Kentucky Stroke Transitions Assistance Resource

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Kentucky Stroke Transitions Assistance Resource

**Mission:** Provide access to medical, social, and environmental services for individuals who have had a stroke and their caregivers living in the Commonwealth of Kentucky

**Goals:**
- Decrease barriers to accessing healthcare and community resources
- Decrease preventable readmissions
- Decrease avoidable healthcare gaps
- Increase community integration of individuals with stroke
- Improve the Quality of Life (QOL) for individuals with stroke and their caregivers
Stroke

- In 2012, KY ranked 45th among states in the incidence of stroke
- High incidence of co-morbidities in those who have had a stroke
- Multiple studies have shown a high incidence of readmission within the first 12 months following d/c from inpatient rehab.
- Isolation from the healthcare system can result in limited or no awareness of services in rural communities, decreased support, lack of referrals, and lack of access to information (Brereton, 2000, Danzl et al., 2013).
- Failure to integrate community resources may actually negate the effects of rehabilitation (Slater et al., 2011).
A study of stroke patient caregivers identified information need in 3 categories (Wiles et al., 1998):

1. Clinical information about stroke, recovery, prevention etc.
2. Practical information related to daily care of patients
3. Information on follow-up care and community resources

Upon discharge home to the rural community, when caregivers needs are the greatest, they are least addressed (Danzl et al., 2013; Rochette et al., 2014)
Stroke Literature Continued

  - This study examined the supports and barriers to long-term healthcare in Appalachian KY for persons with stroke.
    - Determined the need for local health navigation to improve access to information and services.

  - Over the first year after stroke, subjects reported that the process of community reintegration involved ongoing changes in their goals. That there remained a need for support for both the person with stroke and the caregivers.

  - Determined continued support is required for successful reintegration of persons who have had a stroke and their caregivers.
Phase I/Pilot study

- Pilot study started in late 2013 as a collaboration between:
  - University of Kentucky-CHS
  - Appalachian Regional Healthcare-Hazard
  - Kentucky Homeplace
  - KY Appalachian Rural Rehabilitation Network (KARRN)
  - UK Stroke program
  - Cardinal Hill Rehabilitation Hospital
  - Funding provided by the University of Kentucky Center for Clinical and Translational Science

- 15 people with acute stroke enrolled in this study
Phase I Regions Served
Connecting Transitions of Care

• Majority of participants were seen at ARH in Hazard
  • CHW was present at time of discharge home or within 1-2 days of discharge to home
  • CHW worked with the Discharge Team prior to discharge when possible
• Subjects that had been served at UK or Cardinal Hill Rehabilitation Hospital
  • CHW connected with the patient within 1-2 days of returning to their homes in south east KY
  • CHW not involved with Discharge Team
• CHW maintained communication between patient/caregiver and the healthcare providers
Stroke Navigators Effort Intensity

- 1st 3 months, contacted the participant, either in person or by phone, a minimum of at least once a week.
- Months 4-6 contact a minimum of every other week
- Months 7 on contact at least once per month
Services Provided

Provided a line of communications between the patient and the healthcare providers

Insurance support

- Medicare: Assist with enrollment
- Kynect: Assist with insurance enrollment
- Needy Meds (needymeds.org): Assist with waivers for medications
- Assist with obtaining additional follow-up care (e.g. rehabilitation) visits.

Follow-up education

Connecting with community resources

- Project CARAT: Medical equipment and assistive technology assistance program
- Support for utilities
- Respite care to support the caregivers
Co-Morbidities of the Study Group

Types of Co-morbidities

Results demonstrate the high level of co-morbidities in the stroke population living in eastern KY.

Number of Subjects with Multiple Co-morbidities
Prescribed a Stroke Management Medication

![Bar Chart]

- Number of Subjects
- Yes: 14 subjects
- No: 1 subject
Navigating the Insurance Process

Results support the need for support navigating the insurance process following discharge to home.

Top 5 Issues:

1. Enrolling in a proper insurance plan
2. Gaps in health care due to lack of coverage
3. Problems with medication coverage
4. Problems with DME coverage
5. Getting more PT, OT, Speech visits approved
Results support the need for follow-up education following the persons discharge back to their homes.
Occurrences and Timing of ED Visits and Re-hospitalizations

- Of the 15 subject in the pilot study, 9 were re-admitted to the hospital sometime during the study.

- 3 persons were re-admitted within the first 30-days of discharge to home. None were readmitted for stroke related issues.
None of the readmissions were due to stroke related preventable secondary complications!

