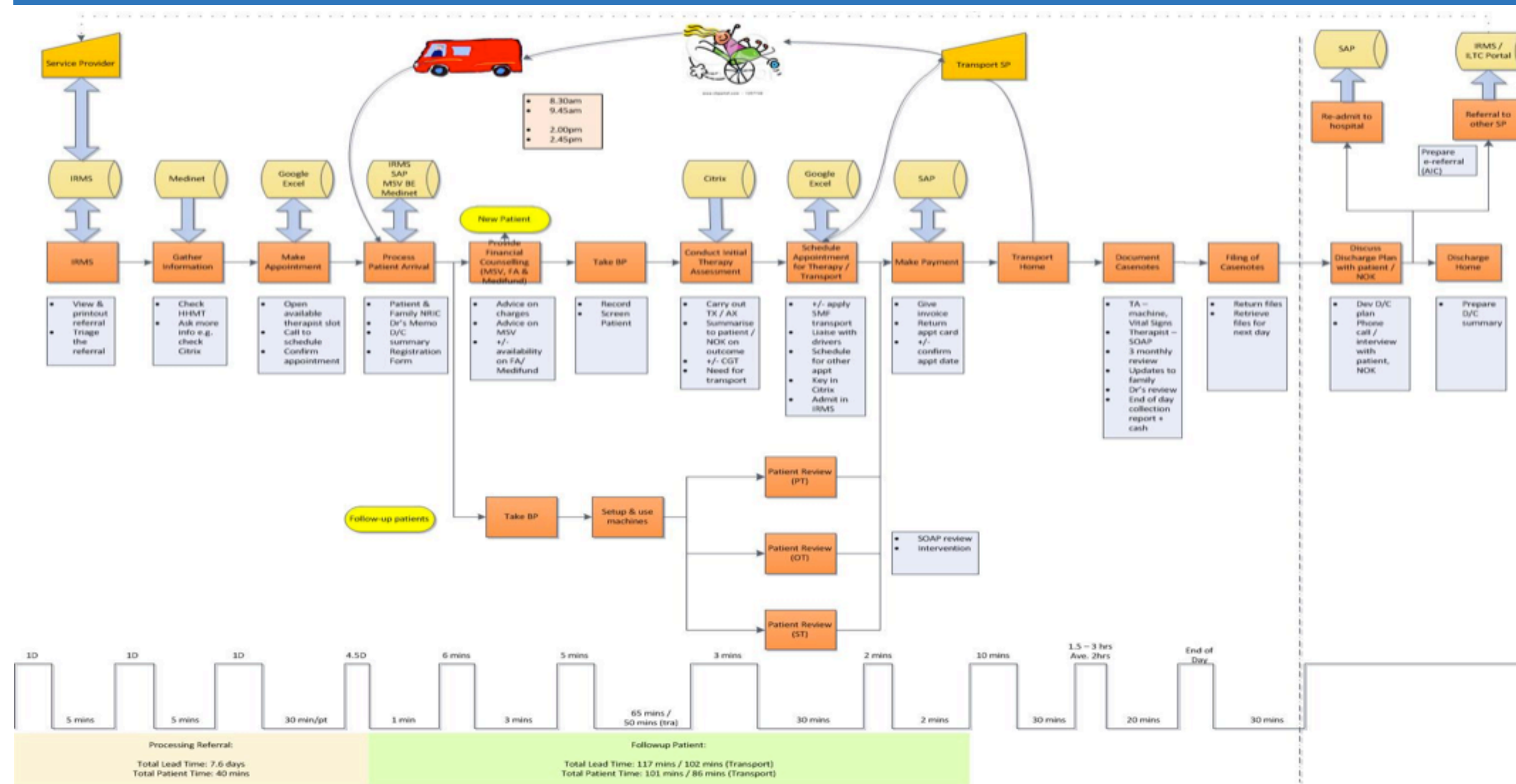
The project aims to improve the patient care delivery of SACH DRC through the examination of core processes.

