

# **BEHAVIORAL MEDICINE APPROACHES FOR PATIENTS WHO HAVE HAD EITHER A HEART ATTACK OR STROKE**

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# WHAT IS A HEART ATTACK?

Medically a heart attack is known as: Myocardial Infarction (MI)

- About 90% of patients who have an MI develop some form of cardiac arrhythmia during or immediately after the event
- In 25% of patients, such rhythm abnormalities manifest within the first 24 hours. In this group of patients, the risk for serious arrhythmias, such as ventricular fibrillation, is greatest in the first hour and declines thereafter
- The current estimate of 5.7 million people in the United States living with heart failure is expected to increase significantly with the aging population, with an increase of 46% by 2030.



# WHY THE NEED FOR CARDIAC REHAB

- Cardiac rehabilitation aims to reverse limitations experienced by patients who have suffered the adverse pathophysiologic & psychological consequences of cardiac events.
- Cardiovascular disorders are the leading cause of mortality and morbidity in the industrialized world, accounting for almost 50% of all deaths annually.
- The survivors constitute an additional reservoir of cardiovascular disease morbidity.
- In the United States alone, over 14 million persons suffer from some form of coronary artery disease (CAD) or its complications, including congestive heart failure (CHF), angina, and arrhythmias.
- Of this number, approximately 1 million survivors of myocardial infarction (MI), as well as the more than 300,000 patients who undergo coronary bypass surgery annually, are candidates for cardiac rehabilitation.
- **Who needs to be on this Cardiac Rehab Team?** You already knew the answer. Why of course in our role in Integrated Medical Settings as Behavioral Health Consultants



# WHAT ARE GOALS OF CARDIAC REHAB?

**The major goals of a cardiac rehabilitation program are:**

- Curtail the pathophysiologic and psychosocial effects of heart disease
- Limit the risk for reinfarction or sudden death
- Relieve cardiac symptoms
- Retard or reverse atherosclerosis by instituting programs for exercise training, education, counseling, and risk factor alteration
- Reintegrate heart disease patients into successful functional status in their families and in society

**Impact of Cardiac Rehab Programs:** They have been consistently shown to improve objective measures of exercise tolerance and psychosocial well being without increasing the risk of significant complications.



# PHASES 1 OF CARDIAC REHAB PROGRAMS

Cardiac rehabilitation services are divided into 3 phases, as follows:

**Phase 1** - Initiated while the patient is still in the hospital- Phase 1 includes a visit by a member of the cardiac rehabilitation team, education regarding the disease and the recovery process, personal encouragement, and inclusion of family members in classroom group meetings.

- This phase includes discharge planning an appropriate emphasis on secondary prevention through risk factor modification and therapeutic lifestyle changes such smoking cessation, lipid management, weight management, and stress management
- Behavioral Health Consultants can provide a important role in this phase by working with the survivors' spouses and/or family members and/or friends who will be their caregivers over the next two phases of cardiac rehab



# PHASE 2 OF CARDIAC REHAB

**Phase 2** - Patients who have completed hospitalization and 2-6 weeks of recovery at home can begin phase 2 of their cardiac rehabilitation program which involves a supervised ambulatory outpatient program spanning 3-6 months.

- This phase includes: Exercise treatments scheduled 3 times a week at the rehabilitation facility, Constant medical supervision and in addition to exercise, counseling, and education about stress management, smoking cessation, nutrition, and weight loss also are incorporated into this phase.
- It is clear that Behavioral Health Consultants can conduct the ongoing counseling and education programs in this phase



# PHASE 3 OF CARDIAC REHAB

**Phase 3** - A lifetime maintenance phase in which physical fitness and additional risk-factor reduction are emphasized

- The exercise sessions usually are scheduled 3 times a week. Activities consist of the type of exercises the patient enjoys, such as walking, bicycling, or jogging. The main goal of phase 3 is to promote habits that lead to a healthy and satisfying lifestyle.
- Phase 3 programs do not usually require medical or nursing supervision. In fact, most patients participate in "phase 3" equivalent exercises at the exercise facilities in the community (eg, YMCA, YWCA).
- It would be ideal for Behavioral Health Consultants to consult with these Phase 3 programs in the community to encourage the mental health of their participants



# GOALS 1-4 OF CARDIAC REHAB

1. **Change lifestyle:** There is no cure for coronary artery disease, to prevent the progression of this disease, patients must follow doctor's advice and make necessary lifestyle changes:

2. **Stop Smoking:** Smoking is directly related to an increased risk of heart attack and its complications.

