Best Practice Tools

"Best Practices for Emergent Care"

-Teleconference Supplement-

COPD EXACERBATION: PREVENTION & HOME MANAGEMENT PROTOCOL

Purpose: To provide a standardized and comprehensive approach to preventing and or managing COPD exacerbation.

COPD Exacerbation:

- Primary causes include tracheobronchial infection and environmental factors, but in about 1/3 of cases are unknown.

PREVENTION STRATEGIES

- **INSTRUCT PATIENT/CAREGIVER IN PREVENTIVE STRATEGIES:**
  - Importance of pneumonia vaccine and annual flu vaccine
    - Annual flu vaccine can decrease serious illness and death by 50% for patients with COPD!
  - Handwashing
  - Avoid crowds especially during increased prevalence of colds and URI
  - Balanced diet, adequate sleep, and exercise/activity
  - Avoid exposure to irritants
    - Pollution – pay attention to air quality alerts
    - Extreme temperatures
    - Smoking

ASSESS AT EACH VISIT

- **ASSESS FOR SIGNS/SYMPTOMS OF DISEASE EXACERBATION WITH EACH HOME VISIT AND REPORT TO PHYSICIAN PROMPTLY.**
  - Increased shortness of breath
  - Wheezing
  - Chest tightness
  - Fever
  - Increase in cough and/or sputum
  - Increase in fatigue, malaise, decreased appetite
  - Decrease in oxygen saturation levels

POTENTIAL INDICATORS FOR HOSPITALIZATION

- **RECOGNIZE S/S AND CRITERIA THAT INDICATE NEED FOR HOSPITALIZATION**
  - Marked increase in s/s
  - Onset of new signs such as cyanosis or peripheral edema
  - Failure to respond to medical management
  - New dysrhythmia
  - Lack of home support
  - Older patients, more frail, more severe disease

COPD EXACERBATION: PREVENTION & HOME MANAGEMENT PROTOCOL (cont.)

IN-HOME MANAGEMENT

- **OBTAIN ORDERS TO MANAGE EXACERBATION AT HOME AS APPROPRIATE AND INCREASE FREQUENCY OF PATIENT FOLLOW-UP ASSESSMENT BY INCREASING FREQUENCY OF HOME VISITS/TELEPHONE FOLLOW-UP**

- Home situation/caregiver support are factors to be consider in home treatment
- If presence of mentation changes, prompt medical attention required due to probable significant deterioration in oxygenation status and acid-base balance.
- Anticipate appropriate orders to manage exacerbation:
  - Increased dose/frequency of bronchodilator
  - Addition of anticholinergic inhaler
  - Possibly oral corticosteroid (e.g. 40 mg prednisone for 10 days)
- Assess patient response to therapy within hours
  - Instruct patient/caregiver to call or seek emergent care as appropriate if s/s worsen
  - Plan follow-up telephone call 4-6 hours after medication increase to evaluate condition and response to medications
    - If no improvement in s/s or worsening of s/s, notify physician. **Emergent care/hospitalization may be necessary**
    - If improvement or stabilization in s/s, plan follow-up home visit to assess patient next day.

Tool Developed by Lisa Gorski, MS, RN, CS, CRNI

References:
Chojnowski, D (2003) “GOLD” standards for acute exacerbation in COPD. The Nurse Practitioner 28, 26-35.

Pawels, RA, Buist, AS, Calverly, PMA et al (2001) Global strategies for the diagnosis, management, and prevention of chronic obstructive pulmonary disease: NHLBI/WHO Global Initiative for Chronic Obstructive Pulmonary Disease (GOLD) Workshop Summary. American Journal of Respiratory Care and Critical Care Medicine 163, 1256-1276.

Pneumonia Patient Outcomes Research Team (PORT) Scoring System for Prediction Model

Purpose: To provide a standardized approach for guide the initial decision regarding the optimal site of care for patients with community acquired pneumonia.
(Note- protocol should be applied in conjunction with physician judgment and orders)

The PORT Prediction Model:

- Lower respiratory tract infections such as pneumonia are a leading cause of hospitalization & mortality.
- Some patients may be safely treated in the home setting.
- The Pneumonia Patient Outcomes Research Team (PORT) focused on care and outcomes for patients hospitalized or treated as an outpatient for community acquired pneumonia.
- Physicians are increasingly using this research in making the decision of where to best treat the patient.

