Nursing's Role in Successful Stroke Care Transitions Across the Continuum: From Acute Care into the Community

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American Stroke Association.
A division of the American Heart Association.

Disclosures

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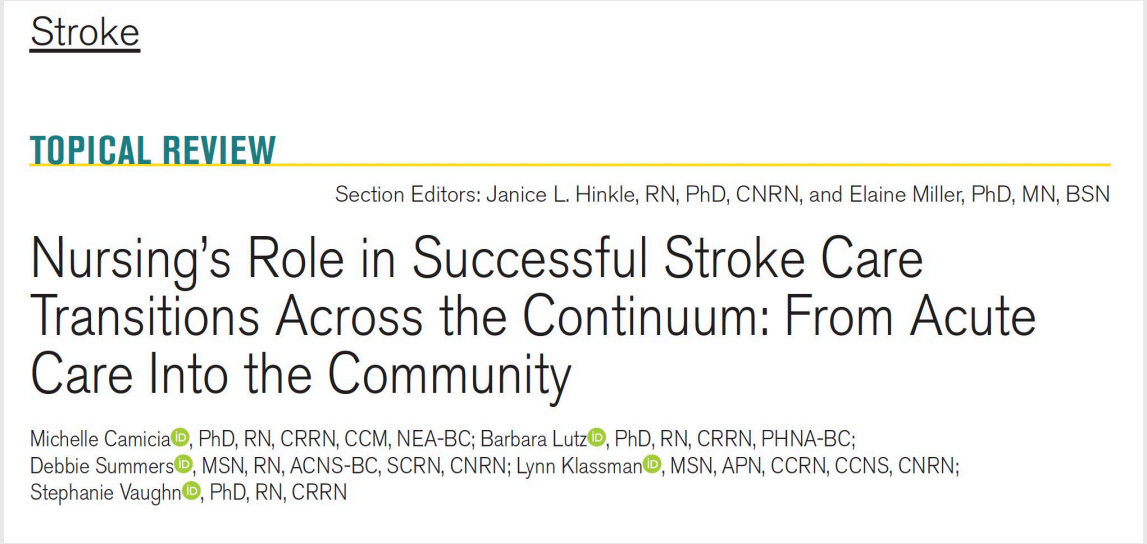
Co-I on Studies Funded by NINR and PCORI

Objectives

Discuss stroke nursing care across the continuum

Identify cross-setting issues in stroke care transitions

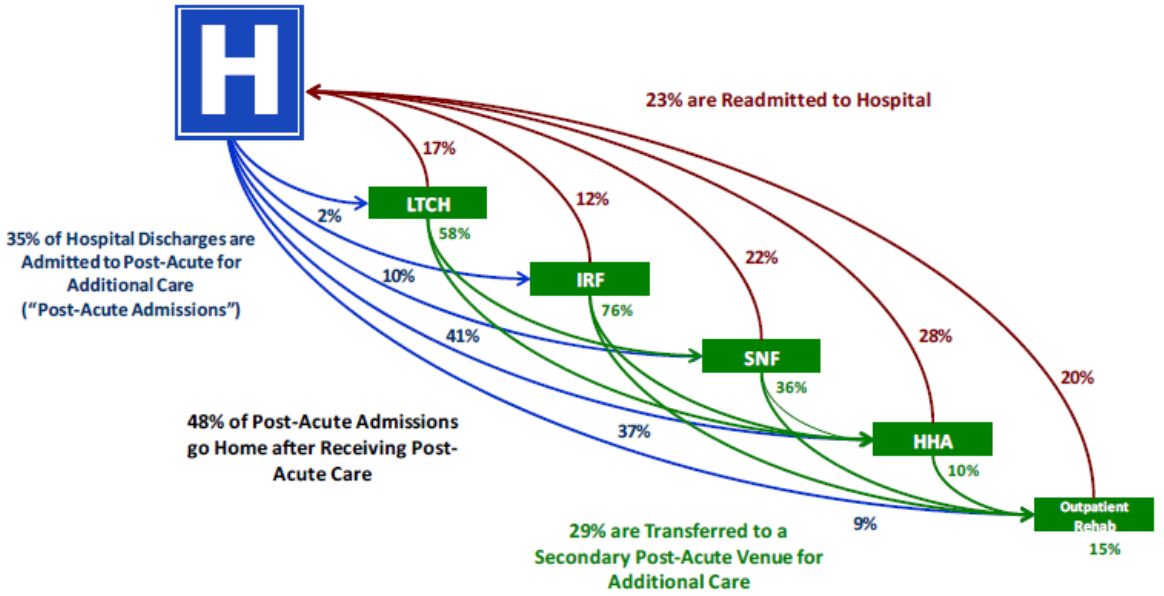
Describe recommendations to leverage the impact of nursing in the health care delivery system



Background

3.1

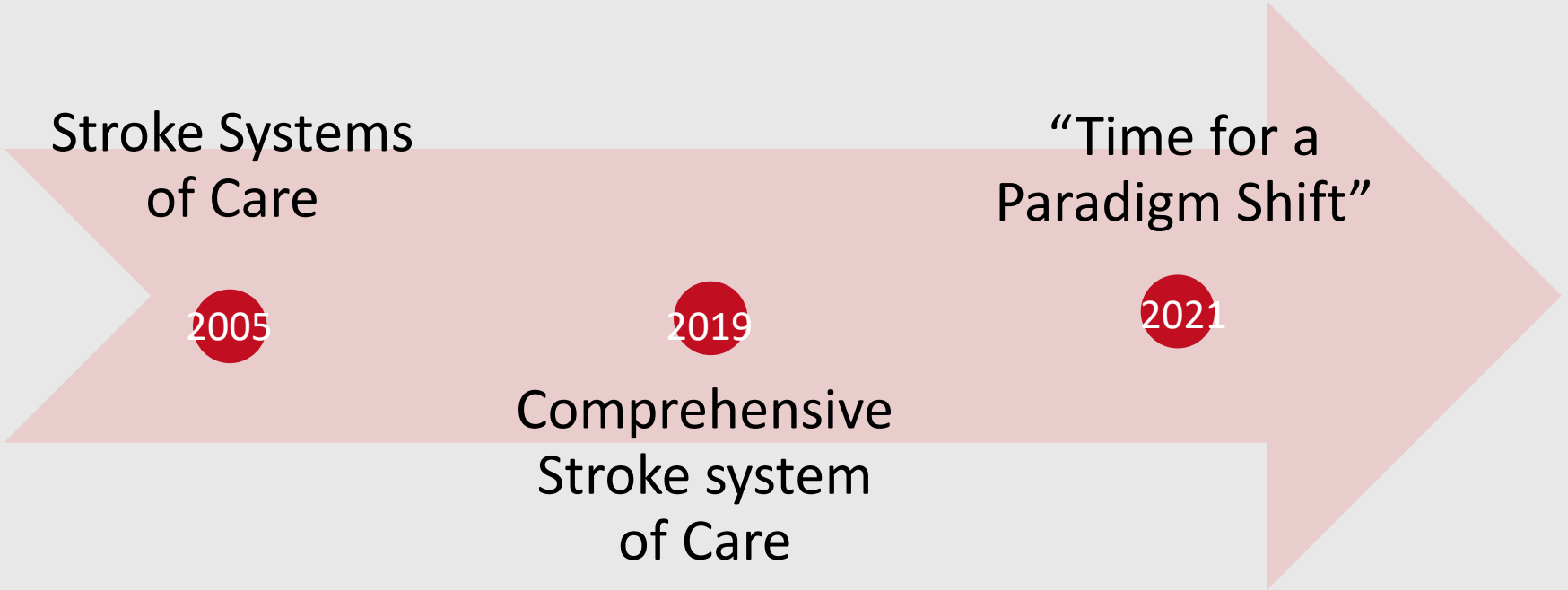
Figure 12. Post-Acute Care Discharges and Acute Care Readmissions



Source: RTI International and Cain Brothers' analysis.