3. **Lower high blood cholesterol:** A high-fat diet can contribute to increased fat in blood. Encourage a low-fat, low-cholesterol eating plan. When proper eating does not control cholesterol levels, medication is prescribed. A registered dietitian is a good source for dietary information.

4. **Control high blood pressure:** High blood pressure can damage the lining of coronary arteries and lead to coronary artery disease. A healthy diet, exercise, medications and controlling sodium in diet can help control high blood pressure.



# GOALS 5-8 OF CARDIAC REHAB

- **5. Maintain tight diabetes control:** High blood sugars are linked to the progression of coronary artery disease. If patient has diabetes, it is important to control high blood sugar through diet, exercise, and medications.
- **6. Follow a regular exercise plan:** A regular exercise program helps to regain or maintain energy level, lower cholesterol, manage weight, control diabetes and relieve stress. Check with doctor first before beginning an exercise program.
- **7. Achieve and maintain an ideal body weight:** Obesity is defined as being very overweight (greater than 25 percent body fat for men or 30 percent body fat for women). When patients are very overweight, their heart has to do more work, and they are at increased risk of high blood pressure, high cholesterol levels and diabetes. A healthy diet and exercise program aimed at weight loss can help improve their health.
- **8. Control Stress and Anger:** Uncontrolled stress or anger is linked to increased coronary artery disease risk. Patients may need to learn skills such as time management, relaxation, or yoga to help lower stress levels.



# WHAT'S ON THE HEART PATIENTS' MINDS?

A recent study of patients who have heart failure looked at their self-care as a decision-making process of maintenance and management. What they found:

- Patients ranked examples of self-care activities by importance. For self-care maintenance, diet, medication, and exercise were the most endorsed items
- There were differences between patient reported self-care behaviors and current guidelines for self-care. Guidelines focus on basic care, such as use of oxygen, fatigue, rest, and exercise and participants referred to existential thoughts and behaviors, such as:
  1. Burden on their families
  2. Explicit thoughts of dying
  3. Fear
  4. Use of positive thinking
  5. Detachment from the situation

**Conclusion drawn:** The researchers believe that activation of the affective domain through these emotional responses may distract from patients responding in a proactive, self-directed way to self-care. Thus a major target for Behavioral Health Consultant's Intervention

Buck, H.G., McAndrew, L., Dionne-Odom, J.N., Wion, R. & Riegel, B. (2015). 'What were they thinking?': Patients' cognitive representations of heart failure self-care. *Journal of Hospice & Palliative Nursing*. 17, 249-256



# EMOTIONAL COMPONENT OF CHRONIC HEART DISEASE

Research into the emotional components of chronic heart disease have stated that:

- Anxiety, depression, and anger have been found to be associated with future Chronic Heart Disease (CHD)
- Patients with CHD and other chronic diseases also often suffer from depression and other negative emotions. The question of cause or effect of these negative emotions on CHD is a bit less clear. Are these negative emotions markers or causes of CHD or both?
- Research has shown that psychosocial factors, including negative emotions, clearly play a role in the development of CHD and many other diseases. Some studies indicate that psychosocial distress is a greater risk factor for CHD than such conventional risk factors as hypertension, diabetes, and abdominal obesity.

**Conclusion Drawn:** Anxiety, depression and anger are major emotional stressors which patients need emotional support to address and minimize their impact on their long term heart health. Individual and group psychotherapy is an ideal way to address the impact of these stressors on these patients.

