COMPASS Study Update
NC Stroke Advisory Council Meeting
Tuesday, May 1, 2018

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DISCLAIMER: All statements are solely those of the presenters and do not necessarily represent the views of PCORI or its Board of Governors or Methodology Committee.

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OUTLINE

• Implementation Update
• Pilot Projects:
  – Area Agency on Aging (AAA) Integration into Vanguard Pilot
  – Mission Hospital Rehabilitation Pilot
• Publications Update
• COMPASS CP Update
Leadership Team

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Pragmatic Trial

“The cornerstone of a pragmatic trial is the ability to evaluate an intervention’s effectiveness in ‘real life’ and achieve maximum external validity, i.e., to generalize results to many settings.”

Pragmatic Research

- Stakeholder Input
- Diverse, representative populations
- Multiple, heterogeneous settings
- Outcomes important for care decisions and policies
- Comparison conditions in real-world
- Consistent with clinical workflow
- Health system return on investment
Pragmatic Research

- Involves patients with complex, comorbid conditions.
- Addresses questions important to multiple stakeholders.
- Takes place in typical clinical setting so results feasible for real-work uptake.

Pragmatic = Implementable + Sustainable
Stroke Care: Where are the gaps?

- 42% of stroke patients were not referred to any post-acute care (Gage, et al. U.S. DHHS 2009)
- 65% of patients under age 65 discharged without post-acute services (Bettger, et al. J Am Heart Assoc 2015)
- No performance indicators for processes of care after discharge
COMprehensive Post-Acute Stroke Services (COMPASS)

• Addresses the gaps that occur after hospital discharge with comprehensive assessments.
• Post-acute pathway for recovery and prevention.
• Structure and process that is comprehensive, systematic, and patient-centered.
• Provides an individualized care plan that can be shared with the patient and all providers.
A Pragmatic Trial in North Carolina

Diverse health systems, **all patients discharged home**, clinical workflow, and CMS billing

6,022 patients enrolled
Model: Early supported discharge

Care Team: Stroke-trained advanced practice provider (APP), NP, PA, or MD, and Post-acute Coordinator (PAC), RN, for care coordination

COMPASS-CP:

- Chronic disease management: Connects hospitals, community providers, and community agencies
- Billable with Transitional Care Management (TCM) or Complex Clinical Management (CCM), consistent with MACRA requirements
- Individualized care plan addresses the needs of stroke survivors and their caregivers
Implementation Updates

• All Phase 1 Intervention Hospitals:
  – Are now in the Sustainability Phase as of March 16, 2018
  – Will sustain the intervention for at least one year

• All Phase 1 Control/Usual Care Hospitals:
  – Are now in the Intervention Phase as of April 30, 2018
  – Will cross over into the Sustainability Phase in one year and will sustain the intervention in that phase for at least one year
Lessons Learned, Helpful Hints, and Tips for Successful Implementation
Top 10 Lessons Learned

from the pioneering clinicians who have implemented COMPASS over the last year...
What It Takes To Be Successful

- A champion
- Vision
- Organizational buy-in
- Consistency in staff
- Backups
- Inclusion in discharge orders
- Clinic location/specialty
- Education and inclusion of other medical providers
- Engagement of community resource network
- Considered standard of care
Pilot Projects

• Community Connections – AAA/Vanguard Pilot Project
• Mission Hospital Rehabilitation Project
Community Connections – AAA/Vanguard Pilot Project
Needs/Goals Identified

• Strengthen the Community Resource Network (CRN) and explore additional resources
• Improve the efficiency of referrals to community-based services and/or perceived limitations with the service
• Determine solutions to low patient follow-through on services presented
Baseline Statement Highlights

- No formal screening protocol to identify social barriers
- Commonly identified needs include: transportation, nutrition, financial/job assistance, medication adherence and caregiver needs
- Cumbersome paperwork meant many patients did not follow through with referrals
# Screening Tool

