ONLINE ONLY

Supplemental material

Inpatient virtual shared medical appointments to improve health literacy, increase patient self-efficacy, and reduce provider burnout in acute cerebrovascular pathology patients and their caregivers: a pilot study
Mahajan et al.
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Supplemental Figure 1.

Date of Session:

<table>
<thead>
<tr>
<th>Present</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident</td>
<td>Nutritionist</td>
</tr>
<tr>
<td>Social worker</td>
<td>Pharmacist</td>
</tr>
<tr>
<td>Charge nurse</td>
<td>Discharge Coordinator</td>
</tr>
<tr>
<td>Neurosurgery NP</td>
<td></td>
</tr>
</tbody>
</table>

* Attendance not mandatory but designate if present.

Logistics:

<table>
<thead>
<tr>
<th>Total # of attendees</th>
<th>Total # Patients</th>
<th>Total # Caregivers</th>
</tr>
</thead>
</table>

1. □ Session started on time
2. □ All scheduled participants arrived to SMA.
3. □ All pre-sessions performed by all participants
   a. If no, how many missing ____________
4. □ Facilitator (provider) conducted introduction session
5. □ Facilitator (provider) is respectful and empathic and redirects as needed
6. □ Participants asked questions
7. □ Participants answered questions from other participants.
8. □ Session finished on time
9. □ The virtual conference room was available at the correct time
10. □ No adverse events (emotional distress, medical issues, unintentional logouts)
    occurred during the session
    If adverse event describe here:

Topic Discussed:

1. □ How to ask for nursing help?
2. □ How to get in touch with your provider?
3. □ Important medications to take and what they help with
4. □ Challenges in going home
5. □ Follow Up Appointments
6. □ Concerning signs and symptoms

Checklist Completed by: __________________________
Touch Points:

<table>
<thead>
<tr>
<th>□ Overview</th>
<th>Facilitator introduces the objectives of the SMA.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“The purpose of this meeting today is to provide a forum for you to ask questions and find answers to the reason you are in the hospital, what to expect while you’re here, familiarize yourself with the hospital system, and ideally prepare you for the recovery process after you leave the hospital. We want to equip you with the knowledge and tools to enable you to navigate a complex hospital system, enable you to recover to the best that you can from your stroke, and to prevent a second stroke or complications from your stroke.”</td>
</tr>
<tr>
<td>□ Privacy and Safety Statement</td>
<td>“I would like to remind you that you signed a respect and confidentiality contract agreeing to participate in a respectful manner. We agree to not disclose personal information without others permission while in the group and to not share any personal information about other outside this group after the session is over. The personal information shared here must be kept in confidence. We encourage participants to be civil and open minded and any inappropriate or combative behavior for the safety of everyone will have to be excused from the session. Secondly in regards to safety, should any participant feel uncomfortable or start to experience any physical or emotional distress, please notify me immediately. We will see to it that the appropriate care is administered.”</td>
</tr>
<tr>
<td>□ Introduction of Participants Occurred</td>
<td>“We’d now like to take a minute to introduce ourselves and for everyone to introduce themselves to the group. I am…”</td>
</tr>
<tr>
<td>□ Cerebrovascular Disease Presentation Occurred</td>
<td>“We’ll now take a few minutes to briefly go over the different types of stroke and what causes them. We have some visual aids to help you all. If you have any question please do feel free to ask.”</td>
</tr>
<tr>
<td>□ Group Discussion Occurred</td>
<td>“We’re now going to open up this meeting for people to ask questions or provide a discussion of their experience….pause...If no one has any questions, I thought maybe we could start with what are your concerns while here in the hospital (go to the first prompt)”</td>
</tr>
</tbody>
</table>

If a “guest speaker” or former patient is here, they will be invited to share their experience as an introduction.

“Mr/Mrs. has been kind enough to join this meeting in hopes of providing some advice and perspective. He/she was recently admitted here with a diagnosis of a stroke and has gone through the same thing that you all going through. He/she will go over some of pertinent lessons learned and things to prepare for going forwards”
### SMA Fidelity Checklist & Facilitator Guide

**Discussion Topics**

**Discussion Prompts**

**Inpatient:**

- **Expectations – Short**
  
  It’s quite traumatizing for both patient and loved ones to experience a hospitalization due to a stroke and it can be a disorienting time, do people have any questions about what to expect while they’re here in the hospital? Any questions about the overall process and what the goals are while hospitalized? What are your concerns?

- **Levels of Care**
  
  Some people may have family members in the ICU while others are here on the floor. Do people have questions about why people need to be in different places?

- **Care Teams**
  
  There are a lot of different doctors who you all probably interact with, do people know the difference between the neurology, neurosurgery and ICU teams?

