Chapter 4: Hospital Stay and Recovery

Medicines

Important

Call your health care provider if you have severe or unusual reactions to your medicine(s).

Taking your medicine as directed is important. Your health care provider will decide which medicines you should take. This depends on your:

- medical history
- cause of stroke
- allergies.

The following are some medicines you may take. Your health care provider will give you more information about your medicine.

Tip

There are several types of blood thinners. You be on one or more.

Medicines to help prevent blood clots

You may have other medicines prescribed during your hospital stay not listed here. Take them as directed.

❑ **Anti-platelets**
Platelets circulate (move) in your blood and help form blood clots. Anti-platelet medicines help keep the blood from clotting. These medicines are known as blood thinners. Some types of anti-platelets include:

❑ **Aspirin**
Aspirin is often the first choice to prevent another stroke. Over-the-counter medicines like Tylenol®, Advil® or Aleve® do not keep the blood from clotting. Only aspirin can keep your blood from clotting.

If aspirin upsets your stomach, you may take a coated aspirin.

Tip

Your health care provider will tell you how to get your medicine. You can buy some medicine over-the-counter. You will need a prescription to get other types of medicine.

❑ **Extended release dipyridamole and aspirin combination (Aggrenox®), clopidogrel (Plavix®), and others**
Like aspirin, these medicines keep your blood from clotting. You can only get these medicines with a prescription. Your health care provider will decide if any of these medicines will work better for you than aspirin.

❑ **Anticoagulants**
Other parts of your blood (besides platelets) can help cause blood clots. Anticoagulant medicines keep you from getting blood clots and help break up blood clots that form. These medicines are known as blood thinners.

Some types of anticoagulants include:

❑ **warfarin (Jantoven®)**
Warfarin is a common medicine to prevent stroke. You will need to have a blood test called the international normalized ration (INR) to decide the best dose for you.

You will need to have regular blood tests to determine the best dose for you. If you have questions about warfarin, ask your health care provider.

❑ **apixaban (Eliquis®)**
Apixaban is a common medicine to prevent stroke. You will not need to have the INR blood test for this medicine.

❑ **Other anticoagulants**
Common anticoagulants include dabigatran (Pradaxa®), rivaroxaban (Xarelto®), heparin, and enoxaparin (Lovenox®).

You do not need to have the INR blood test with these medicines.

Medicines to lower cholesterol

❑ **Anti-hyperlipidemics**
These medicines lower the cholesterol levels in your blood. This has many benefits. One group of these medicines, known as "statins," has been shown to help reduce the risk for stroke in people who have high cholesterol.

Tip

If you aren't able to tolerate a statin, you may start a different medicine.

Common statins include atorvastatin (Lipitor®), lovastatin (Altoprev®), pravastatin (Pravachol®), rosuvastatin (Crestor®), and simvastatin (Zocor®).

If you are already taking an anti-hyperlipidemic medicine and have a stroke, you may start taking a statin or your cholesterol medicine(s) may be changed.

❑ **Other** anti-hyperlipidemics
Common anti-hyperlipidemics include ezetimibe (Zetia®) and evolocumab (Repatha®).

Medicine Dos and Don’ts

Important

Keep a current list of your medicines with you in case of emergency.

What to do

Safety

- Talk with your doctor, nurse or pharmacist if you have any questions about your medicine.
- Have all of your medicines filled at one pharmacy.
- Use a pill box or guide to manage your medicines.
- If you are seeing more than one health care provider, be sure to tell each one which medicines you are taking.
- Allow extra time for refills if you use a mail order pharmacy.

Taking medicine

- Take the dose your health care provider most recently prescribed. If you are unsure, ask your primary care provider.
- Ask your primary care provider or pharmacist what to do if you miss a dose.
- Ask your doctor or pharmacist if there are foods or other medicines you should not have while taking this medicine. Some foods and medicines may affect your medicine.
- Take your medicine as directed each day.

Storing medicine

- Keep **all** medicines (prescription, over-the-counter, herbals and vitamins) out of reach of children and pets.
- Keep all medicines in their original bottles or in a pill box.
- Keep all medicines away from heat, light and humidity. Do not keep medicines in the bathroom or near the kitchen sink.

Travel

- Plan ahead for vacations. Check how much medicine you have and call your pharmacy to refill your prescription, if needed. Do not be caught without enough of your medicines when you are away from home.
- If you are flying, check with your airline for details about bringing medicines on board.

