

# Quality Improvement Award: Project (Process/Service) /CPIP Category

Report by : Teo Siew Ling

Start Date: Apr 18

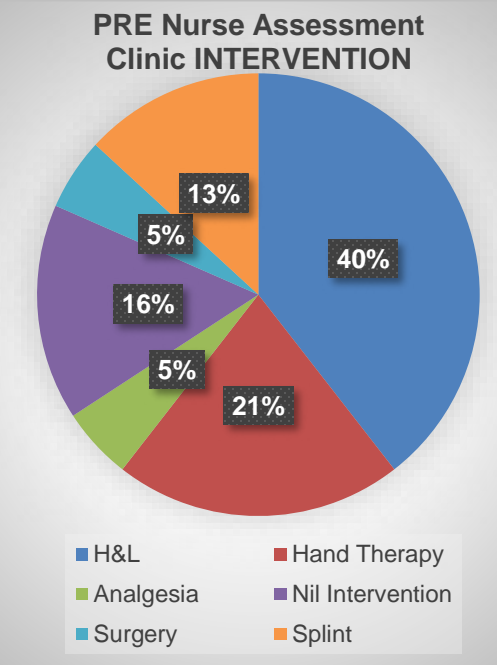
End Date: Mar 19

<b>Project Title 7</b>	<b>Improving care of patients with trigger finger and increasing the productivity of doctors</b>				
<b>Department</b>	<b>HRM</b>	<b>Duration</b>	<b>10 months</b>	<b>Sponsor / Facilitator</b>	<b>A/Prof Alphonsus Chong / Teo Siew Ling</b>
<b>Team Leaders</b>	<b>Dr Renita Sirisena</b>	<b>Team Members</b>	<b>Rahimah Bahri, Rahidayati Binte Rahmat, Zhi Yan, May Lim, Farazeela Malek, Teo Siew Ling, Tan Lay Lay</b>		

## BACKGROUND

Trigger Finger (TF) is the most commonly encountered condition in an elective outpatient setting at our Hand & Reconstructive Microsurgery Centre. It is a condition where the patient feels pain or discomfort when bending or extending the finger.

Analysing the new trigger referrals from Primary Centres between April – June 2018, we found that 45% of the patients would choose surgery or H&L injection while the remaining would choose hand therapy, splint, analgesia or no intervention. We felt that the 55% of patients who decided on the latter treatments did not require review by a specialist and could be assessed by a trained nurse with a standardized protocol. This would then relieve the burden placed on the specialist and allow them more time for more urgent and complex cases.



## INTERVENTIONS & ACTION PLAN

No	Task	Action by	Date
1	Set up workgroup committee and facilitate discussion between NUP and NUH-HRM	Dr Renita Sirisena	Nov-17 to Dec-17
2	Create triaging workflow for patients from NUP to HRM Centre	Whole team	Nov-17 to Feb-17
3	Creation of information leaflet in 4 languages (for NUP Drs) to accompany the referral form	Dr Renita Sirisena Teo Siew Ling	Mar-18 to May-18
4	Discuss with NUH Hand OTs and workout the number of appointment slots to be provided to NUP referrals and inform Call Centre to direct all NUP TF referrals to Nurse Assessment clinic.	Sr Rahimah Tan Lay Lay	Jan-18 to Mar-18
5	To develop inclusion and exclusion criteria into standardized CDOC template for nurses	Dr Renita Sirisena Zhi Yan & Rahidah	Apr-18 to May-18
6	To provide training to HRM Nurses on how to triage TF cases and provide follow-up phone calls at 6 weeks	Dr Renita Sirisena, Zhi Yan & Rahidah	Mar-18 to Jun-18
7	To create phone communicate script for SA to call patient before actual visit	May Lim Farazeela	May-18
8	Disseminate new practice to HRM doctors and staff	Dr Renita & Rahimah	Apr-18 to May-18
9	Monitoring of indicators for project. Overall workflow, Value Stream Mapping. Reporting of project for QIP award.	Dr Renita Sirisena Teo Siew Ling	Jul-18 to Mar-19

## AIMS

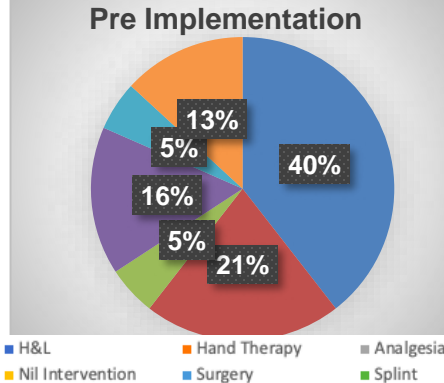
The aim of this project is to integrate care across the NUHS system (Primary and Tertiary Centres) by devising a system which allows TF patients to discuss the various trigger finger management options with a trained nurse and still receive the necessary counselling and treatment required.

