Stroke Patient Transition of Care Toolkit

Arkansas Department of Health

Stroke Program

06/20/2022

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Introduction

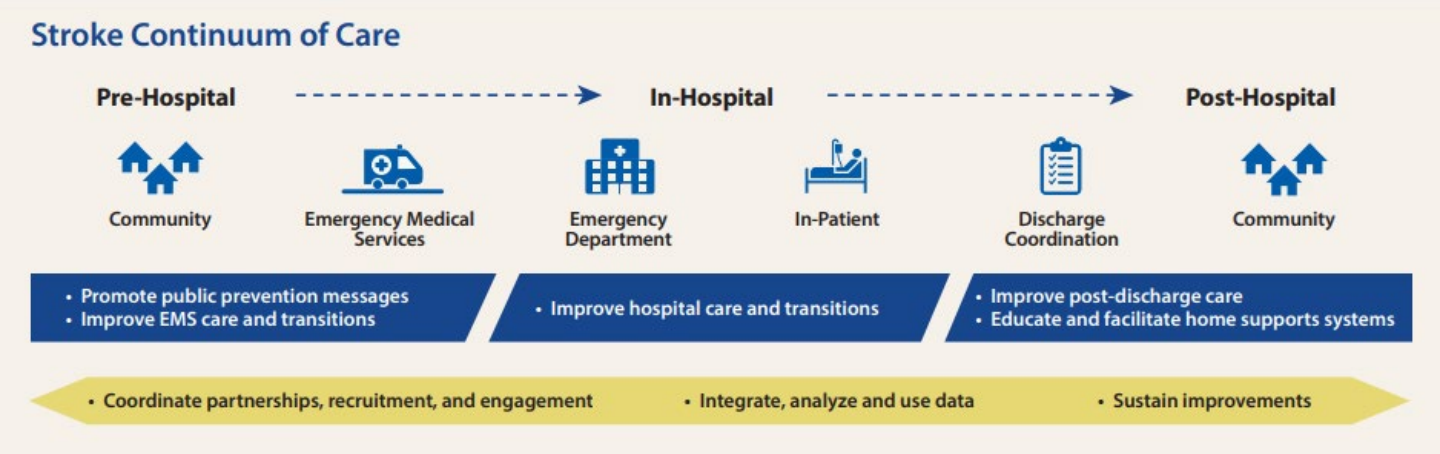
After a stroke event, the patient's life will be affected in many ways. In addition to timely and appropriate acute care, education and post-discharge transitions of care is essential to improve patient outcomes. An early discharge preparation process has shown a significant decrease in hospital stays, readmission risks and mortality risks (Bajorek & McElroy, 2020). Most stroke patients have more than one chronic condition and early, regular transitions of care discharge, have been proven to decrease hospital readmissions and emergency department visits. With a routine transitions of care process, patient complications are discovered earlier and provide multiple opportunities to address needs.

CDC awarded ADH's Stroke Program with a grant through the Paul Coverdell National Acute Stroke Program (https://www.cdc.gov/dhdsp/programs/strokeregistry.htm). ADH works with hospitals across the state to help improve the process of transitions of care for stroke patients post discharge. ADH encourages all hospitals to initiate a program that focuses on this process. This process will allow hospitals the benefit of assessing the patient's health status, focus on their recovery process, discharge instructions, patient/caregiver's ability to meet identified needs, aid anyway that is beneficial throughout the process and make a referral/contact to the appropriate agency/provider for the continuum of care. As part of the transitions of care process, this call should take place between 27-33 days after discharge. During the initial call, it is important to identify a Modified Rankin Scale (mRS) score for the patient. For Comprehensive Stroke Care and Primary Stroke Care facilities, a 90-day mRS score update is needed to assess the progress of the patient's recovery. If an issue is identified, it is encouraged to perform a follow-up call later to reassess if the concern was resolved. ADH encourages the hospital's data abstractor to enter data from the calls in the "Get With The Guidelines" (GWTG) post-discharge section on the Quintiles Outcome website (https://heart.irp.iqvia.com/). This not only allows ADH, but all participating facilities to track, measure, and improve the stroke quality of care measures. ADH is currently working with all participating hospitals to improve their transitions of care and data collection process.

This toolkit will provide hospitals with the ADH post-discharge recommendations for transitions of care. It also provides hospitals with an organized process for data collection pertaining to stroke patients by providing tools, tips, and resources for organizing the process.

It's ADH's hope that this toolkit will help your facility meet the needs and goals for post-discharge stroke patient care. The information collected and documented during the transitions of care process can also be used to motivate quality improvement (QI) efforts.

Below is the graphic representation of CDC's Paul Coverdell National Acute Stroke Program's vision of the stroke care continuum. Pre-hospital community prevention is the first key piece in improving stroke care. The model then progresses to in-hospital and ends with post-hospital, which continues to the community for rehabilitation and home support.



Source of image: [Paul Coverdell National Acute Stroke Program (cdc.gov)]

Ideas for Implementing Transitions of Care

- Be Innovative:
  - This is the hospital's opportunity to design a system, that best suits the facility and community for improving transitions of care and patient outcomes.
  - Use a "How can we improve or do this better?" approach, rather than focusing on the negative.
  - This is the time to focus on cooperation, teamwork, and sharing successes.
- Be Creative:
  - View this as a great opportunity to create a system to care for stroke patients.
  - Collaborate as a team to share ideas for enhancements in the care of every patient.
  - This is the time to introduce new ideas and processes.
  - Be proactive. Think about the end results and work backward to develop a feasible plan.
  - Test changes throughout the process on a few patients to see if those "ideas" work.
- Implement protocols, standing orders, and discharge plans:
  - Educate staff: newsletters, Grand Rounds, continuing education.
  - Focus on the importance of patient outcomes and generate enthusiasm.
- Continuous Quality Improvement-is KEY:
  - Remember, the facility will likely not improve unless changes are implemented from data and review.
  - Use PDSA:
    - Plan: How and where do we need to improve?
    - Do: Come up with ideas on what needs to be changed.
    - Study: Measure the changes.
    - Act: If it works, implement it.