- Map and analyse gaps of the current work processes in DRC:
 - Clinical staff (rehabilitation services)
 - Non-clinical staff / Patient Service Assistant (reception services)
- Study the utilisation of professional staff, particularly Physiotherapists, Occupational Therapists and Therapy Assistants (TAs)

Methodology

The Lean methodology was used to analyse the waste and inefficiency in the DRC work processes. A Value Stream Mapping (VSM) exercise was conducted over 6 days involving different functional representatives from the DRC.

Figure 1: SACH Day Rehabilitation Centre (Current State VSM)



Observations (Gemba Walk) were conducted by the staff to identify the amount of time spent on value-added work versus non-value added work, issues faced by the rehabilitation team as well as the bottlenecks in the processes.

Figure 2a: Gemba Walk

Machine setup process (therapy)

Waste identified:

- Waiting for machine
- Unsure of whether the task has been completed

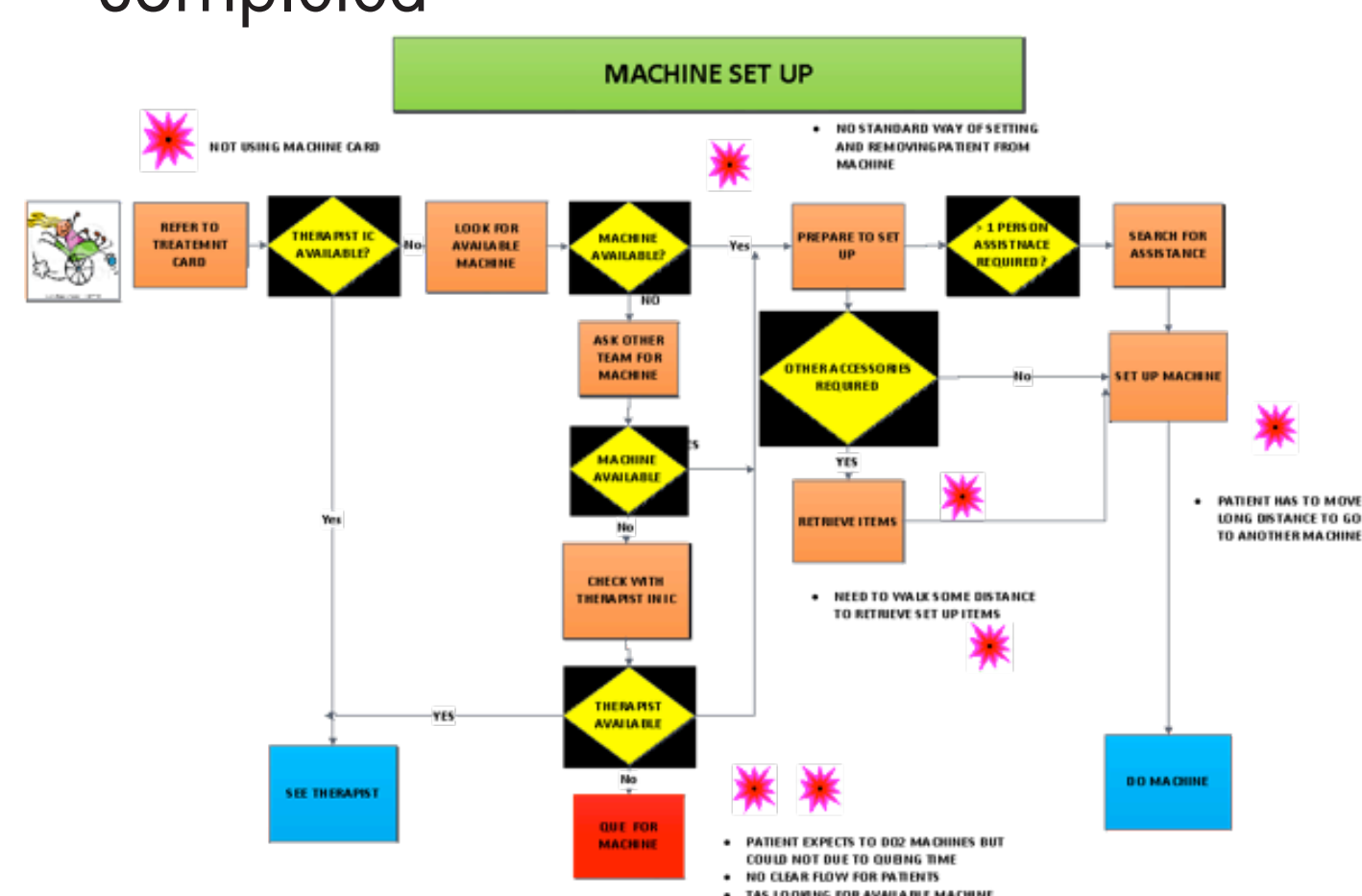


Figure 2b: Gemba Walk

Pre-admission process (PSA)

Waste identified:

- Uncontactable clients
- No standard calling system

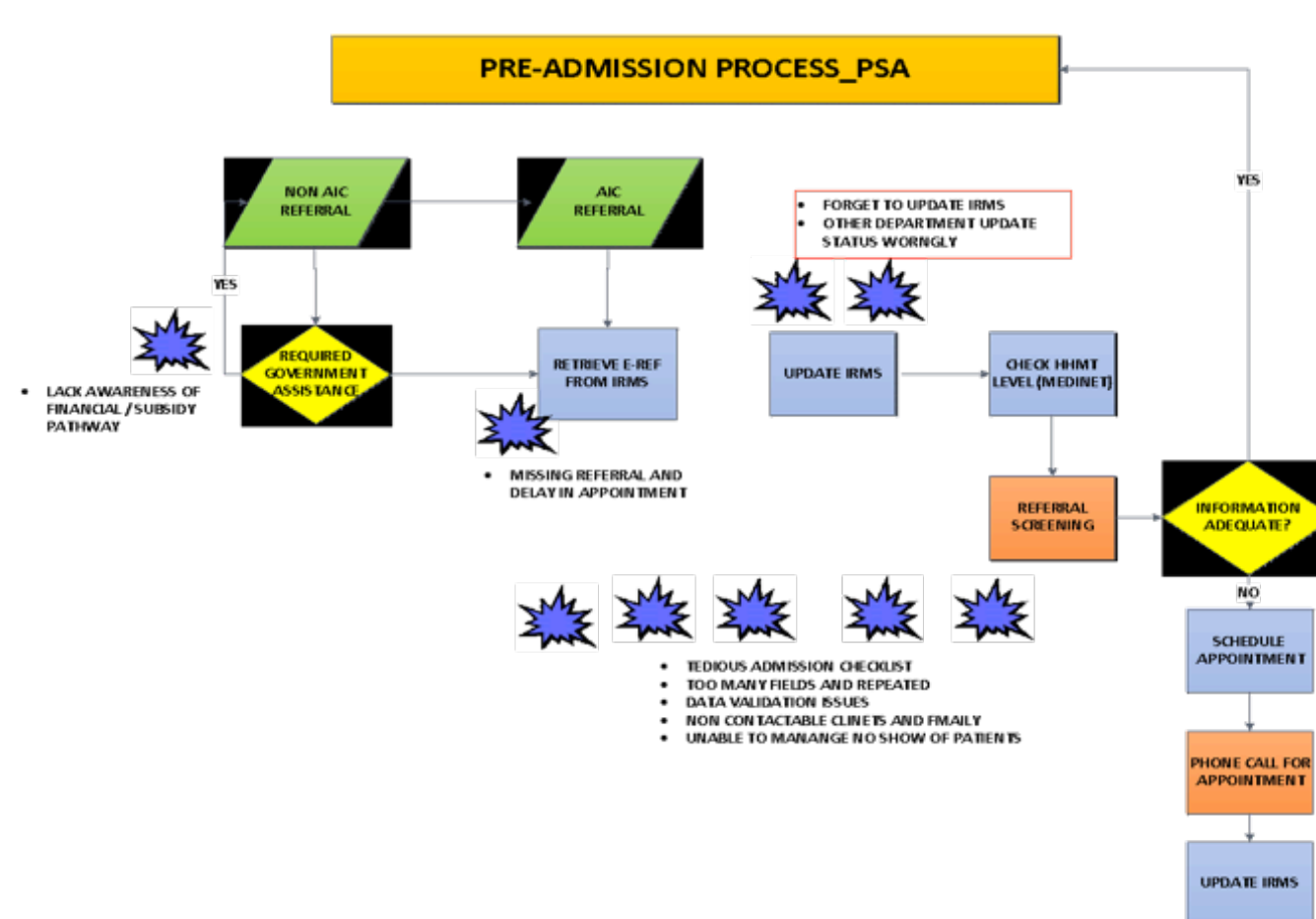
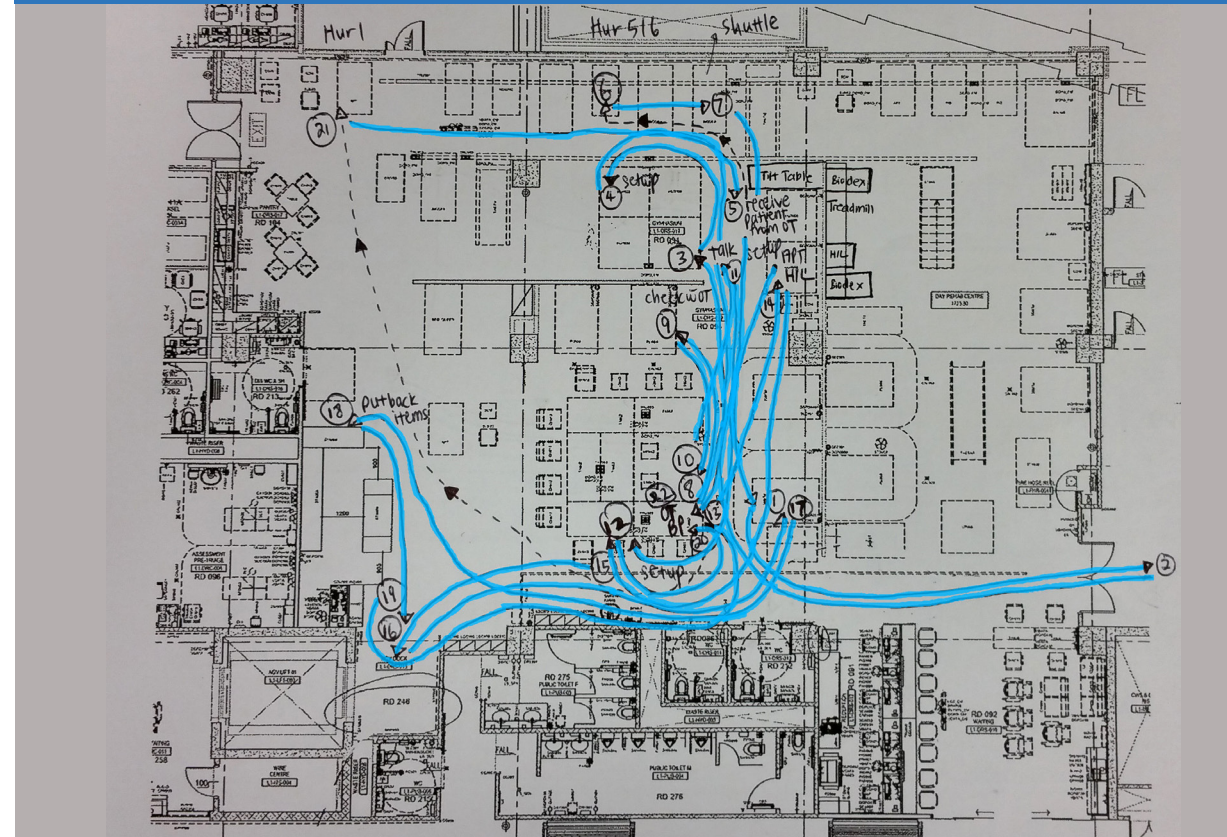


Figure 3: Spaghetti Mapping



Therapy Assistant in a 30-minute period
- Motion waste and overcrowding in certain areas.