Outcome measurements:

- Increase the conversion rate of patients seen by doctors to treatments requiring a doctor's input from **45% to 80%**
- Reduce the number of nil interventions from current **16% to 5%**
- Reduce the cost for patients who do not require specialist attention

## BENEFITS AND RESULT

- After intervention, **100%** of patients seen by a doctor chose H&L or surgery vs **45%** (17/38) patients pre-intervention.
  - Increasing the conversion rate of patients seen by doctors to treatments requiring a doctor's input.
- Pre intervention, **16%** of patients chose nil intervention versus **1%** post intervention.
  - Patients could have had more time to consider treatment options in the NAC clinic and thereby chose treatment based on what they were comfortable with.



## COST SAVINGS FOR PATIENTS

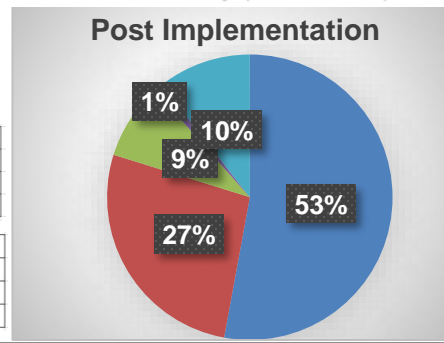
In the new workflow, patient who decides to opt for hand therapy, splint, analgesia or no intervention after being assessed by the trained nurse would need to pay a Nurse Assessment Fee.

BEFORE Implementation			
1. Patient presents with Trigger Finger	2. Patient assessed by doctor	3. Patients opt for Hand Therapy, Splint, Analgesia or no Intervention	4. Patient pays doctor consult Fee.
			Pte : \$123.05 Sub : \$37.00

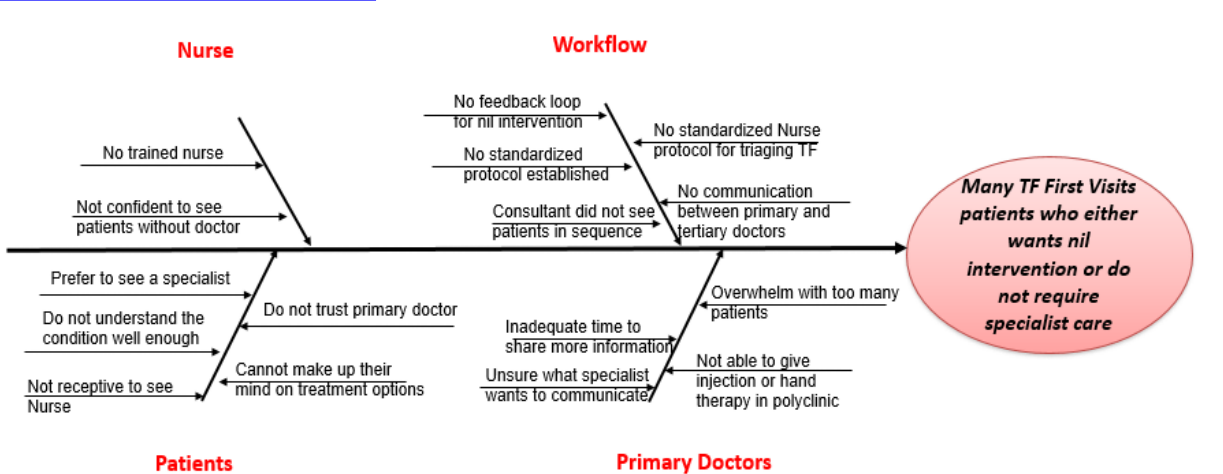
Nurse Assessment Fee			
Patient Class	WO GST	W GST	
Private	\$115.00	\$123.05	
Subsidised	\$37.00	\$37.00	

AFTER Implementation			
1. Patient presents with Trigger Finger	2. Patient assessed by trained Nurse	3. Patients opt for Hand Therapy, Splint, Analgesia or no Intervention	4. Patient pays Nurse Assessment Fee
			Pte : \$26.75 Sub : \$12.50

Nurse Assessment Fee			
Patient Class	WO GST	W GST	
Private	\$25.00	\$26.75	
Subsidised	\$12.50	\$12.50	