These implementation ideas were adapted from Get with The Guidelines "Implementation Tips"

[Get-With-The-Guidelines-Implementation-Tips-ucm_303754.pdf (heart.org)]

Building a Team 

A multi-disciplinary team is essential for improvement of transitions of care. The team should meet regularly to collaborate, assess progress, and support the improvement project. Remember, gaining patient and caregiver perspective is as equally important as the prospective of the hospital staff, clinic staff and other health care members. The team should include the most current, up to date scope of practices and administration protocols. The team needs to be made up of practicing clinicians, administration, and any community support members for transitions of care.

Process mapping

Process mapping provides a visual reality of the current process. It maps out the steps of the process and duties of the participants and encourages thinking about how to improve preparing patients/caregivers for transitions of care. An example of a hospital and clinic process map is included in the "Resource" section at the end of the document.

Goals

- Short-term goals:
  - Develop a feasible, efficient, and effective post-discharge transitions of care process suitable for the facility's resources.
  - Develop a systemic data collection process.
  - Create a standard response process for issues identified during the contact.
- Intermediate goals:
  - Gain an understanding of stroke patients' needs.
  - Provide education to address the gaps identified.
  - Address the needs of stroke patients.
  - Understand and implement best practice performance metrics.
- Long-term goals:
  - Improve stroke patients' health outcomes using tools such as the mRS.
  - Reduce unfavorable health outcomes (i.e., 30-day readmission and mortality, increasing medication adherence, decreasing hypertension, falls, smoking cessation, the risk of a secondary stroke).

All stroke patients admitted to an Arkansas hospital facility and discharged home, should have post-discharge transitions of care. With post-discharge transitions of care process in place, not only will it decrease emergency department visits, readmissions, and mortality rates but it will improve the transition process for both stroke patients and caregivers.

Contact ADH Stroke Section for questions and assistance.

Objectives

ADH requests that your facility initiates a process to follow up with stroke patients discharged home, that fits the resources of your facility and the needs of the stroke population. The objective is to achieve the best health outcome for the patient and caregiver; assess physical, mental, and socio-economical needs (food, housing, insecurity, etc.); and reduce the number of emergency room visits and readmissions.

1. Extend patient-centered care.
    a. Implement a process to support a seamless transition of care from hospital to home.
    b. Provide quality support for patients during the recovery process and ensure patient/family engagement in the planning and execution of the process.
    c. Coordinate care for patients across the continuum of care to assure needs are met.
    d. Lessen the number of preventable emergency department visits and readmissions.
2. Commit to QI activities.
    a. Review, report, and track data in the "Coverdell Post-Hospital Measure Set" in the AHA's GWTG database.
    Quality Improvement Registry Login | American Heart Association
    b. Apply data outcomes to develop an effective hospital discharge process to reduce health complications after discharge. The process should include identifying concerns and an algorithm that addresses these concerns. Quality improvement suggestions are included in "Resources and Data Collection" section at the end of the document.

These objectives are accomplished by the following actions:

1. Assess if the patient has attended a follow-up appointment with a provider (e.g., primary care physician, neurologist) and completed any testing required since discharge.
2. Assess if the patient reviewed discharge medication therapy with the provider.
3. Assess if the patient has visited the emergency department or been readmitted since discharge.
4. Assess if the patient has any disabilities and if the needs of the disabilities are met.
5. Determine if the patient has undergone rehabilitation services (i.e., PT, OT, ST).
6. Determine any complications that might have occurred since discharge (e.g., falls, UTI, pneumonia).
7. Review the patient's current medication regimen and assess adherence.
8. Assess if the patient has been self-monitoring blood pressure and if the blood pressure parameters are being met.
9. Assess smoking cessation (if a smoker at the time of stroke/discharge). Refer to "Be Well"
10. Assess mental state (e.g., depressed, anxious).

Initiatives

The following are essential initiatives that we ask you to implement in your facility.

1. Perform transitions of care telephone calls with your stroke patients or caregivers.
2. Create a process of transitions of care for issues identified that need to be addressed quickly.
3. Ascertain data from patients; record and submit the patient data.
4. Execute at least one approach to address obstacles or challenges the patient faces.

Steps of Action

A. Contacting the patient or caregiver:
    a. The follow-up with the patient after discharge is intended to check on the well-being of the patient and identify areas of non-adherence to the plan of care.
    b. Transitions of care calls are encouraged between 27-33 days. If an area of concern is identified during that call, another call at a later date should be performed to assess and re-evaluate the concern.

B. Review and execute quality Improvement strategies: strategies that will address the patients' needs and prevent complications after discharge.
    a. Suggestion 1: Create and review, with the patient and caregiver, a folder of educational materials on diagnosis and medications, checklists, when to call their provider, who to call for questions, blood pressure monitoring sheets, etc.) throughout the hospital stay.
        i. Have a designated area on the facility's system to obtain the forms needed, so that each folder can be personalized to that patient. Having everything in one area will cut down on time and resources.
        ii. Review the findings of the transitions of care with key stakeholders, such as the case managers, hospitalists, social workers, and others as identified.
    b. Suggestion 2: Create a program, support group, or community resource, that patients and caregivers can attend, that covers common stroke survivor obstacles. Also, use the data to charter QI projects.
        i. Preventing a secondary stroke
        ii. Blood pressure monitoring and parameters
        iii. Medication adherence
        iv. Falls
        v. Smoking cessation: assess patient readiness for cessation & offer "Be Well"
        vi. Multidisciplinary care coordination
        vii. Mental and emotional health
        viii. Physical, financial, and socio-economical needs

C. Collection of data:
    a. Collect as much information about the patient before the call (e.g., chart review or other sources), then contact the patient between 27-33 days, to collect the unknown information. Information that can be obtained from the chart review are diagnoses, medications prescribed at discharge, and devices or services provided or referred by the case manager at discharge. As well as the name of the case manager at the time of the patient's discharge.
    b. An updated mRS needs to be completed and recorded between 87-93 days on all patients that received an intervention (thrombectomy, TPA, etc.,) and for Comprehensive Stroke Centers.
    c. After transitions of care calls are completed, record the data in the GWTG post-discharge tab. For more information on participating in the GWTG, contact Mary Sikkema at Mary.Sikkema@heart.org to activate the post-discharge mortality and readmission tab. For more information about the GWTG post-discharge tab, visit Get With The Guidelines® - Stroke Clinical Tools | American Heart Association.
    d. Data should be submitted to GWTG at least quarterly. These are just guidelines for the completion of data. The submitted data will help the facility with QI initiatives and reaching goals in the transition of care for stroke patients.

