

# MSX - Metabolic Syndrome

## MSX-C      COMPLICATIONS

**OUTCOME:** The patient will understand the complications associated with metabolic syndrome.

### **STANDARDS:**

1. Explain that metabolic syndrome is a precursor to cardiovascular disease and diabetes.
2. Explain that good control of blood glucose and weight loss can reverse or prevent progression of pre-diabetes.
3. Explain that arteriosclerosis and atherosclerosis impede blood flow through the circulatory system. Discuss the following as appropriate:
  - a. Heart attacks may result from the heart having to work harder to pump blood through congested and hardened arteries.
  - b. Strokes may result due to injured blood vessels in the neck or brain.
  - c. Blindness may result from injured blood vessels in the eye.
  - d. Leg pain may result due to injured blood vessels in the legs.

## MSX-CM      CASE MANAGEMENT

**OUTCOME:** The patient/family/caregiver will understand the importance of integrated case management in achieving physical and behavioral health.

### **STANDARDS:**

1. Discuss roles and responsibilities of each member of the care team including the patient, family/caregiver, and providers in the case management plan.
2. Explain the coordination and integration of resources and services in developing and implementing the case management plan.
3. Explain the need to obtain the appropriate releases of information necessary to support integrated case management and to maintain patient privacy and confidentiality. **Refer to AF-CON.**

## MSX-CUL      CULTURAL/SPIRITUAL ASPECTS OF HEALTH

**OUTCOME:** The patient/family will understand the impact and influences that cultural and spiritual traditions, practices, and beliefs have on health and wellness.

**STANDARDS:**

1. Discuss the potential role of cultural/spiritual traditions, practices and beliefs in achieving and maintaining health and wellness. Refer to clergy services, traditional healers, or other culturally appropriate resources.
2. Explain that traditional medicines/treatments should be reviewed with the healthcare provider to determine if there are positive or detrimental interactions with prescribed treatment. Explain that the medical treatment plan must be followed as prescribed to be effective.

**MSX-DP      DISEASE PROCESS**

**OUTCOME:** The patient will have a basic understanding of the pathophysiology of the metabolic syndrome.

**STANDARDS:**

1. Explain that metabolic syndrome is a combination of dyslipidemia, hypertension and pre-diabetes (insulin resistance).
2. Review the risk factors and causative factors of dyslipidemia, hypertension and pre-diabetes.
3. Discuss HDL, non-HDL, LDL, and triglycerides. Define normal ranges.
4. Explain the difference between systolic and diastolic pressure. Define normal ranges.
5. Discuss the role of insulin resistance. Define normal ranges.

**MSX -EQ      EQUIPMENT**

**OUTCOME:** The patient will receive information on the use of home blood pressure monitors and pedometers.

**STANDARDS:**

1. Provide the patient with information on the use of specific home blood pressure monitors and pedometers.
2. Discuss the use of blood pressure monitoring equipment in public places, such as stores.
3. Discuss correct way to record blood pressure and pedometer activity in a logbook and bring to clinic visits.
4. Discuss when to contact a healthcare provider for a blood pressure value that is outside the patient's personal guidelines.
5. Discuss the proper use and care of medical equipment.
6. Discuss signs of equipment malfunction and proper action in case of malfunction.

## **MSX-EX      EXERCISE**

**OUTCOME:** The patient will understand the relationship of exercise to normal lipids, blood pressure, and blood glucose. The patient will develop a physical activity plan.

### **STANDARDS:**

1. Discuss medical clearance issues for physical activity.
2. Discuss the benefits of any exercise, such as improvement in well being, stress reduction, sleep, bowel regulation, and self image.
3. Discuss obstacles to a personal exercise plan and solutions to those obstacles. Assist the patient in developing a personal exercise plan.
4. Encourage the patient to increase the intensity and duration of the activity as the patient becomes more fit.
5. Refer to community resources as appropriate.

## **MSX-FU      FOLLOW-UP**

**OUTCOME:** The patient/family will understand the importance of follow-up in the treatment of metabolic syndrome.

### **STANDARDS:**

1. Discuss the importance of follow-up care.
2. Discuss the procedure for obtaining follow-up appointments and that follow-up appointments should be kept.
3. Emphasize that full participation of the treatment plan is the responsibility of the patient/family.
4. Discuss signs/symptoms that should prompt immediate follow-up.
5. Discuss the availability of community resources and support services and refer as appropriate.

## **MSX-L      LITERATURE**

**OUTCOME:** The patient will receive literature about metabolic syndrome.

### **STANDARDS:**

1. Provide the patient with literature on metabolic syndrome.
2. Discuss the content of the literature.

## **MSX-LA      LIFESTYLE ADAPTATIONS**

**OUTCOME:** The patient will understand the lifestyle adaptations necessary to prevent or delay the progression of metabolic syndrome and develop a realistic plan to accomplish this.

### **STANDARDS:**

1. Emphasize that healthy food choices and regular physical activity are the critical components in improving metabolic syndrome and preventing the progression to diabetes and cardiovascular disease.
2. Discuss the importance of tobacco cessation. Make referral to tobacco cessation programs if available.
3. Discuss the relationship of stress to metabolic syndrome and suggest ways to reduce stress. Refer to stress reduction program as appropriate.
4. Assist the patient to develop a self care plan.

