

Project Title

Improving productivity of off-road driving assessments

Project Lead and Members

Project lead: Natalie Ng

Project members: Josephine Tan, Chen Changwu

Organisation(s) Involved

Jurong Community Hospital

Healthcare Family Group Involved in this Project

Allied Health

Applicable Specialty or Discipline

Rehabilitation Therapy

Aims

By reviewing current work processes, we aim to increase productivity of driving rehabilitation therapist by 33% (i.e. increase the number of patients seen per week)

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

Work processes can be reviewed to enhance productivity and patients' experience. Tapping on the use of technology (such as iPad app) can aid current work processes and enhance productivity.

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign, Value Based Care, Patient Reported Experience Measures, Patient Satisfaction, Productivity, Time Saving, Access to Care, Waiting Time

Keywords

Driving Assessment, Rehabilitation Therapist

Name and Email of Project Contact Person(s)

Name: Natalie Ng

Email: natalie_ng@nuhs.edu.sg

IMPROVING PRODUCTIVITY OF OFF-ROAD DRIVING ASSESSMENTS

MEMBERS: NG XIANG LING NATALIE, JOSEPHINE TAN SER MIN & CHEN CHANGWU, OCCUPATIONAL THERAPY, REHABILITATION

- SAFETY
- PRODUCTIVITY
- QUALITY
- COST
- PATIENT EXPERIENCE
- TEAMWORK
- COMMUNICATION

Define Problem, Set Aim

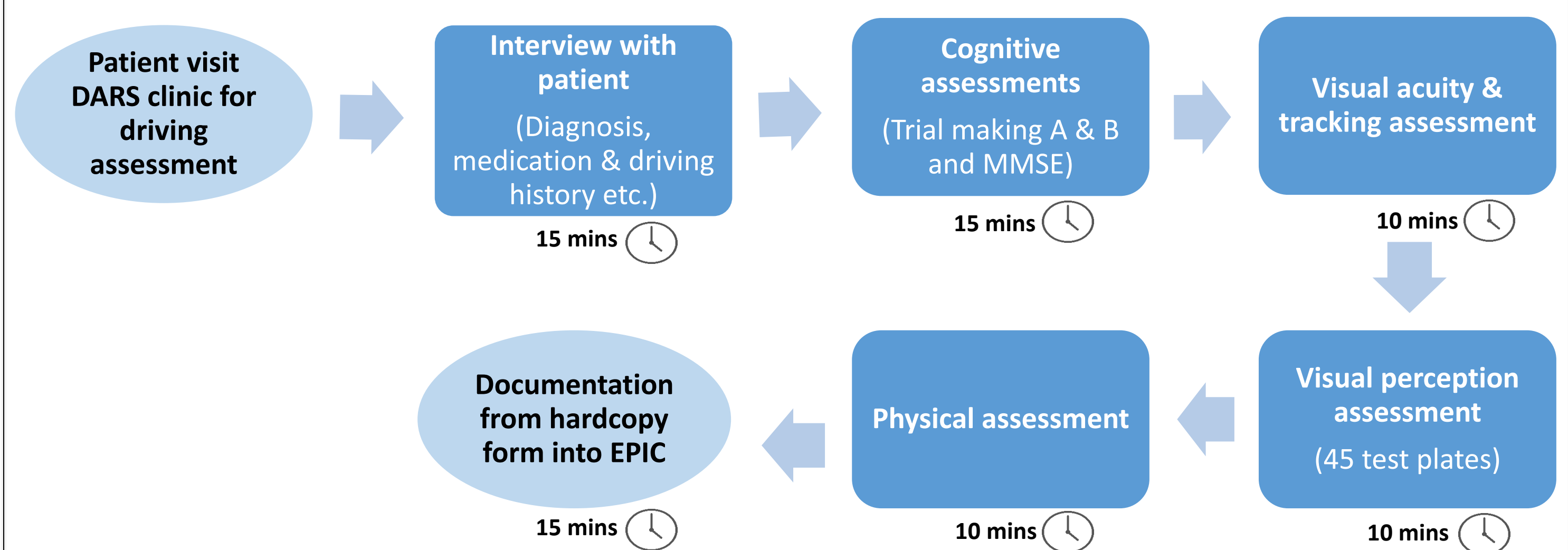
Problem/Opportunity for Improvement
Driving Assessment and Rehabilitation Service (DARS) at Jurong Community Hospital sees 3 patients for off-road driving assessment in a half day clinic. Each off-road driving assessment takes an hour of face to face consult with a driving rehabilitation therapist. This leads to longer lead time for patients. There had been multiple episodes of assessments lasting more than one hour, resulting in longer wait time for subsequent patients.