Ginting, H., Näring, G., Kwakkenbos, L. & Becker, E. S. (2014). Spirituality and negative emotions in individuals with coronary heart disease. *Journal of Cardiovascular Nursing*. Published ahead-of-print. doi:10.1097/JCN.0000000000000201



# HEART AGE VS CHRONOLOGICAL AGE

**Heart age** (the predicted age of a person's vascular system based on their cardiovascular risk factor profile) and its comparison with chronological age represent a new way to express risk for developing cardiovascular disease

## Study shows:

1. Average predicted heart age for adult men and women was 7.8 and 5.4 years older than their chronological age, respectively
2. Heart age among non-Hispanic black men (58.7 years) and women (58.9 years) was greater than other racial/ethnic groups, including non-Hispanic white men (55.3 years) and women (52.5 years)
3. Excess heart age was lowest for men and women in Utah (5.8 and 2.8 years, respectively) and highest in Mississippi (10.1 and 9.1 years, respectively).

## Use of predicted heart age might

1. Simplify risk communication and motivate more persons to live heart-healthy lifestyles and better comply with recommended therapeutic interventions
2. Motivate communities to implement programs and policies that support cardiovascular health.

Yang, Q., Zhong, Y., Ritchey, M., Cobain, M., Gillespie, C., Merritt, R., Hong, Y., Mary G. George, M.G. & Bowman, B.A. (2015). Vital signs: Predicted heart age and racial disparities in heart age among U.S. adults at the state level, *Morbidity and Mortality Weekly Report*, 64(34), 950-958.



# **CODING FOR PSYCHOTHERAPY WITH PATIENTS AFTER A HEART ATTACK**

The ICD-10-CM code closest to a Myocardial Infarction (heart attack) where the cause is unknown is:

- I46.9 Cardiac arrest, cause unspecified

The ICD-10-CM codes for mental health conditions which are related to MI's (heart attacks) are:

- F06.31 Depressive Disorder Due to Another Medical Condition with depressive features
- F06.4 Anxiety Disorder Due to Another Medical Condition

If a patient during Cardiac Rehab requires extensive psychotherapy to address the emotional aftermath of the MI (heart attack) the diagnosis would be presented either as:

I46.9 Cardiac arrest, cause unspecified

F06.31 Depressive Disorder Due to Another Medical Condition with depressive features

**OR**

I46.9 Cardiac arrest, cause unspecified

F06.4 Anxiety Disorder Due to Another Medical Condition



# CASE OF JOE

Joe is a 50 years old truck driver. He was lying on his side in bed at a hotel and got what felt like a cramp in his chest. It would go away for few minutes then return. He got cold sweats and it moved up to his jaw. It was 2 am and he called 911 who sent an ambulance to the hotel. The paramedic in the ambulance hooked him up to EKG and immediately tried to start an IV without saying anything. It was a 20 minute ride to the nearest hospital, they rushed right in, hooked him up to an EKG, and said he was having a heart attack. He was rushed to the lab where they installed 2 stents in two separate places in the same artery. One place was 100 percent blocked and another place behind it with a 90 percent blockage. Calling 911 saved his life. He didn't think it was a heart attack but he was wrong, thanks to the EMT's and the cardiologist his life was saved.

While recovering in the hospital, Joe tells you that he is a 1 pack a day smoker due to the long truck drives which get to him and smoking relaxes him. He eats typical "trucker food" high in fats. He is fifty pounds overweight and his blood sugars run high. He has never been sick a day in his life he says. His LDL Cholesterol was 145 (Borderline High), his A1c while in the hospital was 6.1 (Prediabetic) and his BMI was 30.1 (Obesity for 5'10" 210 lbs).

What Steps need to be taken with Joe to help prevent future MI or heart attack?

How would you assess his emotional state?

How would you assess his current lifestyle which might need changing to prevent future MI's?

What would a Cardiac Rehab Routine look for a guy like Joe?