Photo: Barbara Lutz, PhD RN

Background



Duncan PW, Bushnell C, Sissine M, Coleman S, Lutz BJ, Johnson AM, Radman M, Pvru Bettger J, Zorowitz RD, Stein J. Comprehensive stroke care and outcomes: time for a Paradigm Shift. *Stroke*. 2021;52:385–393. doi: 10.1161/STROKEAHA.120.029678

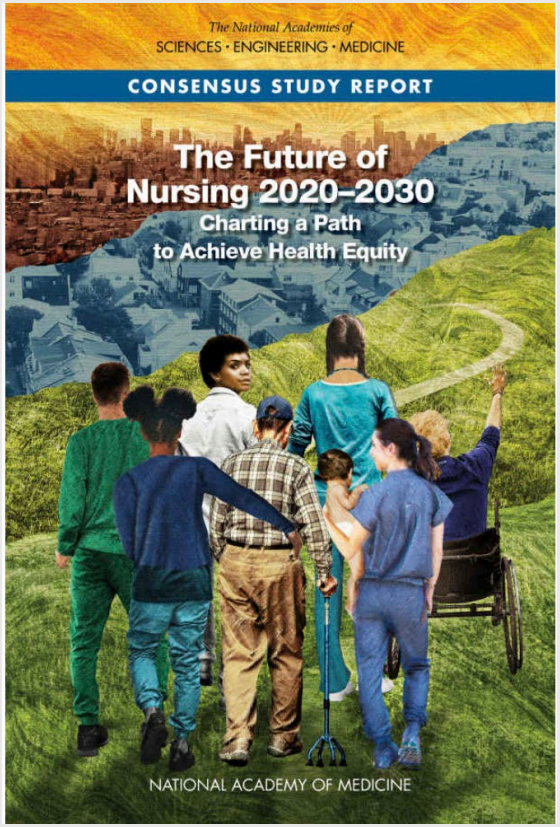
Time for a Paradigm Shift

To transform comprehensive stroke care

Broaden the the focus of acute care guidelines to promote anticipatory guidance for patients with stroke and families about rehabilitation-related PAC options

Expanding the Get With the Guidelines Stroke program to include metrics related to rehabilitation readiness and 90-day post-discharge outcomes

Enhanced focus on prevention of recurrent stroke and optimizing functional recovery and participation in meaningful activities

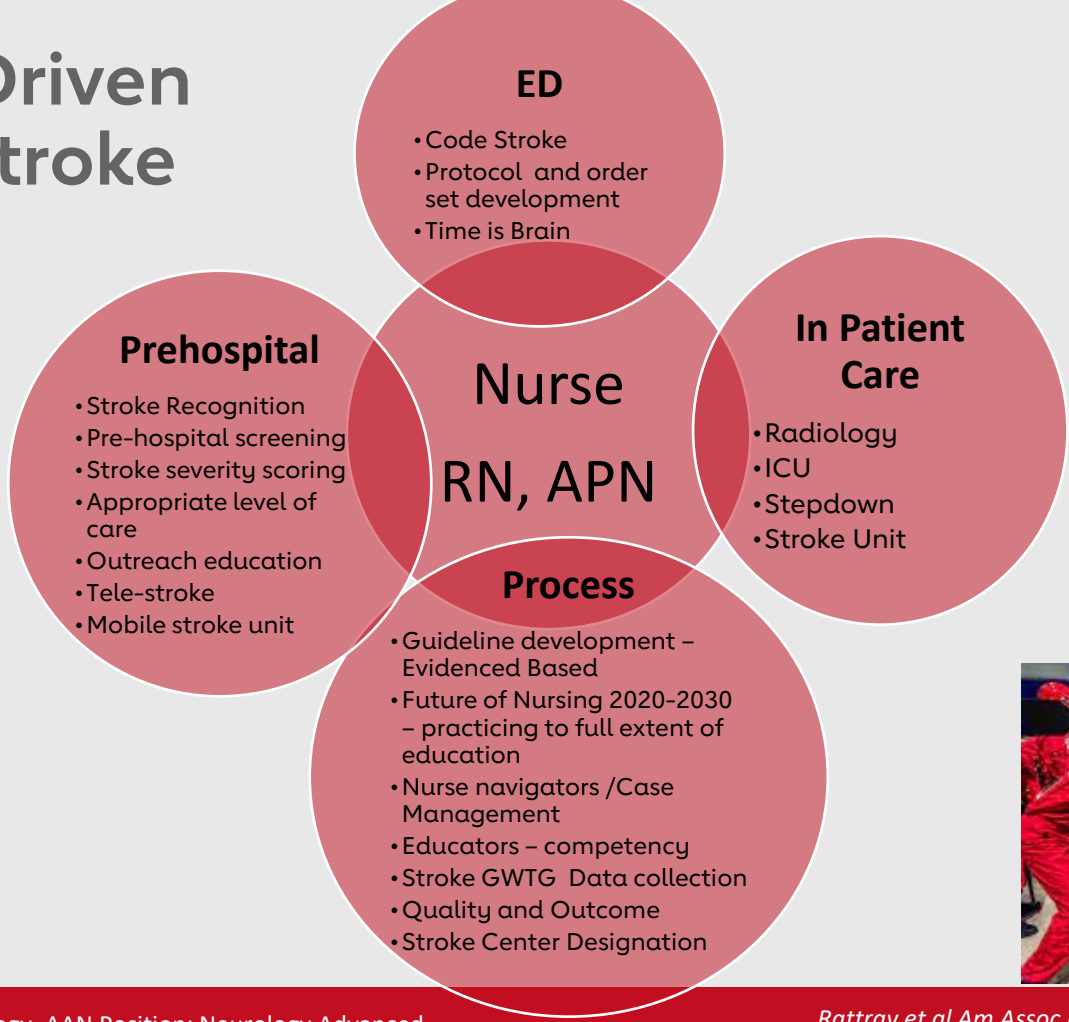


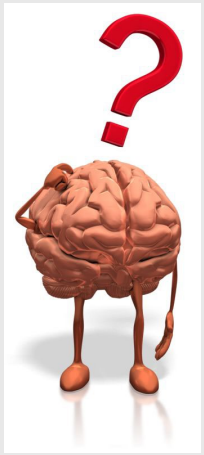
Nurses performing care management, care coordination, & transitional care helps to:

- decrease fragmentation
- bolster communication
- improve care (quality and safety)

A care management approach is particularly important for people such as those who have survived a stroke, with complex health and social needs, who may require care from multiple providers, medical follow-up, medication management, and assistance in addressing their social needs.