## PROBLEM ANALYSIS



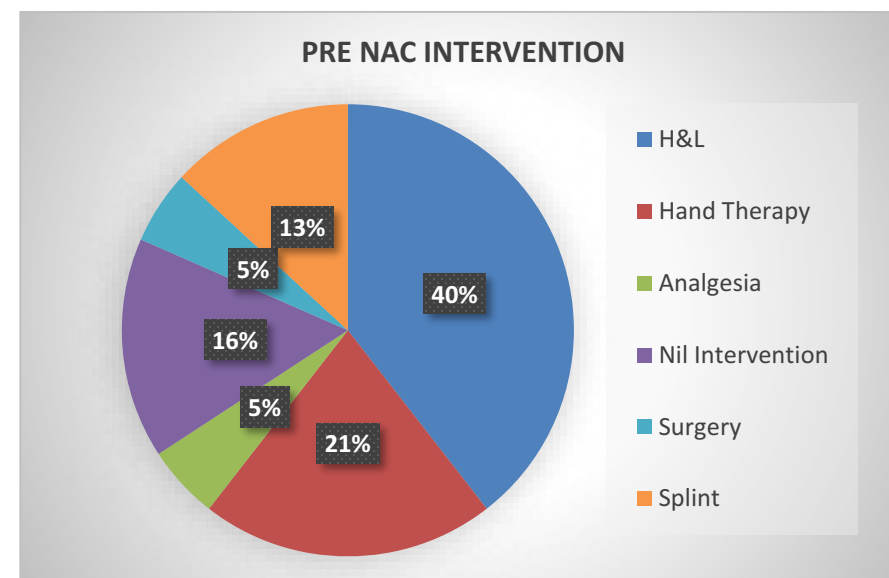
## STRATEGY FOR SPREADING/SUSTAINING

- Currently the NAC trigger clinics are opened 2x/week in 2 consultant run clinics. We will be slowly increasing the number of NAC clinics open to 1 clinic per day.
  - ✓ We are working on training more nurses to be able to run NAC
  - ✓ Nurses to run NACs for other conditions like DeQuervain tenosynovitis and carpal tunnel syndrome
  - ✓ We are working on a credentialing program for our nurses
- As our HRM doctors run service in clinics in JMC and NTFGH, we plan to integrate this program at our other NUHS sites.

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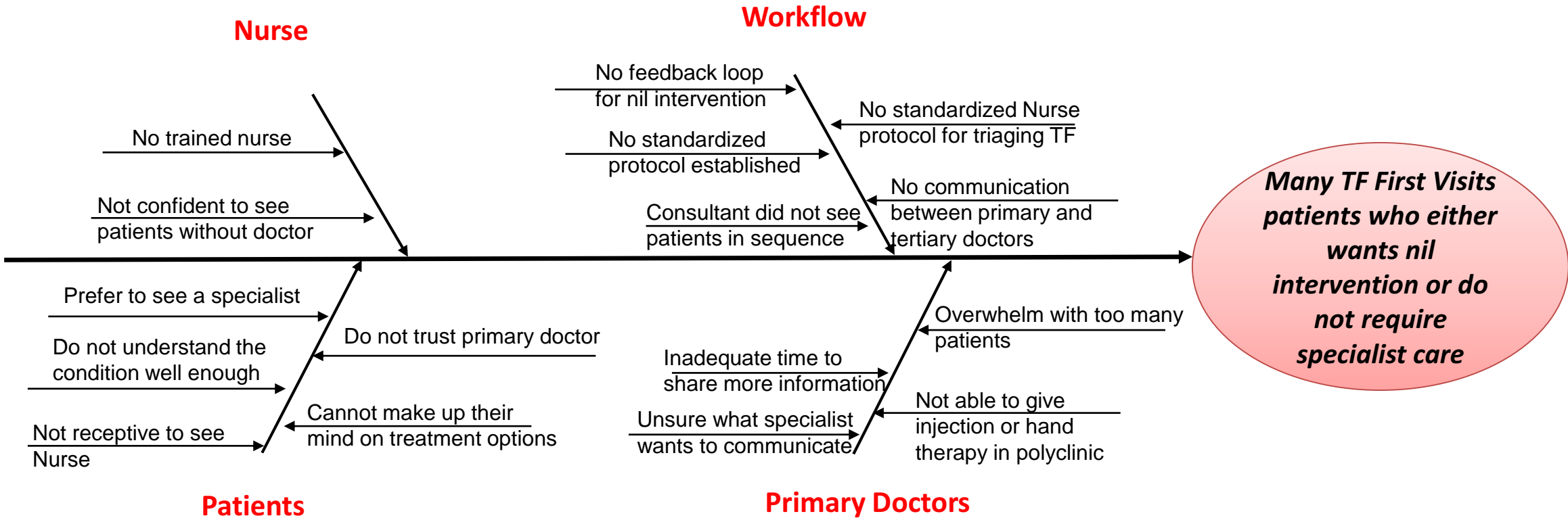
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# INTERVENTIONS IMPLEMENTED

S/N	Interventions Implemented												
2.	<p>Developed inclusion and exclusion criteria and trained the nurses to triage patients in Nurse Assessment Clinic alongside with Consultant Clinic.</p> <div style="border: 1px solid black; padding: 10px;"><p><b>NUP-HRM TRIGGER INITIATIVE</b> <b>Patient Screening Form</b></p><div style="border: 1px solid black; padding: 5px;"><p>Patient's sticker Name: _____ NRIC: _____</p></div><p>Hand Dominance:        R            L</p><p>Occupation: _____</p><p>Finger(s) Affected: _____</p><table><tr><td>Locking currently present?</td><td>YES</td><td>NO</td></tr><tr><td>First time having locking?</td><td>YES</td><td>NO</td></tr><tr><td>Previous treatment?</td><td>YES</td><td>NO</td></tr><tr><td>Other symptoms? E.g. hand numbness, joint pain</td><td>YES</td><td>NO</td></tr></table></div>	Locking currently present?	YES	NO	First time having locking?	YES	NO	Previous treatment?	YES	NO	Other symptoms? E.g. hand numbness, joint pain	YES	NO
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# INTERVENTIONS IMPLEMENTED

