After months of hard work and collaboration with Paul Coverdell Acute Stroke Registries (PCNASR) in the Great Lakes Region and numerous hospitals, we are pleased to be able to provide you with toolkit dedicated to patient education. Aggregate PCNASR data for the Great Lakes region found that stroke education is a challenge for hospitals. In 2008, aggregate data found that compliance with this measure was 55 – 70% and in the first 6 months of 2009 saw a modest increase of 63 – 72%.

To assist you, a team of health care professionals including stroke program coordinators, have developed a Stroke Education Teaching Plan. This teaching plan is to assist your staff nurses in meeting all 5 of the education components as required by the consensus stroke performance measures: personal risk factors for stroke, signs and symptoms of stroke and how to access EMS, stroke prevention, medications, and follow-up. It outlines what information should be covered on each day. A how-to use this plan is also attached describing the plan in more detail. Please note that the plan is designed to become a part of the medical record. If more detail is needed when conducting the education with the patient, this can be documented in the nursing notes portion of the patient record.

A checklist is designed to reinforce process, it is not meant to educate. If you use a checklist, it should not be in place of patient education. It is a component of patient education. Your patient education components should be:
1. Discharge instructions signed by the patient
2. Booklet or fact sheets of relevant stroke education and personalized risk factors

We would like to hear from you if these materials are helpful! Please take a minute to complete the anonymous online evaluation at: https://www.surveymonkey.com/s/FLX3MFJ

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- Stroke Education Teaching Plan
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- Health Literacy Before and After: Stroke and Depression from Fisher-Titus
- Health Literacy Guidelines
- How to Use the SMOG Formula
- FAST educational materials co-branded with GLRSN logo.

The Great Lakes Regional Stroke Network wishes to thank the following people for their collaboration on this project and for sharing their materials found within: Susan Savasuk, Med, BSN, RN, CDE, CRRN, Bloomington Hospital; Barbara Pryor, MS, RD, LD and Nancy Patton, RN, MS, Ohio Department of Health Heart Disease and Stroke Prevention Program, Ohio Paul Coverdell National Acute Stroke Registry; Roseanne Thomas, PT, PhD; Eileen Worden, RN, Michigan Department of Community Health; Suzie Feuling, RN; Katie Fabbro, MA; and Michelle Gardner, American Heart Association. A special thanks to Judy Werslter, RN, MSN and Julie Fisher, RN for sharing their before and after stroke education fact sheets and Sandy Cornett, RN, PhD for sharing her health literacy expertise.
How to Use Stroke Education Teaching Plan

**Day of Stroke**
1. When patient is admitted, take the stroke education packet for the patient and family to the patient’s room.

2. Nursing goes through the completed column of the pathway, checking off patient’s personal risk factors for stroke. Information obtained from admission paperwork and/or additional discussion with patient/family.

3. Provide additional smoking cessation information, including quit line materials, fax back forms and cessation classes.

4. Personal risk factors are addressed and referred to in the patient education packet.

**Day 2**
1. Nursing conducts assessment of what patient and family understood from yesterday’s teaching. Ask if they have any additional questions.

2. Reiterate relevant risk factors (or check mark additional ones) including how to access 911 and signs/symptoms of stroke.

3. Neuro Project Manager/CNS/Stroke Program Manager/Educator visits patient and further addresses risk factors, helps patient/family set realistic goals for risk reduction, reiterates how to access 911 and signs/symptoms of stroke. Refers to booklet.

**Day 3, 4, 5**
1. Nursing conducts assessment of what patient and family understood from previous day’s teaching. Ask if they have any additional questions.

2. Reiterate relevant risk factors, and/or check mark additional ones, including how to access 911 and signs/symptoms of stroke.

3. Introduce discharge instructions page – even if patient is not being discharged on that day. It includes personalized risk reduction information on cholesterol, blood pressure, diabetes, etc.

4. Discuss medications, follow up physicians’ visits, lab appointments, therapy appointments, community resources/referrals.

**Discharge Day**
1. Nursing conducts assessment of what patient and family understood from previous day’s teaching. Ask if they have any additional questions.

2. Reiterate relevant risk factors, and/or check mark additional ones, including how to access 911 and signs/symptoms of stroke.

3. Review discharge instructions including personalized risk reduction information on cholesterol, blood pressure, diabetes, etc.