The PORT Scoring System:

- The Scoring System is presented to provide the home care nurse with increased knowledge of the prediction process. Home care nurses may be involved with outcomes improvement processes at the agency or health care system level regarding optimal care of the patient with pneumonia.

COMMUNITY-ACQUIRED PNEUMONIA RISK SCORING SYSTEM WORKSHEET

Assign points for each patient characteristic, then total patient score column

Patient Characteristic:	Points:	Score:
Demographic factors		
Age: males	Age in years	
Age: females	Age in years minus 10	
Nursing home resident	plus 10	
Comorbid diseases		
Neoplastic disease	Add 30 points	
Liver disease	Add 20 points	
Heart failure	Add 10 points	
Cerebrovascular disease	Add 10 points	
Renal disease	Add 10 points	
Physical assessment findings		
Altered mental status	Add 20 points	
Respiratory rate ≥30/minute	Add 20 points	
Systolic Blood Pressure <90 mmHg	Add 20 points	
Temperature <35 C or 40 C or more	Add 15 points	
Pulse ≥125/minute	Add 10 points	
Laboratory findings		
Ph<7.35	Add 30 points	
BUN>10.7 mmol/L	Add 20 points	
Sodium <130 mEq/L	Add 20 points	
Glucose >13.9 mmol/L	Add 10 points	
Hematocrit <30 percent	Add 10 points	
PO_2 <60 mmHg (SaO2 <90%)	Add 10 points	
Pleural effusion	Add 10 points	
Sum points to obtain a risk score	**SCORE:**	

Low risk, Level II: ≤70 points AND Low risk, Level III: 71-90 points; may be candidate for home treatment
Moderate risk, Level IV: 91-130 points High risk, Level V: >130 points; *>90 , hospitalization recommended*

Reference: http://www.ahcpr.gov/clinic/pneushel.htm www.Nationalpneumonia.org

PNEUMONIA HOME MANAGEMENT: TEACHING PROTOCOL

Purpose: To provide a standardized approach to teaching and care for patients with community acquired pneumonia.

PATIENT/CAREGIVER IS PROVIDED INSTRUCTION IN HOME TREATMENT OF PNEUMONIA AND SIGNS/SYMPTOMS TO REPORT:	YES	NO
▪ Antibiotic medication(s)		
Purpose		
Schedule and importance of not missing doses and completing full course		
Side effects, adverse reactions		
Dietary implications as appropriate		
▪ Signs and symptoms of worsening condition and importance of immediate reporting		
Increased temperature		
Increase in respiratory distress/shortness of breath		
Decreased alertness/sleepiness or confusion		
Increased heart rate		
▪ Recovery from pneumonia		
Rest and pace activities		
Diet		
Avoid situations that increase oxygen demand such as smoking, temperature extremes, stress		
MD follow-up		
▪ Prevention		
Importance of pneumonia vaccine and annual flu vaccine		
Pneumonia often follows influenza		
Handwashing		
Avoid crowds especially during increased prevalence of colds and URI		
Balanced diet, adequate sleep, and exercise/activity		
Avoid exposure to irritants		
Pollution – pay attention to air quality alerts		
Extreme temperatures		
Smoking		

Tool Developed by: Lisa Gorski, MS, RN, CS, CRNI

MANAGEMENT OF CHEST PAIN

Purpose: to encourage a standardized approach to assessment and education on self management of Chest Pain

PATIENT ASSESSMENT

CAN PATIENT NAME/DESCRIBE SYMPTOMS CHARACTERISTIC OF ANGINA? ☐**YES** ☐**NO**

ATTEMPT TO IDENTIFY TRIGGERS AND PATTERNS OF ANGINA ATTACKS:

1) When have angina attacks occurred?
2) What types of symptoms are experienced?
3) What activities or events preceded the event?
4) What actions did the patient take?

