

Project Title

Reduction of Patients' Wait Time for Prescription of Medical Grade Footwear in Inpatient Wards

Project Lead and Members

Project lead: Arnold Hu

Project members: Cheong Siew Jing, Nicolas Mcindoe, Lim Kian Chong

Organisation(s) Involved

Ng Teng Fong General Hospital

Healthcare Family Group(s) Involved in this Project

Allied Health

Applicable Specialty or Discipline

Podiatry

Aims

1. Eliminate PT's waiting time of approximately 3~4 hours for the sample footwear to be delivered to patient's bedside
2. Reduce PT's waiting time from 1~2 hours by 50% to 30min~ 1 hour by increasing the supply of sample footwear
3. Free up Pod's time by approximately 20~35mins per footwear referral

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

Workflows that involve multiple disciplines may be examined to optimise labour resources. Processes can be re-designed/cross-trained to reduce idle time and bottlenecks, such as allowing 1 discipline to take charge and the other discipline to support, instead of both disciplines being responsible for it at the same time. This may save time (eliminate waste) and improve the efficiency of the whole workflow.

Conclusion

See poster appended/ below

Project Category

Workforce Transformation

Job Redesign

Keywords

Footwear Assessment and Fitting, Physiotherapist, Reduce Wait Time

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REDUCTION OF PATIENTS' WAIT TIME FOR PRESCRIPTION OF MEDICAL GRADE FOOTWEAR IN INPATIENT WARDS

MEMBERS:

ARNOLD HU, CHEONG SIEW JING, NICOLAS MCINDOE, LIM KIAN CHONG

- SAFETY
- PRODUCTIVITY
- QUALITY
- COST
- PATIENT EXPERIENCE

Problem and Aim

Problem
In the wards, patients with special weightbearing statuses require various medical grade footwear to facilitate safe discharge and ambulation. However, they are required to wait for reviews by both podiatrist and physiotherapist for the prescription of these footwear.

Podiatry (Pod)

- prescribes the appropriate footwear, based on weightbearing status and size, to the patient
- stocks and loans samples of these footwear to patients for assessment.

Physiotherapy (PT)

- waits for Pod to deliver the sample footwear to patient's bedside prior to commencement of assessment.
- assesses that the patient is able to use the footwear safely, based on their falls risk and gait.

Subsequently, Pod will put through the order in EPIC for Pharmacy to send up the new footwear to the patient.

