Challenges and Benefits of Nutrition in Home Care
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Marla Carlson
DHCC Executive Director

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CPEU Certificate attached with handouts.

Challenges and Benefits of Nutrition in Home Care

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Dietitian/Consultant

- I have no commercial relationships to disclose.
- No endorsement of products
- No discussion of off-label product use

Objectives

- Discuss the types of settings in which nutrition can be provided outside the hospital.
- Examine the indications for enteral and /or parenteral nutrition support at home.
- Review the application of home nutrition support including clinical status and reimbursement.
- Describe the clinical management of the patient receiving home nutrition support.

Who Provides Home Nutrition Support?

- Durable Medical Equipment Providers
  - HEN only – usually drop ship one month's supply
  - Material management only/80% of the market
- Home health agencies
  - Usually limited to assisting new patients with management of their HEN/HPN
  - If provide HPN, do so with a home pharmacy
  - Do not supply therapy/DME – just provide care until patient is independent
- Home infusion agencies/home pharmacy
  - HPN and specialized home infusion primarily
  - Some enteral

Home Health Care

- Home health is a booming business with the number of patients receiving care increasing.
- Each day in 2007, there were an estimated 1,459,900 home health care patients.
  - They were predominantly aged 65 years or over, female, and white.
  - Mean length of service was 315 days
- Most common primary diagnoses at admission:
  - diabetes mellitus (10.1%); heart disease (8.8%), including congestive heart failure (4.3%); malignant neoplasm (3.9%); chronic obstructive pulmonary diseases and allied conditions (3.4%); essential hypertension (3.3%); and cerebrovascular disease (3.3%)
- Older Americans receiving home health care - 12% in 2006 to ~20% in 2030

- **Home Health Care and Discharged Hospice Care Patients: United States, 2000 and 2007** by Christine Caffrey, Ph.D.; Manisha Sengupta, Ph.D.; Abigail Moss; Lauren Harris-Kojetin, Ph.D.; and Roberto Valverde, M.P.H., Division of Health Care Statistics http://www.cdc.gov/nchs/data/nhsr/nhsr038.pdf

Services in Home Health Care

- Medical and therapeutic services as well as other services delivered at a patient's home or in a residential setting for promoting, maintaining, or restoring health, or maximizing the level of independence, while minimizing the effects of disability and illness.
- Hospice care emphasizes relieving pain and uncomfortable symptoms of persons with terminal illness and providing emotional and spiritual support to both the terminally ill and their family members.

RD Role in Home Health

- Reimbursement is specifically available for RNs, PT, OT and a few others.
- RD services - see most common diagnoses - are often not covered though needed.
- RDs may work with the home health agency on a case by-case, per diem, or referral basis.
- Reimbursement is usually directly paid by the HHA to the RD.
- RD may bill patient as self pay.
- RD may bill Medicare for very specific diagnoses.

RD Role in Home Health

- Create and implement Nutrition Screening Program
- Provide Staff education
- Provide patient education classes
- Home visits
- Act as an available resource

Specialized Home Infusion

- Parenteral and Enteral Nutrition
- Antibiotics, Hydration, Inotropes, Pain Management
- Contribute to significant cost savings over the hospital or skilled nursing facility

Home Nutrition Support

- Home nutrition support should be used in patients who cannot meet nutrient needs orally and are able to receive therapy outside of an acute care facility
  - To complete therapy initiated in the hospital
  - Therapy may be initiated in the home
  - Long-term or life-time nutrition support

Choosing a home infusion provider

- Educated and experienced clinical staff (RPh, RN and RD)?
- Ability to provide multiple infusion therapies as HPEN patients may have multiple co-morbidities (e.g., antibiotics, fluids, anti-emetics, pain management)?
- 24/7 clinical coverage?
- Assistance with reimbursement questions/qualification for therapy coverage?
- Patient support/education - what type of education and educational materials does the provider have to promote therapy administration safety and understanding?
- Communication related to patient status is the provider willing and able to provide to the referral source?
- Policies, procedures and clinical outcomes demonstrating a practice of safe home EN or PN initiation and on-going management?