ARE SPECIFIC TRIGGERS OR PATTERNS IDENTIFIED? SYMPTOMS ARE ASSOCIATED WITH:

☐ Activity (i.e. stairs, exercise, or other exertion)
☐ Emotional stress (i.e. anger)
☐ Extreme weather
☐ During sex
☐ With large or heavy meals
☐ Other,

PATIENT TEACHING

(INTERVENTIONS TO DECREASE FREQUENCY/RISK FOR ANGINA AND HEART ATTACK)

INSTRUCTION PROVIDED?	YES	NO
• **Characteristics of Angina** o Chest heaviness or tightness o Pressure, burning o May spread to arm, neck, jaw o Numbness or tingling in shoulders, arms, wrists o In women: ▪ Pain may be less intense and last longer ▪ Discomfort often not in chest but in shoulder, jaw, back ▪ May experience dyspnea and/or nausea		
• **Avoid Triggers For Angina Attacks**		
• **Effective Medication Management** <u>Use of Long Acting Nitrates:</u> o Long acting forms including skin patches o Use as prescribed to prevent angina attacks		
<u>Use of Fast Acting Nitrates:</u> o Fast acting sublingual pills o Take when pain begins or is expected to occur ▪ Keep bottle of nitroglycerin pills with patient at all times ▪ Check expiration dates, prescription needs replacement every 6 months		
<u>Use Of Other Medications Used To Treat Angina</u> o Beta blockers o Calcium channel blockers o ACE inhibitors		
<u>Use of Antiplatelet Medicines</u> o Aspirin o Clopidigrel o Anticoagulants		

MANAGEMENT OF CHEST PAIN (continued)

INSTRUCTION PROVIDED?	YES	NO
• **Lifestyle Changes** Diet: o Low Fat o Low Cholesterol		
Weight Loss o Weight loss therapy is recommended for patients with BMI > 30 kg/m^2 , OR for patients with BMI 25-29.9 kg/m^2 AND 2 or > Risk Factors: o Cigarette smoking o Hypertension o High-risk LDL cholesterol level o Low DLD cholesterol level o Impaired fasting glucose (IFG) o Family Hx of premature CHD o Age 45 years or older for men o Age 55 years or older for women (or postmenopausal)		
Smoking Cessation o ASK about smoking status and readiness to quit o ADVISE all smokers to seriously consider making a quit attempt o Advice as brief as 3 minutes, using a clear and personalized message has been shown to be effective o ASSIST those ready to quit to make a quit attempt o ARRANGE follow-up		
Exercise o Long term goal (if not contraindicated) to accumulate at least 30 minutes or more of moderate-intensity physical activity on most, and preferably all days of the week		
Medication Management o Improve compliance o Monitor and report effectiveness		
• **Actions to take in event of angina** o Stop any activity, sit down, and rest o Use nitroglycerine sublingually as ordered by physician ▪ No more than 3 doses within 15 minutes ▪ If chest pain is: • More severe than usual • Lasts longer, or • Is not relieved by rest or medication SEEK EMERGENT CARE WITHOUT DELAY		

Tool Developed by: Lisa Gorski RN MS CS CRNI & Linda Krulish PT MHS

References for tool:

National Heart, Lung, and Blood Institute Diseases and Conditions. www.nhlbi.nih.gov/health/dci/Diseases/Angina/Angina_WhatIs.html last accessed 071204

American Heart Association (2002) What is angina? Available online: www.americanheart.org last accessed 071204

NIH National Heart, Lung, and Blood Institute, **"**The Practical Guide: Identification, Evaluation, and Treatment of Overweight and Obesity in Adults**"** (2000) , http://www.nhlbi.nih.gov/guidelines/obesity/prctgd_c.pdf last accessed 071204

National Guideline Clearinghouse, **"**Smoking Cessation: Guidelines for Clinical Care**"** Ann Arbor, MI: University of Michigan Health System (2001) www.guideline.gov last accessed 071204

MINI NUTRITIONAL ASSESSMENT

Purpose: to provide a standardized nutrition screening and assessment.

NESTLÉ NUTRITION SERVICES

Nestlé

Mini Nutritional Assessment MNA®

Last name: First name: Sex: Date:

Age: Weight, kg: Height, cm: I.D. Number:

Complete the screen by filling in the boxes with the appropriate numbers.
Add the numbers for the screen. If score is 11 or less, continue with the assessment to gain a Malnutrition Indicator Score.