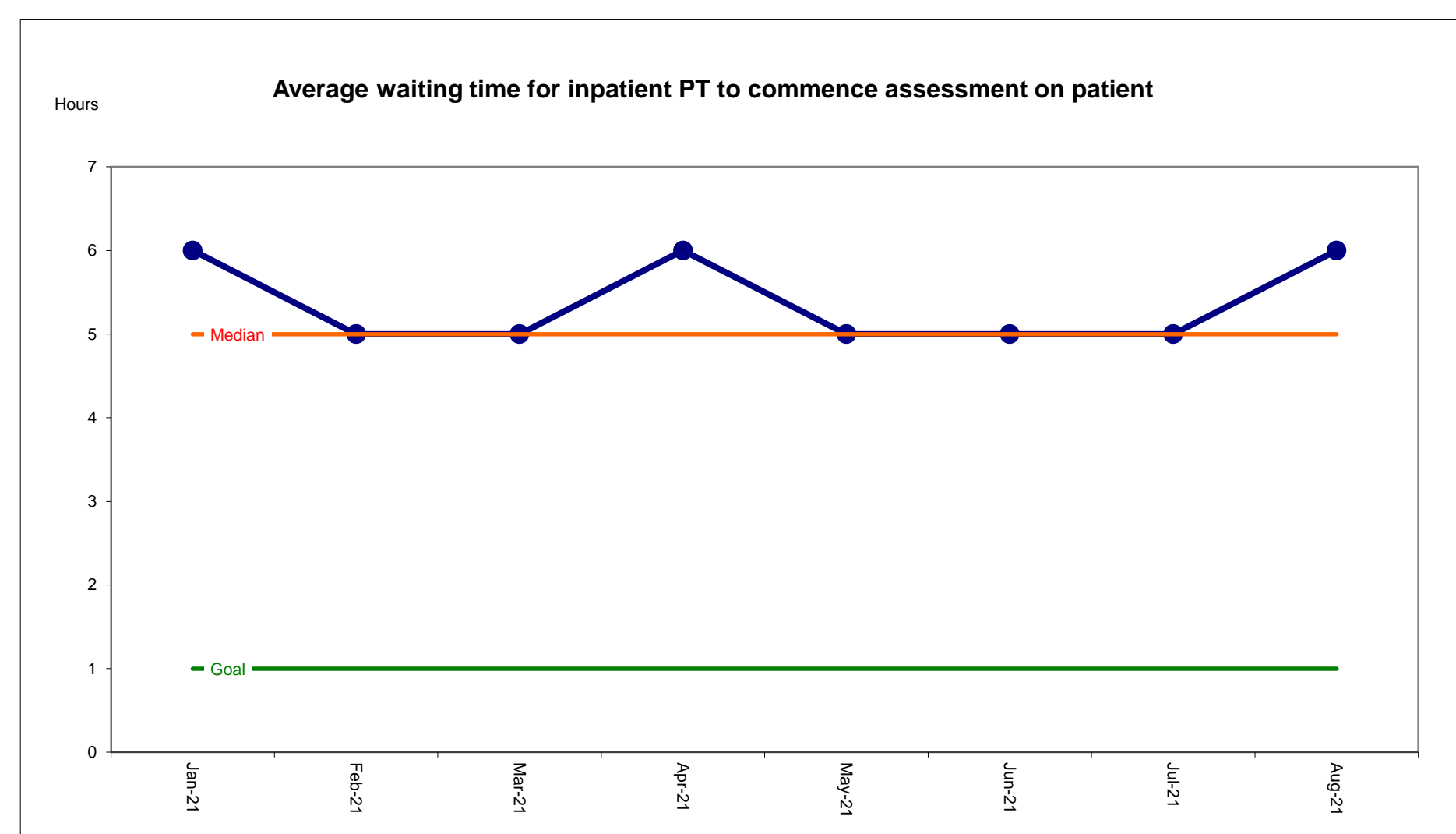
Opportunities to reduce patients' wait time are present based on the this workflow (Figure 1),

- PT has to wait for sample footwear from Pod before starting assessment
- Pod has to deliver the sample footwear to respective patients' bedside across Tower B.
- 1 sample of each size and each footwear is currently only available to all the patients across Tower B at NTFGH. If multiple PTs require the same footwear, they will have to wait for the sample to be available.

- Aim**
- Eliminate PT's waiting time of approximately 3~4 hours for the sample footwear to be delivered to patient's bedside
 - Reduce PT's waiting time from 1~2 hours by 50% to 30min~1 hour by increasing the supply of sample footwear
 - Free up Pod's time by approximately 20~35mins per footwear referral