Discharge Period	Collect all data by:	Data Submission deadline
Q1 (Jan-Mar)	June 30	July 31
Q2 (Apr-June)	September 30	October 31
Q3 (July- Sept)	December 31	January 31
Q4 (Oct-Dec)	March 31	April 30

e. ADH recommends using a call script and data collection form that is suitable for the facility. ADH has provided a sample call script and a data collection form at the end of this toolkit in the "Resources and Data Collection" section.

Target Patients

- All stroke patients discharged from the hospital to home.
    - Exclude the following patients:
        - Enrolled in hospice
        - Discharged to a skilled/long-term living facility
        - Patients transferred from one facility's emergency department to a CSC (Comprehensive Stroke Center), PSC (Primary Stroke Center), or other higher-level stroke care facility.

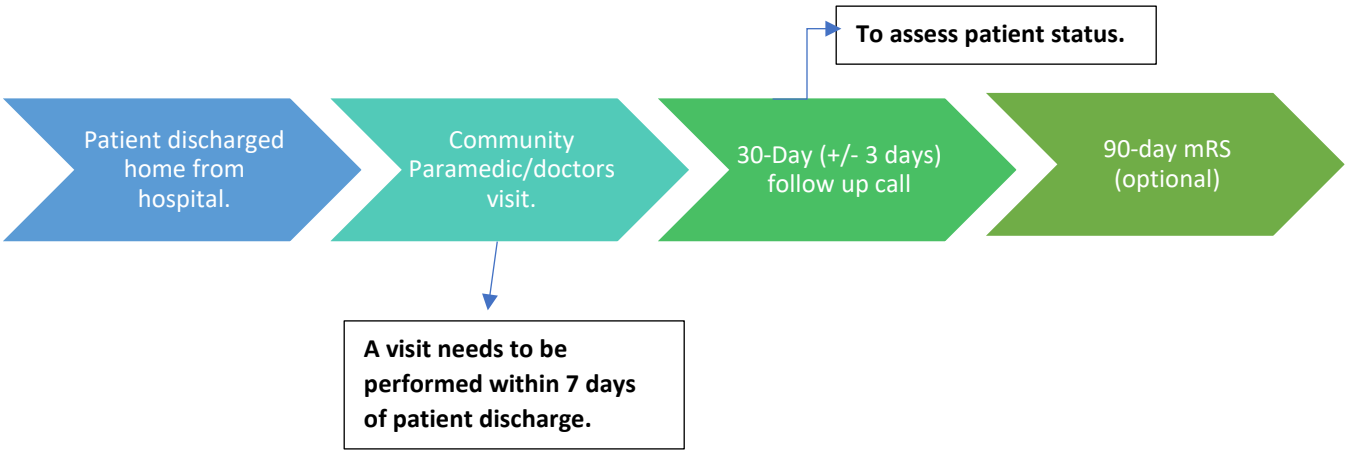
❖ NOTE: Information on how to follow up with patients being transferred will be under the "Follow up for Transferred Patient" section.

❖ If resources are limited, start with patient sampling. Such as patients at higher risk factors that would benefit from transitions of care.

- Patients that received an intervention (IV alteplase and/or thrombectomy)
- Hemorrhagic stroke patients
- With a mRS of …….and above
- Discharged on anti-thrombolytics
- Patients discharged from in-patient rehabilitation

Follow up timeline

1. All patients should receive a transitions of care call between 27-33 days and 90 days (update mRS) following stroke event.
2. Hemorrhagic stroke patients and patients who received intervention, should receive another transitions of care call around the 90-day mark. This is to obtain an updated mRS score and other relevant data at this time (following up with PCP, medication adherence, any needs, etc.).
    - ❖ Note: Transitions of care calls can be made by: nurses, nurse coordinators, stroke navigators, case management, or properly trained healthcare workers.
    - ❖ Note: At least 3 attempts need to be made and documented before closing a patient's case. It is recommended that a message is left and then try other avenues at a later date.
    - ❖ Note: Data submission to GWTG and the facilities quality analyst or abstractor is encouraged.