S/N	Interventions Implemented																
3.	<p>Created communication script and charging mechanism for patients.</p> <div style="border: 1px solid black; padding: 10px;"><p><b>Script for NUP-HRM Trigger Finger patient call before HRMC appointment</b></p><p>Good morning / afternoon <u>Mr / Ms/ Mdm</u> _____</p><p>I am calling about your appointment with NUH Hand and Reconstructive Microsurgery Centre (HRM Centre).</p><p>You have a recent visit to Polyclinic and have been referred to us.</p><p>Your appointment is on <b>Date at Time</b>.</p><p>As part of our plan of treatment, you will need to fill out a questionnaire on your condition.</p><p>You will then be assessed by a trained nurse. The nurse will discuss with you on the treatment options available.</p><p>Thank you <u>Mr / Ms/ Mdm</u>.</p><p>If you have further enquiries, you may call HRM Centre at 6772 5599. Goodbye!</p></div> <table border="1"><thead><tr><th>S/N</th><th>Options</th><th>Consult Charge</th><th>Nurse Assessment Fee</th></tr></thead><tbody><tr><td>1</td><td>Hand Therapy</td><td>No</td><td>Yes</td></tr><tr><td>2</td><td>Refer to Doctor</td><td>Yes</td><td>No</td></tr><tr><td>3</td><td>Nil Intervention</td><td>No</td><td>Yes</td></tr></tbody></table>	S/N	Options	Consult Charge	Nurse Assessment Fee	1	Hand Therapy	No	Yes	2	Refer to Doctor	Yes	No	3	Nil Intervention	No	Yes
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3	Nil Intervention	No	Yes														

# INTERVENTIONS IMPLEMENTED

**S/N Interventions Implemented**

4. Created a template for nursing documentation after reviewing a patient.

**HRMC NAC – TRIGGER FINGER**

Seen by:

Age:

Hand Dominance:

Occupation

PMHx:

**TRIGGER FINGERS:**

+

RIGHT	THUMB	IF	MF	RF	LF
Duration					
Grade					
Vas					
Previous H&L (NIL,1,2)					
Time since H&L					

LEFT	THUMB	IF	MF	RF	LF
Duration					
Grade					
Vas					
Previous H&L (NIL,1,2)					
Time since H&L					

**Options of management:**

- 1. Therapy, analgesia**
  - Takes time for effect to be seen
  - Involves wearing a splint, therapy, exercises
  - Analgesia – topical / oral
- 2. H&L**
  - 70% resolution, 30% recurrence
  - Maximum 2 injections per finger except LF (1x only)
  - Risk: infection, bleeding, recurrence, hypopigmentation, NV injury, tendon rupture, fat atrophy
- 3. Surgical release under LA**
  - 99% effective
  - Risk:
    - o LA: allergy
    - o Op: infection, bleeding, 2 week uncomplicated wound healing, need for post op therapy, NV injury