Screening

A Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?
0 = severe loss of appetite
1 = moderate loss of appetite
2 = no loss of appetite ☐

B Weight loss during the last 3 months
0 = weight loss greater than 3 kg (6.6 lbs)
1 = does not know
2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
3 = no weight loss ☐

C Mobility
0 = bed or chair bound
1 = able to get out of bed/chair but does not go out
2 = goes out ☐

D Has suffered psychological stress or acute disease in the past 3 months
0 = yes 2 = no ☐

E Neuropsychological problems
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems ☐

F Body Mass Index (BMI) (weight in kg) / (height in m)²
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater ☐

Screening score (subtotal max. 14 points) ☐☐
12 points or greater Normal – not at risk – no need to complete assessment
11 points or below Possible malnutrition – continue assessment

Assessment

G Lives independently (not in a nursing home or hospital)
0 = no 1 = yes ☐

H Takes more than 3 prescription drugs per day
0 = yes 1 = no ☐

I Pressure sores or skin ulcers
0 = yes 1 = no ☐

J How many full meals does the patient eat daily?
0 = 1 meal
1 = 2 meals
2 = 3 meals ☐

K Selected consumption markers for protein intake
- At least one serving of dairy products (milk, cheese, yogurt) per day? yes ☐ no ☐
- Two or more servings of legumes or eggs per week? yes ☐ no ☐
- Meat, fish or poultry every day yes ☐ no ☐

0.0 = if 0 or 1 yes
0.5 = if 2 yes
1.0 = if 3 yes ☐.☐

L Consumes two or more servings of fruits or vegetables per day?
0 = no 1 = yes ☐

M How much fluid (water, juice, coffee, tea, milk...) is consumed per day?
0.0 = less than 3 cups
0.5 = 3 to 5 cups
1.0 = more than 5 cups ☐.☐

N Mode of feeding
0 = unable to eat without assistance
1 = self-fed with some difficulty
2 = self-fed without any problem ☐

O Self view of nutritional status
0 = views self as being malnourished
1 = is uncertain of nutritional state
2 = views self as having no nutritional problem ☐

P In comparison with other people of the same age, how does the patient consider his/her health status?
0.0 = not as good
0.5 = does not know
1.0 = as good
2.0 = better ☐.☐

Q Mid-arm circumference (MAC) in cm
0.0 = MAC less than 21
0.5 = MAC 21 to 22
1.0 = MAC 22 or greater ☐.☐

R Calf circumference (CC) in cm
0 = CC less than 31 1 = CC 31 or greater ☐

Assessment (max. 16 points) ☐☐.☐
Screening score ☐☐
Total Assessment (max. 30 points) ☐☐.☐

Malnutrition Indicator Score
17 to 23.5 points at risk of malnutrition ☐
Less than 17 points malnourished ☐

Ref.: Guigoz Y, Vellas B and Garry P.J. 1994. Mini Nutritional Assessment: A practical assessment tool for grading the nutritional state of elderly patients. *Facts and Research in Gerontology.* Supplement #2:15-59.
Rubenstein LZ, Harker J, Guigoz Y and Vellas B. Comprehensive Geriatric Assessment (CGA) and the MNA: An Overview of CGA, Nutritional Assessment, and Development of a Shortened Version of the MNA. In: "Mini Nutritional Assessment (MNA): Research and Practice in the Elderly". Vellas B, Garry PJ and Guigoz Y., editors. Nestle Nutrition Workshop Series. Clinical & Performance Programme, vol. 1. Karger, Bâle, in press.

Reference: http://www.mna-elderly.com/clinical-practice.htm

Body Mass Index (BMI) Table

BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Height	***Weight (in pounds)***																
4'10" (58")	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
4'11" (59")	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
5' (60")	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
5'1" (61")	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
5'2" (62")	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
5'3" (63")	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
5'4" (64")	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
5'5" (65")	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
5'6" (66")	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
5'7" (67")	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
5'8" (68")	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
5'9" (69")	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
5'10" (70")	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
5'11" (71")	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
6' (72")	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
6'1" (73")	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
6'2" (74")	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
6'3" (75")	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279

Source: Evidence Report of Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults, 1998. NIH/National Heart, Lung, and Blood Institute (NHLBI)

NUTRITION INTERVENTION PROTOCOL

Purpose: To provide a standardized and comprehensive approach to addressing identified malnourishment or risk for malnutrition.