Establish Measures

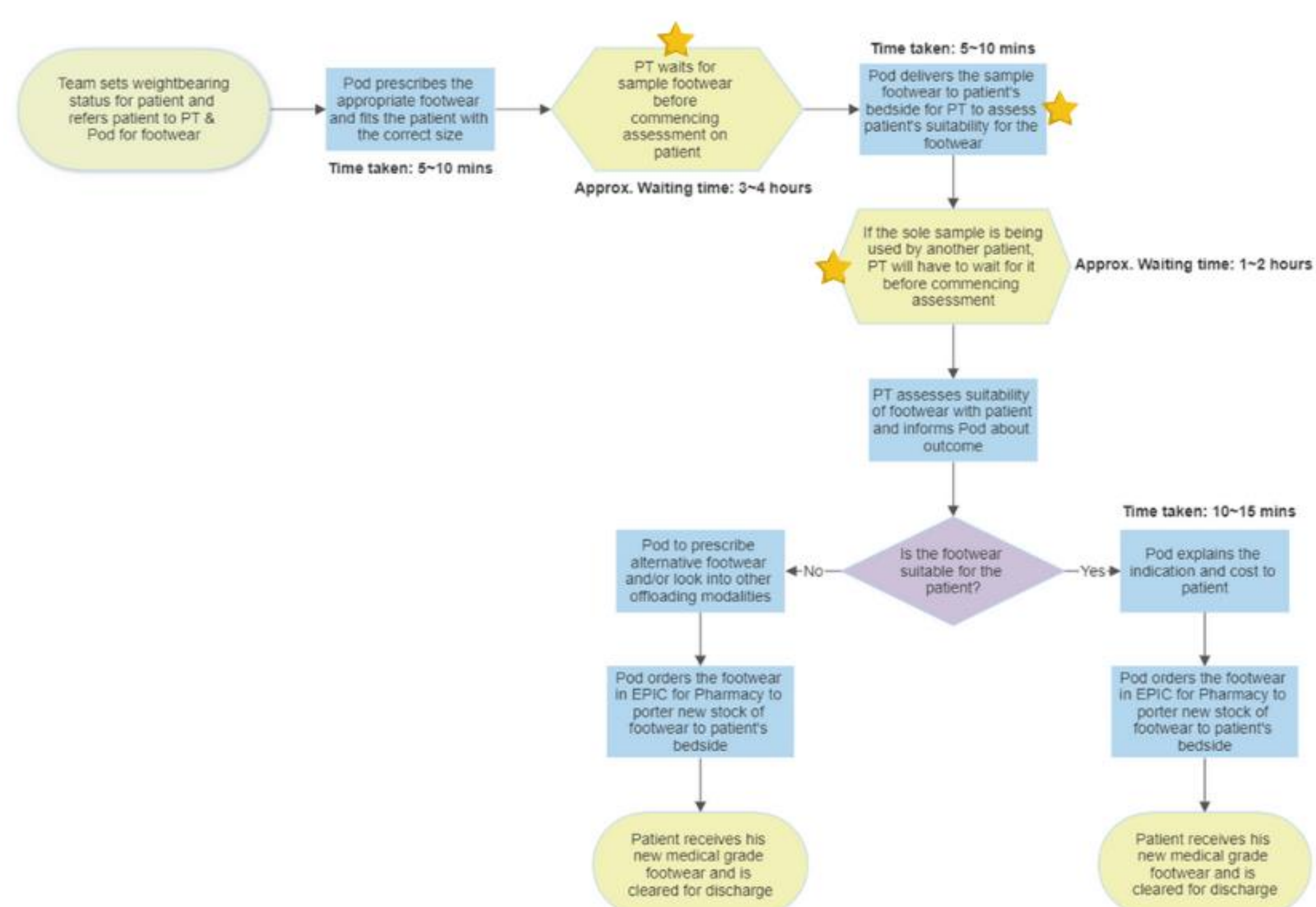
Average waiting time of patient for PT to commence assessment on patient for footwear referral: 5 hours