Ireton-Jones, C, Hamilton, K Parker, M. Home Infusion Resources for the Private Practice Clinician, CNW, 2011

Home Nutrition Support Criteria

- Clinically and medically stable
  - labs, clinical prognosis
- Appropriate Feeding access
  - Enteral: PEG, PEJ, GJ, Gastrostomy, Jejunostomy
  - Parenteral: PICC, Tunneled, Port
- Carepartner available
  - Patient and family availability
  - Patient/family willing to perform tasks
- Safe & appropriate home environment
- Reimbursement

Preparation for Discharge

- Therapy coverage verified
- Initiate patient and caregiver education
  - Initiate teaching in hospital and continue after discharge
  - Use equipment and supplies for the home with written, verbal, and demonstration teaching techniques
- Finalize nutrition prescription prior to discharge
  - Determine appropriateness of nutrition formula for home and infusion schedule
  - Determine schedule for labs and nutrition prescription
  - List nutrition goals and anticipated outcomes
- Day of discharge
  - Supplies and formula are delivered to the home if not already done
  - RN meets HPN patient at the home to begin therapy

Home Enteral Nutrition

- Indication for HEN:
  - Unable to take adequate nutrients orally – but nutrition support needed
  - Ex: cancer, chronic pancreatitis, Neurological disorders, gastroparesis
- Estimated:344,000 enteral patients in the US*
- Average treatment time: 198 days (NCP, 2005)

Reimbursement for HEN

- Federal/State
  - Medicare
    - Permanence – "Long and indefinite duration/90 days or more"
    - Functional capacity - Anatomic/motility disorder
    - Additional documentation - Pumps/specific nutrients
  - Medicaid – varies by state; WIC (state)
- Private/Commercial
  - varies by payer/employer group
  - fewer provide full reimbursement for both supplies & formula
  - Authorization & expectation of ongoing documentation or demonstration of monitoring also varies widely
- Self-pay

Monitoring

- Weight gain or loss
- Patient tolerance
  - Diarrhea
  - Nausea/vomiting
  - Abdominal distention/cramping
  - Dehydration
- Enteral access site/device
- Compliance
- Unexpected hospitalization-etiology
- Obtaining laboratories is difficult

Home Self Monitoring - HEN

- Body weight
- Vital signs
  - temperature, blood pressure
- Tube care
- Glucose monitoring (possibly)
- Dehydration – intake and urine output
- QOL

Potential HEN Complications

- Aspiration
- **Tube clogging**
- **Dehydration**
- Overfeeding/underfeeding
- Gastrointestinal intolerance
  - nausea, vomiting, diarrhea, constipation
- Tube misplacement/migration
- Formula contamination
- **Non-compliance**
  - Patient choice!
  - Procedure too difficult

Home Parenteral Nutrition

- Indications: non-functioning or unavailable GI tract,
  Ex: SBS, pseudo obstruction, congenital disorders, etc
- Estimated - 35,000 – 39,000 HPN patients in the US, 7000 long-term (Oley Foundation Lifeline newsletter)
- Average Tx time 108 days (Nutrition,2005)

Reimbursement for HPN

Covers supplies & PN formula - doesn't specify oversight by any clinicians

- Federal/State
  - Medicare – Part B
    - Permanence – "Long and indefinite duration/90 days or more"
    - Must not be able to tolerate enteral feeding and fit into specific categories
  - Medicaid – varies by state
  - Medicare Part D – 7 states, components only – requires expertise
- Private/Commercial
  - Varies by payer/employer group – usually covered
  - Some may follow Medicare criteria
- Self-pay
- Hospital support or benevolent fund

Medicare HPN Criteria

- Recent, massive small bowel resection
- SBS with large GI losses
- Bowel rest – pancreatitis, regional enteritis, proximal enterocutaneous fistula
- Complete mechanical bowel obstruction
- Significant malnutrition with fat malabsorption
  - Fecal fat exceeds 50% of oral/enteral intake (at least 50 g of fat/day as measured by a standard 72 hour fecal fat test)
- Severe motility disorder
- Malnourished with intolerance to enteral therapy

