

Henry Ford Health

Henry Ford Health Scholarly Commons

Quality Expo 2024

Quality Expo

3-12-2024

Project #60: Early identification of impairments after neck dissection surgery to support timely referral to outpatient physical therapy

Jessica Gibson
Henry Ford Health

Adele Myszenski
Henry Ford Health

Follow this and additional works at: <https://scholarlycommons.henryford.com/qualityexpo2024>

Recommended Citation

Gibson, Jessica and Myszenski, Adele, "Project #60: Early identification of impairments after neck dissection surgery to support timely referral to outpatient physical therapy" (2024). *Quality Expo 2024*. 58. <https://scholarlycommons.henryford.com/qualityexpo2024/58>

This Book is brought to you for free and open access by the Quality Expo at Henry Ford Health Scholarly Commons. It has been accepted for inclusion in Quality Expo 2024 by an authorized administrator of Henry Ford Health Scholarly Commons.

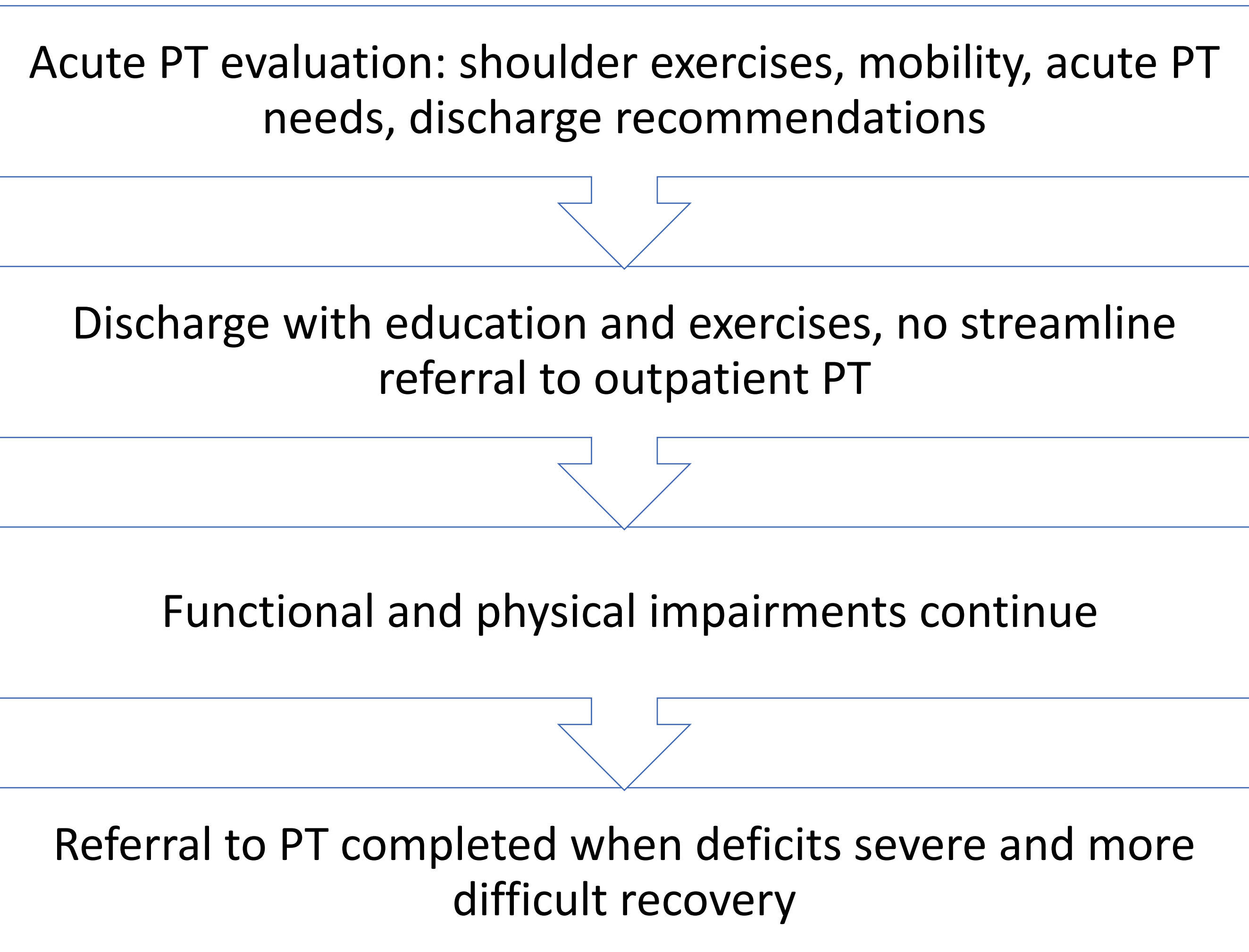
Early identification of impairments after neck dissection surgery to support timely referral to outpatient physical therapy