4. Discuss medications, follow up physicians’ visits, lab appointments, therapy appointments, community resources/referrals.
Stroke Education Teaching Plan

**Education Goal:** Maximize patient/family/caregiver understanding of stroke risk factors, signs and symptoms, EMS activation.

<table>
<thead>
<tr>
<th>Day of Stroke</th>
<th>Day One After Stroke</th>
<th>Day Two After Stroke</th>
<th>Day Three After Stroke</th>
<th>Day Four After Stroke</th>
<th>Discharge Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date ________</td>
<td>Day One After Stroke Date ________</td>
<td>Day Two After Stroke Date ________</td>
<td>Day Three After Stroke Date ________</td>
<td>Day Four After Stroke Date ________</td>
<td>Discharge Day Date ________</td>
</tr>
</tbody>
</table>

1. Provide stroke education material □ Yes □ No

2. Review personal risk factors (check all that apply)
   - Previous stroke/TIA □
   - Smoking □
   - Alcohol use □
   - Hypertension □
   - Diabetes □
   - A-Fib □
   - Hyperlipidemia □
   - LDL _____

3. Provide smoking cessation information □ Yes □ No □ N/A

4. Provide information regarding stroke signs & symptoms & EMS activation. □ Yes □ No

5. Assess for additional learning needs regarding stroke education □ Yes □ No

6. Additional education provided for the following:
   - Previous stroke/TIA □
   - Smoking □
   - Alcohol use □
   - Hypertension □
   - Diabetes □
   - A-Fib □
   - Hyperlipidemia □
   - LDL _____
   - Smoking Cessation □
   - Stroke signs and symptoms □
   - EMS Activation □

7. Patient verbalizes understanding. □ Yes □ No

8. Additional education provided for the following:
   - Previous stroke/TIA □
   - Smoking □
   - Alcohol use □
   - Hypertension □
   - Diabetes □
   - A-Fib □
   - Hyperlipidemia □
   - LDL _____
   - Smoking Cessation □
   - Stroke signs and symptoms □
   - EMS Activation □

9. Patient verbalizes understanding. □ Yes □ No

10. Additional education provided for the following:
    - Previous stroke/TIA □
    - Smoking □
    - Alcohol use □
    - Hypertension □
    - Diabetes □
    - A-Fib □
    - Hyperlipidemia □
    - LDL _____
    - Smoking Cessation □
    - Stroke signs and symptoms □
    - EMS Activation □

11. Patient verbalizes understanding. □ Yes □ No

12. Additional education provided for the following:
    - Previous stroke/TIA □
    - Smoking □
    - Alcohol use □
    - Hypertension □
    - Diabetes □
    - A-Fib □
    - Hyperlipidemia □
    - LDL _____
    - Smoking Cessation □
    - Stroke signs and symptoms □
    - EMS Activation □

13. Patient verbalizes understanding. □ Yes □ No

14. Additional education provided for the following:
    - Previous stroke/TIA □
    - Smoking □
    - Alcohol use □
    - Hypertension □
    - Diabetes □
    - A-Fib □
    - Hyperlipidemia □
    - LDL _____
    - Smoking Cessation □
    - Stroke signs and symptoms □
    - EMS Activation □

15. Discharge instructions/ stroke education completed including personal risk factors. □ Yes □ No

16. Rehab. needs discussed with patient and family. □ Yes □ No

17. Medications reviewed. □ Yes □ No

18. Follow up appointments reviewed. □ Yes □ No

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Patient-Last Name, First Name, Middle Initial
Age

Admission Number
Date
Birth Date
Physician Name

Patient Identification
Medical Record Number

Initials
Signature
Date
Time

7a-7p
7p-7a
7a-7p
7p-7a
Ensuring Your Patient Education Materials Meet Health Literacy Guidelines

Despite our best intentions, a lot of information is provided to the stroke survivor and family member in a short amount of time. Can you ever be sure that they understand everything you have told them? Patient education is more than just teaching facts and demonstrating skills. It is a two-way conversation in which patients and clinicians learn from each other and is an essential component of good patient care. An important step in patient education is good documentation. Frequently, materials that are available may be written at a level that is too complex. According to Sandy Cornett, RN, PhD, of Ohio State University, most health materials are written at a 10th grade reading level. An evaluation conducted by the GLRSN found that Krames Discharge Instructions for Stroke was written at an 11th grade level using the SMOG readability scale.