- **Care Providers**
  
  There are a lot of people who are involved in your care, from nurse aids to residents to care coordinators, do people have any questions about the jobs and types of people that are caring for you?

- **Rehab Services**
  
  Some people may already be receiving visits by the physical, occupational, and speech therapists. Do people any questions about their roles in helping you while in the hospital?

**Outpatient:**

- **Medication**
  
  While not everyone may be at this stage yet, you may be on several medications upon discharge. Do people have questions about specific medications? You may be prescribed blood thinners, blood pressure medications, or anti-seizure medications, we can go over some of these if you have questions.

- **Follow-up**
  
  After you are discharged you will have a follow-up visit, do people know how to schedule this visit?

- **Expectations – Long**
  
  Many people have suffered neurologic problems and potentially other complications from having this stroke. Do people have questions about the long term expectations and what happens after a neurologic injury?

- **Coping at home**
  
  Living with a stroke can be a permanent adjustment. There will be many challenges in the transition home, whether you go from the hospital home or from a rehab or nursing facility to home. Do people have any questions about what to expect?

- **Concerning Signs**
  
  When living with a stroke there can be medical complications that require you or your loved one to need to go back to the hospital or the emergency department. Would people like to know about some of these signs? Do you know who / where to call when there are concerns?

**Safety Sign Off:**

- **Altercations between participants**

- **Neurologic Change / Mental Status Change**

- **Other safety events:** ________________________________
  
  (May describe in length below)

______________________________    ________________________________
Facilitator Name                                      Facilitator Signature

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Supplemental Fig 2: Virtual Shared Medical Appointment for Patients with Cerebrovascular Diseases

University Hospitals Cleveland Medical Center, Neurological Institute

Presentation by Alankrita Raghavan, Christina Huang Wright & Uma Mahajan
BEHAVIOR CONTRACT
PLEASE REMEMBER YOU SIGNED A BEHAVIOR CONTRACT AGREEING TO LISTEN TO OTHERS AND TREAT OTHERS WITH RESPECT

CONFIDENTIALITY
PLEASE DO NOT SHARE OTHER PARTICIPANT’S PERSONAL OR PRIVATE INFORMATION OUTSIDE OF THIS SESSION

GENERAL DISCUSSION
PLEASE KEEP IN MIND THIS IS A GENERAL DISCUSSION AND WE ARE NOT ABLE TO ANSWER VERY SPECIFIC TREATMENT QUESTIONS FOR A SPECIFIC PATIENT.
People in the Hospital:

- **Attending & Resident Doctors, Nurse Practitioners** – will make big decisions, see you daily, decide on major tests and medication changes
  - *Residents* are doctors who are training in their specialty and work under the supervision of the attending doctors
- **Nurses** – help to give medications, ensure patient safety, monitor the patient’s clinical status and vital signs
- **Social workers** – help with challenges in insurance, family decisions, family meetings, challenging personal situations
- **Discharge Coordinators** – Will help to assess the safest place and manner for you to transition out of the hospital. Will discuss rehab and nursing facility placement
Stroke

- A stroke – sometimes called a brain attack – occurs when a blood vessel supplying the brain is blocked or if the blood vessel bursts.
- The affected parts of the brain lose oxygen and are damaged or die.

Images: Used with permission from University Hospitals, Cleveland, Ohio
Stroke

Water Pipe Analogy:

Clogged drains – Ischemic Stroke
Build up in drain = Atherosclerosis
Clog = Thrombus

Bursting Pipe – Hemorrhagic Stroke

Open Pipe
Clogged Pipe
Bursting Pipe
Complications after a stroke

Patients may face different complications depending on the location of the stroke:

- **Brain edema**: Swelling of the brain
- **Seizures**: Abnormal electrical activity in the brain causing convulsions
- **Clinical depression**: Nearly 30% of patients develop signs of depression after a stroke.
- **Weakness** or paralysis, speech and language difficulties, cognitive slowing – all of which may be permanent or temporary

Aneurysm or AVMs

- **Aneurysm**
  - An aneurysm is a weak spot on a blood vessel that balloons out and fills with blood
  - This spot may rupture causing blood to spill into the surrounding brain and damage brain tissue.

- **AVM (Arteriovenous Malformation)**
  - An AVM is an abnormal communication between arteries and veins in the brain
  - Because of pressure differences between veins and arteries, the AVM may rupture and damage brain tissue.
After an aneurysm or AVM rupture, it may cause complications such as:

- **Rebleeding**: Once an aneurysm ruptures, it may bleed into the brain again before it is definitively treated.

- **Vasospasm**: The blood from the ruptured aneurysm can cause the arteries in the brain to clamp down and decrease blood flow to vital parts of the brain causing strokes.

