

2022



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Sept. 19–21, 2022

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# Bridging Hospitals and Home Care to Support Safe Transitions Home

**Ujwala Tambe, RN, MSN**

Director, Quality and Patient Safety - Neuroscience Service line  
Penn Medicine

**Scott G. Rushanan, OTD, MBA, OTR/L**

System Director - Patient Access, Informatics, and Rehabilitation  
Penn Medicine at Home

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# Learning Objectives

- Identify three translatable strategies to optimize and support more patients in their return to home after hospitalization.
- Implement best practices used by home health agencies to reduce hospital readmission risk for stroke patients.



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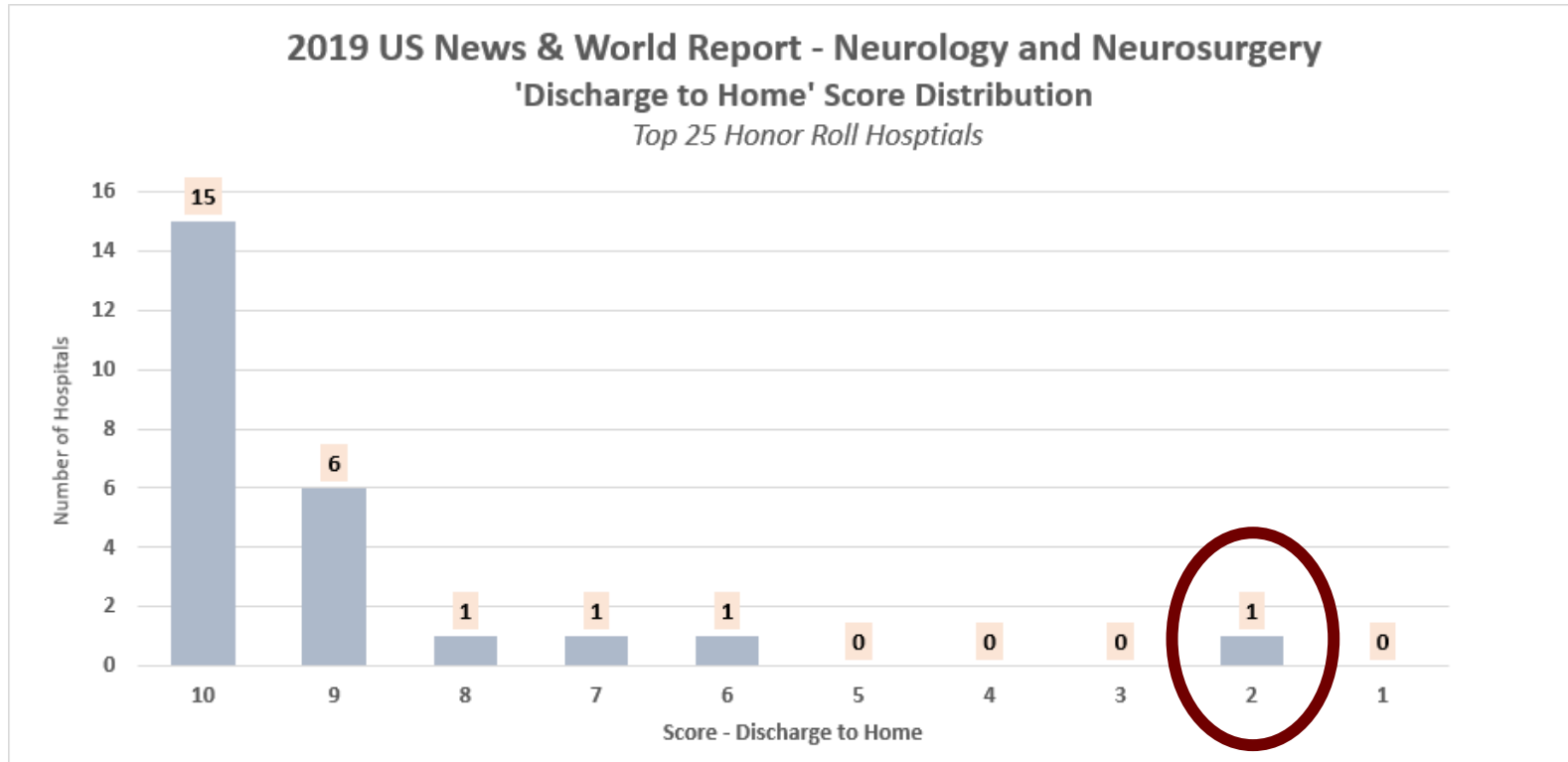
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# An External Signal