To help assure that patients and family members understand the materials being given to them, it is important to ensure that the materials meet healthy literacy guidelines. While this may sound daunting at first, there is no need to reinvent the wheel here. Below you will find a patient discharge check list and a stroke and depression fact sheet that have been modified from its previous version to meet health literacy guidelines. Following that example you will find the SMOG readability formula, a tool to help you check your own stroke materials and determine their reading level.

Health Literacy Checklist for Stroke Education Materials

- Heading and subheading should always be in san serif (like Arial) and the body of the text in serif (like Times New Roman). Font should be at least 12 point.
- Use clear captions
- Use ample ‘white space’
- Use 1.5 or double spaces between sentences and more space between bullets.
- There should never be more than 5-7 bullets in a list, so put in some subheadings. Paragraphs should flush left and leave white space between paragraphs. Using clip art or pictures to add to the message and give some visuals for stimulation
- Organize information with the 3-5 most important “need to know” points
- Give the most important information first and last to enhance memory
- Break down complex instructions into small units and teach one step at a time
- Use commonly understood words consistently and define terms i.e. makes blood less sticky instead of antiplatelet
Use pictures and illustrations as much as possible
Use a conversational writing style and active voice

When teaching
- Use repetition or rephrasing and a variety of methods to get your message across
- Limit education to one or two educational objectives. What the reader will learn and do.
- Ask the patient to repeat information “teach back.” Asking that patients recall and restate what they have been told is one of 11 top patient safety practices based on strength of scientific evidence. (AHRQ, 2001 Report on Making Health Care Safer)
- Break down instructions into simple easy to understand parts “take your medicine every day.”
- Allow time to ask questions. Instead of “Do you have any questions?” which may be met with a “No.” Try, “What questions do you have?”

Evaluating your process and education materials

1.) Materials - literacy levels, usage, feedback from staff, usability, spread (useful for community efforts?), frequency (how often should we look at these?), who should be involved?

2.) The education process - PDSA, outcomes, challenges, support.

Additional Health Literacy resources can be found at:
- Health Literacy: Help Your Patients Understand (AMA Foundation)
  http://www.ama-assn.org/ama/pub/category/035.html
- In Plain Language (Harvard Health Literacy Studies)
  http://www.hsph.harvard.edu/healthliteracy/overview.html#Two
- Ask Me 3 Program
  www.AskMe3.org
- Ohio State University Medical Center’s Health Literacy Distance Education On-line Modules
  http://healthliteracy.osu.edu/
1. **Your health condition is:** 
   - [ ] Ischemic Stroke (Clogged artery in the brain)  
   - [ ] Hemorrhagic Stroke (Bleeding into the brain)  
   - [ ] TIA (Transient Ischemic Attack or “Mini Stroke”)  

2. It is important to understand those health problems (risk factors) that make it more likely that a stroke may occur. You can Work with your doctor to help prevent another stroke. Your personal Risk Factors for stroke are checked below:
   
   - **High Blood Pressure:** This high blood pressure is the single most important risk factor for stroke. Your blood pressure today was _________. If it’s 140/90 or above, it’s high. Never stop your blood pressure medication pills without talking to your doctor.
   
   - **High Cholesterol:** High blood cholesterol increases the risk of clogged arteries. A stroke results when an artery to the brain becomes clogged. Your total cholesterol level is _________ with a LDL (bad cholesterol) of ___________ . The goal for total cholesterol is less than 200 and LDL less than 100.
   
   - **Smoking:** Smoking doubles the risk of stroke. You can find a program to help you quit by calling 1 800 784-8669 (Ohio QUIT line) or 330-363-8255 (Aultman Family Education) Monday-Friday, 8:00AM to 4:00pm.
   
   - **Diabetes:** Diabetes increases your risk of stroke. Your blood sugar (Hemoglobin A1C) has been averaging __________ . A Hemoglobin A1C in people with diabetes should be less than 7. Work with your doctor to manage diabetes by taking your medications as directed, healthy eating and getting exercise.
   
   - **Atrial Fibrillation (AF):** AF is an irregular heartbeat that changes how your heart works and can cause blood to pool in parts of your heart. This pooled blood can form clots and cause a stroke. If you are taking Coumadin (warfarin) to prevent clots, make sure you get your blood tests as directed.
   
   - **Carotid or other artery disease:** The carotid arteries in your neck supply blood to your brain. A carotid artery damaged by a fatty buildup of plaque inside the artery wall may become blocked by a blood clot, causing a stroke. Talk to your doctor about ways to manage this.
   
