Objectives

• The goal of this poster presentation is to decrease the overall incidence of non-traumatic amputations in DM patients by providing health care professionals with the tools to perform a Diabetic Foot Exam.

• After reviewing the DM Foot Exam poster, the participant will:
  – Appreciate the effect of the DM foot exam in prevention of non traumatic amputations
  – List the steps of the DM Foot Exam

Health Care Challenge

• Diabetes Mellitus (DM) is considered an epidemic in the United States (American Diabetes Association, 2010). One of the devastating side effects is a foot ulcer which leads to amputation. Of the non-traumatic amputations in the United States, 60% are a result of a diabetic foot wound (Center for Disease Control, 2007). This places a huge burden on the health care system in terms of both financial cost and suffering on the patient. Early intervention and management can prevent this process and is key to the prevention of amputation.

• Primary care providers recognize and appreciate the importance of preventative care but many feel rushed and overwhelmed with DM patient’s complex health care needs. Due to the recession and budgetary cuts in Medicare and Medicaid, the primary care provider is managing more complex patients (Holahan, 2011).

Diabetes Demographics for 2007

• 12.8 Million diabetes adults
• 1.4 Million people have diabetes
• 127 million people are overweight
• 51 million are at risk for diabetes

Economic Burden of Diabetes

2002
• $1.3 Billion spent on direct costs
  • $2 Billion on indirect costs

2007
• $17.4 Billion spent on direct costs
• $31 Billion on indirect costs
• $27 Billion on direct care
• Estimate rise to $32 Billion

2010
• $17.4 Billion spent on direct costs
• $31 Billion on indirect costs
• $27 Billion on direct care

References


Step One

• History
  – Previous Amputations
  – Neuropathy
  – Foot Deformity
  – Peripheral Vascular Disease
  – Diabetic Neutropenia
  – Poor Glycemic Control
  – Cigarette Smoking

Step Two

• Dermatologic
  – With Shores and Socks off
  – Look for condition of skin
  – Global tasking in between digits
  – Note presence of callus
  – Nail dystrophy
  – Skin Temperature

Step Three

• Musculoskeleton
  – Neuromuscular
  – Note any gross deformity
  – Hammer toes
  – Claw Toe Deformity (A)
  – Bunion (B)
  – Overlapping toes (B)
  – Rocker-bottom deformity due to Charcot Arthropathy (C)

Step Four

• Vascular
  – Palpation of Posterior Tibial and Dorsalis Pedis Pulses
  – Pulses are classified as absent or present
  – If Absent then Ankle Brachial Index should be performed

Step Five

• Neurologic Assessment
  – 5 simple tests
  – 2 abnormal test indicates Loss of Protective Sense
    • 10g Monofilament
    • Vibration perception threshold testing
  – Achilles reflex

Resources

• Lower Extremity Amputation Prevention
  – http://www.hrsa.gov/leap/d
  – www.diabetes.org/defaulty.htm

• Resources
  – Several online courses
  – Patient Education
  – www.eatright.org

• Health Care Challenge

Step Six

• Patient Education
  – Check Daily
  – Wear good shoes
  – No heating pads
  – Clean between toes
  – Trim Nails carefully
  – Podiatry visits
  – Call if issues

Step Five

• Using a 10g Monofilament
  – Nylon monofilament that will buckle when 10-g force is applied.

• Using 10 g Monofilament
  – Show patient the monofilament
  – Touch to patient’s arm to verify it does not hurt
  – Hold the monofilament by the handle perpendicular to plantar surface
  – Touch the monofilament to surface of alternate toes and scars, but not directly on them

• Reference

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