## **MSX-M      MEDICATIONS**

**OUTCOME:** The patient/family will understand the purpose, proper use, and expected outcomes of prescribed drug therapy.

### **STANDARDS:**

1. Describe the name, strength, purpose, dosing directions, and storage of the medication.
2. Discuss the risks, benefits, and common or important side effects of the medication and follow up as appropriate.
3. Discuss any significant drug/drug, drug/food, and alcohol interactions, as appropriate.
4. Discuss the importance of keeping a list of all current prescriptions and over-the-counter medicines, vitamins, herbs, traditional remedies, and supplements. Encourage the patient to bring this list and pill bottles to appointments for medication reconciliation.

## **MSX-MNT      MEDICAL NUTRITION THERAPY**

**OUTCOME:** The patient/family will understand the specific nutritional intervention(s) needed for treatment or management of metabolic syndrome.

### **STANDARDS:**

1. Explain that Medical Nutrition Therapy (MNT) is a systematic nutrition care process provided by a Registered Dietitian (RD) that consists of the following:
  - a. Assessment of the nutrition related condition.

- b. Identification of the patient's nutritional problem.
  - c. Identification of a specific nutrition intervention therapy plan.
  - d. Evaluation of the patient's nutritional care outcomes.
  - e. Reassessment as needed.
2. Review the basic nutrition recommendations for the treatment plan.
  3. Discuss the benefits of nutrition and exercise to health and well-being.
  4. Assist the patient/family in developing an appropriate nutrition care plan.
  5. Refer to other providers or community resources as needed.

## **MSX-N NUTRITION**

**OUTCOME:** The patient/family will understand the importance of nutritional management in the improvement of metabolic syndrome.

### **STANDARDS:**

1. Emphasize that nutritional management includes meal planning, making healthy food choices, appropriate serving sizes, and food preparation. Refer to registered dietitian for MNT as appropriate.
2. Discuss the role of nutrition and weight control in managing or controlling this syndrome. Maintain weight to lessen abdominal obesity in particular.
3. Explain that reducing consumption of alcohol in conjunction to diet modifications can reduce triglycerides. Encourage exercise to aid in correcting abnormal lipids.
4. Explain that excessive salt intake may play a role in hypertension and discuss ways to decrease salt intake.

## **MSX-P PREVENTION**

**OUTCOME:** The patient will understand ways to prevent cardiovascular disease and diabetes.

### **STANDARDS:**

1. Explain that consuming a diet low in fat and cholesterol, controlling weight, and exercising may help prevent complications from metabolic syndrome or progression to cardiovascular disease and diabetes.
2. Emphasize the importance of regular blood sugar, blood pressure, and lipid screening. Discuss current recommendations for screening and/or monitoring.
  - a. Explain that the metabolic syndrome tends to run in families and that the patient's family members should be evaluated by a physician or other healthcare provider.

## **MSX-SM      STRESS MANAGEMENT**

**OUTCOME:** The patient will understand the role of stress management in metabolic syndrome.

### **STANDARDS:**

1. Explain that uncontrolled stress can cause increased release of stress hormones which can contribute to insulin resistance, dyslipidemia, obesity, and hypertension. This can lead to increased morbidity and mortality from all disease processes included in metabolic syndrome.
2. Explain that uncontrolled stress can interfere with the treatment of metabolic syndrome.
3. Explain that effective stress management may reduce the adverse consequences of metabolic syndrome, as well as help improve the health and well-being of the patient.
4. Discuss that stress may exacerbate adverse health behaviors such as increased tobacco, alcohol or other substance use as well as overeating, all which can increase the risk of morbidity and mortality from metabolic syndrome.
5. Discuss various stress management strategies which may help maintain a healthy lifestyle. Examples may include:
  - a.      Becoming aware of your own reactions to stress
  - b.      Recognizing and accepting your limits
  - c.      Talking with people you trust about your worries or problems
  - d.      Setting realistic goals
  - e.      Getting enough sleep
  - f.      Maintaining a healthy diet
  - g.      Exercising regularly
  - h.      Taking vacations
  - i.      Practicing meditation, self-hypnosis, and positive imagery
  - j.      Practicing physical relaxation methods such as deep breathing or progressive muscular relaxation
  - k.      Participating in spiritual or cultural activities
6. Provide referrals as appropriate.

## **MSX-TE      TESTS**

**OUTCOME:** The patient/family will understand the test(s) to be performed, the potential risks, the expected benefits, and the risks of non-testing.

**STANDARDS:**

1. Explain test(s) that have been ordered (explain as appropriate):
  - a. method of testing
  - b. necessity, benefits, and risks of test(s) to be performed
  - c. any potential risk of refusal of recommended test(s)
  - d. any advance preparation and instructions required for the test(s)
  - e. how the results will be used for future medical decision-making
  - f. how to obtain the results of the test
2. Explain test results:
  - a. meaning of the test results
  - b. follow-up tests may be ordered based on the results
  - c. how results will impact or effect the treatment plan
  - d. recommendations based on the test results