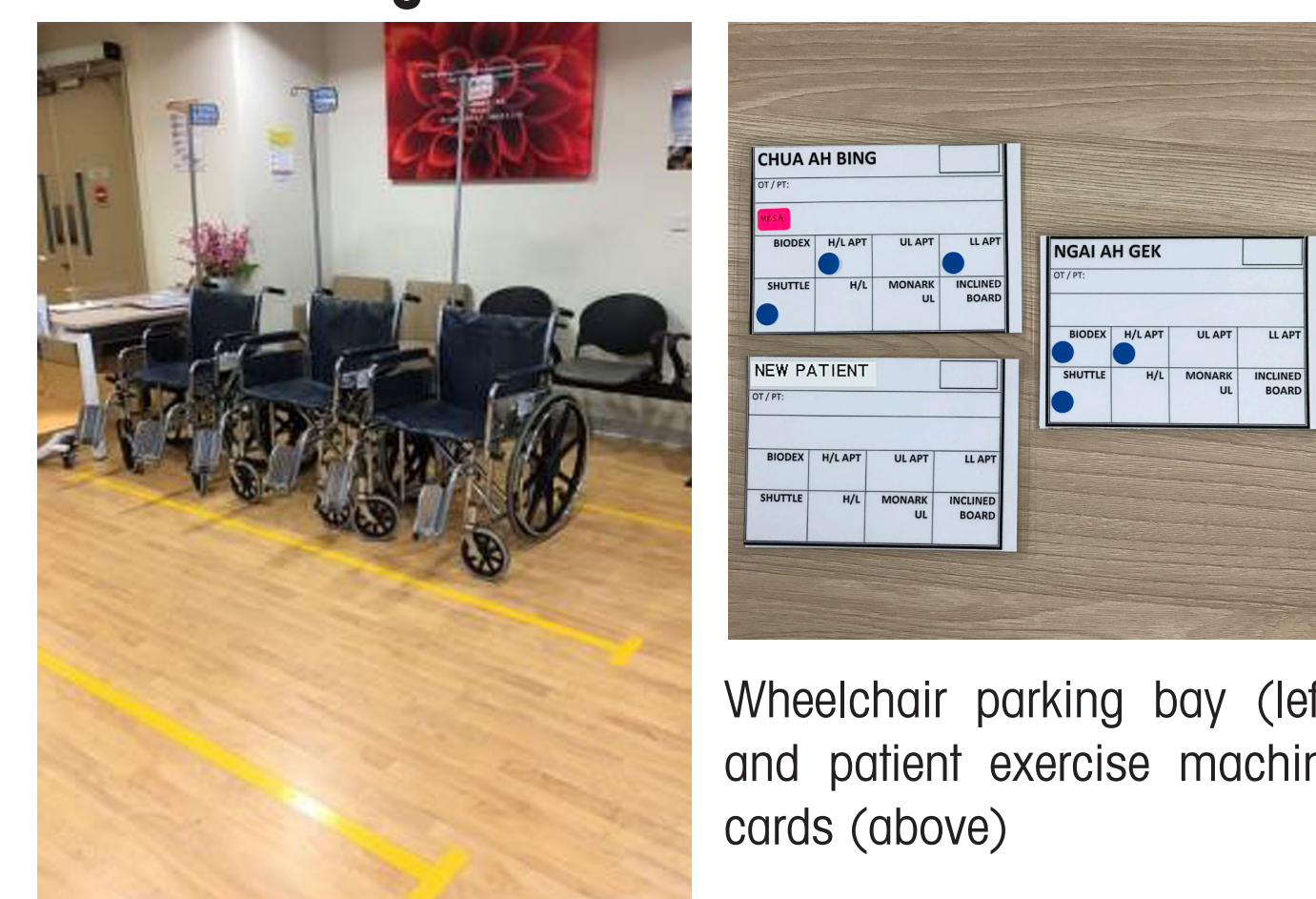
Figure 4: Job review and redesign

Job Task	Brief Job Elements	Process Time (mins/patient)
Simple screening	<ul style="list-style-type: none"> Cognitive Ax (AMT) Falls history screening Wheelchair safety / Ax 	15
Ax Caregiver Competency	<ul style="list-style-type: none"> Assess caregiver's competency assisting patient (transfers, ranging exercises, etc) 	20
Caregiver training	<ul style="list-style-type: none"> Teaching of caregiver 	30
Therapy intervention	<ul style="list-style-type: none"> Simple cases i.e. fracture hip 	20