Phone Calls

1) Protocol development
    a. Develop a protocol for a post-discharge transitions of care.
    b. Before the patient is discharged, let them know that they will be contacted by the facility (inform them of the time frame of the call). Have them provide at least 2 phone numbers (their home, cell, and/or caregiver) and the best times to call.
2) Develop a tracking system for determining the patients that need to be contacted.
    a. Examples: Print a summary report for review and flag the patients charts requiring a transitions of care call.
    b. Keep track of patients and calls in an excel spreadsheet or however is easiest for the facility.
    c. Tracking information should include:
        i. ID number
        ii. Admit date
        iii. Discharge date
        iv. Call dates
    d. Ensure that all staff in the facility, providing care for stroke patients are aware of the process.
3) Implement a process for reviewing a patient's medical record prior to a phone call. By doing this, you can gain an understanding of what needs to be assessed during the call.
4) Generate a call script that should include but is not limited to the following (an example script is provided in this toolkit):
    a. Patient's current status
    b. Process for calculating and documenting the mRS score.
    c. A checklist of available resources that can be provided to the patient for additional assistance: (Statewide Community Resource Portal Statewide Community Resources Portal - Home (arkansas.gov), County Specific Resources County Specific Resources - Arkansas Department of Human Services, etc.). Provide all contact information for the resource. Remember not every patient has the means to access these sites.
5) Implement a time frame and guidelines for telephone calls.
    a. When will calls be made (certain days of the week, certain times, etc.)?
    b. How many attempts will your facility make before closing the case? It is recommended that the facility makes at least 3 attempts at different times and days.
    c. Have an alternative way of contacting the patient (email, caregiver number, etc.)
6) Implement a protocol for concerns that may arise. Have a plan in place to handle possible concerns. Possible concerns may include but are not limited to:
    a. No support system
    b. Mental health support
    c. Unable to follow the discharge medication schedule; due to a lack of understanding and/or inability to get prescriptions filled.
    d. Lack of transitions of care with PCP
    e. Failing at home due to physical issues and no PT, OT ordered.
    f. Hurdles (transportation, filling medications, insecurity, food/housing, etc.)
    g. Falls (assistive devices, rugs out of way, etc.)
7) Document the patient or caregiver's response and any intervention that was provided.
8) Submit data collected in the post-discharge tab on GWTG, and to your QI team for evaluation.

Transferred Patients

1) It is recommended that if the facility transfers patients to a CSC or PSC, a communication process is set up between the two facilities for when the patient is discharged. Determine which facility will perform the transitions of care follow-up.
2) Record in the patient's medical record, the facility discharged to, the date and time of discharge, and if the receiving facility will be performing the transitions of care process.

Sample Call Script

Patient

"Hello, my name is (insert name) and I am with (facility name), may I speak with (patient's name)? I was wondering if I could have about 20 minutes of your time, to learn how you are doing since discharge from the hospital and see if there is anything we can help you with? May we continue?"

- If yes: "Thank you for taking the time to speak with me. During this call, I want to talk with you about how you are doing since you were discharged from the hospital and gain an understanding of the following: how you are processing the recent diagnosis; how you are progressing; questions pertaining to your blood pressure and monitoring, medications, and any transitions of care appointments. I would like to answer any questions related to your stroke and your discharge instructions. If during our call, you have questions or comments, please stop me and let me know. If I can't answer your questions or concerns, I can put you in contact with someone who can.

  Before we begin, can you get all your medication bottles and have them in front of you? Please include all medications prescribed by your physician and any over-the-counter medications that you take."

- If No: "It is important to us and to you and your family to find-out how you are doing since your stroke. We want to find-out if there are ways we can help. Also, the information you share, will help us make changes to the hospital to make it easier and better for the future. Would you participate if we schedule another day and time to talk?

Caregiver

- "Hello, my name is (insert name) and I am with (insert facility), may I speak with (patient's name) caregiver, or the person who takes care of (patient's name). Once the caregiver is on the phone, "I am calling to find-out how (patient's name) is doing since discharge and find-out if there are questions or if (patient's name) has everything they needs related to their recent hospitalization. This call will take about 20 minutes. If during our call you have questions or comments, please stop me and let me know. If I can't answer your questions or concerns, I can put you in contact with someone who can. May we proceed?"

❖ Note: If the person on the phone is a hired caregiver and cannot provide all the information you need, ask when a good time is to call back and speak with the patient or the closest family member or friend.
❖ Note: If the patient is deceased. "I am sorry for your loss. Would you be able to tell me when and the cause of death?"
    - Document date and cause in patient's medical record. The call is completed at this time

Resources and Data Collection

Stroke Follow-Up Data Collection Form

Visit Details

Patient name:	**Date:**
DOB:	**Gender:** ☐ Male ☐ Female

Attempts to contact patient: Please add date and time:

1)

2)

3)

The person interviewed and relation to the patient:

Date of hospital admission:	**Date of hospital discharge:**

Primary source of information:

☐ Patient
☐ Family
☐ Caregiver
☐ Other (explain):

Period follow-up occurred: ☐ 7 days post-discharge ☐ 30 days post-discharge ☐ 90 days post-discharge	**Method of patient follow-up:** ☐ Phone Call ☐ Telehealth ☐ Other (explain):

Is the patient deceased:

☐ Yes
☐ No

Date of death:	**Cause:**

If deceased, STOP here, form completed

Patient's current location:

☐ Home
☐ Rehab center
☐ Skilled nursing facility
☐ Other (explain):

Patient Status

Modified Rankin Scale Score:	**Date performed:**	**Score:**

Any residual symptoms from stroke?

☐ No Symptoms
☐ No significant disability (can perform usual home activities)

☐ Moderate disability (can walk without assistance but requires assistance with usual activities)
☐ Moderate/Severe disability (unable to ambulate without assistance, requires help with usual activities)
☐ Severe disability (unable to walk, requires aid/attention around the clock)

Were any rehabilitation services provided at the time of discharge?
☐ No
☐ Yes, what services were provided?

Current therapy status:
☐ Home therapy
☐ Outpatient therapy
☐ Rehabilitation facility
☐ None currently

Has the patient had any falls since they were discharged from the hospital?
☐ No
☐ Yes (number of falls)

Has the patient followed up with a physician since discharge?	**If yes, what type of physician?**
☐ No ☐ Yes	☐ Primary Health Physician ☐ Neurologist ☐ Cardiologist ☐ Other (explain):

If no follow-up appointment, what is the reason?
☐ No transportation
☐ No reminder call
☐ Unaware of appointment
☐ Cost
☐ Distance
☐ Scheduling conflict
☐ Other (explain):

Has the patient visited the emergency department since discharge?	**If yes, what was the time frame of the visits?**
☐ No ☐ Yes	☐ Within 7 days ☐ Within 30 days

Has the patient been readmitted to the hospital since discharge from the stroke event?
☐ No
☐ Yes

If yes, what was the reason for readmission?	
☐ Another stroke event ☐ Heart Failure ☐ Heart attack	☐ Fall ☐ Pneumonia ☐ Other (explain):