# BEHAVIORAL HEALTH PLAN FOR JOE

**What are the risk factors you see in Joe's post heart attack, medical evaluation results?** Joe is at risk for hypertension, diabetes and complications of both due to his obesity on the laboratory results. His smoking also complicates his health outlook. As a result unless he changes his lifestyle he runs the risk of future heart attack(s) (MI).

**What would you use to assess his current mental health status?** *DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult* to get an overall view of Joe's Mental and Emotional Functioning to determine if he is stable enough to follow the directions of his medical team.

**What tools would you use to help his compliance with the Cardiac Rehab program prescribed for him?** These tools would be used at end of Phase 1 and begin of Phase 2 of his Cardiac Rehab.

- 1. Group:** "Smoking Cessation Group" as well as "Surviving Cardiac Crises Group"
- 2. Individual Sessions:** 1. Monitor anxiety and/or depression over health with: Health Anxiety/Depression Thought Record 2. Record Physical/Exercise Activity on a daily basis to share with Rehab Therapist Team 3. Do a daily record of dietary intake to share with Team's Dietician
- 3. Individual Psychotherapy:** If needed to help motivate Joe to stay on track with the life style change and help him develop new coping mechanisms to help relax him as he let's go of his smoking and other unhealthy habits of eating and lack of exercising



# WHAT IS A STROKE?

- Every year 730,000 Americans have a new or recurrent stroke

Stroke occurs when the supply of blood to the brain is either interrupted or reduced. When this happens, the brain does not get enough oxygen or nutrients which causes brain cells to die. A stroke is a medical emergency, and treatment must be sought as quickly as possible.

There are three main kinds of stroke:

1. **Ischemic strokes**-caused by a narrowing or blocking of arteries to the brain-treated with 'clot-busting' drugs
2. **Hemorrhagic strokes**-caused by blood vessels in and around the brain bursting or leaking-treated with surgery to repair or block blood vessel weaknesses
3. **Transient ischemic attacks (TIAs)**, also referred to as mini-strokes

Stroke is more likely to affect people if they are overweight, aged 55 or older, have a personal or family history of stroke, do not exercise much, drink heavily or use illicit drugs. Strokes need to be diagnosed and treated as quickly as possible in order to minimize brain damage



# RECENT DEVELOPMENTS ON STROKE CAUSES

Psychological stress 'increases risk of stroke' (Multi-Ethnic Study of Atherosclerosis from: <http://www.mesa-nhlbi.org/Publications.aspx> )

- Depressive symptoms in particular, but also chronic stress in life, increase the risk of older people having a stroke or transient ischemic attack, say researchers, who found feelings of hostility, but not anger, were also a risk factor for cerebrovascular disease.

Compared with people who had healthy psychological scores, those with the poorest scores showed the following percentage increases in their likelihood of suffering a stroke or transient ischemic attack (TIA):

- 86% for a high score on depressive symptoms
- 59% for the highest ratings of chronic stress.

On the effect of feelings of hostility - "which is a negative way of viewing the world" and was assessed by the person's "cynical expectations of other people's motives" - this resulted in a doubling of the risk versus people who did not score highly on this profile. Feelings of anger, however, had no effect. Studies like this one show that psychological characteristics are very important.



# HOW CHRONIC STRESS WAS MEASURED

In the Multi-Ethnic Study of Atherosclerosis (MESA), chronic stress related to strokes was measured using ratings for five different domains of the participants' lives:

1. Personal health problems
2. Health problems of people close to them
3. Job or ability to work
4. Relationships
5. Finances.

The lifestyle factors taken into account were:

1. Smoking
2. Physical activity
3. Alcohol consumption
4. Body mass index
5. Blood pressure.



# **GUIDELINES ON STROKE PRIMARY PREVENTION**

In 2014, the American Heart Association and American Stroke Association released updated guidelines on the primary prevention of stroke.