Jessica Gibson, PT, DPT, Adele Myszenski, PT, DPT
 Department of Rehabilitation Services, Henry Ford Hospital, Detroit, MI

AIM

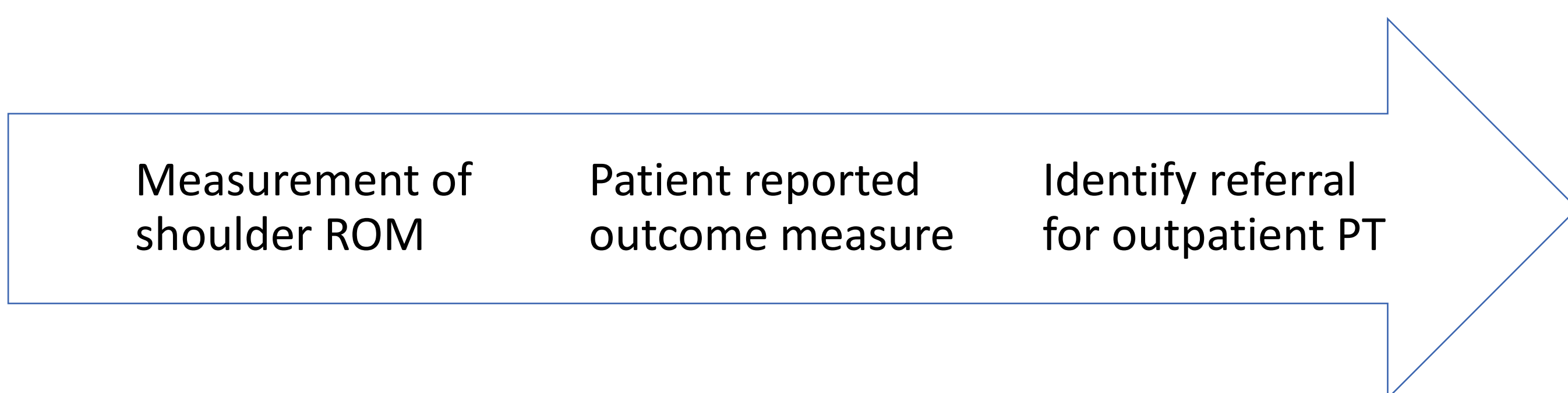
- Background: Neck dissection surgery (ND) for head and neck cancer (HNC) can cause shoulder weakness, loss of range of motion (ROM), and pain resulting in decreased quality of life (QOL)
- Implement functional and physical outcome measures to quantify deficits
- Identify need for outpatient physical therapy (PT) referral through outcome measures while inpatient

PLAN: CURENT STATE



DO: INTERVENTION

- Trained acute care PTs on integration of shoulder ROM measurement and Neck Dissection Impairment Index (NDII) patient reported outcome measure (OM) into evaluation
- Improve identification of functional and physical impairments



CHECK: EVALUATION OF CHANGES

- Inclusion: Patients who underwent ND surgery, January 2019 to August 2023
- Exclusion: History of neck or shoulder surgery, injury or functional impairment of the neck or shoulder were excluded

Unilateral ND:

- 68% of patients post ND surgery with shoulder impairment
- Lowest average score on NDII accompanied with shoulder impairment