These results indicate opportunities for education (e.g. diabetes management, nutrition, self-care for persons with hypertension, COPD, heart disease).

It was the navigator that found the person in the diabetic coma during a routine follow-up visit and worked with family to call EMS

<table>
<thead>
<tr>
<th>30 day</th>
<th>Gender</th>
<th>Age</th>
<th>Reason for Re-admittance</th>
<th>Comorbidities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>F</td>
<td>60</td>
<td>diabetic coma</td>
<td>↑BMI, diabetes</td>
</tr>
<tr>
<td>Subject 2</td>
<td>M</td>
<td>64</td>
<td>chest pain</td>
<td>Diabetes, HTN, ↑BMI</td>
</tr>
<tr>
<td>Subject 3</td>
<td>F</td>
<td>63</td>
<td>Could not breathe well</td>
<td>COPD, ↑BMI, HTN, diabetes, past smoker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>60 day</th>
<th>Gender</th>
<th>Age</th>
<th>Reason for Re-admittance</th>
<th>Comorbidities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 4</td>
<td>F</td>
<td>90</td>
<td>constipation</td>
<td>HTN, HA, HD, COPD</td>
</tr>
<tr>
<td>Subject 5</td>
<td>F</td>
<td>43</td>
<td>Vitamin deficiency, possible TIA</td>
<td>Diabetes, ↑BMI, Past smoker</td>
</tr>
</tbody>
</table>
Quality of Life Measure

**Changes in Stroke Impact Scores**

- **Number of Subjects**:
  - 1 to 5 Point Decrease
  - NO change
  - 0-10 Point Increase
  - 11-20 Point Increase
  - 21-50 Point Increase
  - Greater than 50 Point Increase

**Overall Changes in Stroke Impact Scores**

**Changes in Perceived Recovery**

- **Number of Subjects**:
  - 11-20 Point Decrease
  - 1-10 Point No Change
  - 1-10 Point Increase
  - 11-49 Point Increase
  - 50-60 Point Increase

**Stroke Impact Scores taken at 1-month and 6-months post-discharge to home.** A decrease in number indicates a decrease in perceived function while an increase indicates increased function.

- The majority of subjects expressed an increase in perceived function at the 6 month follow-up (top figure).
- However, half of the subjects reported a decreased perceived level of recovery at 6 months post-discharge to home (bottom figure).
- This suggests the need for continued follow-up support past 6-month.
Changes in the Caregiver Burden Scale from 1-month to 6-months post-discharge to home. A decrease in number indicates a decrease in perceived level in burden while an increase in score indicates a perceived increase in burden.

- Overall there was no change or a decrease in the perceived level of burden in 4 of the 6 caregivers sampled.
- However, multiple caregivers indicated they would have benefitted from having additional training once they returned home.
- Caregivers also indicated a need for a support group.
Qualitative Data from the Client and Caregivers

- **Subject 1:** “Without Dr. Kitzman and Keisha, the stroke navigator program, I don’t know what I would have done.” “I believe everything they done for me, on a scale of 1-10, they are a 10. I don’t see how they could do any better, they really need this program.” “She (the stroke Navigator) has told me to do a lot of stuff and it really works.” " There is no way, I don't believe, I could have got through all this. She has helped me in so many different ways it's unreal."

- **Subject 2:** “She (stroke navigator) is there for us if we need anything, I can contact her, she checks on us, and has done a real good job. She is a real good person.”

- **Subject 3:** “The program that Keisha runs, she helps me a lot and my family helps me a lot. She helps me in general, if I have questions she would answer them and help me in any way she could.” “I don’t think you could have done better with me, helped me with everything that I needed and stuff.”
Additional Anecdotal support

• During a routine visit the CHW found one of the participants in a diabetic coma and assisted the family with contacting the EMS.

• During a routine follow-up call with a subject the CHW was able to hear the persons labored breathing and told the person to contact there primary care MD immediately. The Person was hospitalized with dangerous level of fluid build up in their lungs due to COPD.

• These cases show the importance of having a person who can routinely monitor persons as they return to their home.
Lessons learned

- Works best with the CHW in close proximity to the healthcare facility in order to more effectively interact with the D/C team and subjects prior to discharge.
- Needs are variable and individualized.
- Need to further assess and adapt educational follow-up to provide multiple formats (Develop Best Practice).
- People in KY have a higher level of co-morbidities which require a long-term follow-up plan.
- Need to develop and standardize triage process for assessing optimal level of intervention.
- There is a need to develop support groups for the individuals who have had a stroke as well as their caregivers.