New recommendations include the following:

- 1. Use of new oral anticoagulants, including dabigatran, apixaban, and rivaroxaban, in patients with nonvalvular atrial fibrillation**
- 2. Home self-monitoring of blood pressure in hypertensive patients**
- 3. Use of nonestrogen oral contraceptives in female patients with migraine with aura**
- 4. All patients should follow the Mediterranean diet supplemented with nuts and reduce sodium intake**
- 5. Screening for sleep apnea**
- 6. Smoking cessation**



# PRIMARY PREVENTION OF STROKE

Risk-reduction measures in primary stroke prevention may include

1. the use of antihypertensive medications
2. Anticoagulants such as warfarin
3. Platelet antiaggregants (decrease platelet aggregation and inhibit thrombus formation)
4. 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitors (statins)
5. Smoking cessation
6. Dietary intervention
7. Weight loss
8. Exercise.



# **MODIFIABLE RISK FACTORS FOR STROKE INCLUDE:**

- Hypertension
- Cigarette smoking
- Diabetes
- Dyslipidemia (High cholesterol or triglycerides or both)
- Atrial fibrillation
- Sickle cell disease
- Postmenopausal HRT (Hormone Replacement Therapy)
- Depression
- Diet and activity
- Weight and body fat



# SECONDARY PREVENTION OF STROKE

Secondary prevention can be summarized by the mnemonic A, B, C, D, E, as follows:

**A** - Antiaggregants (aspirin, clopidogrel, extended-release dipyridamole, ticlopidine) and anticoagulants (warfarin)

**B** - Blood pressure–lowering medications

**C** - Cessation of cigarette smoking, cholesterol-lowering medications, carotid revascularization

**D** - Diet

**E** – Exercise

- Smoking cessation, blood pressure control, diabetes control, a low-fat diet (eg, Dietary Approaches to Stop Hypertension [DASH] or Mediterranean diets), weight loss, and regular exercise are encouraged.



# DATA ON RECOVERY FROM STROKE

There's still so much we don't know about how the brain compensates for the damage caused by stroke.

- In some cases, the brain cells may be only temporarily damaged, not killed, and may resume functioning over time.
- In other cases, the brain can reorganize its own functioning.
- Every once in a while, a region of the brain "takes over" for a region damaged by the stroke.
- Stroke survivors sometimes experience remarkable and unanticipated recoveries that can't be explained.

## **General recovery guidelines show:**

- 10% of stroke survivors recover almost completely
- 25% recover with minor impairments
- 40% experience moderate to severe impairments requiring special care
- 10% require care in a nursing home or other long-term care facility
- 15% die shortly after the stroke



# STROKE REHABILITATION

Rehabilitation actually starts in the hospital as soon as possible following a stroke. In patients who are stable, rehabilitation may begin within two days after the stroke has occurred, and should be continued as necessary after release from the hospital.

Depending on the severity of the stroke, rehabilitation options can include:

- A rehabilitation unit in the hospital with inpatient therapy
- A subacute care unit
- A rehabilitation hospital with individualized inpatient therapy
- Home therapy
- Returning home with outpatient therapy
- A long-term care facility that provides therapy and skilled nursing care
- The long-term goal of rehabilitation is to improve function so that the stroke survivor can become as independent as possible.
- This must be accomplished in a way that preserves dignity and motivates the survivor to relearn basic skills that the stroke may have impaired - skills like bathing, eating, dressing and walking.



# CRITERIA FOR ENTRY INTO STROKE REHAB

Criteria for a patient's admission to a comprehensive rehabilitation program may include the following:

- Stable neurologic status
- Significant persisting neurologic deficit
- Identified disability affecting at least 2 of 5 functions, including mobility, self-care activities, communication, bowel or bladder control, and swallowing
- Sufficient cognitive function to learn
- Sufficient communicative ability to engage with therapists
- Physical ability to tolerate the active program
- Achievable therapeutic goals