For all patients identified as malnourished or at risk for malnutrition, consult with dietitian as available per agency protocol and resources.

- **ASSESS & MONITOR NUTRITIONAL STATUS:**
  - Monitor food and fluid intake
  - Assess response to patient education
  - Monitor weekly weight
  - Consult with physician regarding need for/results of laboratory studies
    - Serum albumin (2.8-3.5 g/dl mild depletion; 2.1-2.7 g/dl moderate depletion; <2.1 g/dl severe depletion)
  - Consult with dietitian and physician regarding need for dietary supplements
  - Assess for signs/symptoms of depression and consult with physician as appropriate
    - Depression is common among older adults with chronic conditions and impacts self-care abilities including nutrition.

- **PROVIDE PATIENT/CAREGIVER EDUCATION:**
  - Encourage to maintain a food diary
  - Address eating issues such as ability to prepare and obtain food, socialization during meals
    - Consider social work referral as appropriate

- **INCREASE FLUID INTAKE:**
  - Drink fluids throughout the day
    - Strategy – Increase fluid intake with medication administration
  - **Goal: 6-8 glasses per day**
  - Self-monitor and record daily fluid intake on a log
  - Even if patient does not “feel” thirsty, it is important to drink fluids

- **INCREASE DIETARY FIBER – 20-35 GRAMS/DAY**
  - The GI tract slows down with age
  - Fiber is needed to prevent constipation
  - Teach to read food labels
  - Whole grains 2-3 servings/day
  - Increase use of high fiber cereals/snacks
  - Whole fresh and dried fruit is preferable to fruit juices
  - Fiber rich legumes 1-2 times per week as primary protein source

NUTRITION INTERVENTION PROTOCOL (cont.)

- **INCREASE DIETARY PROTEIN**

- **A BRIEF REVIEW OF DISEASE SPECIFIC GUIDELINES:**

  - ***Coronary artery disease***
    - Decrease saturated fat, cholesterol
  - ***Hypertension and heart failure***
    - Decrease sodium in diet to 3 grams or less or according to MD orders
    - Pay attention to sodium content in foods; highly processed and canned foods are very high in sodium
    - Rarely, fluid intake may be limited in heart failure – indicated in patients who have hyponatremia due to diuretic use
  - ***Diabetes***
    - Calorie and carbohydrate intake must be controlled
    - Needs may vary with degree of activity
    - Decrease saturated fat, cholesterol
  - ***Cancer***
    - Increase calories and protein
    - Small frequent meals
    - Consider supplements
  - ***COPD***
    - See Nutrition and COPD Protocol

Tool Developed by Lisa Gorski, MS, RN, CS, CRNI

References: Nutrition Screening Initiative (2002) A physician's guide to nutrition in chronic disease management for older adults. Available on-line: http://www.aafp.org/nsi.xml (last accessed 090304)

Mini Nutritional Assessment. Available on-line: http://www.mna-elderly.com/practice (last accessed 090304)

DEHYDRATION ASSESSMENT & MANAGEMENT PROTOCOL

Purpose: to encourage a standardized and comprehensive approach to identifying patients experiencing or at risk for dehydration, and managing dehydration status.

PATIENT ASSESSMENT – RISK FACTORS FOR DEHYDRATION

Upon agency admission and on an ongoing basis, patients at risk for dehydration will be identified:

Risk Factors for Dehydration are PRESENT?	YES	NO
• Inadequate fluid intake o Recommended daily oral intake of fluids: At least 1600 mls per day to assure adequate fluid intake o Baseline assessment – self-report		
• Older patients with infection/fever; examples include: o Patient with indwelling urinary catheter develops UTI o Patient with URI		
• Patients with limited mobility/bed bound		
• Patients with chronic conditions or undergoing treatment that increases risk; examples include: o Patient receiving chemotherapy who may be experiencing or at risk for nausea, vomiting, diarrhea o Patient with hypertension or heart failure taking diuretics o Patient on tube feedings		
• Increased number of medications		

PATIENT ASSESSMENT – SIGNS & SYMPTOMS OF DEHYDRATION

Upon agency admission and on an ongoing basis, patients experiencing s/s of dehydration will be identified:

Sign(s)/Symptom(s) of Dehydration are PRESENT?	YES	NO
• Dry mucous membranes • Dry tongue • Furrowed tongue • Sunken eyes • Non-fluent speech • Extremity weakness Research suggests that patients with moderate to severe dehydration will have at least 4-6 of the symptoms listed. *Note: Patients with moist mucous membranes, no tongue furrows or no sunken eyes are not likely to be dehydrated*		
• Vital signs: tachycardia and postural hypotension may be present		
• Notify physician and request laboratory studies (i.e. electrolyte, BUN, creatinine, urine specific gravity) to confirm dehydration		

DEHYDRATION ASSESSMENT & MANAGEMENT PROTOCOL (cont.)

PATIENT TEACHING		
PATIENT/CAREGIVER IS PROVIDED INSTRUCTION EDUCATION ON HYDRATION STRATEGIES:	**YES**	**NO**
Interventions to increase fluid intake: • Drink fluids throughout the day o Strategy – Increase fluid intake with medication administration • **Goal: 6-8 glasses per day** • Self-monitor and record daily fluid intake on a log		
Weight monitoring • A significant sign of volume depletion is an acute weight loss of 3% of body weight		
Rationale and consequences of inadequate fluid intake		
Signs and symptoms to report (see above)		

DEHYDRATION MANAGEMENT STRATEGIES		
DEHYDRATION MANAGEMENT STRATEGIES ARE IMPLEMENTED AS APPROPRIATE:	**YES**	**NO**
Increase home visit frequency to assess patient condition, monitor interventions, monitor fluid intake		
Increase free water for patients receiving tube feedings		
Consider parenteral hydration fluids IV versus subcutaneous (Protocol: Hypodermoclysis)		

Tool Developed by: Lisa Gorski RN MS CS CRNI

References for tool:

Grandjean, AC, Reimers, KJ & Buyckx, ME (2003) Hydration: Issues for the 21st century. Nutrition Reviews 61, 261-271.

Hodgkinson, B, DipNsg, DE & Wood, J. (2003) Maintaining oral hydration in older adults: A systematic review. International Journal of Nursing Practice 9, S19-S28.

Larson, K (2003) Fluid balance in the elderly: Assessment and intervention – important role in community health and home care nursing. Geriatric Nursing 24, 306-309.

McGee, S, Abernathy, WB & Simel, DL (1999) Is this patient hypovolemic? JAMA 281, 1022-1029.

Zwicker, CD (2003) The elderly patient at risk. Journal of Infusion Nursing 26, 143.

HYPODERMOCLYSIS PROTOCOL

Purpose: to provide a standardized protocol for use of Hypodermoclysis for dehydration management.

HYPODERMOCLYSIS- definition and description:

- Hypodermoclysis is the infusion of fluids into the subcutaneous tissue; this is an old intervention that is gaining renewed popularity.
- While hypodermoclysis is most commonly used in the long term care setting, the literature suggests and recommends that it be used in a variety of settings including the home.

INDICATIONS:

- Mild to moderate dehydration

ADVANTAGES:

- More reliable than a peripheral IV catheter
- May be used with patients who have poor peripheral venous access
- Less costly than IV methods
- Minimal incidence of complications and well tolerated
- May prevent the need for hospitalization in patients with short-term reversible dehydration (e.g. infection)

LIMITATIONS:

- Patients with limited subcutaneous tissue, with bleeding or coagulation disorders
- Home setting not appropriate – e.g. lack of caregiver support, home safety issues

ABBREVIATED PROCEDURE:

- Secure supplies:
- Small gauge butterfly needle (25-27 gauge) or specially designed hypodermoclysis needle
- Site disinfection supplies according to agency policy (e.g. chlohexidine, pocvidone-iodine)
- Dressing (transparent)
- Isotonic fluids (e.g. 0.9% normal saline, dextrose 5% in water, lactated Ringer's solution)
- Infusion pump (recommended) and associated tubing supplies
- Prime tubing with fluid and set up infusion pump according to manufacturer's guidelines
- Disinfect intended site
- Appropriate sites include: abdomen, anterior thighs, upper arms, subclaviclar chest area
- Insert needle and initiate infusion according to physician's orders
- 1 ml per minute can be absorbed by subcutaneous tissue
- No more than 3 liters of fluid per day via 2 separate sites