   - **Lifestyle management:** Obesity, inactivity, excessive drinking too much alcohol intake and using illegal drugs use (especially cocaine or crack) can increase your risk of stroke. Losing weight, if you are overweight, establishing an exercise program, moderation in alcohol consumption, drinking only small amounts of alcohol, and stopping illegal drug use will decrease your stroke risk.

3. **Signs and symptoms of stroke:** If you have any of these symptoms, call 911 right away:
   - Sudden numbness or weakness of face, arms or leg
   - Sudden difficulty problems speaking or understanding
   - Sudden change in vision in one or both eyes
   - Sudden trouble walking, dizziness, loss of balance or coordination
   - Sudden, severe headaches with no known cause

4. It is very important to follow-up with your Primary Care (family ?) Physician doctor and neurologist (if consulted) after you go home discharge from the hospital to make sure that your risk factors are properly controlled. Help you control your risk factors.

5. It is very important to take all of your prescribed medications, in the way your doctor says to, including stroke prevention medication as those that help prevent another stroke. Please bring all your medications with you when you come to see your to all doctor appointments.
I have participated in development of the discharge plan and have received a copy.

Date/Time Signature of Patient/Caregiver Signature of Nurse Phone

Form White: Patient Yellow: Chart Pg 1 of 1

INTERDISCIPLINARY NOTES
Signs of Depression after a Stroke

A person may feel depressed after having a stroke. This may be due to brain damage. Changes in body image, how you feel about yourself, grief, feeling sad about the loss of skills, such as speech or freedom of movement, speaking and moving, may also cause depression. If you are having these signs of depression and they do not go away, talk to your physician.

Signs and Symptoms of Depression:

- Sadness and/or excessive crying a lot
- Irritability—Complaining a lot; grouchy; upset all the time
- Lack of energy
- Unintentional weight gain or loss when you are not on a special diet
- Problems sleeping
- Increased physical complaints—Physical problems such as headaches or backaches
- Difficulty concentrating—Problems thinking
- Feeling worthless or hopeless
- Lack of interest in normal everyday activities
- Thoughts of suicide or hurting yourself

This list is not to be used to make a diagnosis; see your physician, so call your doctor if you have these signs.

Services for a Stroke Patient with Depression:

- **Twenty-four Hour Services in Huron County:**
  
  Crisis Service HOTLINE: 1-800-826-1306

- **Huron County Services: Counseling and Community Support**
  
  - Fireland’s Counseling and Recovery Services of Huron County
    292 Benedict Ave. Norwalk, Ohio 44857
    419-663-3737
  
  - Norwalk Counseling Services
    85 Benedict Ave. Norwalk, Ohio 44857
    419-668-9675
  
  - Dr. Irene Kraegel
    17 West Church Street
    Milan, Ohio
    419-499-8121

- The National Mental Health Association, [www.nmha.org](http://www.nmha.org), offers a simple, confidential screening test that can help uncover depression. For a free, confidential depression screening, log onto [www.depression-screening.org](http://www.depression-screening.org).
The Ohio State University
AHEC Clear Health Communication Program
How to Use the SMOG Formula

1. Count 10 sentences in a row near the beginning of your material. Count 10 sentences in the middle. Count 10 sentences near the end. (30 total sentences)

2. Count every word with three or more syllables in each group of sentences, even if the same word appears more than once.

3. Add the total number of words counted. Use the SMOG Conversion Table I to find the grade level.

Use this formula and SMOG Conversion Table II for material containing less than 30 sentences, but not less than 10 sentences.

1. Count the total number of sentences in the material.

2. Count the number of words with 3 or more syllables.

3. Find the total number of sentences and the corresponding conversion number in SMOG Conversion Table II.

4. Multiply the total number of words with 3 or more syllables by the conversion number. Use this number as the words count to find the correct grade level from Table I.

<table>
<thead>
<tr>
<th>Word Count</th>
<th>Grade Level</th>
<th># of Sentences</th>
<th>Conversion #</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>4</td>
<td>29</td>
<td>1.03</td>
</tr>
<tr>
<td>3-6</td>
<td>5</td>
<td>28</td>
<td>1.07</td>
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<tr>
<td>7-12</td>
<td>6</td>
<td>27</td>
<td>1.1</td>
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<tr>
<td>13-20</td>
<td>7</td>
<td>26</td>
<td>1.15</td>
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<tr>
<td>21-30</td>
<td>8</td>
<td>25</td>
<td>1.2</td>
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<tr>
<td>31-42</td>
<td>9</td>
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<td>43-56</td>
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<tr>
<td>57-72</td>
<td>11</td>
<td>22</td>
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<td>73-90</td>
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<td>21</td>
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<td>91-110</td>
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<td>157-182</td>
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<td>10</td>
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</tbody>
</table>
FAST Materials co-branded with GLRSN logo.