# **MENTAL HEALTH NEEDS POST STROKE**

**Consultations with Behavioral Health Consultants are essential**

- **Psychosocial issues obviously are very important in cases of stroke**
- **Numerous studies have reported on the influence of the psychological adjustment and coping mechanisms of the patient, as well as those of his/her spouse and other family members, in determining the patient's outcome**
- **Behavioral Health Consultants can assist patients and their spouse and family members to develop new coping strategies to adjust to the comprehensive rehabilitation program's demands and life style changes needed going forward**
- **Work with Behavioral Health Consultants can be done in Curbside Consultation, Individual Psychotherapy, Stroke Survivor Support Groups and Family Therapy**
- **Behavioral Health Consultants will need to maintain close coordination and collaboration with other members of the Stroke Recovery Team**



# THE TYPICAL POST STROKE RECOVERY TEAM

**Physiatrist.** Specializes in rehabilitation following injuries, accidents or illness

**Neurologist.** Specializes in the prevention, diagnosis and treatment of stroke

**Rehabilitation Nurse.** Specializes in helping people with disabilities; helps survivors manage health problems that affect stroke (diabetes, high blood pressure) and adjust to life after stroke

**Physical Therapist (PT).** Helps stroke survivors with problems in moving and balance; suggests exercises to strengthen muscles for walking, standing and other activities

**Occupational Therapist (OT).** Helps stroke survivors learn strategies to manage daily activities such as eating, bathing, dressing, writing or cooking

**Speech-Language Pathologists (SLP).** Helps stroke survivors re-learn language skills (talking, reading and writing); shares strategies to help with swallowing problems

**Dietician.** Teaches survivors about healthy eating and special diets (low salt, low fat, low calorie)

**Social Worker.** Helps survivors make decisions about rehab programs, living arrangements, insurance, and support services in the home

**Neuropsychologist.** Diagnoses and treats survivors who may be facing changes in thinking, memory, and behavior after stroke

**Case Manager.** Helps survivors facilitate follow-up to acute care, coordinate care from multiple providers, and link to local services

**Recreation Therapist.** Helps stroke survivors learn strategies to improve the thinking and movement skills needed to join in recreational activities

**Behavioral Health Consultant.** Who helps patients to deal with their emotional response to the aftermath of the stroke and to the life style changes for prevention steps to take to ward off future strokes



# IMPACT OF EARLY EMOTIONAL INTERVENTION FOR STROKE SURVIVORS AND THEIR FAMILIES

Recent research has shown that key elements of self-management support such as goal setting, action planning, and problem solving were core components of therapy rehabilitation interventions.

As a result of this: High quality evidence supported self-management in the context of therapy rehabilitation delivered soon after the stroke event resulted in

1. Short-term (< 1 year) improvements in basic and extended activities of daily living
2. Reduction in poor outcomes (dependence/death)
3. There is some evidence that rehabilitation and problem solving interventions facilitated reintegration into the community

Thus the need for involvement of Behavioral Health Consultants with the survivor and family as soon as possible to support this model.

Parke, H. L., Epiphaniou, E., Pearce, G., Taylor, S. C., Sheikh, A., Griffiths, C. J., & ... Pinnock, H. (2015). Self-Management Support Interventions for Stroke Survivors: A Systematic Meta-Review. *Plos ONE*, 10(7), 1-23. doi:10.1371/journal.pone.0131448



# NEED TO ADDRESS NEEDS OF BOTH CAREGIVERS AND STROKE SURVIVORS

Recent Research found that: Caregivers of survivors of stroke experience large negative impacts, the extent to which is associated with survivors unmet needs.

- Caregivers' domains of work, leisure, and friendships were most impacted in caregiving survivors.
- The odds of a caregiver experiencing moderate to extreme impacts increased with the number of reported survivor unmet needs
- Caring for a survivor who needed daily living assistance was associated with moderate to extreme caregiver impacts across all domains
- Targeted, long-term solutions are needed to support survivors and caregivers living in the community.
- Thus it is important for Behavioral Health Consultants to be ready to work with the spouse and/or family member and/or friends who are to be the caregiver of the survivors so as to address the caregiver's emotional needs.