An internal analysis of Ischemic Stroke 'Discharge to home' (All Payer) demonstrated *bottom decile* performance as compared to other Academic Medical Centers

# Why Do We Care?

- **Early supported discharge** for the *right* patients – *with the right supports* - has been shown to improve the health and well being for survivors of mild to moderate stroke <sup>1</sup>
- Rehabilitation following stroke, that occurs in the patient's natural context and familiar setting, **enhances neuroplasticity and supports functional recovery** <sup>2, 3, 4</sup>
- **Home based stroke rehabilitation programs** have been shown to be as **effective at optimizing functional recovery** for mild to moderate stroke survivors, when compared to inpatient programs <sup>5</sup>
- Recovery at home following a stroke, has been **shown to improve patient satisfaction** <sup>6</sup>

# Our Approach

## Stroke 'Discharge to Home' workgroup

*(MD, RN, PT, OT, SLP, Rehab, Social Work,  
Case management, Home Health)*

Reviewed “current state” disposition decision-making guidelines

Performed targeted chart reviews to understand opportunity

Partnered with home health to learn breadth, scope of services



# Stroke Pathway to Home...

1



Identify eligible  
Ischemic Stroke  
patients



2



Optimize inpatient  
recovery and discharge  
readiness<sup>7</sup>



3



Timely and Intense  
home therapy

## 'Mild Stroke' definition:

- **Pre-intervention NIHSS  $\leq 5$  (OR)**  
**24hour Post-intervention NIHSS  $\leq 5$**
- AMPAC  $\geq 34$  (~48 hours)
- ICU stay < 72 hours
- Support at home adequate for discharge needs
- Resides within *Penn Medicine at Home* catchment

- **Initiate daily therapies**; if possible, coordinate with caregivers to provide education and gauge family readiness
- **Early patient and family communication around possibility of home discharge**; set expectations, educate
- Continued discussions around eligibility in daily Stroke dispo rounds
- Referral to *Penn Medicine at Home*, through our defined 'Stroke pathway'

- **Day after discharge – Home health admission**
- **Daily therapy sessions** in the first week post-discharge (Mon-Sun)
- **Functional outcome measures pre/post** to evaluate recovery
- Ongoing therapy needs determined by Home care team, through case conference

# Measures of Success




- **% Ischemic Stroke patients discharged home**
- **Functional outcomes - Pre / Post Home therapy**
- **30 Day Readmissions** – *Stroke and Non-Stroke related*

# Early Pilot Outputs

Operational Metrics	Results
Home health admission within 24 hours of discharge	84%
Average time to first home PT / OT visit	1- 2 days
{ % patients with at least 4 <i>consecutive</i> PT visits	80% }
{ % patients with at least 4 <i>consecutive</i> OT visits	68% }