General

- Understand why you are taking your medicines.
- Learn the generic and brand names of your medicines. For example, acetaminophen is the generic name and Tylenol® is the brand name.

What not to do

- Do not let your medicines run out. Make sure you call your pharmacy at least 1 week before you need a refill.
- Do not take medicines prescribed for someone else.
- Do not take any more or less than the prescribed dose of any medicine on your own without your primary care provider's instructions.
- Do not keep outdated medicine.
- Do not stop taking your medicines unless you have talked with your health care provider.

Bring Your Medicines to Your Provider Appointments

Bring all of your medicines or a complete list to your provider appointments. Put your medicine bottles and boxes into a bag and bring it with you to your appointments or use the "My Medicine List" on pages 117-118.

Include all:

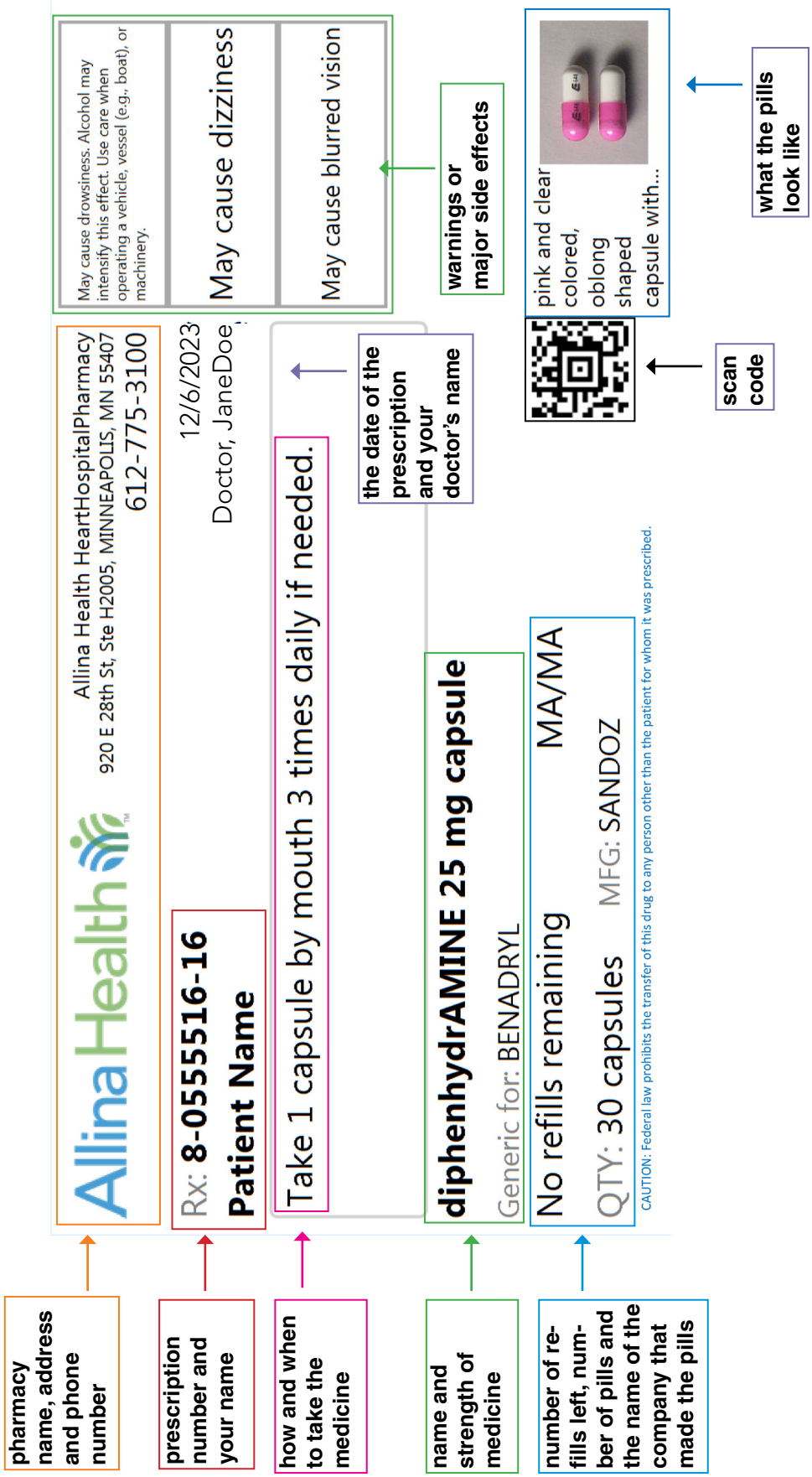
- prescription medicines
- over-the-counter medicines
- herbals
- natural products.