Andrew, N. E., Kilkenny, M. F., Naylor, R., Purvis, T., & Cadilhac, D. A. (2015). The relationship between caregiver impacts and the unmet needs of survivors of stroke. *Patient Preference & Adherence*, 91065-1073. doi:10.2147/PPA.S85147



# **CODING FOR PSYCHOTHERAPY WITH PATIENTS AFTER A STROKE**

The ICD-10-CM code closest to a stroke is:

- I63.9 Cerebral Infarction, unspecified

The ICD-10-CM codes for the depressive mental health condition which is related to a stroke is:

- F06.31 Depressive Disorder Due to Another Medical Condition with depressive features

If a patients during Post Stroke Rehab require extensive psychotherapy to address the depressive aftermath of the stroke the diagnosis would be presented as:

I63.9 Cerebral Infarction, unspecified

F06.31 Depressive Disorder Due to Another Medical Condition with depressive features



# CASE OF MARGO

Margo is an active woman, 70 years of age, who lost consciousness and collapsed at home. Her daughter, who was visiting her at the time, did not witness the collapse but found her mother on the floor, awake, confused, and slightly short of breath. The daughter estimated that she called EMS within 5 minutes after the collapse, and EMS responded within 10 minutes. EMS evaluated Margo, drew blood for a glucose level, and determined that she may have had a stroke. They notified the nearest designated comprehensive stroke center that they would be arriving with the patient within 15 minutes. Margo's daughter accompanied her.

On presentation in the emergency department, Margo was immediately triaged. Because Margo was still somewhat confused, her daughter was asked to provide information on Margo's history. The daughter reports that her mother had had an episode of sudden-onset numbness and tingling in the right limb, with slight confusion and slurred speech, 3 days previously. The episode lasted only 5 minutes, and Margo had not called her primary care physician. Additional information provided by the daughter indicates that Margo has been treated for hypertension for 10 years but notes that she is often not compliant with her antihypertensive medicine, a diuretic. Margo has never smoked, drinks occasionally, and is of normal weight.

The rehabilitation team discussed the results of their assessment with Margo's daughter and son, both of whom live about 45 minutes away from her. Together, the team and the family members explore options to determine the best approach to rehabilitation. A decision is made for Margo to be discharged to an inpatient stroke unit, and a rehabilitation program is developed. The nurse on the team discusses the program with Margo and her children and explains the course of rehabilitation and the expectations. Rehabilitation will focus on an exercise program consisting of aerobic exercise, strength training, stretching, and coordination and balance activities.



# BEHAVIORAL HEALTH PLAN FOR MARGO

**What risk factor do you see in Margo post stroke rehabilitation evaluation results?** Margo is at risk for future strokes due to her hypertension and there is a need to increase her compliance in taking the prescribed medications. She also needs to regain her physical competencies while in the inpatient rehab setting. Also there is a need to work with Margo's daughter and son so that they are better equipped to be Margo's caregivers during and post her rehabilitation process

**What would you use to assess her current mental health status?** *Severity Measure for Depression—Adult (Patient Health Questionnaire [PHQ-9])* to get an overall view of Margo's Mental and Emotional Functioning to determine if she is stable enough to follow the directions of his rehabilitation team and not suffering from post stroke depression.

**What tools would you use to help his compliance with the Cardiac Rehab program prescribed for him?** These tools would be used at end of Phase 1 and begin of Phase 2 of his Cardiac Rehab.

- 1. Group:** "Surviving a Stroke Group" and for Daughter and Son "Caregivers' Support Group"
- 2. Individual Sessions:** 1. Monitor depression over her health with: Depression Thought Record 2. Record compliance in taking her medications on a daily basis to share with Rehab Team 3. Do a daily record of daily activities to share with Rehab Team
- 3. Individual Psychotherapy:** If needed to help motivate Margo to stay on track with the life style change and help her develop new coping mechanisms to help let go of her depressed feelings post stroke and to gain a positive outlook on going forward with her life.



# QUESTIONS?

Remember we have the Integrated Medicine Community on the AMHCA Connection at:  
<http://connections.amhca.org/home>