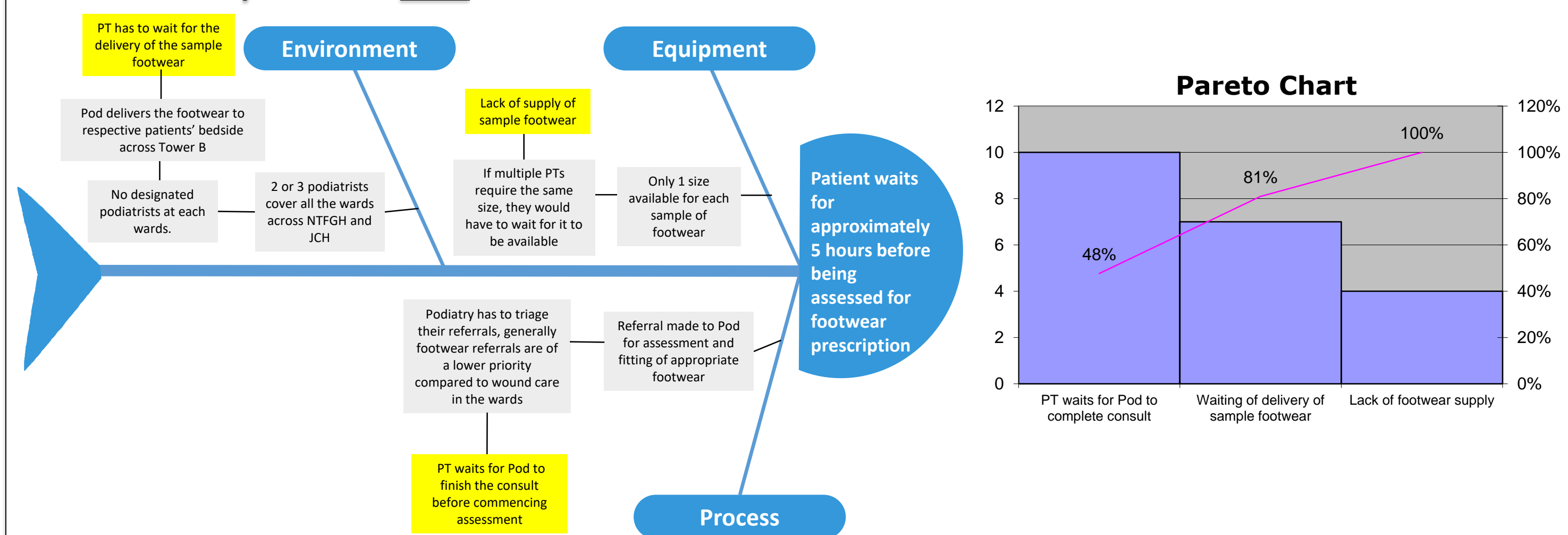
Analyse Problem

Process before intervention

Figure 1: Current Footwear Workflow



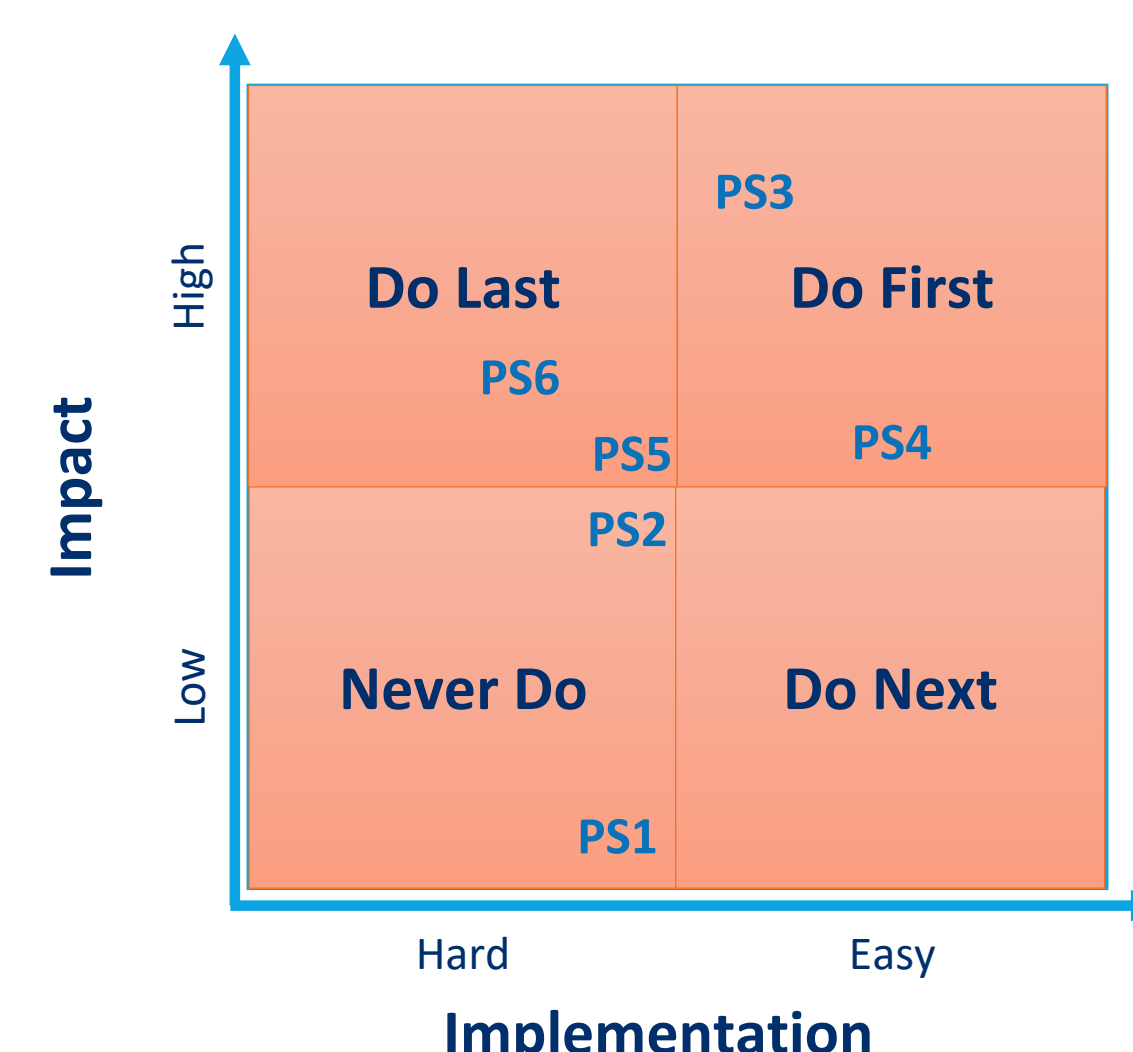
What are the probable root causes?