Nurse-Driven Acute Stroke Care

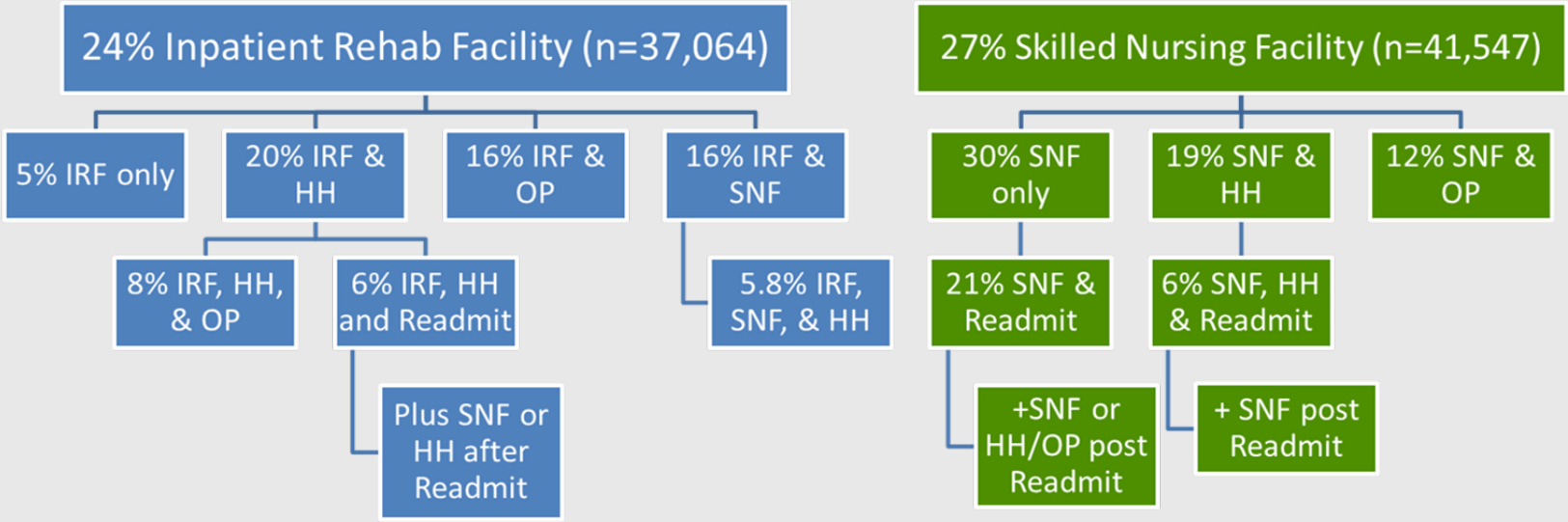




American Academy of Neurology. AAN Position: Neurology Advanced Practice Providers. 2020.

Rattray et al Am Assoc Nurse Pract. 2017;29:392–402
Future of Nursing 2020-2030

Postacute Stroke Care

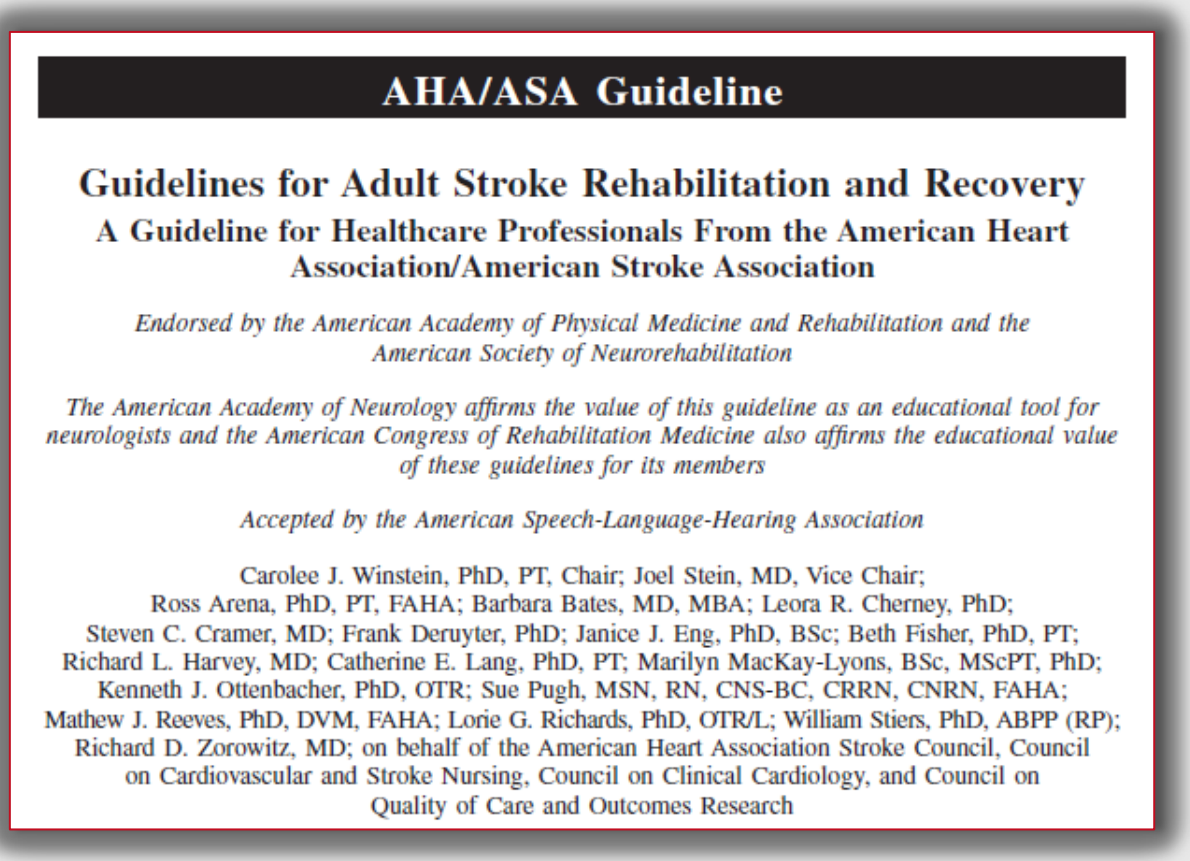


Bettger, J.P., Liang, L., Xian, Y., Peterson, E.D., Bushnell, C., Duncan, P. W., Federspiel, J., Stein, J., Montalvo, C., Lutz, B.J., Hoenig, H. Schwamm, L.H., Wu, J. Stafford, J., & Thomas, L. (2015), Inpatient Rehabilitation Facility Care Reduces the Likelihood of Death and Rehospitalization After Stroke Compared with Skilled Nursing Facility Care (Abstract 146). Stroke, 46, A146. Funding: PCORI ID #130, PI: Prvu Bettger [preliminary report]

IRF v. SNF

	IRF	SNF
MD Oversight	At least 3x/week	Seen by MD day 14; then every 30 days
RN Coverage	24 hours/day	8 hours/day
Therapy Provided	“Intensive” 3 hours per day	Varies; ¾ of days get at least 2.4 hours per day

https://rehabnurse.org/uploads/membership/ARN_Care_Transitions-Levels_of_Care.pdf



AHA/ASA Guideline

Guidelines for Adult Stroke Rehabilitation and Recovery

A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association

Endorsed by the American Academy of Physical Medicine and Rehabilitation and the American Society of Neurorehabilitation

The American Academy of Neurology affirms the value of this guideline as an educational tool for neurologists and the American Congress of Rehabilitation Medicine also affirms the educational value of these guidelines for its members