**Option chosen:**

**Plan:**

DATA COMPARISON

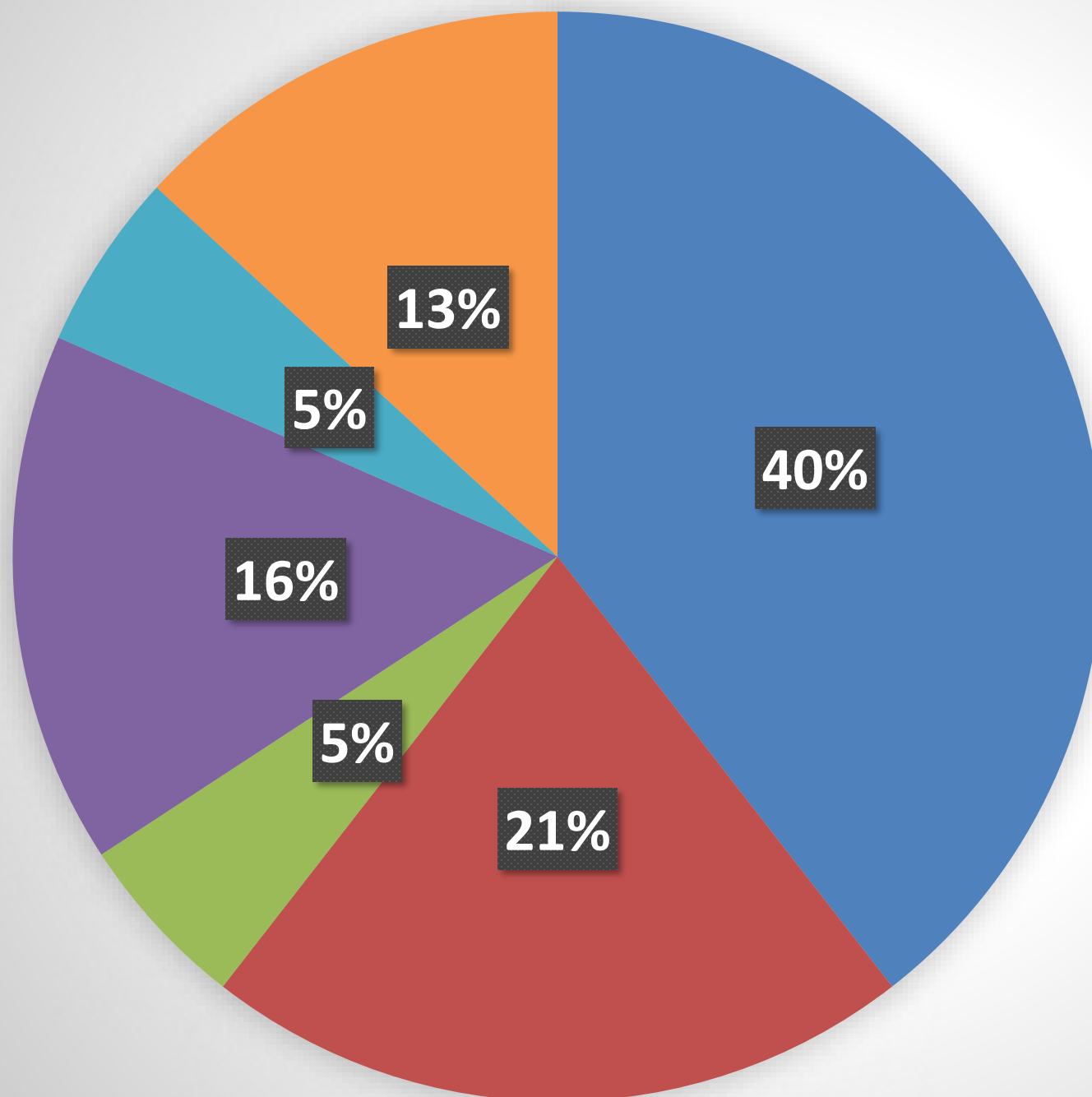
# **NUP HRMC TRIGGER INITIATIVE**

# PRE NAC INTERVENTION DATA

April 2018 – June 2018 ( 3 MONTHS)

- Total of 38 patients FV patients seen for trigger finger
  - Based on cases seen by 2 consultants
- 16% (6/38) of patients chose no intervention
- 40% (15/38) chose H&L
- Only 44.7% (17/38) of patients reviewed by a doctor chose an intervention that required a doctor's input

## PRE NAC INTERVENTION



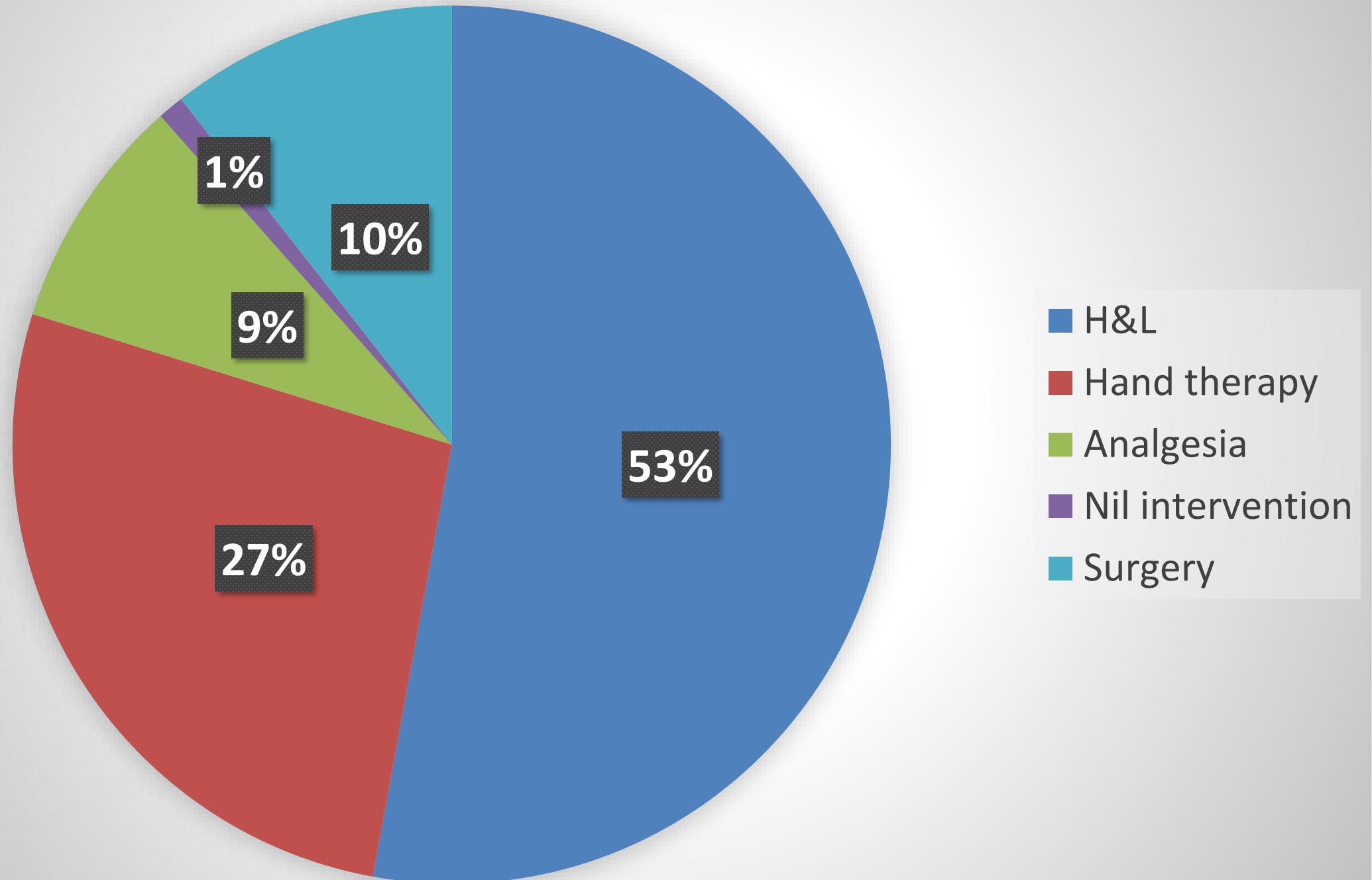
- H&L
- Hand Therapy
- Analgesia
- Nil Intervention
- Surgery
- Splint