Any tobacco use since discharge (cigarettes, cigars, pipes, smokeless tobacco, vapes, etc.,)? Offer "BeWell"

☐ No

☐ Yes

Has the patient been monitoring and recording their blood pressure?	**Most current reading?**
☐ No ☐ Yes	

This is a good time to educate the patient on the following:

- ❖ What is an appropriate blood pressure range?
- ❖ How to monitor BP (sitting, uncrossed legs, etc.,)
- ❖ When to seek medical attention

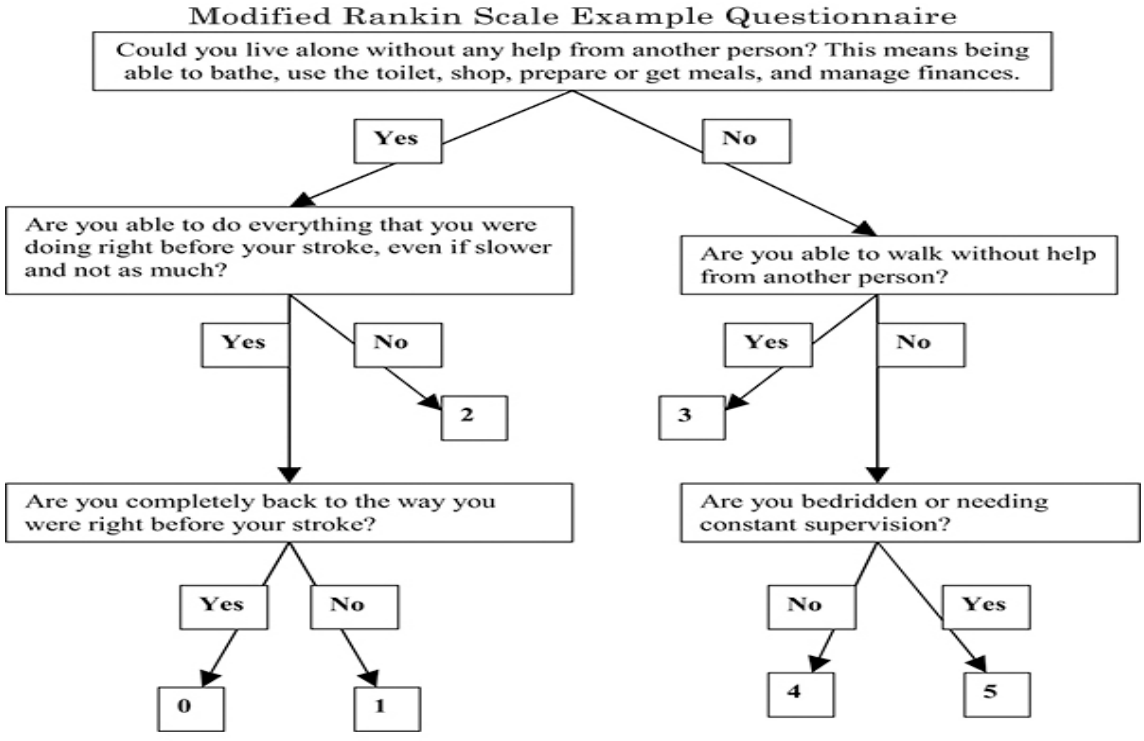
Is the patient still taking the medication therapy that was prescribed at discharge?

☐ No

☐ Yes

If no, why and have they notified their doctor of discontinued use?

Assess if they have any questions about their medication and assist as needed.



Modified Rankin Score	
Score	**Description**
0	No symptoms at all
1	No significant disability despite symptoms; able to carry out all usual duties and activities
2	Slight disability: unable to carry out all previous activities, but able to look after own affairs without assistance
3	Moderate disability: requiring some help, but able to walk without assistance
4	Moderately severe disability: unable to walk without assistance and unable to attend to own bodily needs without assistance
5	Severe disability; bedridden, incontinent, and requiring constant nursing care and attention
6	Dead

(Bruno, et al., 2011)

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

ID #: _____ **DATE:** _____

Over the last *2 weeks*, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
add columns		+	+	

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL: _____

10. If you checked off *any problems*, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

A2663B 10-04-2005

(Svasquez, USC Geriatrics Workforce Enhancement Program: Patient Health Questionnaire (PHQ-9), 2018)

PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✔s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder

- if there are at least 5 ✔s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder

- if there are 2-4 ✔s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.
Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✔s by column. For every ✔: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying **PHQ-9 Scoring Box** to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✔ Not at all = 0; Several days = 1;
More than half the days = 2; Nearly every day = 3

Interpretation of Total Score

Total Score	Depression Severity
1-4	Minimal depression
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

A2662B 10-04-2005

(Svasquez, USC Geriatrics Workforce Enhancement Program: Patient Health Questionnaire (PHQ-9), 2018)

Blood Pressure Log

Name_____ My Blood Pressure Goal _____mm Hg

Instructions

Measure your blood pressure twice a day
-Please take it in the morning and late afternoon (around the same time)
-For best results, sit comfortably with both feet on the floor for at least two minutes before taking.
-When you measure your blood pressure, rest your arm on a table so the blood pressure cuff is at about the same height as your heart
-Record your blood pressure on this sheet and show it to your doctor at every visit

Date	AM	PM

Blood Pressure Categories

Blood Pressure Category	Systolic mmHg (upper number)		Diastolic mmHg (lower number)
Normal	Less than 120	AND	Less than 80
Elevated	120-129	AND	Less than 80
High Blood Pressure (Hypertension) Stage 1	130-139	OR	80-89
High Blood Pressure (Hypertension) Stage 2	140 or higher	OR	90 or higher
Hypertensive Crisis (Consult Doctor Immediately)	Higher than 150	AND/OR	Higher than 120