Select Changes

Based on the root causes identified, the team developed 6 possible solutions, ranked and implemented according to the Impact vs Implementation matrix.

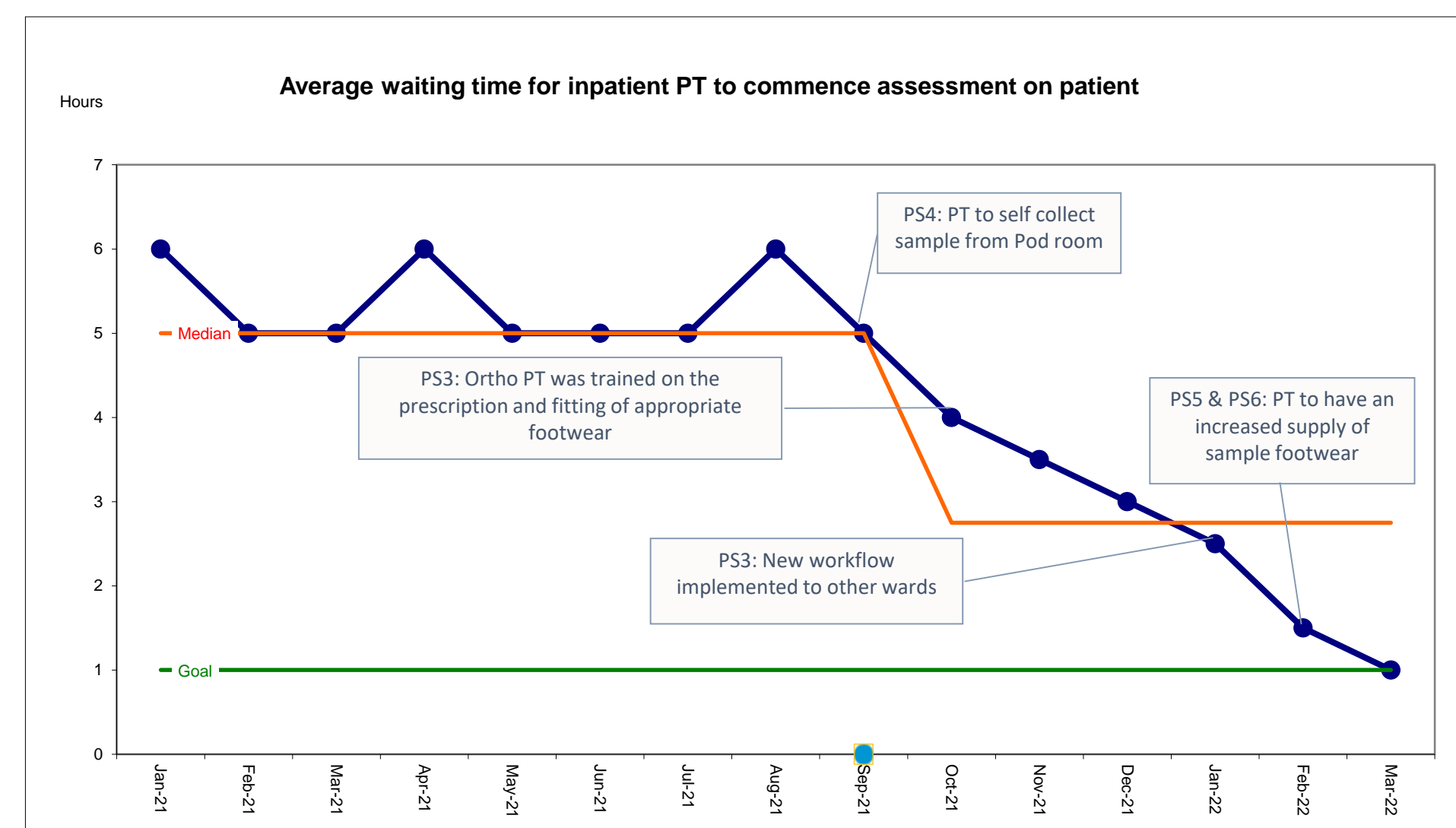
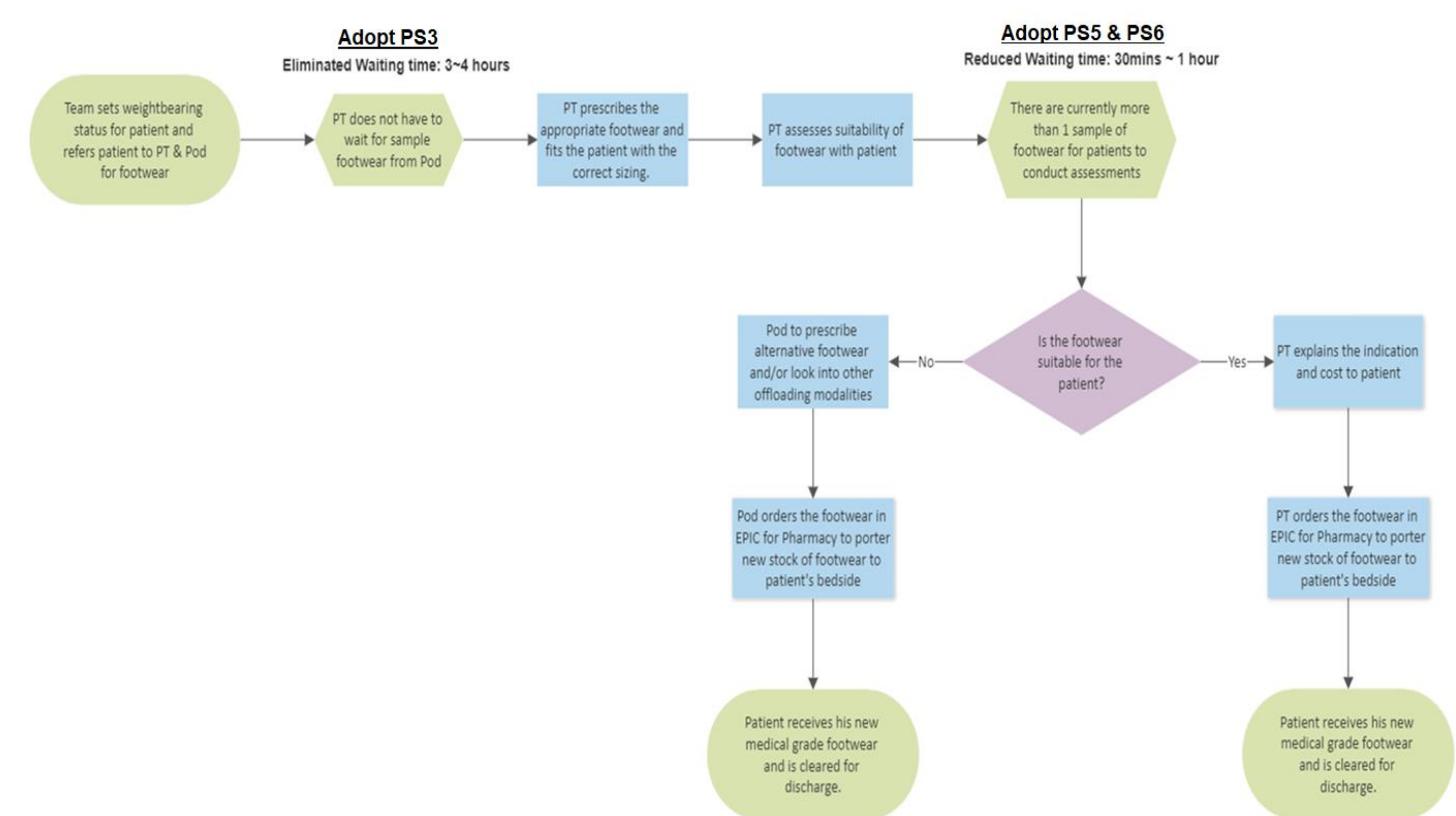
Root Cause	Potential Solutions
Waiting of Pod to complete their consult	1 Pod to see footwear referral first
	2 PT to contact Pod if urgent review is necessary
	3 PT to be trained in footwear assessment and fitting
Waiting of delivery of sample footwear	4 PT to self collect sample footwear from Pod room
	5 PT to have their own supply
Lack of footwear supply	6 Increase footwear supply