# DATA SINCE INTERVENTION

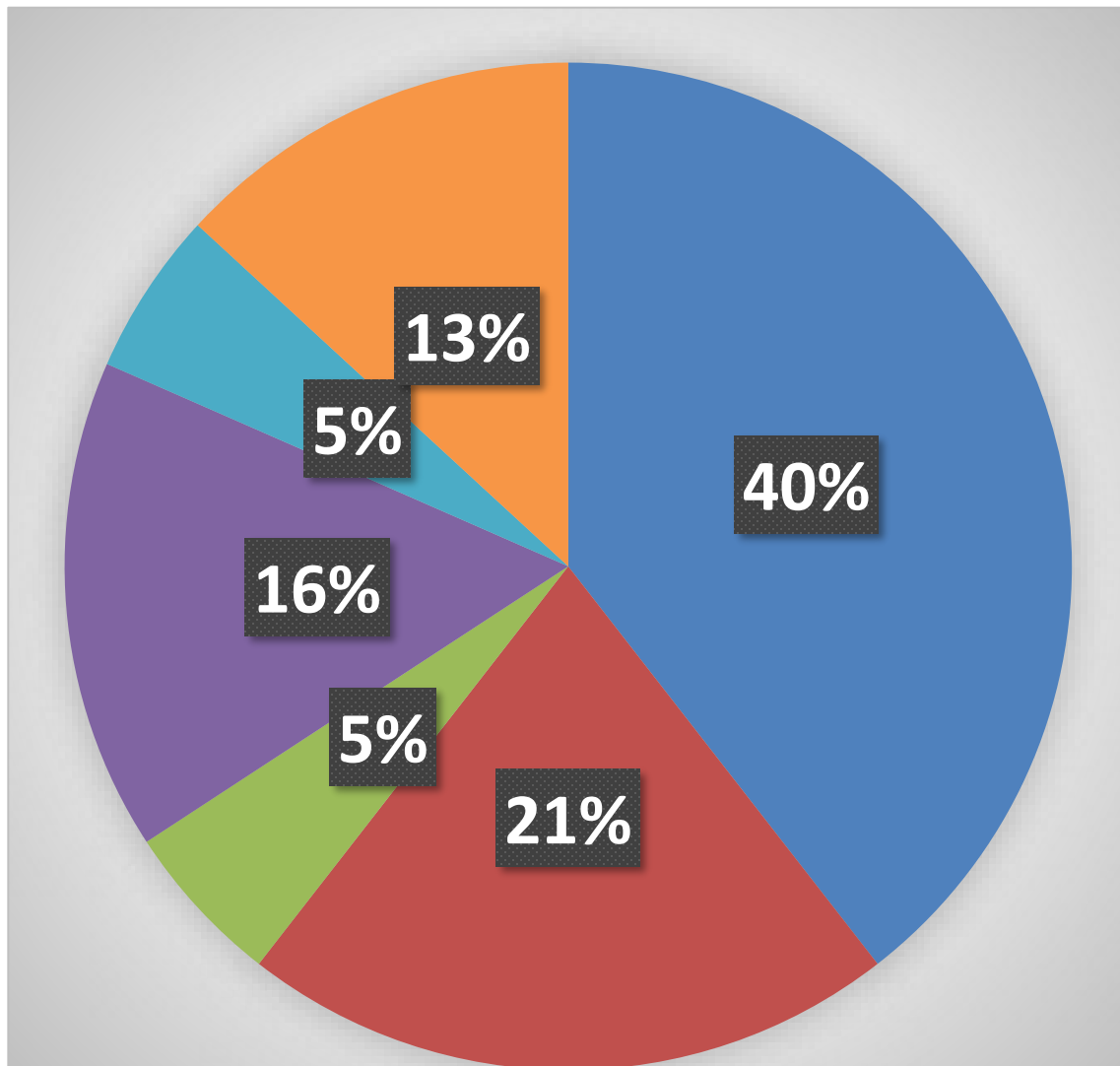
## JULY 2018 TO MARCH 2019 (9 MONTHS)