Aim
By reviewing current work processes, we aim to increase productivity of driving rehabilitation therapist by 33% (i.e. increase the number of patients seen per week)

Establish Measures

- Primary measure**
Number of patients seen in a half day clinic
- Secondary measures**
Lead time for patients
Total time spent by therapist for each patient

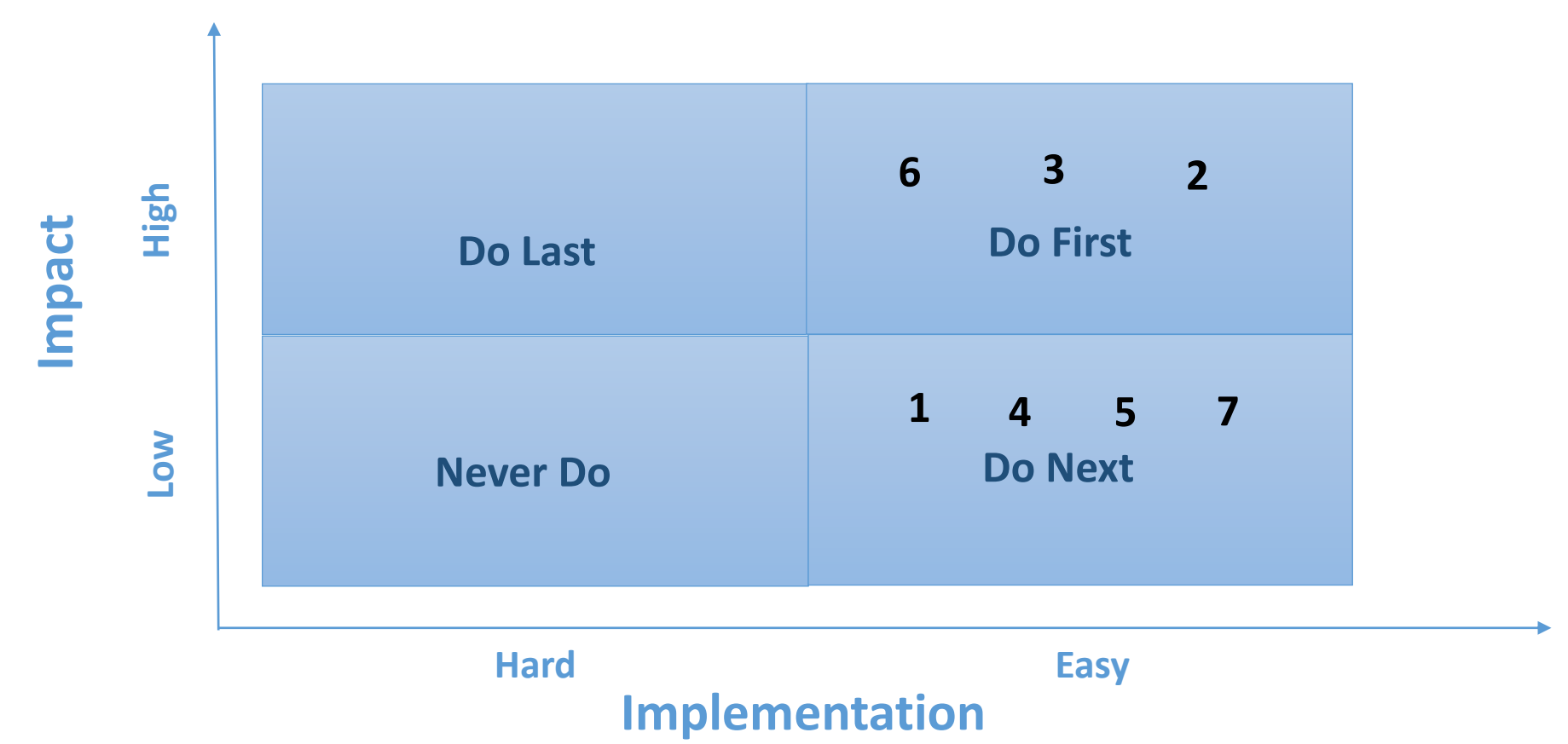
Analyse Problem



- Defects**
 - Use of visual perceptual assessment that has limited face validity to aspect of driving
- Overproduction**
 - Excess assessment components (Cognitive and visual perception assessments)
 - 3 cognitive assessments (MMSE - 30 questions and Trail Making A & B) & 45 test plates for visual perception
- Waiting**
 - Long set up time in view of multiple assessment tools (Different tools and assessment kits required)
- Not utilizing talent**
 - Increased time spent by therapist explaining to patients about assessment tools & its relation to driving
- Transportation**
 - Transferring documentation on hardcopy assessment forms to Epic
- Inventory excess**
 - Various assessment tools to test for same components (multiple cognitive assessments)
 - Repeated assessments (Cognitive assessments done previously during inpatient stay)
- Motion waste**
 - Design of visual perceptual assessments that involves multiple equipment to be laid out, changed and cleaned
 - Design of cognitive assessments with different equipment needed
- Excess processing**
 - Excess processing of assessment tools for cognitive and visual assessments