Accepted by the American Speech-Language-Hearing Association

Carolee J. Winstein, PhD, PT, Chair; Joel Stein, MD, Vice Chair; Ross Arena, PhD, PT, FAHA; Barbara Bates, MD, MBA; Leora R. Cherney, PhD; Steven C. Cramer, MD; Frank Deruyter, PhD; Janice J. Eng, PhD, BSc; Beth Fisher, PhD, PT; Richard L. Harvey, MD; Catherine E. Lang, PhD, PT; Marilyn MacKay-Lyons, BSc, MScPT, PhD; Kenneth J. Ottenbacher, PhD, OTR; Sue Pugh, MSN, RN, CNS-BC, CRRN, CNRN, FAHA; Mathew J. Reeves, PhD, DVM, FAHA; Lorie G. Richards, PhD, OTR/L; William Stiers, PhD, ABPP (RP); Richard D. Zorowitz, MD; on behalf of the American Heart Association Stroke Council, Council on Cardiovascular and Stroke Nursing, Council on Clinical Cardiology, and Council on Quality of Care and Outcomes Research

Winstein, C.J., Stein, J., Arena, R., Bates, B., Cherney, L. R., Cramer, S., … Zorowitz, R.D. (2016). Guidelines for adult stroke rehabilitation and recovery. *Stroke,* 47(6), 98-169. https://doi.org/10.1161/STR.0000000000000098

IRF v. SNF Outcomes

Discharge to Community

- IRF > SNF Deutsch et al. (2006)
- Patients in IRF had ↑odds of D/C to home compared to SNF Hoenig et al. (2001)

Functional Gain

- Functional gains IRF > SNF Deutsch et al. (2006); Hong et al.(2019)
- Gain in ADLs IRF > SNF at 12 months Kane et al. (2000)
- Mobility, self-care, & cognition gains IRF > SNF Chan et al. (2013)

Deutsch A, Granger CV, Heinemann AW, Fiedler RC, DeJong G, Kane RL, Ottenbacher KJ, Naughton JP, Trevisan M. Poststroke rehabilitation: outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs.Stroke. 2006; 37:1477–1482. doi: 10.1161/01.STR.0000221172.99375.5a
Chan L, Sandel ME, Jette AM, Appelman J, Brandt DE, Cheng P, Teselle M, Delmonico R, Terdiman JF, Rasch EK. Does postacute care site matter? a longitudinal study assessing functional recovery after a stroke.Arch Phys Med Rehabil. 2013; 94:622–629. doi: 10.1016/j.apmr.2012.09.033

ACRM
AMERICAN CONGRESS OF REHABILITATION MEDICINE

Archives of Physical Medicine and Rehabilitation

journal homepage: www.archives-pmr.org

Archives of Physical Medicine and Rehabilitation 2013;94:622-9

JOURNAL-BASED CME ARTICLE

Does Postacute Care Site Matter? A Longitudinal Study Assessing Functional Recovery After a Stroke

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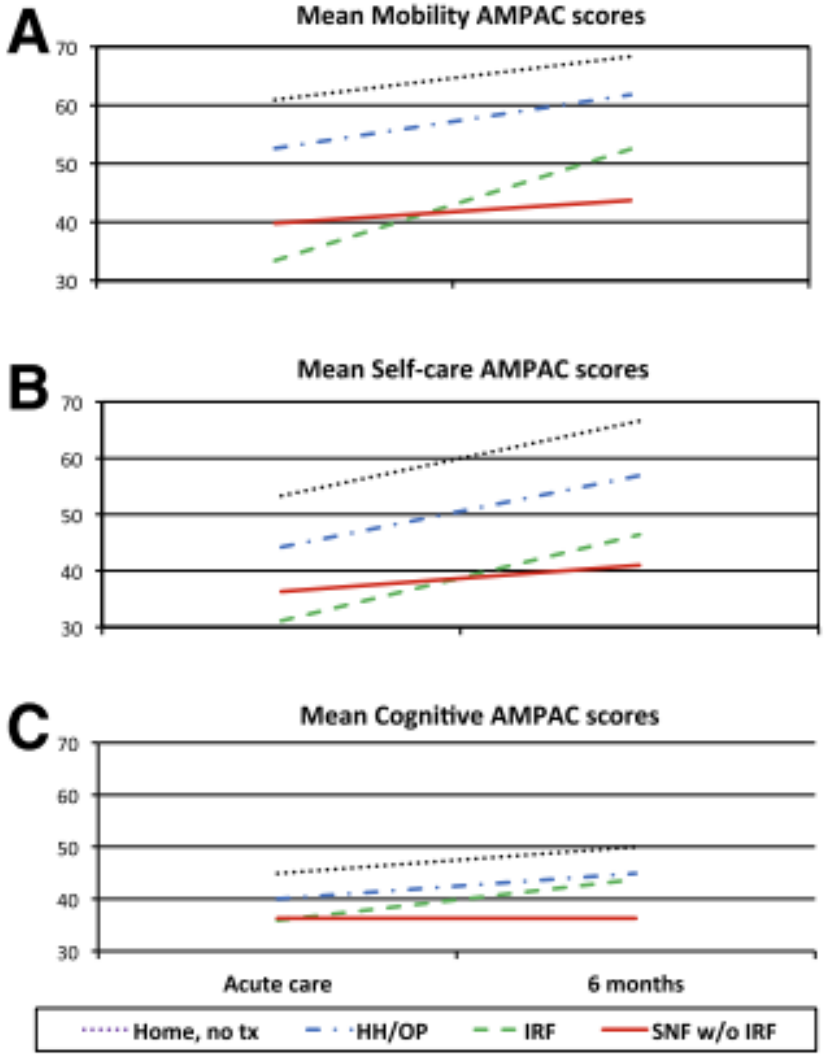
From the [a]National Institutes of Health, Mark O. Hatfield Clinical Research Center, Rehabilitation Medicine Department, Bethesda, MD; [b]Kaiser Foundation Rehabilitation Center, Vallejo, CA; [c]Boston University Medical Campus, School of Public Health, Health & Disability Research Institute, Boston, MA; [d]Division of Research, The Permanente Medical Group, Kaiser Permanente Northern California, Oakland, CA; and [e]Kaiser Permanente Capital Service Area, Sacramento, CA.



IRF v. SNF

Readmissions

- SNF readmission ~2-3 % > IRF up to 1 year Bettger et al. (2015)
- Predicted probabilities of readmit IRF < SNF in all racial groups Kind et al. (2010)

Mortality

- Higher IRF vs SNF up to 1 year Bettger et al. (2015)
- IRF mortality ↓2.6% compared to SNF Buntin et al. (2010)
- Death in IRF < SNF in each racial/ethnic group Kind et al. (2010)
- Patients in IRF died at rate <1/2 of SNF Wang et al. (2011)

Kind AJ, Smith MA, Liou JI, Pandhi N, Frytak JR, Finch MD. Discharge destination's effect on bounce-back risk in Black, White, and Hispanic acute ischemic stroke patients.Arch Phys Med Rehabil. 2010; 91:189–195. doi: 10.1016/j.apmr.2009.10.015; Stein J, Bettger JP, Sicklick A, Hedeman R, Magdon-Ismail Z, Schwamm LH. Use of a standardized assessment to predict rehabilitation care after acute stroke. Arch Phys Med Rehabil. 2015 Feb;96(2):210-7. doi: 10.1016/j.apmr.2014.07.403. Epub 2014 Aug 4. PMID: 25102387; Butin, Dan. (2010). Service-Learning in Theory and Practice: The Future of Community

Transition to Home

- One of the most vulnerable times for stoke survivors and caregivers
- Smooth/seamless transitions optimize health and QOL outcomes
- However…
  - Quality of transitions is widely variable
- Understanding of influence of culture/ethnicity/race/religious preferences/gender identity
- Requires clear and frequent communication across IP team
- Can be facilitated by a transition specialist or stroke nurse liaison/navigator