Retrieved from www.heart.org/bplevels

Post-Hospital Quality Measures

Post-Hospital quality measures		Examples of QI Projects
1	**% of patients identified as tobacco users during the initial hospital admission for acute ischemic stroke who indicate using tobacco at 30 days post discharge.**	○ Develop process for referring patients who smoke to the statewide program "Be Well Arkansas" or hospital/health plan programs. **Offer smoking cessation medication to smokers who want to stop smoking.** **Resources:** **Be Well Arkansas** Quit Tobacco : Quit Tobacco : Arkansas Department of Health Office of Health Communications (bewellarkansas.org)
2	**% of stroke patients who were seen in the emergency department within 30 days of hospital discharge.**	○ **Incorporate discharge planning into workflow and start immediately upon admission.** ○ **Add Stroke Navigator position to perform follow-up transitions of care calls at 72 hours and 30 days, post-discharge. This encourages adherence to take medications and keeping appointments with physicians.** ○ **Resources:** Stroke Patient Transitions of Care Toolkit (mn.gov) Discharge Planning and Transitions of Care | PSNet (ahrq.gov)
3	**% of stroke patients monitoring their blood pressure at home or in the community (outside of their healthcare provider's office).**	○ **Utilize community health care workers/community paramedics to perform follow-up patients at their clinics or home. Set up a system for referring patients for CP's and CHWs.** ○ **Utilize the ADH "Blood Pressure (Hypertension) Resources for Professionals." Refer patients to the local health units that participate in the "Team-Based Care for Hypertension Management Services." Those counties are Poinsett, Craighead, Washington, Jefferson, Desha, Lincoln, Hempstead, Quachita, Nevada, Pulaski, and Madison.** ○ **Resources:** Blood Pressure (Hypertension) Resources for Professionals Arkansas Department of Health
4	**% of stroke patients reporting 2 or more falls within 30 days of discharge.**	○ **Include fall assessment as part of the home visit performed by the community paramedics.** ○ **Screen patients during discharge planning for previous falls. Educate patients on fall hazards (rugs, cords, low light, etc.,).** **Resources:** Preventing Falls: A Guide to Implementing Effective Community-Based Fall Prevention Programs (cdc.gov)
5	**% of stroke patients who stopped taking medications within 30 days of discharge without being advised to do so by the healthcare provider.**	○ **Integrate hospital pharmacists into the care team. Educate the patient and caregiver to check with the insurance company. Some plans include "Medication Therapy Management," where patients can speak with a licensed pharmacist about their medications over the phone.** **Resources:** Medication Therapy Management | CMS
6	**% of stroke patients that had a follow-up appointment scheduled prior to discharge.**	○ **Institute a process for scheduling follow-up appointments before discharge and a process for sending reminders to the patients about appointments.** ○ **Provide the follow-up appointment information in the discharge summary and assess patient understanding of appointment time and location.** ○ **If the patient is being transferred to another facility, include appointment information in the transport summary.** **Resources:** Discharge Planning and Transitions of Care | PSNet (ahrq.gov)

7	**% of stroke patients who were readmitted to a hospital within 30 days of discharge.**	○ **Obtain 30-day readmission data and review for the root cause of readmission. After the cause has been determined, then use a process like "PDSA" to implement quality improvement.**
8	**% of stroke patients discharged to home who have died within 30 days of discharge.**	○ **Obtain 30-day readmission data and review for the root cause of readmission.**

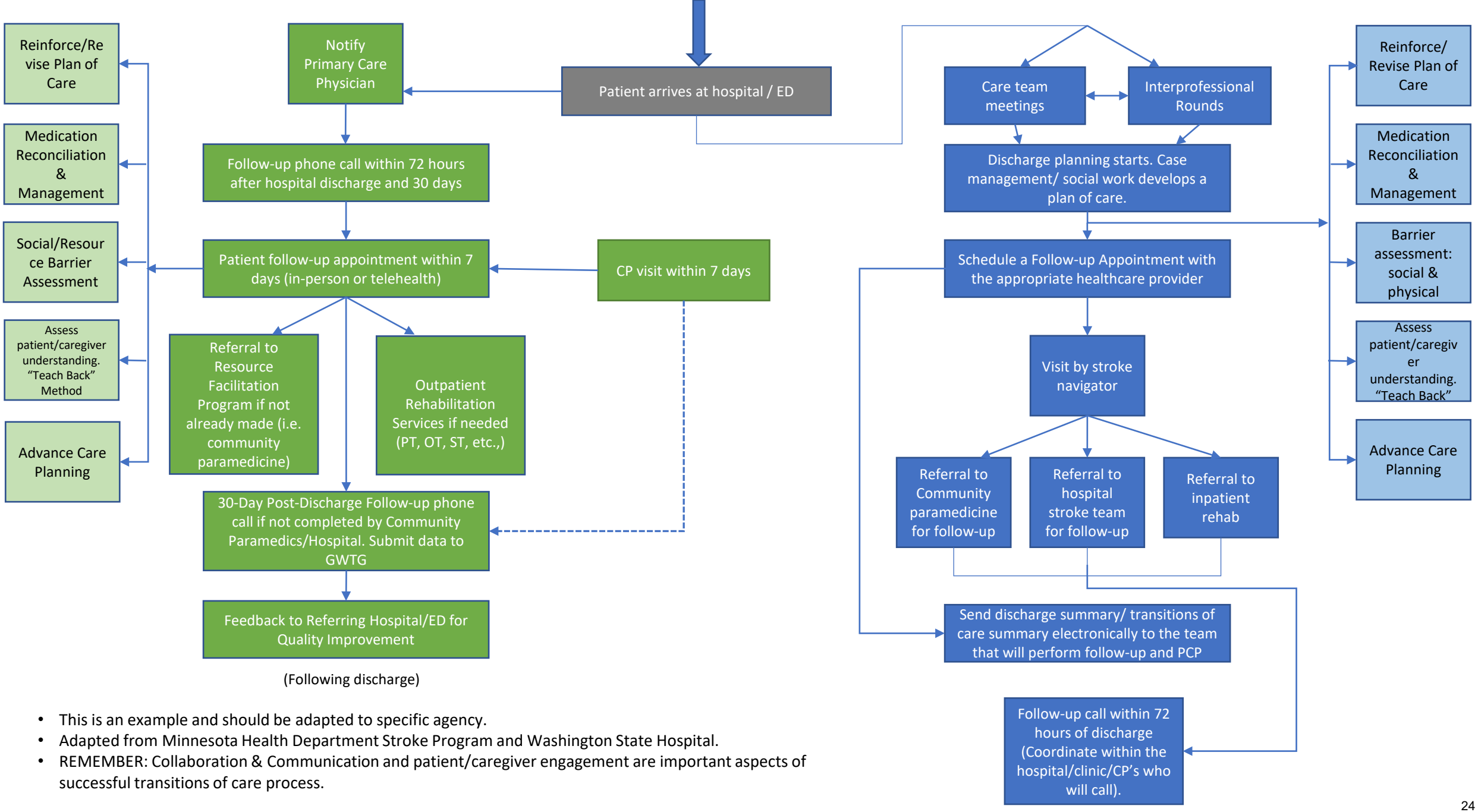
Source adapted from Coverdell Post-Hospital Measure Set, November 2019 and The Minnesota Department of Health "Stroke Patient Transitions of Care Toolkit," February 20, 2019.