These materials can also be found on the newly redesigned GLRSN Patient Education tab on the GLRSN website: [http://www.uic.edu/depts/glstrknet/patientedu.html](http://www.uic.edu/depts/glstrknet/patientedu.html). Below you will find: the brochure in English, the poster, the brochure in Spanish, first page of the Spanish booklet, Spanish poster,
Is it a stroke? Check these signs FAST!

Every second, brain cells die. Call 9-1-1 at any sign of stroke.
No te arriesgues
Los siguientes factores nos ponen en
mayor riesgo de tener un STROKE...
- Alta presión arterial
- Diabetes
- Colesterol alto
- Sobrepeso y obesidad
- Fumar
- Historia familiar de STROKE
- Otros enfermedades del corazón
- Ataque vascular de aparición a término de un
STROKE que aparecen y luego desaparecen

Sabías que...
- La presión alta
  - es la principal causa de STROKE
  - afecta a 1 de cada 4 latinos
  - mayor de 20 años
- Los latinos tienen mayores
  altos de diabetes
- Fumar aumenta 3 veces el riesgo de
  tener un STROKE

¿Quieres tu corazón y los demás
- como cuidado con cuidado y prevención:
  - Come saludable
  - y se moderador
  - Haz ejercicio
  - Mantén un peso saludable
  - Hace crece
  - Durablyse regular
  - Toma los medicamentos que
  te recita tu médico

¿Qué es el STROKE
¿Qué tiene que ver conmigo?
Seguramente has oído hablar del daño cerebral, la embolia o la asociada. Todas son causas para desencadenar el evento—un ataque cerebral, o enfermedad cerebrovascular en inglés, un STROKE. Si bien no es una enfermedad, es la cuarta causa de muerte entre los latinos en los Estados Unidos y afecta a hombres, mujeres, jóvenes y mayores. Pero si te informas, puedes ayudar a prevenir o limitar los efectos del STROKE.

El STROKE requiere cuidado urgente
Cuando un STROKE no se trata a tiempo, puede resultar en:
- Parálisis
- Pérdida de memoria
- Problemas al hablar
- Problemas de visión
- Despiadado y amnesia
- Problemas para caminar
- Diagnóstico de enfermería: Asegura cualquier sintoma, llama emergencia al 9-1-1 para cuidado inmediato.

Otros síntomas del STROKE
- Discapacidad repentina en un lado del cuerpo
- Confusión repentina, problemas para
  hablar o entender
- Pérdida repentina de la visión
- Problemas al caminar o pérdida
  repentina del equilibrio
- Dolor de cabeza intensa y repentino

¿Cómo puedo reconocer un STROKE?

EL HABLA
¿Dice cosas extrañas
CUANDO HABLA?
Pidele que repita una frase.

UN BRAZO
¿No puede mantener
UN BRAZO EN ALTO?
Pidele que levante ambos brazos.

LA CARA
¿Tiene una cara
CAÍDA?
Pidele que sonría.

Si respondes sí, a cualquier una de estas preguntas, ¡A VER LA DORSION DE ACTÚAR!

¡Llama al 9-1-1 y dí "STROKE"!
¿Qué es el STROKE (ATAQUE CEREBRAL) y qué tiene que ver conmigo?
¿Será que es un **STROKE?** (ATAQUE CEREBRAL)

**¿Dice cosas extrañas cuando HABLA?**
Pídele que repita una frase.

**¿No puede mantener un BRAZO en alto?**
Pídele que levante ambos brazos.

**¿Tiene media CARA caída?**
Pídele que sonría.

Si respondes SI aunque sea a una de estas preguntas, ¡es HORA de actuar!

¡Llama al 9-1-1 y dí "STROKE"!

Departamento de Salud Pública de Massachusetts (Massachusetts Department of Public Health)
Centros para el Control y la Prevención de Enfermedades
Para más información llama al 1-800-487-1199 o envía un e-mail a heart.stroke@state.ma.us

*glrn.uic.edu*

Credit: Massachusetts Department of Public Health