Medicare HPN Criteria

- Additional documentation required
  - Energy: <20kcal/kg or >35 kcal/kg
  - Protein: <0.8g/kg or > 1.5g/kg
  - Dextrose concentration: < 10%
  - Lipids: > 15 units/mo 20% or 30 units 10% (1unit = 500mL)
  - Infusion < 7 days/week
  - Specialty formula requirement

HPN Monitoring

Labs:

- Baseline – Electrolytes, BUN/Cr, Ca, Phos, Mg, Albumin, LFTs (t. bili, alk phos, AST, ALT), CBC, Prothrombin time/INR
- Weekly – Electrolytes, BUN/Cr, Ca, Phos, Mg
- Monthly (as stable) - Electrolytes, BUN/Cr, Ca, Phos, Mg, LFTs, CBC, PT/INR

Other –

- DXA every 1-2 yrs
- Iron studies every 3-6 mos (during repletion)

Hamilton/Seidner, Handbook of Home Nutrition Support, 2007

HPN Monitoring

- Trace elements - identify risk factors for therapy related complications
- Micronutrient deficiencies and toxicities
  - Baseline micronutrients may be evaluated
  - Comprehensive evaluation every 6 months for long term HPN patients or as needed basis
  - Annual bone density test for long term HPN patients (DXA)

HPN Solution Considerations

- PN additives
  - MVI, H^2 blockers, and insulin
- PN admixture stability
  - Calcium and phosphorus curve
  - Lipid stability in 3 in 1
- Cycling HPN
- Multi-chamber bag
  - Ready to use
  - Travel?

Daily Home Self Monitoring - HPN

- Body weight
- Temperature
- I and O
- Catheter care
- Oral intake
- QOL

Potential Complications of Parenteral Nutrition

- **Short-term**
  - Fluid/Electrolyte Imbalances
  - Hyper/Hypoglycemia
  - Overfeeding/Refeeding
  - Mechanical
  - Catheter
- **Long-term**
  - Liver disease
  - Cholestasis
  - Gut Atrophy
  - Metabolic bone disease
  - Mechanical
  - Catheter
  - QOL

Home initiation – W^4
Why, who, what, why not?

Why – for patients who need PN but who should or may bypass the hospital for PN initiation

Who – when a patient has a non-functional GI tract and requires PN to maintain or replete nutritional status

What – start low and go slow – in general use low dextrose and slow progression

Why not? – an unstable, cachextic patient is not a candidate for home initiation

Successful Home Initiation of PN

- Review risk factors - checklist
- Coordinate care plan
  - Patient
  - Care partner
  - Home care provider
  - Physician
- Patient Safety is #1

Challenges of HPEN

- Patient out of direct sight
- Physician oversight - Labor intensive - often requires documentation (forms); very dependent on suppliers/nursing
- Clinicians may be unfamiliar with treating complications
- HEN not viewed as requiring monitoring like HPN

A multidisciplinary team managing the patient at home is essential!

QOL Factors to Consider for HNS Consumers

- Physical functioning
- Psychological status
- Interpersonal relationships and social functioning
- Financial concerns
- Symptoms
- Complications

The Oley Foundation – Don't Go Home Without It!!!

www.oley.org 800-776-OLEY (6539)

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CERTIFICATE OF COMPLETION - CDR

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10 May 2011
Date of Completion

Dietetics in Health Care Communities - DHCC
Commission on Dietetic Registration CPE Accredited Provider

AM003
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CPE Accredited Provider

Participant's Name

Has successfully completed 2 CPEUs (Level II)

DHCC – DPG #31, Brenda Richardson, MA, RD, LD, CD Chair
Signature of CDR CPE Accredited Provider, Date 10 May 2011

CERTIFICATE OF COMPLETION - State

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