ADDITIONAL INFORMATION:

- Sites are rotated <u>at least</u> every 3 days
- Infusion may be split between 2 sites

PATIENT MONITORING AND ASSESSMENT:

- Increase home visit frequency to at least every day
- Monitor patient response and tolerance
  - s/s of hydration
  - s/s of fluid volume overload
  - insertion site for edema, signs of irritation/inflammation

Tool Developed by: Lisa Gorski RN MS CS CRNI

<u>References for tool:</u>

Sasson, M & Shvartzman, P (2001) Hypodermoclysis: An alternative infusion technique. American Family Physician 64, 1575-1578.

Slesak, G, Schnurle, JW, Kinzel, E et al (2003) Comparison of subcutaneous and intravenous rehydration in geriatric patients: A randomized trial. Journal of the American Geriatrics Society 51, 155-160.

CONSTIPATION ASSESSMENT & MANAGEMENT PROTOCOL

Purpose: to provide a standardized approach to identification and management of constipation.

PROTOCOL STEPS:

1) Obtain a detailed health and personal history *–the most important step in identifying etiological factors.*

2) Assess the patient's definition and description of constipation.

3) Assess the patient's bowel patterns, diet and fluid intake, current and past use of laxatives, medications including OTC and herbal remedies

- Encourage patient to keep a 3-day food diary

4) Identify risk factors (there are many risk factors – these are a few):

- Lifestyle related
  - Immobility
  - Poor diet
  - Decreased fluid intake
- Drug induced
  - Polypharmacy
  - Opioid analgesics
  - Antacids (aluminum, calcium containing)
  - Antidepressants
  - Iron supplements
  - Certain chemotherapy drugs (e.g. vinca alkaloids)

5) Provide patient/caregiver education based on risk factors/potential etiological factors:

- Increase activity and exercise
- Increase fluid intake:
  - Drink fluids throughout the day
    - Strategy – Increase fluid intake with medication administration
  - **Goal: 6-8 glasses per day**
  - Self-monitor and record daily fluid intake on a log
- Increase dietary fiber – 20-35 grams/day
  - Teach to read food labels
  - Whole grains 2-3 servings/day
  - Increase use of high fiber cereals/snacks
  - Whole fresh and dried fruit is preferable to fruit juices
  - Fiber rich legumes 1-2 times per week as primary protein source
- Improve toileting routine
  - Promptly respond to urge to defecate
  - Consistent time
  - Upright position
  - Toilet or bedside commode; avoid bedpan use whenever possible
- Pharmacological treatment – preferable as short term strategy if non-pharmacological methods unsuccessful

Tool Developed by: Lisa Gorski RN MS CS CRNI

Reference for tool: Rehabilitation Nurses Foundation (2003) Practice guidelines for the management of constipation in adults. Available on-line: www.rehabnurse.org/profresources/bowelguideforweb.pdf

CONSTIPATION MANAGEMENT FOR THE PATINET TAKING OPIOID ANALGESICS PROTOCOL

Purpose: to provide a standardized approach manage or prevent constipation related to pain medication use.

GOALS:

- Prevent constipation with a medication regimen
- Assess bowel patterns regularly
- Manage occurrences of constipation aggressively

PROVIDE PATIENT/CAREGIVER EDUCATION:

- Constipation is the most common side effect of opioid analgesics
- Tolerance is not developed to this side effect
- Regular laxative use is required; a stool softener alone is not adequate
    - Start with a stool softener/mild peristaltic stimulant combination medication (e.g. Senokot-S)
    - If no bowel movement within any 48 hour period, add 1-2 additional stimulants or laxatives (e.g. Senna, MOM)
    - A rectal examination to rule out impaction may be necessary if no bowel movement within 3 days
        - Impaction may be manually removed; use of suppository/enema may be needed
        - Increase daily bowel medication regimen if impaction occurs
    - Increase bowel drug regimen with increases in opioid dosage

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Reference for tool:
McCaffery, M & Pasero, C (1999) Pain: Clinical manual (2nd ed). St. Louis, MO: Mosby