Test & Implement Changes

CYCLE	PLAN	DO	STUDY	ACT
1	Using PS4: Aim: To reduce waiting time for sample footwear to be delivered to patient's bedside before commencing PT assessment	Allow PT to self-collect samples from Pod room at B11 Rehabilitation	5~10mins of Pod's time is saved as he/she does not have to do the manual delivery across Tower B.	Adapt. PT still has to wait for Pod to review the patient to decide on appropriate footwear and size.
2	Using PS3: Aim: To reduce PT's waiting time for the completion of Pod review	Pod trained Ortho PT on the prescription and fitting of appropriate footwear based on weightbearing status. Pilot conducted for 2 months in Orthopaedic wards (Sep '21 - Nov '21) where it had the highest volume for these footwear referrals.	PT's waiting time of 3~4 hours is eliminated as PT no longer has to wait for Pod to review the patient. PT is able to fit and prescribe the appropriate footwear based on weightbearing status.	Adopt. Ortho PT to train other PTs of Tower B to implement change in other wards after successful pilot. PT has to wait for the availability of sample footwear if there are multiple patients requiring assessment.
3	Using PS5 & PS6: Aim: Increase supply of sample footwear and PT to have their own samples.	Obtain more samples of footwear from Pharmacy and Vendor	Supply of footwear (Darco Orthowedge and Open Square Toe) increased from 1 to 3. PT now has their own sample. If inadequate, they are able to borrow from Pod supply as well. Waiting time for sample availability decreased by 50% from 1~2 hours to 30~60mins.	Adopt. To increase supply again in the future if required.

Figure 2: New Footwear Workflow



Spread Changes, Learning Points

Workflows that involve multiple disciplines may be examined to optimise labour resources. Processes can be re-designed/cross-trained to reduce idle time and bottlenecks, such as allowing 1 discipline to take charge and the other discipline to support, instead of both disciplines being responsible for it at the same time. This may save time (eliminate waste) and improve the efficiency of the whole workflow.