# The Value of Home Health Physical Therapy for Acute Stroke:

A Mixed-Methods Systematic Review

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### Objectives

Attendees will understand the three components of value in healthcare.

Attendees will understand the importance of value in healthcare for patients following acute stroke.

Attendees will understand the current evidence related to value for HHPT and alternative PAC after acute stroke.

Attendees will understand the limitations to current evidence.

Attendees will understand the clinical relevance of the presented research.

## Background

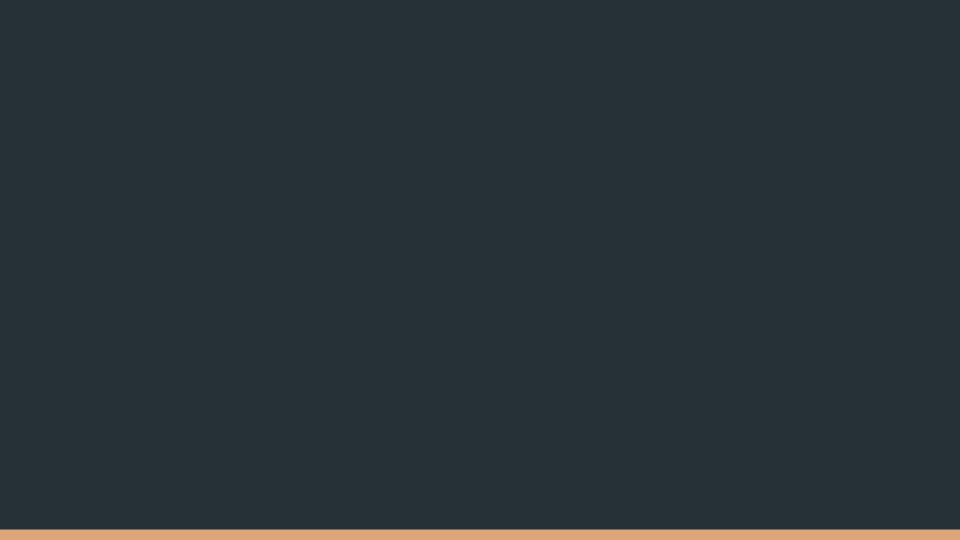
#### What is Value?

Three components of value in healthcare:

Patient outcomes<sup>1,2</sup>

Cost<sup>1</sup>

Patient experience<sup>1</sup>



### Why is Value in Healthcare Important?

Value places the patient at the center of healthcare goals.2

Utilizing only cost control sacrifices effectiveness and quality of care.<sup>2</sup>

A focus on only outcomes provides higher volume, but not necessarily better care. It additionally puts a burden of cost on the patient and the system.<sup>2</sup>

### Why is Value in Healthcare Important?

Value looks at the balance between improving outcomes while controlling cost.<sup>2</sup>

! An example might be identifying the best laboratory tests to perform for an individual patient instead of ordering a standard list.

Assessing all three components of value benefits both the patient and the agency delivering healthcare services.<sup>2</sup>

### Why is Value After Stroke Important?

Up to 30% of patients experience permanent disability after a stroke.3

Poststroke care places a burden on caregivers and healthcare systems.<sup>3</sup>

Rehabilitation that improves patient outcomes, is cost effective, and that the patient finds valuable is essential in reducing poststroke disability and healthcare burden.<sup>3</sup>

### Settings for PAC

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Day rehabiltiation is increasingly common in European countries.

The type and intensity of rehabilitation is similar to inpatient rehabilitation in the US.

Patients are dropped off by caregivers and receive several hours of multidisciplinary therapy.

Patients return home with caregivers at night.

### Purpose

The purpose of this study was to determine the value of home health physical therapy (HHPT) compared to alternative PAC for patients in the acute phase after stroke.

Materials and Methods

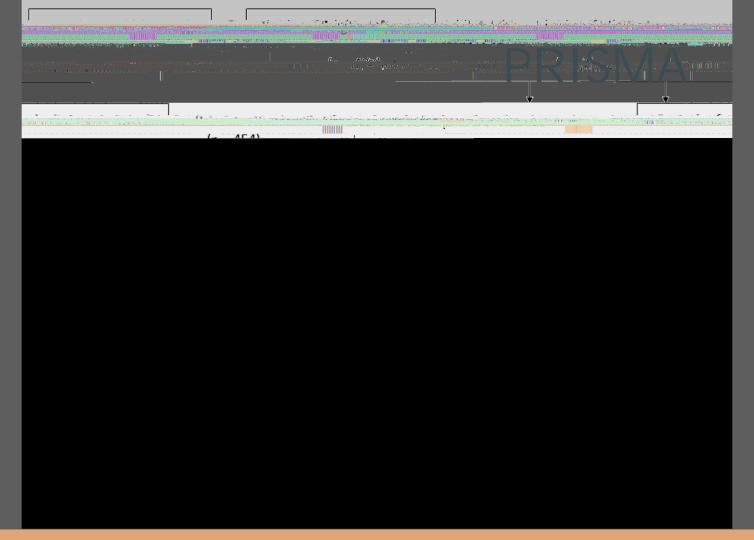
#### Search Terms

("home health physical therapy" OR "home health PT" OR "home health

#### Search Limits

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#### Selection Criteria



### Results

#### Results

- ! There were 489 articles screened for eligibility.
- ! A total of 7 articles fulfilled all criteria.
  - reported on patient outcomes<sup>3, 5-9</sup>
  - reported on costs<sup>3, 9</sup>
  - **O** reported on patient experience<sup>10</sup>

- ! Sample size
  - Range: 27 306
  - Total: 1,068
- ! Mean age: 71.34 years old

### Methodological Quality

Each article was assessed for methodological quality by two independent reviewers who came to consensus.