Utilisation of professional staff
- Possible job task that can be allocated to therapy assistant from therapist.

Intervention

Solution 1: Introduction of 6S & Visual Management



Wheelchair parking bay (left) and patient exercise machine cards (above)

Improve workplace organisation and arrangement (figure 2a) to reduce non-value added work and patient's waiting time.

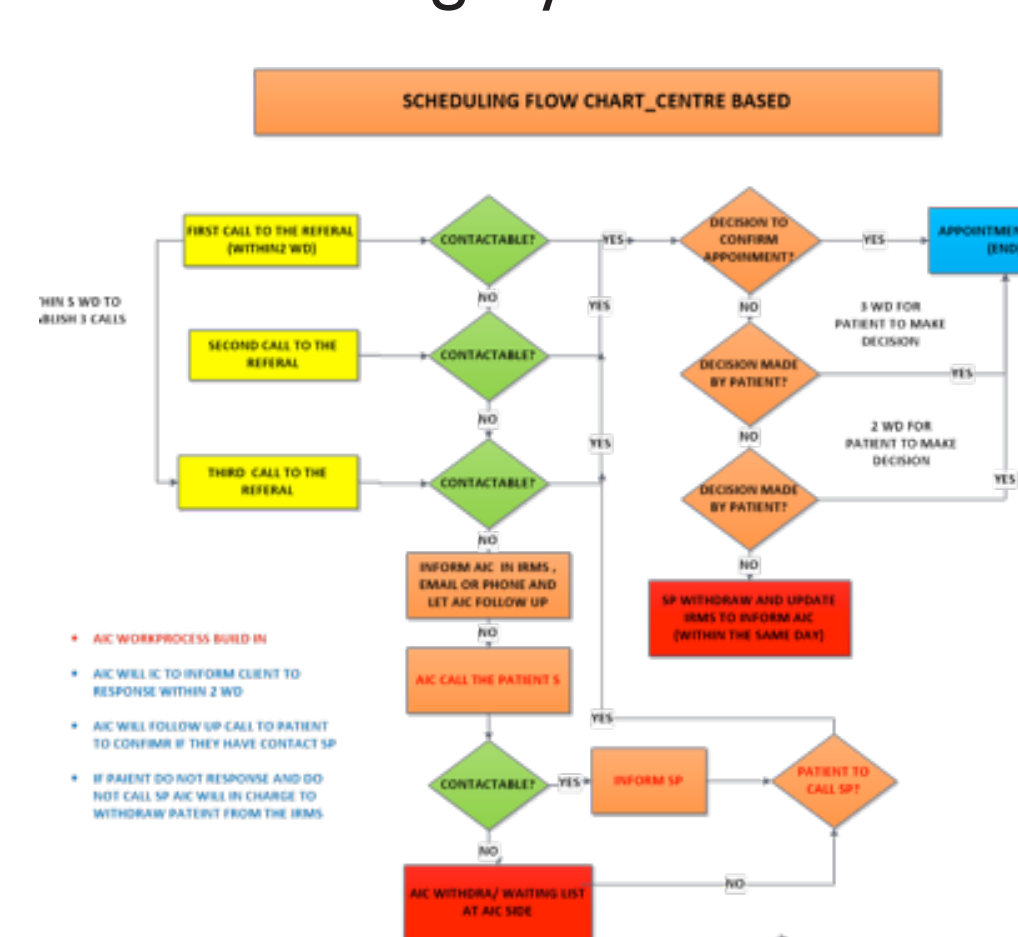
Solution 2: Redesign layout of DRC



Relooking at the layout of DRC to improve workflow and motion waste (figure 3).