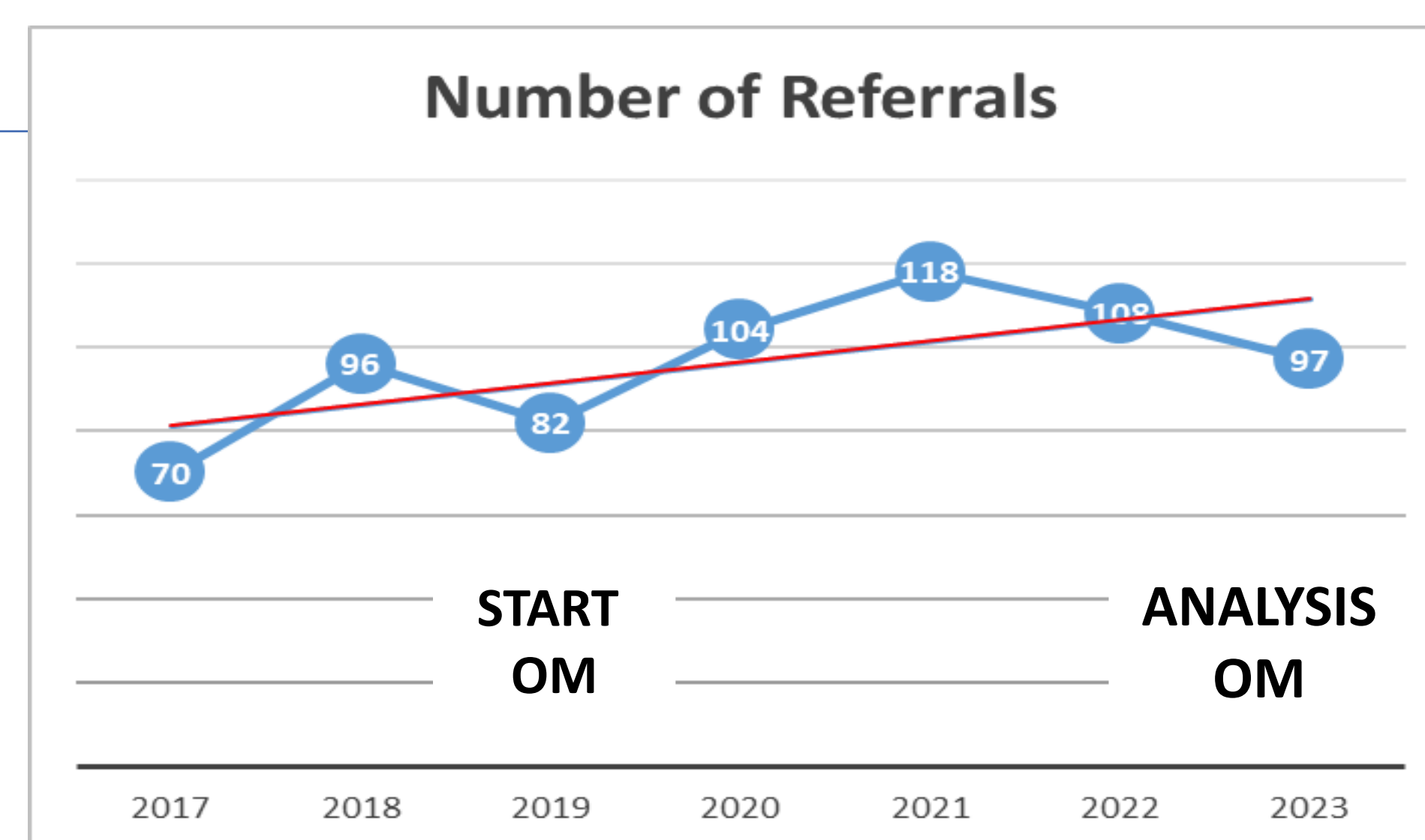
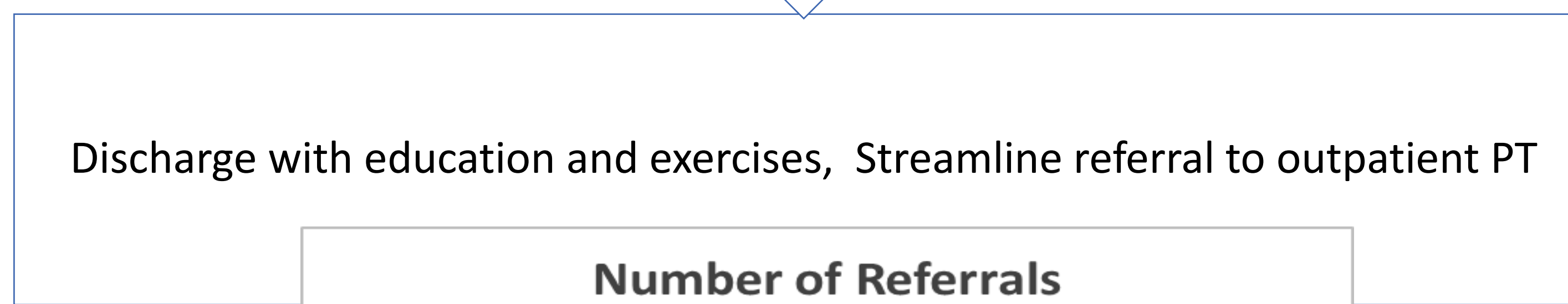
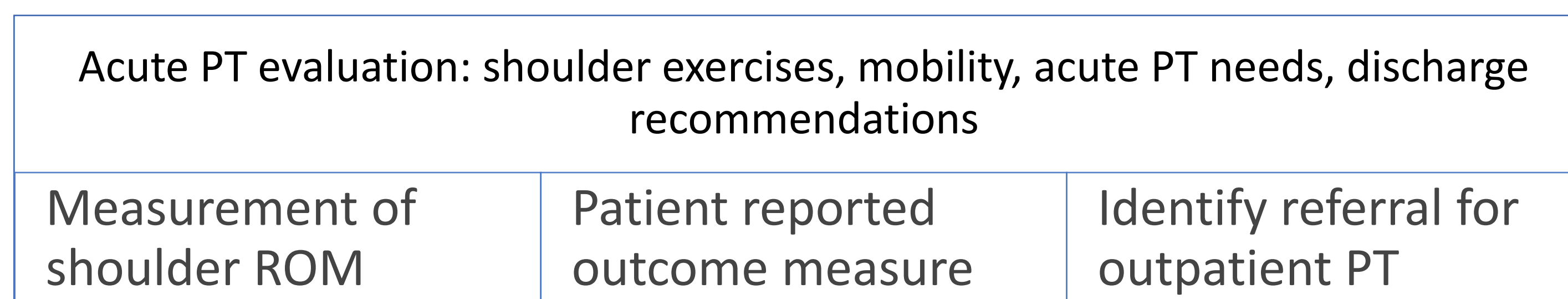
Bilateral ND:

- 100% had impairment on one or both shoulders
- Higher length of stay, lower mobility scores at discharge

Overall results:

- Shoulder impairment correlated with higher pain rating
- Lower score on the NDII correlates with shoulder impairment = lower QOL and function
- NDII score <62 indicator of shoulder morbidity = outpatient PT referral indicated
- Growth in outpatient PT referrals for HNC diagnosis 2019-2022

ACT: SUSTAIN AND SPREAD



RESULTS

Table 1. Unilateral Neck Dissection n=31	Positive Shoulder ROM Impairment n=21	Negative Shoulder ROM Impairment n=10
Hospital (days), mean (SD)	5.14 (5.99)	7.20 (2.53)
DC Home, n (%)	19 (90.5%)	8 (80.0%)
NDII, mean (min-max)	50.38 (20-68)	62.8 (48-70)
Pain score great than 5, n (%)	8 (38.0%)	1 (10.0%)
Change in AM PAC 6 clicks BM, mean (SD)	+1.2	+2.2
PT Visits, mean (SD)	2.29 (2.92)	2.9 (2.62)

Table 2. Bilateral Neck Dissection n=20	Bilateral ROM Impairment n=17	Unilateral ROM Impairment n=3
Hospital (days), mean (SD)	12.18 (8.13)	12.0 (4.36)
DC Home, n (%)	15 (88.2%)	2 (66.7%)
NDII, mean (min-max)	55.9 (30-70)	58.0 (58.0)
Pain score great than 5, n (%)	7 (41.1%)	1 (33.3%)
Change in AM PAC 6 clicks BM, mean	+4.6	+6
PT Visits, mean (SD)	4.18 (2.04)	6.00 (2.65)

KEYS TO SUCCESS

- Coordination with other physical therapists to implement outcome measurements
- Collaboration with head and neck cancer team on awareness of patient impairments and limited outpatient PT referral

ACKNOWLEDGEMENTS

- Dhanmeet Singh, DPT; Nan Hannum Pfizenmeier, DPT
- Physical Therapists in the department of rehab Services at HFH for assistance with data collection
- Multidisciplinary Head and Neck Cancer Team
- Each patient who has trusted our team to be a part of their journey.