Select Changes

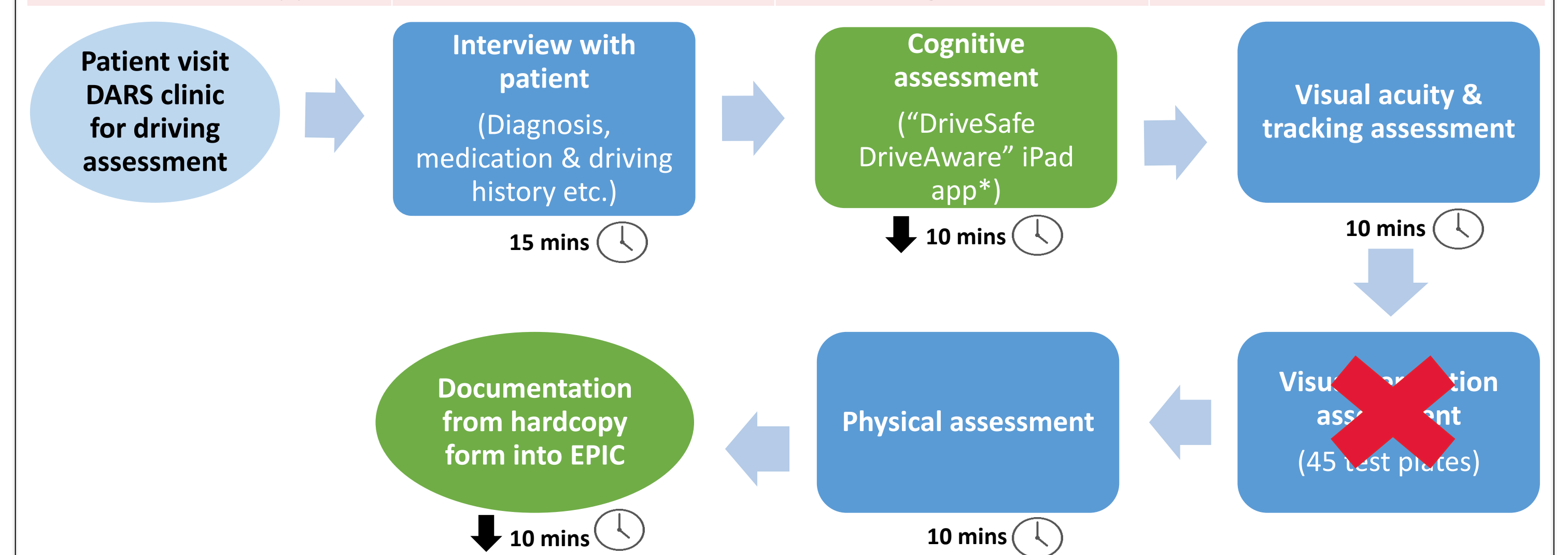
Root Causes	Potential Solutions
D: Use of visual perceptual assessment that has limited face validity to aspect of driving	1. Use alternative assessments that have direct and clear link to driving skills
N: Increased time spent by therapist explaining to patients about assessment tools & the relation to driving	2. Streamline process: Remove repeated assessments
O/W/I/E: Excess assessment components	3. Pick out essential components of assessments
	5. Use alternative, validated, evidence-based assessments that can assess essential components
M: Design of multiple assessments (long set up & cleaning)	4. Set up assessment beforehand
T: Transferring documentation on hardcopy assessment forms to Epic	7. Utilize assessments that allows direct input to Epic



Solution chosen: Combination of 1,2,3,4,5,7 -> An alternative assessment that does not require much set up (iPad app) with obvious links to driving skills and direct input to EPIC. This decreases set up time, time taken to explain to patient about the assessment and documentation time.

Test & Implement Changes

PLAN	DO	STUDY	ACT
Refining assessment <ul style="list-style-type: none"> - Remove excess assessments - Research on relevant, evidence-based assessment tools - Ensure essential components are assessed - Introduce new iPad assessment app 	Streamlining <ul style="list-style-type: none"> - Change assessment tools & processes - Purchase usage rights for iPad app - Refine current assessment forms 	Results <ul style="list-style-type: none"> - Reduced contact time - Decreased waiting time - Boost in productivity - Improved patient experience (Participants posed less questions, clearer link to driving) 	Reflection <ul style="list-style-type: none"> - Refining assessment processes can boost productivity <p>Plans</p> <ul style="list-style-type: none"> - Adopt process - Investigate clinical utility of new assessment to predict driving performance



Primary outcome
Increased productivity by 33% (Increased number of patients seen from 3 patients to 4 patients per week)

Secondary outcome
Lead time reduced from 3 weeks to 2 weeks
Reduced total time spent for each patient from 75 mins to 55 mins

Spread Changes, Learning Points

Work processes can be reviewed to enhance productivity and patients' experience
Tapping on the use of technology (such as iPad app) can aid current work processes and enhance productivity
The next step: To continue to monitor the effectiveness of new assessment process in making the clinical judgement about functional fitness to drive

* "DriveSafe DriveAware" is a validated cognitive assessment tool (iPad app)