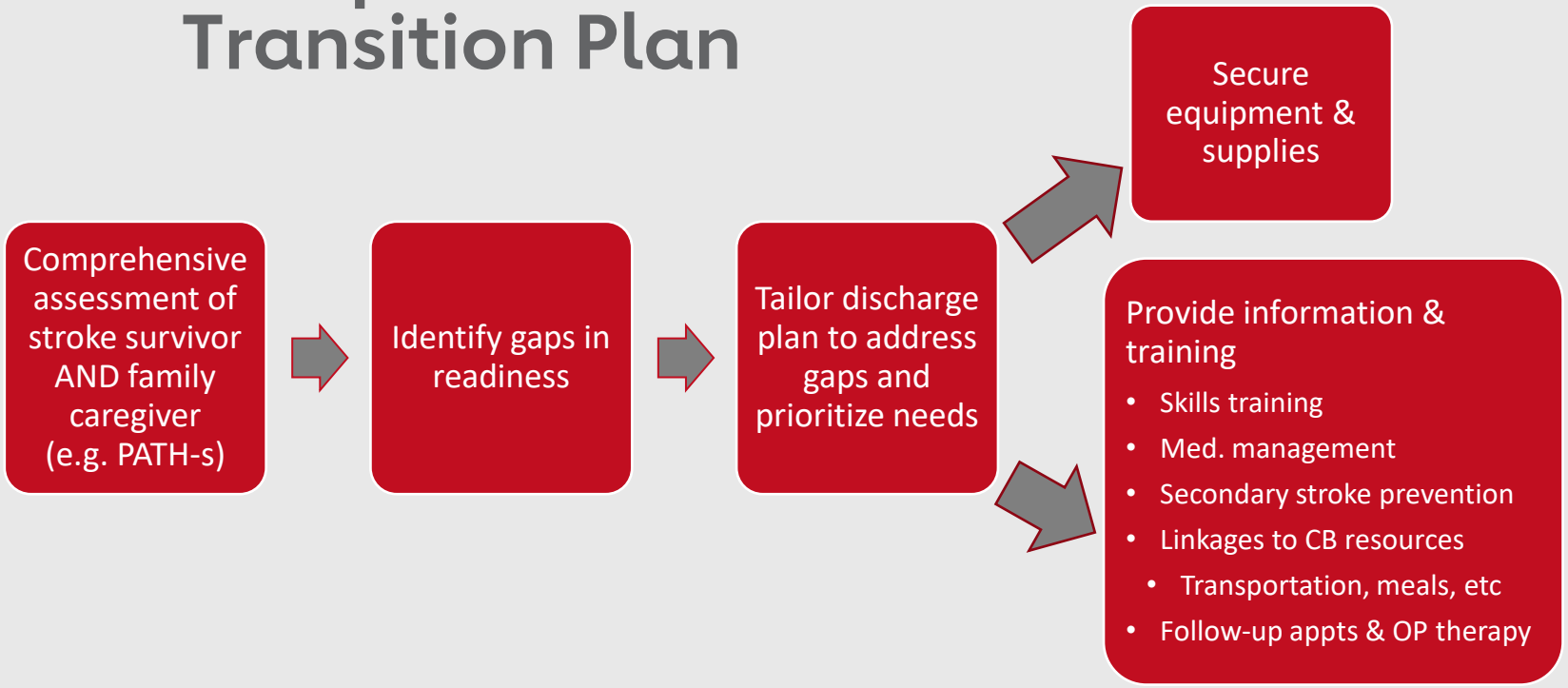
Transition to Home: Evidence-Based Interventions

- Early supported discharge
- Pre-discharge home visits
- Discharge checklists
- Comprehensive stroke education
- Identification of transition barriers/challenges
- Linkages to community resources / networks
- APN-led models can reduce readmissions

Canadian Stroke Best Practices

Post-Stroke Checklist

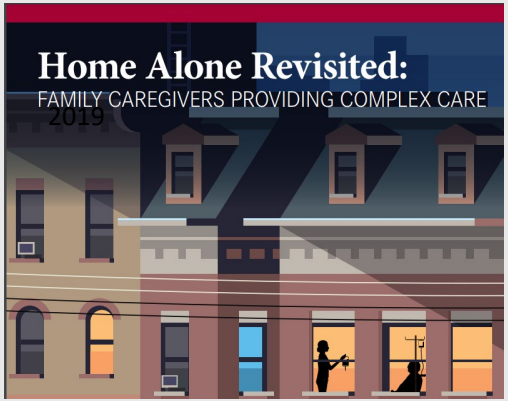
Components of Transition Plan

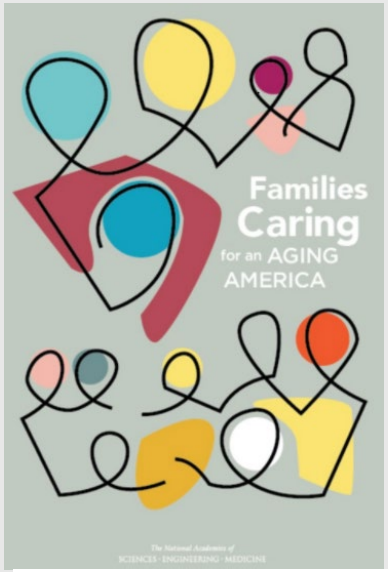


Cross-Setting Issues in Stroke Care Transitions

American Stroke Association.
A division of the American Heart Association.

Assessing & Addressing CG Needs: National Recommendations





2016

Recognize, Assist, Include, Support, & Engage (RAISE) Family Caregivers Act

Initial Report to Congress

Prepared by: RAISE Family Caregiving Advisory Council

With assistance from: Administration for Community Living, an operating division of the U.S. Department of Health and Human Services

ACL Administration for Community Living

RECOGNIZE ASSIST INCLUDE SUPPORT ENGAGE

September 22, 2021

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by Susan Reinhard, Lynn Friss Feinberg, Ari Houser, Rita Choula, Molly Evans, **Public Policy Institute**, November 14, 2019

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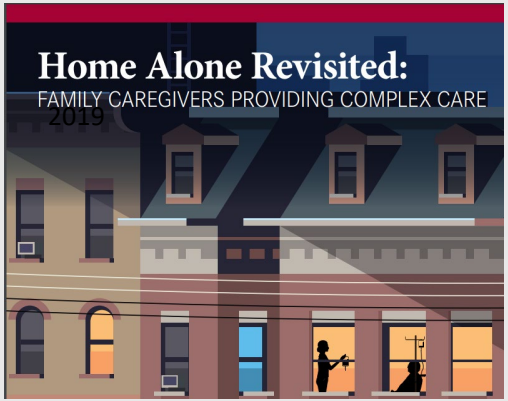
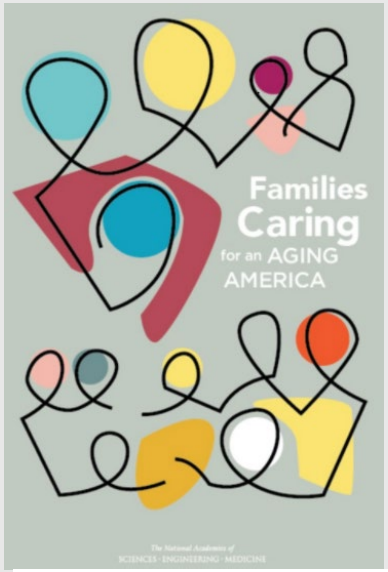
Caregiving for Family and Friends — A Public Health Issue

