

HEALTH & SAFETY: METABOLIC SYNDROME

BQIS/Outreach Fact Sheets provide a general overview on topics important to supporting an individual's health and safety and to improving their quality of life.

Objectives

Individuals will understand the basics of metabolic syndrome including risk factors, clinical features, associated problems, and treatment of this syndrome.

Definitions

Metabolic syndrome: A group of metabolic abnormalities that increase the individual's risk of cardiovascular disease and diabetes. Metabolic syndrome is also often called Syndrome X or Insulin Resistance Syndrome.

Facts

- The major features of Metabolic Syndrome are abdominal obesity, high levels of triglycerides in the blood, low levels of HDL (good) cholesterol in the blood, high blood sugar, and high blood pressure.
- Some of the risk factors for development of Metabolic Syndrome include:
 - Being overweight or Obese
 - Sedentary Lifestyle (lack of exercise)
 - Aging
 - Diagnosis of Diabetes, Heart disease, or Elevated Cholesterol
- Signs and Symptoms of Metabolic Syndrome:
 - Increased waist size (abdominal obesity)
 - High Blood Pressure
- Often Metabolic Syndrome is not associated with symptoms. However, if a physician notes abdominal obesity or high blood pressure, he will likely check labs for cholesterol and blood sugar abnormalities.
- Diseases Associated with metabolic Syndrome include:
 - Heart Disease (Heart Attacks, Stroke)
 - Type 2 Diabetes
 - Liver Disease
 - Obstructive Sleep Apnea

- Diagnosis of Metabolic Syndrome is made by taking a medical history, vital signs including weight, waist circumference, and blood pressure, and labs including fasting lipids and blood sugar.
- Treatment of Metabolic Syndrome includes weight reduction through increased exercise and improved diet that is rich in fruits and vegetables, whole grains, and lean meats. The physician may also prescribe medications to treat elevated cholesterol (Statins), blood pressure (ACE inhibitors), and high blood sugar (Metformin).
- Second generation (newer) antipsychotics are more likely than first generation ones to cause Metabolic Syndrome.

Recommended Actions and Prevention Strategies

1. Be alert to signs and symptoms of metabolic syndrome.
2. Follow doctor's recommendations for treatment.
3. Collect data as directed or indicated for things such as blood pressure, weight, and blood sugar levels.
4. Monitor for changes or trends in blood pressure, weight and blood sugar levels and notify supervisor/nurse if noted.
5. Provide data on blood pressure, weight and blood sugar levels to physician.

Learning Assessment

Questions that can be used to verify a person's competency in the material contained in this Fact Sheet:

1. Metabolic Syndrome is a group of abnormalities that increases an individual's risk of:
 - A. Cancer
 - B. Heart Disease
 - C. Anemia
 - D. Cough
2. Major features of metabolic Syndrome include:
 - A. Abdominal Obesity
 - B. High Blood Sugar
 - C. High Blood Pressure
 - D. All of the above
3. Risk Factors for Metabolic Syndrome include:
 - A. Too much exercise
 - B. Lack of exercise
 - C. Low blood sugar
 - D. Low Cholesterol
4. Treatment of Metabolic Syndrome includes:
 - A. Exercise
 - B. Improved Diet
 - C. Medications
 - D. All of the above

References

Eckel Robert H, "Chapter 236. The Metabolic Syndrome" (Chapter). Fauci AS, Braunwald E, Kasper DL, Hauser SL, Longo DL, Jameson JL, Loscalzo J: Harrison's Principles of Internal Medicine, 17e www.accessmedicine.com/content.aspx?aID=2887926 (paid subscription required)

Metabolic Syndrome and the Use of Antipsychotics Annals of General Psychiatry 2006, 5(Suppl 1):S269 doi:10.1186/1744-859X-5-S1-S269 www.annals-general-psychiatry.com/content/5/s1/s269

Related Resources

American Heart Association - Metabolic Syndrome
www.americanheart.org/presenter.jhtml?identifier=4756

National Heart Lung and Blood Institute - Metabolic Syndrome
www.nhlbi.nih.gov/health/dci/Diseases/ms/ms_what.html

Learning Assessment Answers

1. B
2. D
3. B
4. D

Outreach Services

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As a service for persons supporting individuals with intellectual/developmental disabilities, BQIS/ Outreach developed the Outreach Fact Sheet Library. The information provided is designed to enhance the understanding of the topic and does not replace other professional or medical instructions or individually developed plans. For more fact sheets and information, please visit DDRSOutreach.IN.gov.



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