#### Quantitative analysis

- ! The Oxford Center for Evidence-Based Medicine (OCEBM) 2011 Levels of Evidence (n = 6)
- ! Levels ranged from 2-3 with an average of 2.3

#### Qualitative analysis

- ! Joanna Briggs Institute (JBI) Checklist for Qualitative Research (n = 1)
- ! JBI score was 8/10

#### **HHPT Interventions**

- ! Frequency: 1-5 times per week<sup>3, 5-10</sup>
- ! Duration: 4-6 weeks<sup>3, 5-10</sup>
- ! Interventions: individualized to each patient based on patient and PT goals<sup>3, 5-10</sup>
  - Training to reduce impairments

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### Alternative PAC Settings

! 5-6 ! 5-10 ! 3,6

#### Results: Patient Outcomes

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#### Results: Cost

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### Results: Patient Experience

Key Themes:10

Transition from hospital to home was smooth.

Home healthcare providers were knowledgeable, competent, and provided good communication.

Agencies provided consistent, regular home healthcare appointments.

Patients and caregivers did not get enough information about stroke causes, preventative measures and lifestyle changes.

#### Conclusions

- ! There is moderate to strong evidence that HHPT improves **a e c e** with equal or greater effectiveness compared to alternative PAC settings for patients following acute stroke.<sup>3, 5-9</sup>
- ! Conclusions cannot be made about **c** or **a e e e e e e c e** components of value due to minimal current research.<sup>3, 9-10</sup>
- ! The lack of evidence shows a need for new research exploring all three components of value in comparing HHPT to a broader range of PAC settings.

#### Limitations

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#### Limitations

- ! There was generally poor selection of outcome measures. 5-7,9
  - Ex. mRS, BI
- ! Some studies lacked well-defined control groups and had limited tracking of interventions delivered to control groups.<sup>5-7</sup>
- ! All studies had short intervention periods (4-6 weeks).3,5-10

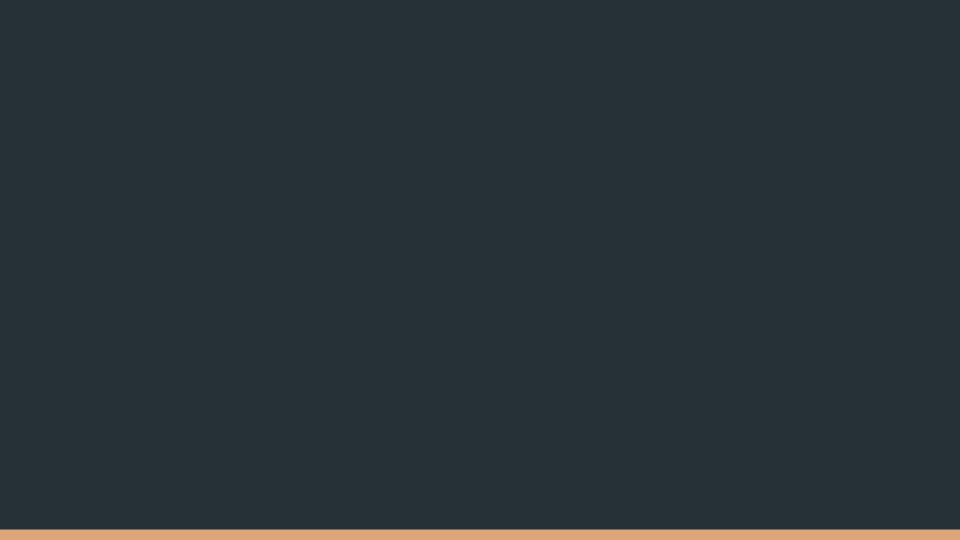
#### Clinical Relevance

! Home-based physical therapy after acute stroke provides a setting that is safe and effective at improving patient outcomes.

! Home health physical therapy should be considered at discharge from acute hospital care for acute stroke patients.

### Acknowledgements

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#### References

- 7. Rafsten L, Danielsson A, Nordin A, et al. Gothenburg very early supported discharge study (GOTVED): a randomised controlled trial investigating anxiety and overall disability in the first year after stroke. BMC Neurol. 2019;19(1):277. doi:10.1186/s12883-019-1503-3
- 8. López-Liria R, Vega-Ramírez FA, Rocamora-Pérez P, Aguilar-Parra JM, Padilla-Góngora D. Comparison of two post-stroke rehabilitation programs: a follow-up study among primary versus specialized health care. PLoS One. 2016;11(11):e0166242. doi: 10.1371/journal.pone.0166242
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