Assessing & Addressing CG Needs: National Recommendations





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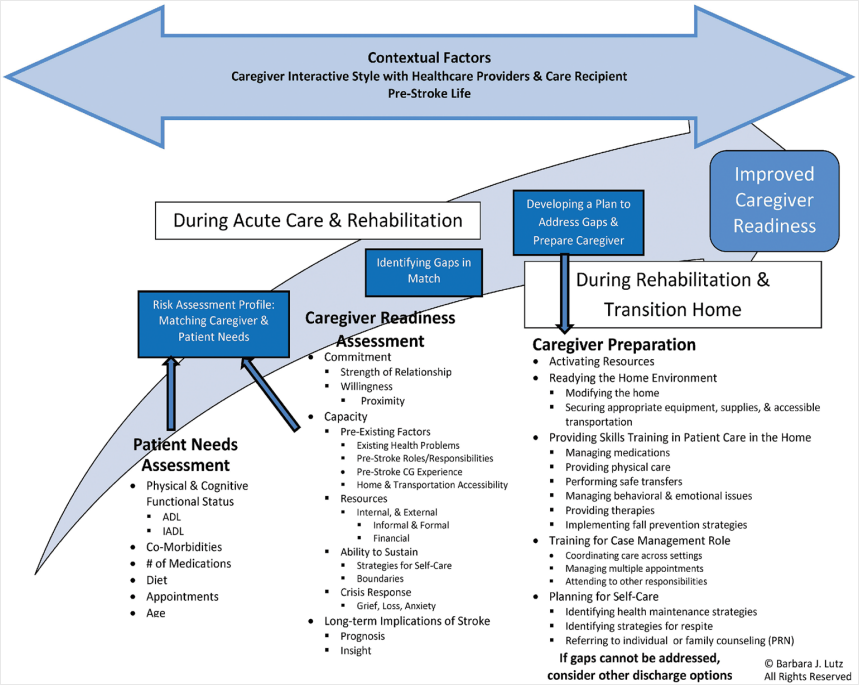
- Healthy Brain Resource Center
- Alzheimer's Disease and Related Dementias

Caregiving for Family and Friends — A Public Health Issue

Assessing the Needs of Family Caregivers



Development of the PATH-s © Instrument

Preparedness Assessment for the Transition Home after Stroke

Available @ www.rehabnurse.org/pathtool

- 25-item instrument
- Assesses caregiver readiness to provide care post-discharge
- Guides development of discharge care plan
- Completed during inpatient care
- Grounded in the *Improving Caregiver Readiness Model*
- Scoring: 1-4

Developing a Tailored Care Plan

1. How much do you understand about how the patient's recovery over the next 6 months?
   - Discuss medical and functional prognosis per MD. Support hope --PM&R

4. How much do you understand about what assistance the patient will need with personal care (such as bathing, using the toilet, dressing, and moving around) when she goes home?
   - Discussion of deficits and functional limitations. --Therapy

5. How much experience have you had providing physical help with personal care (such as bathing, using the toilet, dressing and moving around) for someone who has a disability?
   - Assist them with scheduling their time during rehab so can be present for observing care and attend to self-care and other personal required activities/commitments (e.g. outstanding physician visits and other personal needs/obligations) --CM

6. How prepared are you to provide the patient assistance with personal care (such as bathing, using the toilet, dressing and moving around) when she goes home?
   - Suggest observe therapy and nursing staff providing assistance with mobility and other ADL care - CM

Community Resource Networks: Key to Smooth Transitions

American Stroke Association. A division of the American Heart Association.

Includes:

- Outpatient therapies
- Home-delivered meals
- Transportation
- Financial assistance
- Assistance with household tasks
- CB exercise programs
- Support groups

→ Can be formal or informal

→ Goes beyond giving SS and CGs a list

→ Requires REAL connections with CB service providers

COMMUNITY Resource Network

COMMUNITY RESOURCE NETWORK OF FLORIDA, LLC

Additional Online Resources for Stroke Survivors and Family Caregivers

Resources for Patients and Family Caregivers	
Association of Rehabilitation Nurses	Making the Right Decision for Rehabilitation Care: https://restartrecovery.org/uploads/ARN_Consumer_Tran_Brochure_final.pdf
AHA/ASA	https://www.stroke.org/en/about-stroke
	Stroke Support Network: https://supportnetwork.heart.org
Heart and Stroke Foundation of Canada	https://www/strokebestpractices.ca/resources/patient-resources
	https://www.heartandstroke.ca/stroke
VA Rescue Stroke Caregiving	https://www.stroke.cindrr.research.va.gov/
World Stroke Organization	https://www.world-stroke.org/carer

Patient and Family Education

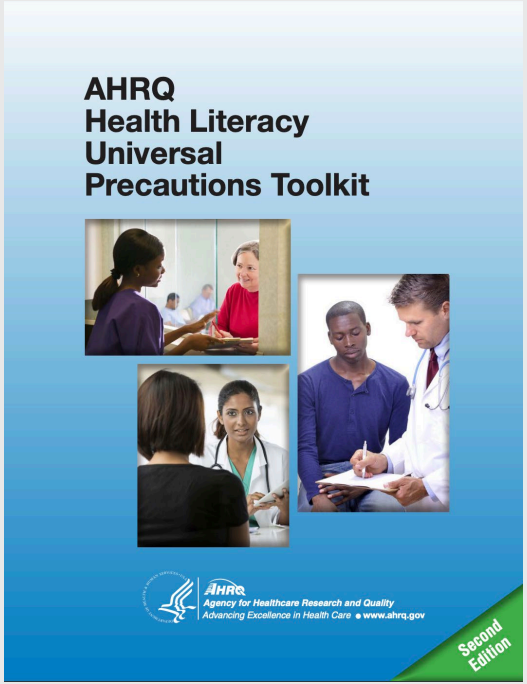
Stroke Survivor Top Educational needs

- Stroke signs, symptoms, and prevention
- Treatment modalities and medications
- Stroke recovery and return to work
- Causes of stroke
- Providing physical care to the stroke survivor, including transfers, lifting, and personal care

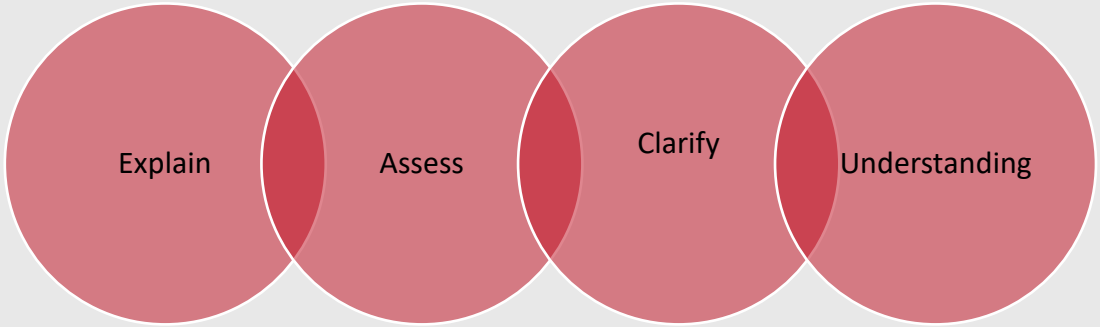
Critical Stroke Survivor Educational Needs

- Functional needs (eg, cognitive changes, depression, pain, and fatigue)
- Activity and participation (eg, walking, driving, and leisure activities)
- Environmental concerns (eg, safety/falls prevention; medication administration; communicating with providers).