**Screening Tool for Community Resources**

Did you know there are several different services and resources in your community that you can use to assist in your stroke recovery and prevention of a future stroke? I am going to be asking you a couple of questions to see if you need different resources that may be available in your community.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response (please circle one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever missed a doctor’s appointment or other event because you didn’t have a way to get there?</td>
<td>YES  NO</td>
</tr>
<tr>
<td>Have you ever skipped taking a medication or not filled a prescription because of the cost?</td>
<td>YES  NO</td>
</tr>
<tr>
<td>Have you ever skipped meals or not eaten because you didn’t have the money to pay for food or you were too tired to fix a meal?</td>
<td>YES  NO</td>
</tr>
<tr>
<td>Have you fallen in the past 3 months? Do you sometimes feel unsteady? Do you feel like you need anything (i.e. walker, cane, etc.) to help with your balance?</td>
<td>YES  NO</td>
</tr>
<tr>
<td>In the past two weeks, have you felt down, depressed or stressed? If yes, has it been more than usual?</td>
<td>YES  NO</td>
</tr>
<tr>
<td>Do you have a place that you could go to for recreation or social support, if needed?</td>
<td>YES  NO</td>
</tr>
<tr>
<td>Do you have someone in your life that can help you if you needed it?</td>
<td>YES  NO</td>
</tr>
</tbody>
</table>

If smoker, provide programs to help smoking cessation.

**Provide for all:**

- Stroke support group
- Chronic disease self-management programs to promote healthy living – Age Well Programs in Piedmont Triad
- Exercises classes in their area that are open to the general public/low cost

[COMPASS Comprehensive Post-Acute Stroke Services]
Recommendations for Vanguard and COMPASS Study

Recommendations for Vanguard:

• Recognizing high vs. low social needs
• Forming relationships/partnerships with highly utilized community-based organizations (CBOs)
• Continue to focus on community resources for patients, even when clinic is busy
• Determine best workflow for timing of outreach about CBOs
Recommendations (continued)

Recommendations for COMPASS Study:

• E-Care Plan to CBOs/referral system to help with tracking service utilization
• Stronger focus on CBOs during training
• Screening earlier for social needs
• 90-day survey, Question K:
  – Only yes or no option about community resources – no N/A
  – Community resource uptake could seem lower than reality
Suggested Area to Study More:

• Tying patient’s motivation/readiness for change to the services:
  – Including the Transtheoretical Model (Stages of Change) to determine readiness for community resources and behavior change
  – Motivational Interviewing Training for clinic staff
Take-Aways

- While community support is a component of the COMPASS Study, emphasis is only apparent when a high needs case arises:
  - Needs may not be completely screened.
  - Eliminating future risk factors can reduce chance of recurring stroke.
- Open the dialogue between CBOs and healthcare of what are the top needs of patients versus what community resources exist, and work to fill gaps.
How Could This Be Replicated?

- PAC forms relationship with AAA representative from their region.
- Use key take-aways from the pilot project.
- CRN for their region is reviewed again to ensure comprehensive list is available.
- PAC reaches out to AAA contact for challenging cases and referral assistance.
Mission Hospital Rehabilitation Project

• Implementation of the COMPASS Model intervention for patients discharged home from inpatient rehabilitation services:
  – Case Study – Robin Jones, Stroke Program Manager, Mission Hospital
Manuscripts


6. Andrews J; Moore B; Weinberg R; et al. Low Risk – High Stakes: Ensuring respect for persons in the COMPASS Study, a large, cluster-randomized pragmatic clinical trial. Journal of Medical Ethics. *In Press*

7. Duncan PW; Abbott RM; Rushing S; et al. COMPASS-CP: An electronic application to capture patient-reported outcome measures to develop actionable stroke care plans. *Circ Cardiovasc Qual.* (submitted; awaiting decision)