DISCHARGE INFORMATION CHECKLIST	
Hospitals must provide the following:	**Details per the CMS Conditions of Participation**
☐ Brief reason for hospitalization and principal	Many patients do not know why they were in the hospital.
☐ Brief description of hospital course of treatment	Many patients are not aware of their treatment course during the hospital visit.
☐ Patient's condition at discharge	Include the following: o Cognitive function o Functional status o Social support structure
☐ A medication list	o Identify changes made during the patient's hospitalization o Include prescription, over-the-counter, and herbal supplements.
☐ A list of allergies	o Food allergies o Drug allergies o Drug intolerance
☐ Pending test results	o When the results are expected o How to obtain the test results
☐ A copy of the patient's advance directive	Instances where the patient is being transferred.
☐ A Brief description of care instructions	o Customized instructions for self-care o Consistent with the training provided to patient and caregiver
☐ A list of all follow-up appointments scheduled prior to discharge	List should include whom the appointments are with, the date, and the time.

**Developed based on May 17, 2013, Centers for Medicare & Medicaid Services updated interpretive guidelines for hospital discharge planning*

Links to Resources

- Statewide Community Resources Portal - Home (arkansas.gov)
- County Specific Resources - Arkansas Department of Human Services
- Tobacco Prevention and Cessation Arkansas Department of Health
- Arkansas Department of Health Office of Health Communications: Home (bewellarkansas.org)
- **https://www.joeniekrofoundation.com/stroke-2/b-e-f-a-s-t-save-a-life-from-stroke/**
- Nutrition Arkansas Department of Health
- 5 Reasons to Eat More Color Infographic | American Heart Association
- The Ten Ways to Improve Your Heart Health Infographic | American Heart Association
- Check for the Heart-Check Mark Infographic | American Heart Association
- Calories: What's in a Number? (fda.gov)
- Know the Facts About Stroke (cdc.gov)
- ASM18-Prevention-Checklist-digital (stroke.org)
- Effects of Stroke | American Stroke Association
    - The above link has multiple different PDFs for resources



- This is an example and should be adapted to specific agency.
- Adapted from Minnesota Health Department Stroke Program and Washington State Hospital.
- REMEMBER: Collaboration & Communication and patient/caregiver engagement are important aspects of successful transitions of care process.

Aphasic Depression Rating

The Aphasic Depression Rating Scale (AADRS) assists in detecting and measuring depression in patients with aphasia during the subacute stage of stroke.

Scoring

The ADRS is scored by adding the score of each individual item for a total possible score of = 32.
Each item is scored differently (see detailed scoring table below).

Item	Score
1. Insomnia-Middle	0=No difficulty 1=Patient indicates being restless and disturbed during the night/observed sleep disturbance. 2=Waking during the night; and getting out of bed (except to go to the bathroom)
2. Anxiety-Psychic	0=No difficulty 1=Some tension and irritability 2=Worrying about minor matters 3=Apprehensive attitude apparent in patient's face or speech 4=Fears indicated (verbal/nonverbal expression) without questioning
3. Anxiety-Somatic	0=Absent 1=Mild 2=Moderate 3=Severe 4=Incapacitating
4. Somatic symptoms-Gastrointestinal	0=None 1=Loss of appetite but continues to eat; heavy feelings in the abdomen 2=Difficulty eating (not due to arm paresis); requests/requires laxatives or medication for bowels or for gastrointestinal symptoms
5. Hypochondriasis	0=Not present 1=Self-absorption (bodily) 2=Preoccupation with health 3=Frequent complaints, requests for help, etc. 4=hypochondriacal delusions
6. Weight loss	0= <0.5 kg weight loss/week 1= 0.5 kg to 1 kg weight loss per week 2= > 1 kg weight loss per week
7. Apparent sadness	0=No sadness 1=Between 0 and 2 2= Looks dispirited but brightens without difficulty 3=Between 2 and 4 4=Appears sad and unhappy most of the time 5=Between 4 and 6 6=Looks miserable all the time; extremely despondent

8. Mimic-Slowness of Facial Mobility	0=The head moves freely, resting flexibility on the body with the gaze either exploring the room or fixed on the examiner or on other objects of interest in an appropriate manner 1=There may be some reduction of mobility, not easily confirmed 2=Reduced mobility is definite but mild; gaze, often fixed, but is still capable of shifting; mimic, although monotonous, is still expressive 3=Does not move head/explore room, usually stares at floor, seldom looking at examiner; patient is slow to smile; expression is unchanging 4=Face is completely immobile and painfully inexpressive
9. Fatigability	0=Fatigability is not indicated spontaneously/after direct questioning 1=Fatigability is not indicated spontaneously, but evidence of it emerges during the interview 2= Patient is distressed by fatigability in his/her everyday life (eating, washing, dressing, climbing stairs, or any physical activity the patient is usually able to do despite motor deficiency) 3=Fatigability is such that the patient must curb some activities 4=Near-total reduction of activities due to overwhelming fatigue.
TOTAL Score = _____	

- A cutoff score of 9/32 of the ADRS is used to determine the presence of Depression in patients with aphasia, with higher scores indicating more depressive symptoms

- It is unclear whether training is required to administer the ADRS. However, health professionals working on a neurorehabilitation unit typically administer the ADRS.