Timeframe: June – Sept 2020; N=25 patients

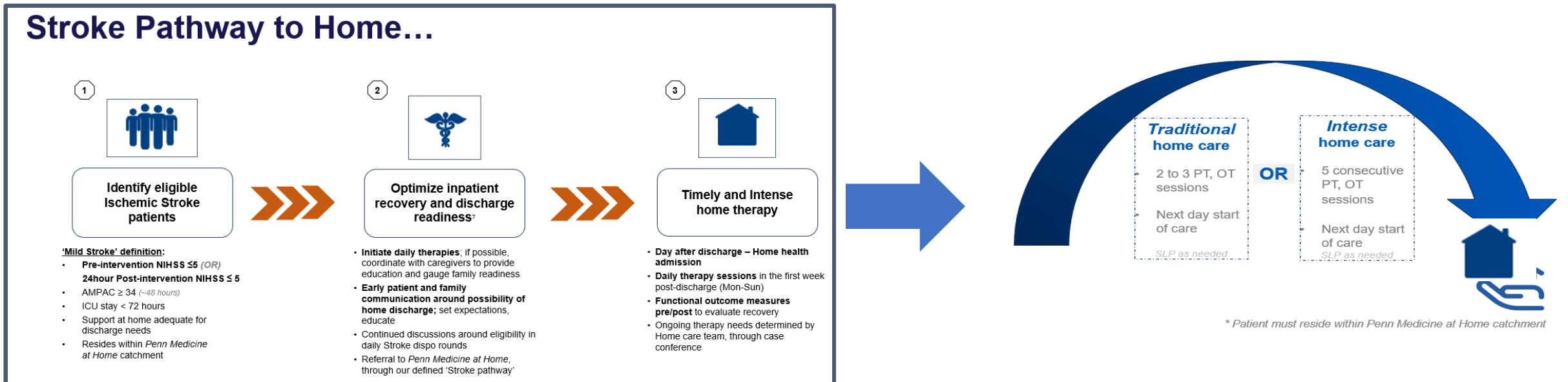
# Early Pilot Outputs

Functional Outcomes	Home Health – Initial Evaluation	Home Health - Discharge
<b>AMPAC ADL (Avg)</b> <i>(Scores range from -2.73 to 115.4; higher is better)</i>	<b>54</b> (Needs assistance with ADL)	 <b>62</b> (Independent with ADL, some assistance with IADL)
<b>Ambulation (Avg)</b> <i>(7 levels: Dependent – Independent)</i>	<b>Supervision</b>	 <b>Independence</b>
<b>TUG (Avg)</b> <i>(Scores &gt; 13.5 seconds indicates high risk of falls)</i>	<b>23.3 seconds</b>	 <b>17.3 seconds</b>

**30 day Readmissions – 0**

# Learnings and Iteration

## Refined to 'right-size' home therapy services





# Program Outcomes

Operational Metrics	Traditional Path	Intensive Path
Sample	30	33
Admission to home health (within 24-48 hours of discharge)	77%	88%
Average time to first home PT / OT visit	4-6 days	3-4 days