Last updated: April 2018
A Person-Centered Approach to Poststroke Care: The COMprehensive Post-Acute Stroke Services Model

Cheryl D. Bushnell, MD, MHS, Pamela W. Duncan, PhD, PT, FAHA, FAPTA, Sarah L. Lycan, NP, MSN, Christina N. Condon, MSN, NP-C, Amy M. Pastva, PT, PhD, Barbara J. Lutz, PhD, RN, Jacqueline R. Halladay, MPH, MD, Doyle M. Cummings, PharmD, Martinson K. Arnan, MD, Sara B. Jones, PhD, Mysha E. Sissine, MSPH, Sylvia W. Coleman, MPH, BSN, Anna M. Johnson, MSPH, PhD, Sabina B. Gesell, PhD, Laurie H. Mettam, MEd, Janet K. Freburger, PT, PhD, Blair Barton-Percival, MSW, Karen M. Taylor, MPT, Janet Pruv-Bettger, ScD, FAHA, Gladys Lundy-Lamm, MA, Wayne D. Rosamond, MS, PhD, and on behalf of the COMPASS Trial.
The Comprehensive Post-Acute Stroke Services (COMPASS) study: design and methods for a cluster-randomized pragmatic trial

Pamela W. Duncan¹, Cheryl D. Bushnell¹, Wayne D. Rosamond², Sara B. Jones Berkeley²*, Sabina B. Gesell³, Ralph B. D'Agostino Jr⁴, Walter T. Ambrosius⁴, Blair Barton-Percival⁵, Janet Prvu Bettger⁶, Sylvia W. Coleman¹, Doyle M. Cummings⁷, Janet K. Freburger⁸, Jacqueline Halladay⁹, Anna M. Johnson², Anna M. Kucharska-Newton², Gladys Lundy-Lamm¹⁰, Barbara J. Lutz¹¹, Laurie H. Mettam², Amy M. Pastva¹², Mysha E. Sissine¹ and Betsy Vetter¹³
IMPLEMENTATION, POLICY AND COMMUNITY ENGAGEMENT RESEARCH ARTICLE

Methods guiding stakeholder engagement in planning a pragmatic study on changing stroke systems of care

Sabina B. Gesell1*, Karen Potvin Klein2, Jacqueline Halladay3, Janet Prvu Bettger4, Janet Freburger5, Doyle M. Cummings6, Barbara J. Lutz7, Sylvia Coleman8, Cheryl Bushnell9, Wayne Rosamond10, Pamela W. Duncan11 and COMPASS Study Investigators
Hospital recruitment for a pragmatic cluster-randomized clinical trial: Lessons learned from the COMPASS study

Anna M. Johnson¹*, Sara B. Jones¹, Pamela W. Duncan², Cheryl D. Bushnell², Sylvia W. Coleman², Laurie H. Mettam¹, Anna M. Kucharska-Newton¹, Mysha E. Sissine² and Wayne D. Rosamond¹
Abstracts

7. Duncan PW; Bushnell C; Rosamond W; et al. **ISC 2017.** Houston, TX. Feb 21-24, 2017.
16. Duncan P; Bushnell C; Condon C; et al. Nursing Symposium, **ISC 2018.**
17. Lutz B; Gesell S; Duncan PW; et al. **ISC 2018.**
18. Guo J; Cummings DM; Halladay J; et al. **ISC 2018.**
19. Duncan; Abbott; Rushing; et al. Clinician-user Satisfaction with COMPASS-CP for Stroke. **ISC 2018.**
20. Penland K; Bushnell C; Pastva A; et al. Preliminary findings from the COMprehensive Post-Acute Stroke Services Study. **ISC 2018.**

Last updated: April 2018
Next Phase of COMPASS: COMPASS CP Update

• Piloting Phase:
  – Vanguard site is piloting in EPIC
  – Mission Hospital is piloting in Cerner
Thank you!

https://www.nccompass-study.org/