Patient and Family Education



Use the teach-back with all patient populations across the spectrum of health literacy.



https://www.ahrq.gov/health-literacy/improve/precautions/index.html

https://www.ahrq.gov/health-literacy/patient-education/pemat.html

Standardized Patient and Family Education

https://www.stroke.org/en/professionals/stroke-resource-library/post-stroke-care/professional-rehab-resources

Patient and Family Education: Health Literacy

The capacity to obtain, process, and understand health information.

Goal- To provide information in ways that are:

- Meaningful
- Understandable
- Timely
- with the appropriate amount of content based on the learner's readiness

Validated Tools: Health Literacy Toolshed

- Rapid Assessment of Adult Health Literacy in Medicine
- Test of Functional Health Literacy in Adults
- The Newest Vital Sign

Patient Education Material Assessment Tool (PEMAT)

Understandability	Actionability
Patient education materials are *understandable* when consumers of diverse backgrounds and varying levels of health literacy can process and explain key messages	Patient education materials are *actionable* when consumers of diverse backgrounds and varying levels of health literacy can identify what they can do based on the information presented

Patient and Family Education-Health Coaching

Partnering with patients and caregivers to provide support and establish goals for recovery and self-management of activities of daily living

-Developing problem solving skills

-Increasing capacity for managing chronic health conditions

-Improving patient and caregiver confidence

-Improved stroke survivor quality of life and functional status

-Reduced depression at 3 months

-Reduced health care costs and readmissions

https://www.ahrq.gov/health-literacy/improve/precautions/index.html

Communication Across Settings

Between sending and receiving providers to ensure patient's key clinical and psychosocial issues across the care trajectory. The National Transitions of Care Coalition recommends that sending and receiving provider should be a case manager or transition specialist (Nurse Navigator

Empathetic language and gestures	Anticipating the patients and caregivers needs to support self care at home	Collaborative discharge planning	Providing actionable information	Providing uninterrupted care with minimal handoffs

Miller KK et al. ArFrom hospital to home to participation: a position paper on transition planning poststrokech Phys Med Rehabil. 2019;100:1162–1175

Role of the Stroke Nurse Liaison

- Nurses the one role across all health settings – expand to a Stroke Nurse Liaison

- Develop and evaluate transitional plans
- Education
- Barriers to self management
- Build relationship
- Trust
- Promote positive outcomes
- Identify readmission risk factors

McBrien KA, Patient navigators for people with chronic disease: a systematic review. *PLoS One*. 2018;13:e0191980.

Developing Standardized Outcomes Measures

The Joint Commission
American Heart Association
American Stroke Association
STROKE CERTIFICATION

AHA/ASA "Get with the Guidelines" & Joint Commission

- Standardized measures for hyperacute and acute stroke
- Primary and Comprehensive stroke programs

Joint Commission & CARF

- Performance measure standards for IRFs

Current Stroke Guideline

Community

2014 Prevention of Stroke in Women

Acute Care

2012 Management of Aneurysmal SAH

2015 Management of Spontaneous ICH and Management of patients with unruptured intracranial Aneurysms

2017 Treatment and Outcome of Hemorrhagic Transformation after IV Alteplase in AIS

2019 Acute Ischemic Stroke

2021 Updated Nursing Scientific Statement (Prehospital and Acute) Endovascular and ICU) Post Hyperacute and Prehospital discharge

Postacute Care

2016 Adult Stroke Rehabilitation and Recovery

Guideline Search Stroke -
5991 results found in 663 article(s)

Developing Standardized Outcomes Measures

NO standardized outcomes measures outside of acute care & no national quality database

Next Step:

To develop standardized outcome measures for post-acute care

Stroke
Volume 52, Issue 1, January 2021; Pages 385-393
https://doi.org/10.1161/STROKEAHA.120.029678

SPECIAL REPORT

Comprehensive Stroke Care and Outcomes

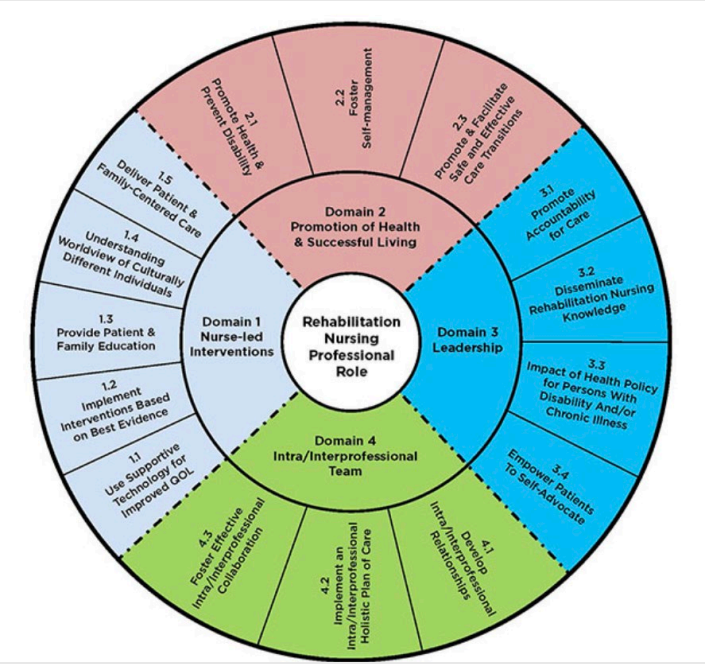
Time for a Paradigm Shift

Pamela W. Duncan, PhD, PT, Cheryl Bushnell, MD, MHS, Mysha Sissine, MSPH, Sylvia Coleman, MPH, RN, BNS, CLNC, Barbara J. Lutz, PhD, RN, Anna M. Johnson, PhD, MSPH, Meghan Radman, MPH, Janet Pvru Bettger, ScD, MS, BA, Richard D. Zorowitz, MD, and Joel Stein, MD

Impact of Social Determinants of Health (SDOH)

- Culture, ethnicity, financial hardship can influence outcomes
  - May limit access to follow-up care & community resources
  - Can influence stroke recovery and impact stroke care
  - Informs individual on health behaviors and stroke prevention
- Need to understand cultural beliefs and other SDOH on diet, exercise, self-management, neighborhood safety, access to HC and resources
- Tailored discharge plans and follow-up care to address SDOH can improve stroke risk factors. Feldman et all showed that NP and health coach tailored sensitive interventions improved outcomes as compared to usual home visits

Competencies Related to Care Transitions



Nurses must

- Identify current stroke guidelines
- Use resources for nurses
- Possess knowledge of and share resources for patients and family caregivers

Leveraging Technology

- Video recordings of the skills that will be required of the family caregiver
- Telehealth family conferences, and follow-up consultation
- Virtual caregiver training
- Video recordings of progress
- Digital health platforms

Table 1. Resources for Nurses

National Transition of Care Checklist: https://static1.squarespace.com/static/5d48b6eb75823b00016db708/t/5d49bc833b48f80001f154bc/1565113475856/TOC_Checklist.pdf
Patient Education Materials Assessment Tool: https://www.ahrq.gov/health-literacy/patient-education/pemat.html
Teach-Back Method: https://www.ahrq.gov/patient-safety/reports/engage/interventions/teachback.html
Preparedness Assessment for the Transition Home After Stroke: www.rehabnurse.org/pathtool
Prehospital/EMS: https://www.heart.org/en/professional/quality-improvement/mission-lifeline/mission-lifeline-stroke
ASA Resource Library: https://www.stroke.org/en/professionals/stroke-resource-library
AHA Acute Ischemic Stroke Healthcare Professional Resources: https://www.stroke.org/en/professionals/stroke-resource-library/acute-ischemic-stroke-healthcare-professional-resource-page
Heart and Stroke Foundation of Canada: https://www.strokebestpractices.ca/resources/professional-resources
World Stroke Organization: https://www.world-stroke.org/professional
Stroke Certified Registered Nurse: https://abnncertification.org/scrn/about
Certified Registered Neuroscience Nurse: https://abnncertification.org/cnrn/about
Certified Registered Rehabilitation Nurse: https://rehabnurse.org/crrn-certification/crrn-certification

Future Directions

Define standardized metrics to evaluate patient and caregiver outcomes across the continuum and the trajectory of recovery.