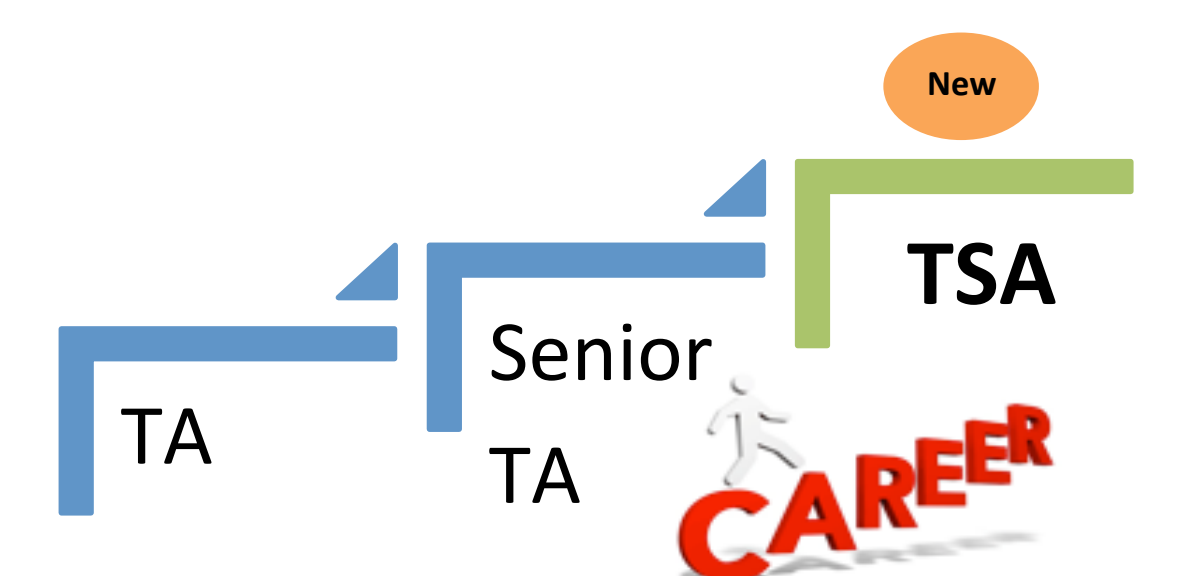
Solution 3: Standardise work process

- PSA calling system



Solution 4: Development of a new job role: Therapy Support Associate (TSA)

- Improve the competency of TAs
- Improve utilisation of professional resources and productivity



Target Measurements

- Motion waste: reduce number of walking steps required to move around when performing key processes by 20% (Solution 2)
- Non-value added work: reduce time wastage on non-contactable patients by 20% with standardised calling system (Solution 3)
- Waiting time waste: Reduce patient's waiting time at BP counter and gym area by 20% (Solution 1)
- Job redesign: Time saved by 20% with allocation of job tasks from Therapists to TSAs (Solution 4)

Benefits / Results

- Reduction in time used on non-valued added work allows the rehabilitation team to spend more direct contact time with patients
- Standardisation of work processes, procedures and practices.
- Allows the therapist more time to handle more complex cases while empowering the TA to handle patients who require simple and straightforward rehabilitation needs.

Conclusion

For DRC staff, there will be increased job satisfaction as more time can be spent interacting with clients and purposeful work. This is made possible with the reduction of time spent on non-value added work. For the patients, the quality of care will be improved as there will be a reduction in waiting time and care staff are able to consistently deliver standardised protocol of practices.