Medical Nutrition Therapy

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Objectives

• What is Medical Nutrition Therapy
• Medical Nutrition Therapy Coverage
• Application of the Nutrition Care Process
• Medical Nutrition Therapy and Chronic Kidney Disease
What is Medical Nutrition Therapy (MNT)

MNT is defined as “nutritional diagnostic, therapy, and counseling services for the purpose of disease management, which are furnished by a registered dietitian (RD) or nutrition professional.”
History of MNT

“Let food by thy medicine, and medicine be thy food.” Hippocrates, 400 B.C

The field of nutrition has undergone many transformations over the years and continues to change as new research emerges.
MNT Coverage

• Medicare Part B
  • Became effective January 1, 2002 for RD’s and nutrition professionals
• Also covered by a variety of other insurance plans
  • Coverage is based on each insurance carrier. Individual should call the insurance company to find out what MNT services are covered
CPT/HCPCS Codes

- **97802**: Medical nutrition therapy; initial assessment and intervention, individual, face-to-face with the patient, each 15 minutes (NOTE: This CPT code must only be used for the initial visit)
- **97803**: Re-assessment and intervention, individual, face-to-face with the patient, each 15 minutes
- **97804**: Group (2 or more individual(s)), each 30 minutes
- **G0270**: reassessment and subsequent interventions following second referral in the same year, individual, group (2 or more), each 15 minutes
- **G0271**: reassessment and subsequent interventions following second referral in the same year, individual, group (2 or more), each 30 minutes
Application of the Nutrition Care Process in MNT

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Chronic Kidney Disease (CKD)

• CKD is defined as:
  • Reduction of kidney function-eGFR <60mL/min/1.73m$^2$
  • Evidence of kidney damage, including persistent albuminuria->30 mg of urine albumin per gram of urine creatinine
  • 5 stages of CKD

• More than 10% of U.S. adults may have CKD
  • More than 20 million, aged 20 years and older
  • Nearly half also has diabetes, and over 92% also has hypertension
CKD Risk Factors

- Diabetes
- Hypertension
- Family history of kidney failure
- Cardiovascular disease
- Recurrent urinary tract infections
- HIV infection
- Immunological diseases
MNT in CKD

• As eGFR declines, complications occur often and can become more severe
• The purpose of MNT for CKD is to maintain good nutritional status, slow the progression of the disease, and treat complications
Nutrition Management for CKD

The key nutrition components to slowing the progression of CKD are:

- Controlling blood pressure by reducing sodium intake
- Reducing protein intake, if excessive
- Managing high blood glucose levels
- Manage hyperkalemia by limiting dietary potassium intake
- Manage calcium, phosphorus, and parathyroid hormone levels by limiting intake of dietary calcium and phosphorus
- Vitamin D and iron supplementation may be warranted
- Nutrition counseling for weight management if indicated
MNT for CKD Improves Biomarkers and Slows Time to Dialysis

• Objective: to investigate whether MNT provided by a RD experienced in CKD slows the progression of disease and improves nutrition-related biomarkers

• Design: retrospective cohort study

• Subjects: 265 participants from a nephrology center; 147 received MNT were compared to a group that did not receive MNT and had started dialysis over a 10-year period

• Intervention: MNT by a RD with expertise in CKD

Study continued

- Main outcome measure: the effect of MNT on the change in biochemical measure for eGFR, BUN, albumin, CKD-MBD markers (PO4, Ca, iPTH) at baseline and at follow-up was assessed. Additionally, average time to dialysis, based on stage of CKD at baseline, was compared between groups.

- Results: MNT group had a less of a decline in eGFR than the non-MNT group (0.3 vs. 9.9mL/minute/1.73m2). Albumin and CKD-MBD were more likely to be within normal limits in the MNT group. The non-MNT group was 3.15 times more likely to initiate dialysis than the MNT group. Therefore, the results indicate that better outcomes occur when MNT is given at CKD stage 3 and 4 rather than CKD stage 5.

Take-home messages

• MNT is an effective disease management strategy that reduces risks from chronic disease, reduces symptoms and slows disease progression
• Can improve the patient’s quality of life
• Can reduce hospitalization costs