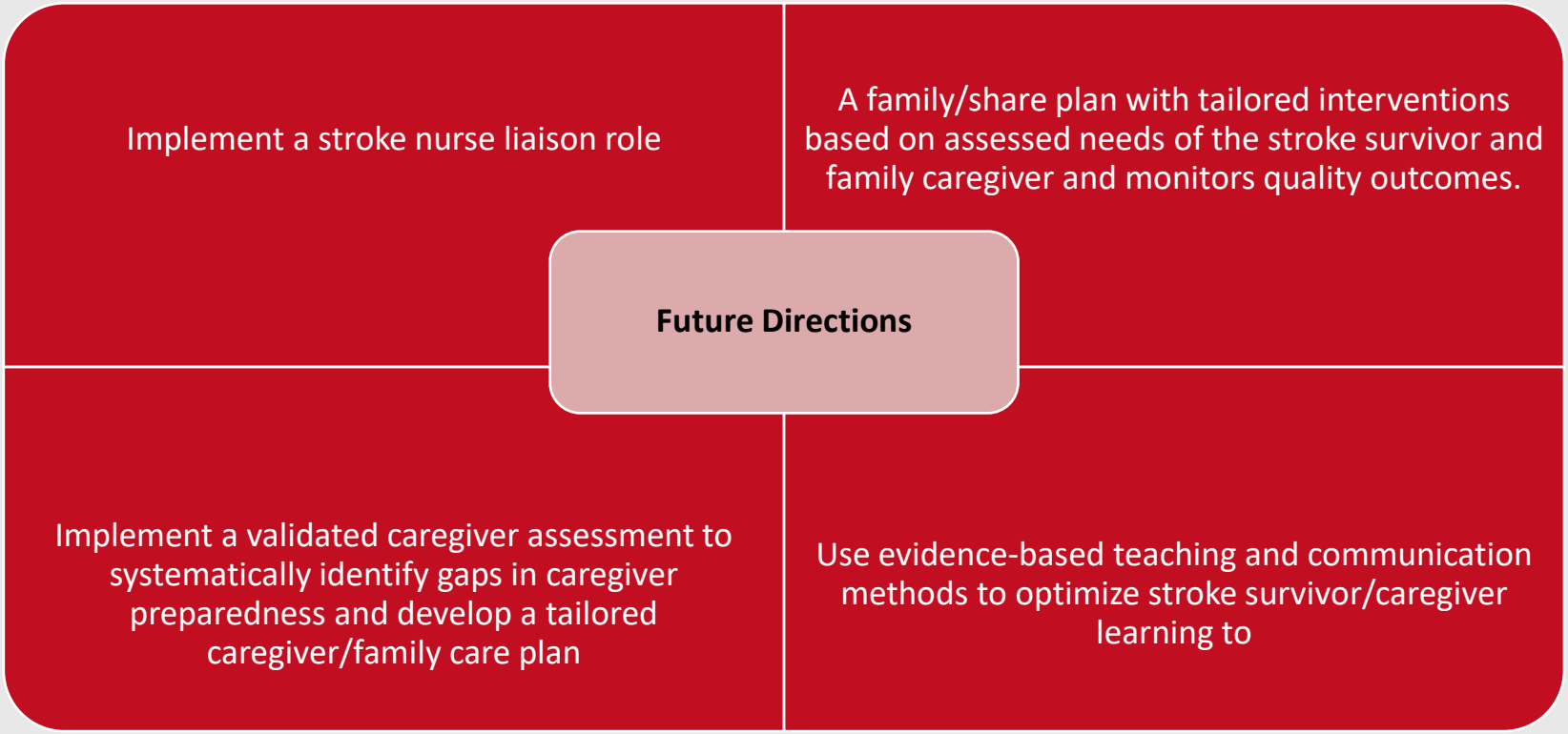
Implement regulatory and policy changes to incorporate these metrics into the stroke care delivery system.

Establish a system of coordinated and seamless comprehensive stroke care across the continuum and into the community by reframing the paradigm to include the PAC delivery system.

Use a comprehensive evidence-based stroke discharge checklist for post-stroke education

(including physical, mental and emotional health promotion, stroke prevention education, and discharge resources)

Establish an APN-led stroke follow-up clinic visit as a standard of care 7- to 14-day postdischarge.

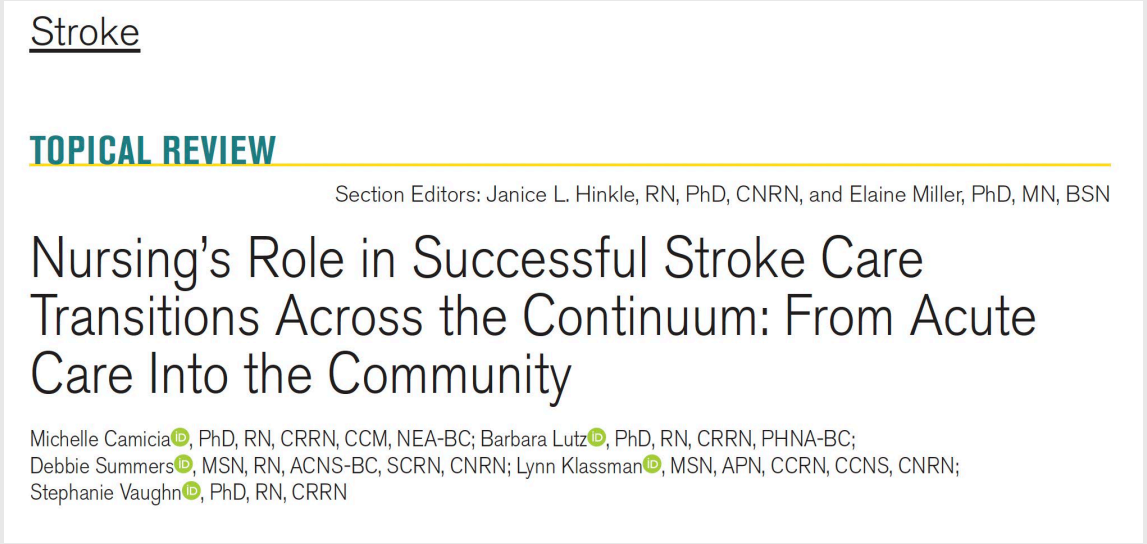

Implement a stroke nurse liaison role
A family/share plan with tailored interventions based on assessed needs of the stroke survivor and family caregiver and monitors quality outcomes.
Future Directions
Implement a validated caregiver assessment to systematically identify gaps in caregiver preparedness and develop a tailored caregiver/family care plan
Use evidence-based teaching and communication methods to optimize stroke survivor/caregiver learning to

Summary

Discuss stroke nursing care across the continuum

Identify cross-setting issues in stroke care transitions

Describe recommendations to leverage the impact of nursing in the health care delivery system



Stroke

TOPICAL REVIEW

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Nursing's Role in Successful Stroke Care Transitions Across the Continuum: From Acute Care Into the Community

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THANK YOU

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International Stroke Conference

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