- 131 patients referred from NUP
- 104 patients screened by our nurses
  - 27 patients converted straight to FVs
    - did not meet the screening criteria
    - No SN available during the appointment
- 7.63% (10/131)- nil pre appointment phone call
- 3.82% (5/131) – requested to be reviewed by a doctor
- Pure NAC review 20/104 (19.23%)

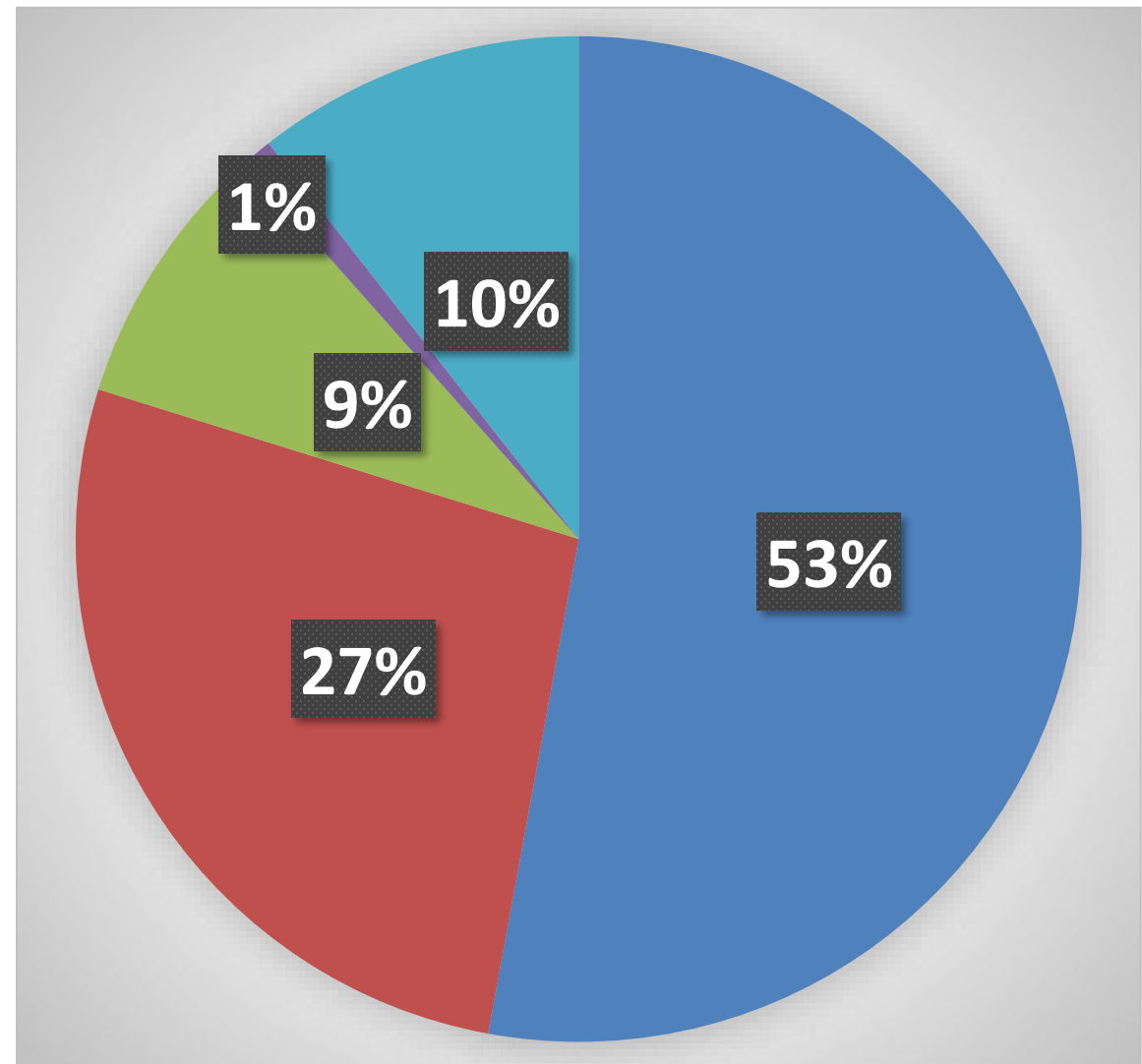
## POST NAC INTERVENTION



**PRE-NAC**



**POST-NAC**



■ H&L

■ Hand Therapy

■ Analgesia

■ Nil Intervention

■ Surgery

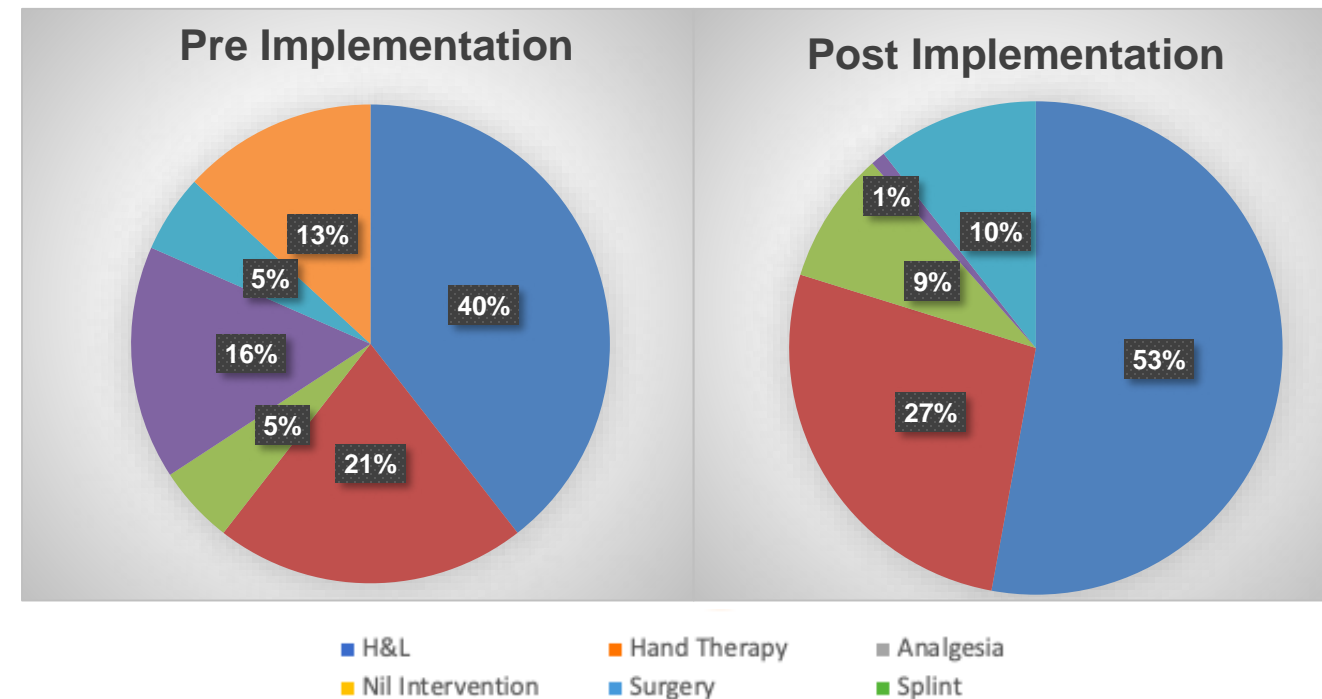
■ Splint