Medicines can work against each other so your health care provider needs to know what you are taking.

How to Read Your Prescription Label

The label on your prescription medicine has a lot of information on it. To learn how to read it, see the label on the next page.

Example of a prescription label



Tests

The following are some of the tests you may have during your hospital stay.

Blood tests

These tests are used to look for stroke risks or conditions that may have led to your stroke. Blood tests are done to check:

- your cholesterol levels
- how your blood clots, such as partial thromboplastin time test (PTT) and international normalized ratio (INR)
- your blood glucose levels
- the level(s) of medicine in your blood.

Swallow tests

You may have problems with swallowing or moving your mouth. This can make you cough or choke on food or drinks. Swallow tests are used to help find the cause of these problems.

There are two types of swallow tests:

- **at your hospital bed:**
  A speech-language pathologist or nurse will watch you eat foods and drink liquids. This will help tell if other tests are needed or what foods and liquids are safest for you.
- **video swallow:**
  You will swallow some barium (a white liquid that shows up on X-ray) to simulate "normal" eating. A video X-ray is taken as you swallow the barium.

  A radiologist and speech-language pathologist can study your ability to swallow. They will check for aspiration (if food and liquids are going into your windpipe).

Tip

Members of your health care team will make you as comfortable as possible during an MRI. Tell someone if you are uncomfortable in closed-in spaces.

Tip

During an ultrasound, a wand-like instrument makes sound waves. As the ultrasound wand is moved over your body pictures appear on a screen and are recorded.

Imaging tests

These are done to find the area of the brain affected by the stroke, make an early prognosis and rule out other medical conditions.

- ❑ **MRI (magnetic resonance imaging)**
  This test looks inside your body without using X-rays. MRI does not use radiation.

  MRI uses a magnetic field to make three-dimensional (3-D) images of your brain. These images show the injured areas of your brain. This can help your health care team determine how serious your stroke was.

  Your nurse will complete a checklist with you to make sure you are able to have an MRI.
- ❑ **Magnetic resonance angiogram**
  This test uses MRI technology to get a 3-D view of your blood vessels.
- ❑ **Angiogram**
  This procedure uses X-ray to see your blood vessels. A radiologist (doctor of X-ray) inserts a tube (catheter) into an artery in your groin and threads it to the arteries in your neck and head.

  They inject contrast into your blood vessels to help them show up on the X-ray. This test helps rule out problems with blood vessels in the neck and brain.
- ❑ **Carotid ultrasound**
  This test uses high-frequency sound waves to create an image of your arteries and blood flow on a computer screen. This lets your health care provider see if your arteries are narrowed or damaged.

  Ultrasound is most often done on the carotid arteries in your neck. Ultrasound does not use radiation and has no side effects.
- ❑ **Transcranial Doppler**
  This test measures blood flow through the major vessels in your brain.

Heart tests

Heart problems increase your risk of having a stroke. Common heart problems include:

- atrial fibrillation (irregular heartbeat)
- heart attack
- heart failure
- if you have an artificial heart valve.

Some of the most common tests used to check your heart are:

❑ **Blood tests**
Certain enzymes and proteins are released when your heart is damaged. Your health care provider can use these tests to tell if you had a heart attack.

❑ **Electrocardiogram (EKG)**
This test records the electrical activity of your heart. Small patches (discs) attached to your chest "pick up" the electrical activity from your heart. This activity goes through wires to the EKG machine where it is recorded on a moving strip of paper.

❑ **Transthoracic echocardiogram (TTE)**
This is an ultrasound study of your heart muscle, heart valves and pericardium (the sac surrounding your heart). This test uses sound waves to see how well your heart is working.

A wand-like instrument makes the sound waves. As the ultrasound wand is moved over your chest, pictures of your heart appear on a screen and are recorded.

— **Contrast echo (bubble study)**
Saline (salt water) solution is injected into an arm vein. Ultrasound tracks the solution as it flows through your heart. This will let them see if there is an abnormal opening between the right and left sides of your heart. This test can be done at the same time as the TTE.