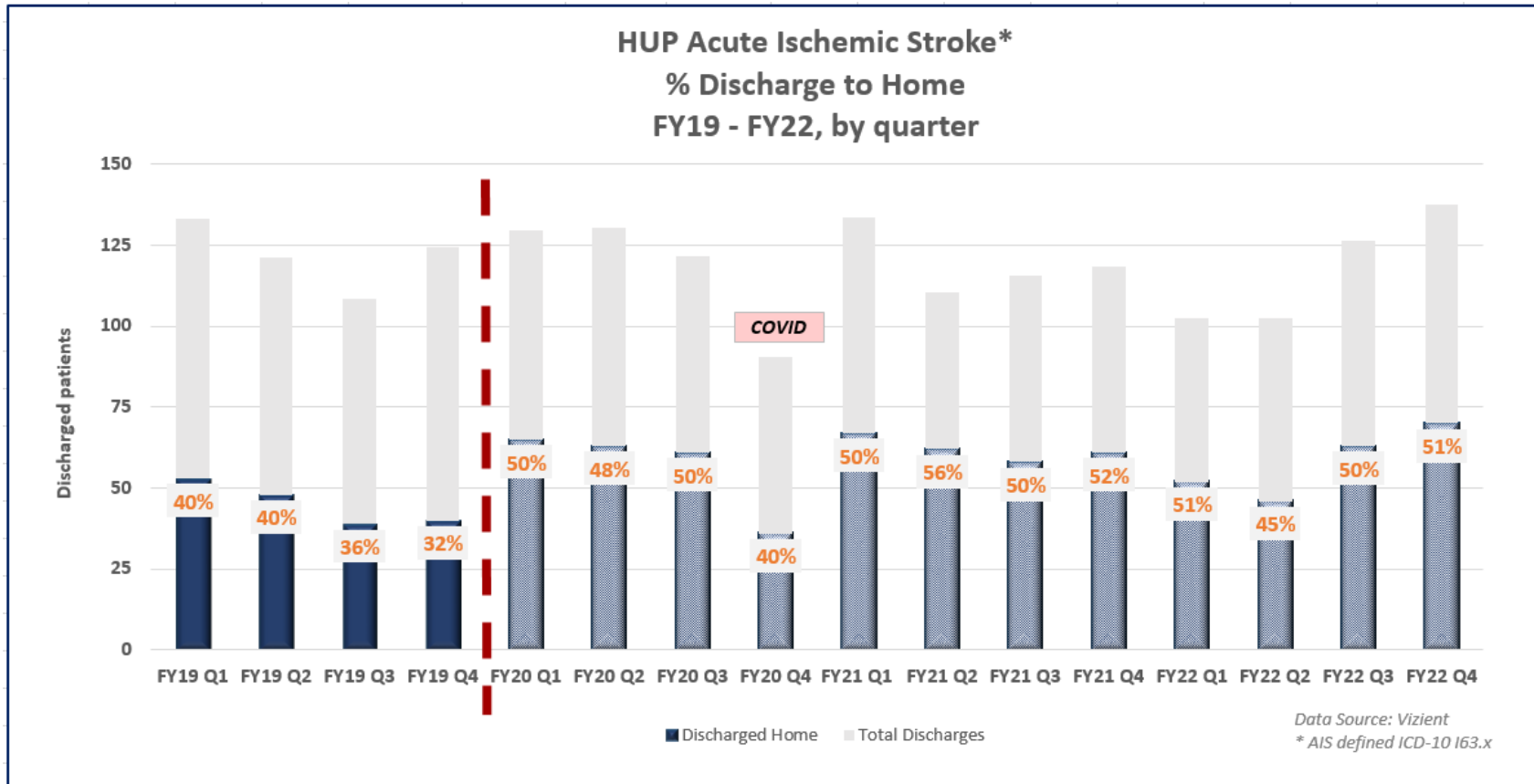
Timeframe: Jan – Oct 2021; N=63 patients

# Functional Outcomes

	Initial Evaluation (Avg)	Home Health - Discharge (Avg)
<b>Ambulation</b>		
<b>Timed Up and Go</b>		
<i>Intensive</i>	28 sec	 21 sec
<i>Traditional</i>	18 sec	12 sec
<b>ADL</b>		
<b>Barthel Score</b>		
<i>Intensive</i>	80	 94
<i>Traditional</i>	80	96

**30 day Readmissions – 5**

# Inpatient Discharge to Home



Increased - and sustained - '% Discharge to home,' while realizing an overall *decrease* in 30 day Readmissions (FY19 vs. Jan – Oct 2021)



# Lessons Learned

- **Communication is key!**
  - Early referrals to home health for planning, scheduling
  - Early - and consistent - expectation setting with patient, caregivers
- **Leveraging Stroke Dispo rounds**
  - Interdisciplinary and newly refreshed to support a “virtual” format
  - Real-time education to new, rotating clinical team members
  - Supports discussion and collective decision-making around patient dispo eligibility and plan
- **Teamwork, teamwork, teamwork**
  - All disciplines– open, transparent discussions
  - Leadership, ownership, partnership....
- **Transferable approach for other key populations**

# Key Takeaways

- **Understand your ‘current state’** – workflow, culture, perceptions of care
- **Spend time defining the ‘right’ target population** – not one size fits all
- **Develop or hone partnerships with local/affiliated home care networks**

# Questions?



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## Contact:

Ujwala Tambe, [Ujwala.Tambe@pennmedicine.upenn.edu](mailto:Ujwala.Tambe@pennmedicine.upenn.edu)

Scott Rushanan, [Scott.Rushanan@pennmedicine.upenn.edu](mailto:Scott.Rushanan@pennmedicine.upenn.edu)

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