References:

1. *Benaim, Cailly, Perennou, and Pelissier in 2004.*
2. *The ADRS contains 9 items selected from the Hamilton Depression Rating Scale (HDRS) (Hamilton, 1967),*
3. *the Montgomery and Asperg Depression Rating Scale (MADRS) (Montgomery & Asberg, 1979), and the Salpetriere Retardation Rating Scale (SRRS) (Dantchev & Widlochner, 1998)*

BRIEF: Health Literacy Screening Tool Score Sheet

Please circle the answer that best represents your response.

1. How often does someone help you read hospital materials?
    a. Always (1)
    b. Often (2)
    c. Sometimes (3)
    d. Occasionally (4)
    e. Never (5)
2. How hard is it to learn about your medical condition if it's written information?
    a. Always (1)
    b. Often (2)
    c. Sometimes (3)
    d. Occasionally (4)
    e. Never (5)
3. How hard is it to understand what's told to you about your medical conditions?
    a. Always (1)
    b. Often (2)
    c. Sometimes (3)
    d. Occasionally (4)
    e. Never (5)
4. How confident are you at filling out medical forms by yourself?
    a. Always (1)
    b. Often (2)
    c. Sometimes (3)
    d. Occasionally (4)
    e. Never (5)

Medical personnel can ask these questions to determine the patients' health literacy level (the measure to which one can read, understand, exchange, and use health information and resources). Each item is worth 1-5 points depending on the patient's response. The points are seen in the parentheses. Add the values for the responses to get a total score and refer to the following table to interpret.

BRIEF	SCORE	Skills and Abilities
Limited	4-12	Not able to read most low literacy health materials; will need repeated instructions and should be composed of illustrations or videotapes. May not be able to read prescription labels and will need low literacy materials.
Marginal	13-16	May need assistance; may struggle with patient education materials.
Adequate	17-20	Will be able to read and comprehend most patients' education materials.

ASK, ADVISE, REFER

A SIMPLE WAY TO HELP PATIENTS QUIT TOBACCO

Help your patients quit tobacco/nicotine in three easy steps.

Ask

Ask the patient about their tobacco/nicotine usage

Advise

Inform the patient of the health benefits of quitting and encourage them to quit as soon as possible

Refer

Refer them to your in-house treatment OR tell them to call 1-833-283-WELL for free help quitting

- Remember that Be Well Arkansas serves all Arkansans ages 13 and up for free. Patients can call 1-833-283-WELL or visit bewellarkansas.org to enroll today.
- For training opportunities to help your facility provide tobacco cessation on-site, email adh.tpcp@arkansas.gov.
- For free materials to provide to patients for cessation, visit bewellarkansas.org. Click the "healthcare provider" tab and then click "free resources" to order for free materials today.

References

Agency for Healthcare Research and Quality. (2014, August). *Hospital Guide to Reducing Medicaid Readmissions.* Retrieved from Agency for Healthcare Research and Quality: https://www.ahrq.gov/sites/default/files/publications/files/medread-tools.pdf

Bajorek, S. A., & McElroy, V. (2020, March 25). *Discharge Planning and Transtions of Care.* Retrieved from Agency for Healthcare Research and Quality: https://psnet.ahrq.gov/primer/discharge-planning-and-transitions-care#

Bruno, A., Akinwuntan, A. E., Lin, C., Close, B., Davis, K., Baute, V., . . . Nichols, F. T. (2011, June 16). Simplified Modified Rankin Scale Questionnaire. *Stroke, 42*, 2276-2279. Retrieved June 27, 2022, from https://www.ahajournals.org/doi/full/10.1161/strokeaha.111.613273

Centers for Medicare and Medicaid Services. (2022, June 16). *Medication Therapy Management*. Retrieved from Centers for Medicare and MEdicaid Services: https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/MTM

Epidemiology and Surveillance Branch Paul Coverdell National Acute Stroke Program. (2020, September 30). Retrieved from The National Center for Chronic Disease and Prevention : https://www.cdc.gov/dhdsp/programs/stroke_registry.htm

Get with The Guidelines Implementation Tips. (2018, May 29). Retrieved from Get With The Guidelines: Stroke Clinical Tools: https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-stroke/get-with-the-guidelines-stroke-clinical-tools

Minnesota Department of Health Stroke Program. (2019, February 20). *Minnesota Department of Health.* Retrieved from Minnesota Stroke Program Resources: https://health.mn.gov/diseases/cardiovascular/documents/toctoolkit.pdf

Minnesota Department of Health Stroke Program. (2020, October 1). *Stroke Patient Post-Discharge Follow-up and Data Collection Guide.* Retrieved from Minnesota Department of Health : https://health.mn.gov/diseases/cardiovascular/documents/posthospitalfollowup.pdf

Quailty Improvement Registry Login. (n.d.). Retrieved from American Heart Association : https://www.heart.org/en/professional/quality-improvement

Svasquez. (2018, Novemeber 14). *USC Geriatrics Workforce Enhancement Program*. Retrieved from USC University of Southern California: https://gwep.usc.edu/patient-health-questionnaire-phq-9/

Svasquez. (2018, November 14). *USC Geriatrics Workforce Enhancement Program: Patient Health Questionnaire (PHQ-9)*. Retrieved from USC University of Southern California: https://gwep.usc.edu/patient-health-questionnaire-phq-9/