❑ **Transesophageal echocardiogram (TEE)**
This records ultrasound images of your heart. The transducer, about the size of a normal piece of food, is mounted on the end of a flexible tube, about the size of your index finger. The tube is placed in your mouth and guided down your esophagus (swallowing tube).

You will be given medicine to help numb the back of your throat. This will make swallowing the tube easier.

Tip

After the TEE, members of your health care team will make sure you can safely swallow before you can eat or drink.

Procedures Based on Types and Causes of Stroke

Hemorrhagic stroke

Depending on the cause of your stroke, you may have:

- ❑ **Embolization**
  This procedure is done to prevent bleeding in your brain by closing off an aneurysm. An aneurysm occurs when a blood vessel in your brain becomes weak and bulges.

  A long, narrow tube (catheter) is inserted through an artery in your groin or wrist and guided to the aneurysm in your brain. Your doctor then threads small wires through the catheter into the aneurysm. This device fills the aneurysm and helps prevent it from bleeding. You will be unconscious (not awake) during this procedure. The wires do not need to be removed.

- ❑ **Clipping**
  This surgery is done to stop the blood flow to a brain aneurysm. A metal clip(s) is placed across the base of the aneurysm. This stops blood flow to the aneurysm and makes it less likely for the aneurysm to bleed. You will be unconscious (not awake) during surgery.

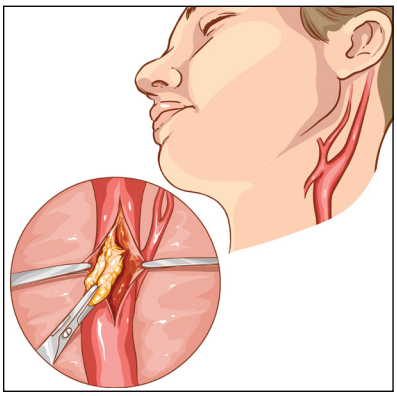
  The clips do not need to be removed. They will not set off metal detectors. You will be able to have MRIs.

- ❑ **Craniotomy**
  This is a surgery to remove part of the skull (the bone flap) to reach the brain for treatment. The location and size of the craniotomy will depend on your stroke. You will be unconscious (not awake) during surgery.

- ❑ **Ventriculostomy**
  This procedure uses gravity to drain excess fluid from your brain. A catheter is inserted into your ventricle (a chamber in your brain) and drains into a collection bag. This helps reduce pressure on your brain. You could be conscious (awake) or unconscious (not awake) during surgery.

Tip

Your surgeon will determine which carotid procedure is right for you: carotid endarterectomy or transcarotid artery revascularization.



These carotid procedures are done to remove plaque from the carotid artery in your neck.

Ischemic stroke

Depending on the cause of your stroke, you may have:

- ❑ **Mechanical thrombectomy (intra-arterial treatment)**
  This procedure is done to open a large artery that is blocked in your brain.

  A long, narrow tube (catheter) is inserted through a large artery in your groin and guided to the blood clot. Your health care team will use a device to grab and remove the blood clot. This will open the blood vessel and restore normal blood flow. You will be conscious (awake) during surgery.
- ❑ **Carotid endarterectomy**
  This surgery is done to help prevent a stroke by improving blood flow to your brain.

  Your surgeon makes an incision along the side of your neck, opens the carotid artery and removes the plaque. The surgeon then closes the incision. You will be unconscious (not awake) during the surgery.
- ❑ **Transcarotid artery revascularization**
  This surgery is done to help prevent a stroke by improving blood flow to your brain.

  Your surgeon makes an incision over your carotid artery and insets a stent. You will be unconscious (not awake) during the surgery.
- ❑ **Transfemoral artery carotid stent**
  This surgery is done to help prevent a stroke by improving blood flow to your brain.

  Your surgeon makes an incision in an artery in your leg. A stent is guided to and inserted into your carotid artery. You will be unconscious (not awake) during the surgery.
- ❑ **Craniotomy**
  This is a surgery to remove part of the skull (the bone flap) to reach the brain. The location and size of the craniotomy will depend on your stroke. You will be unconscious (not awake) during surgery.
- ❑ **Ventriculostomy**
  This procedure uses gravity to drain excess fluid from your brain. A catheter is inserted into your ventricle (a chamber in your brain) and drains into a collection bag. This helps reduce pressure on your brain. You could be conscious (awake) or unconscious (not awake) during surgery.