- **Hydrocephalus**: The blood from the ruptured aneurysm can obstruct the normal flow of cerebrospinal fluid (CSF) in the brain. This can cause increased pressure inside the head and require a drain or a shunt.
Hospital Course and Recovery

- **Hospital Stay:** People’s length of stay in the hospital varies significantly. Some people may require several weeks and others just a few days. It is all dependent on degree of brain injury and the medical or surgical management required to treat the causes and complications of the injury.

- **Level of Care:** ICU, stepdown, floor

- **Speech Evaluations:** Many people will have challenges with swallowing after a brain injury and may require a feeding tube through the nose, mouth, or through an incision in the abdomen.

- **Occupational/Physical Therapy:** Some people may require a stay in a rehab facility or nursing facility if they require therapies to learn how to function better or have needs that are too significant to be addressed at home.
Medications

- Medication can be given by mouth or through a vein in the body.
- Some you will continue to take at home.
- Types of Medications:
  - Blood Pressure
  - Seizure
  - Stroke Prevention
  - Diabetes Medications
  - Blood Thinning Medications
## Medications Lists

<table>
<thead>
<tr>
<th>What time of day do I take these medications?</th>
<th>Why am I taking this medication</th>
<th>Medicine Name and Amount</th>
<th>How many</th>
<th>How do I take?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning</td>
<td>Blood Pressure</td>
<td>Procardia XL Nifedipine 90 mg</td>
<td>1 pill</td>
<td>Mouth</td>
</tr>
<tr>
<td></td>
<td>Cholesterol</td>
<td>Lipitor Atorvastatin 20 mg</td>
<td>1 pill</td>
<td>Mouth</td>
</tr>
<tr>
<td></td>
<td>Stomach</td>
<td>Protonix Pantoprazole 40mg</td>
<td>1 pill</td>
<td>Mouth</td>
</tr>
<tr>
<td></td>
<td>To Stop Smoking</td>
<td>Nicotine 14mg/24 hours</td>
<td>1 patch</td>
<td>On Skin</td>
</tr>
<tr>
<td></td>
<td>Then after 4 weeks use</td>
<td>Nicotine 7mg/24 hours</td>
<td>1 patch</td>
<td></td>
</tr>
</tbody>
</table>

### For the evening

<table>
<thead>
<tr>
<th>What time of day?</th>
<th>Why am I taking this medication</th>
<th>Medicine Name and Amount</th>
<th>How many</th>
<th>How do I take?</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the evening</td>
<td>Eye infection</td>
<td>Vigamox Moxifloxacin 0.5%</td>
<td>1 drop</td>
<td>Left eye</td>
</tr>
<tr>
<td>At bedtime</td>
<td>Blood pressure</td>
<td>Clonidine HCL 0.1mg</td>
<td>3 pills</td>
<td>Mouth</td>
</tr>
<tr>
<td></td>
<td>As needed for chest pain</td>
<td>Chest pain</td>
<td>1 pill every 5 minutes, if need more than 3, call 911</td>
<td>Under tongue</td>
</tr>
<tr>
<td></td>
<td>As needed for headaches</td>
<td>Headaches</td>
<td>1-2 pills every 6 hours if you need</td>
<td>Mouth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tramadol HCL 50mg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Follow Up

- **Neurology** for Stroke management
- **Neurology** for Seizures
- **Vascular Medicine** to manage blood thinners if you have had blood clots in your legs, arms, heart or lungs
- **Neurosurgery** for Wound Checks if you have an incision on your head (14 days after surgery)
- **Neurosurgery** for Symptom Checks if you have had surgery (usually 6 weeks after surgery).
- **Endocrinologist** for evaluation of abnormal salt levels or sugar levels or hormones
Follow Up Appointments

Your discharge papers will have your follow-up appointments. As caregivers it is important to know these times and why you are seeing each doctor.

Source: Agency for Healthcare Research and Quality – Re-Engineered Discharged Toolkit
When to call 9-1-1

• Fluctuating levels of alertness.
• Seizure activity – shaking, staring spells, episodes of unresponsiveness.
• New weakness of arm, leg, face, or slurred speech.
• Also be sure to call your primary care physician!
• And if you have had surgery or stroke recently, a family member should call your neurosurgery or neurology office!
When to call an office?

- Concern regarding slowly observed changes
- Concern regarding an incision that may look unhealthy
- Concern regarding difficulties with medications or side effects
• This ends the brief presentation
• We’d like to start with group discussion.

There is an emotional impact both acute and chronic on managing loved ones who have suffered strokes.

We encourage you to lean on the wisdom and input from participants here who share similar circumstances and challenges.