# Changes seen post intervention

- After intervention, 100% of patients seen by a doctor chose H&L or surgery vs 44.74% (17/38) patients pre-intervention.
  - Increasing the conversion rate of patients seen by doctors to treatments requiring a doctor's input.
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# BENEFITS & RESULTS

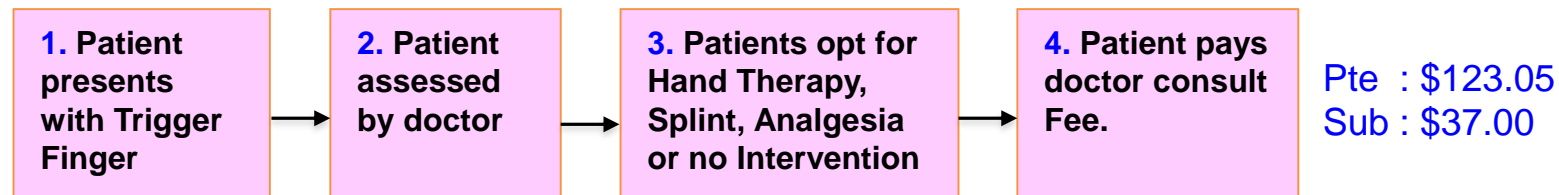
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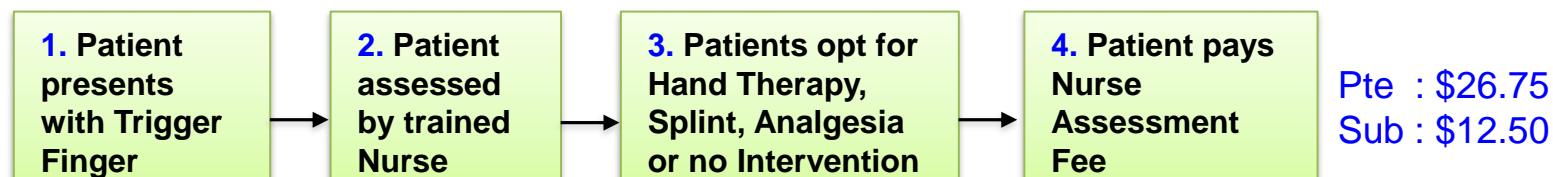
## Cost Savings for Patients

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### BEFORE Implementation



### AFTER Implementation



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