

 <p>Winnipeg Regional Health Authority Office régional de la santé de Winnipeg Caring for Health À l'écoute de notre santé Nutrition & Food Services Services de diète et d'alimentation</p> <p>CLINICAL PRACTICE GUIDELINE & OPERATION PROCEDURE</p>	<p>Medication Pass Nutrition Supplement Program</p> <p>(Med Pass) in Adult Acute Care</p>		
	Approval Signature:	Practice Guideline #:	Total Number of Pages: 6
	Date: November 2015	Supercedes:	

1.0 **PURPOSE:**

- 1.1 To improve patient's nutritional status, aid wound healing, enable weight maintenance or gain, and facilitate transition off nutrition support by providing liquid nutritional supplement during medication administration (Med Pass).

2.0 **DEFINITION:**

- 2.1 **Medication Pass Nutrition Supplement Program (Med Pass):** A nutritional supplement program that provides nutritionally high risk patients with 60 ml of a 2 Kcal/ml oral liquid supplement with or without medication up to four times per day, providing approximately 480 Kcal and 20 grams of protein via the oral route.

- 2.2 **Nutritionally high risk patients:** those patients with at least one of the following:

- High nutritional risk as determined in nutrition screening
- Diagnosis of malnutrition based on Subjective Global Assessment and/or 2 out of the following characteristics:
 - Poor energy intake - Oral dietary intake of less than 50% of estimated energy needs for 3 days or more
 - Evidence of significant weight loss of: 5% for one month; 7.5% for three months; and 10% for six months
 - Loss of body fat
 - Loss of muscle mass
 - Fluid accumulation
 - Reduced hand grip strength
- Diagnosis or conditions requiring increased calories and protein such as pressure ulcers, infections, fractures, and skin breakdown
- Low body weight: 80% or less of ideal body weight or body mass index (BMI) of less than 18.5 for 18 - 64 years old and less than 23 for 65 years old and over

- Poor acceptance of traditional oral nutritional supplement given during or between mealtimes

3.0 **BACKGROUND:**

- 3.1 According to Canadian Malnutrition Task Force, malnutrition is a common problem in patients in acute care with prevalence of 45%. Furthermore, nutritional status is known to worsen during hospital stay. Studies have repeatedly shown that malnutrition has serious implications for recovery from disease, trauma and surgery, and is generally associated with increased morbidity and mortality, length of hospital stay and higher treatment costs.

Recently published studies indicate that further improvements in the nutritional status of malnourished elderly hospitalized patients and residents in Long Term Care, can be achieved through the use of Med Pass versus the traditional supplement regimes.

Traditional supplement regimes at meal times or between meals with product volumes of 237 - 250 ml have historically resulted in poor compliance, as patients find them filling and difficult to finish.

4.0 **PRACTICE GUIDELINE:**

- 4.1 Use of Med Pass is indicated for nutritionally high risk patients (see definition).
- 4.2 Use of Med Pass is not indicated for patients who are:
- NPO due to severe dysphagia. Consult Speech Language Pathologists for patients on thickened fluids.
 - Allergic to the nutrition supplement
- 4.3 Patients who are NPO will require case-by-case consideration. For pre-operative surgery patients refer to WRHA Surgery and Anesthesia Programs Evidence Informed Guideline Preoperative Fasting (Adult). <http://www.wrha.mb.ca/extranet/eipt/files/EIPT-024-001.pdf>
For post-operative surgical patients with orders for NPO, consult with surgeon.
- 4.4 Medications: Med Pass is safe to administer with most medications. There is limited data on drug-nutrient interactions when administering Med Pass nutritional supplements with medications. There is a potential for the absorption of some medications to be altered. For the exceptions please see Appendix 1.

5.0 **PROCEDURE:**

- 5.1 Any member of the health care team, in consultation with the interdisciplinary team, identifies patients who will benefit from Med Pass as indicated in point 4.1 above. Consult clinical dietitian.
- 5.2 The dietitian/nurse/MD will discuss recommended implementation of the supplement Med Pass program with patient and/or family as appropriate.

- 5.3 The physician/ dietitian will order the supplement Med Pass program on the Physician's Order Sheet under medications or electronic order entry and be co-signed by a physician if applicable. The prescription will include dose and frequency of the Med Pass supplement. The standard is 60 ml portion of Resource[®] 2 administered four times daily. This standard can be adjusted depending on patient's requirements.
- A sample order is Med Pass Resource[®] 2: 60 ml QID
- 5.4 The order is transcribed on the MAR and processed as per site procedures.
- 5.5 The dietitian will complete a nutrition assessment and include supplement Med Pass program in the nutrition care plan. The dietitian will document in the patient's health record.
- 5.6 Nutrition & Food Services will be notified of patients requiring Resource[®] 2 as per site procedures.
- 5.7 Nutrition & Food Services staff will deliver the required par volumes of Resource[®] 2 to each patient unit. Nutrition & Food Services will place a label to record date and time opened.
- 5.8 The delivered Resource[®] 2 tetras will be refrigerated. The following should be followed:
- The label on Resource[®] 2 will be filled out by nursing staff upon opening a new tetra of Resource[®] 2. Product expires 72 hours after opening for the 946 mL tetra and 24 hours for the 237 mL tetra.
 - Opened and unfinished Resource[®] 2 shall be refrigerated until finished or expired.
- 5.9 Nursing staff will provide chilled Resource[®] 2 in a medication cup to patients as indicated on MAR at scheduled Med Pass times. Product should not stay at room temperature >2 hours. Discard after 2 hours and patient should not consume. The following are protocols for administering Resource[®] 2:
- Consumption or refusal of the supplement is recorded in the Medication Administration Record (MAR) for documentation of patient compliance.
 - If Resource[®] 2 is not consumed, nursing staff will note reason and initial on MAR. Further documentation in the integrated progress notes may be necessary
 - Nursing staff will inform the dietitian if Resource[®] 2 is not consumed for two consecutive days
- 5.10 Weight will be monitored weekly.
- 5.11 The dietitian will monitor and evaluate the success of the Med Pass program for each patient weekly. Indications of success are the following:
- Improved skin integrity and wound healing
 - Compliance to Med Pass program
 - Body weight maintenance or weight gain
 - Improved oral intake (consumption of 50% or more of meal tray)
 - Transition off nutrition support
- 5.12 The dietitian will discontinue the Med Pass program for patients who are identified to not benefit from the program or who no longer require the program. Discontinuation of the program will be:

- Ordered on the Physician's Order Sheet or electronic patient record (EPR)
 - Documented in the integrated progress notes
- 5.13 Reassess need for Med Pass continuation at discharge and/or transfer.

6.0 REFERENCES

- 6.1 Allard JP, Keller H, Jeejeebhoy KN, Laporte M, Duerksen DR, Gramlich L, Payette H, Bernier P, Vesnaver E, Davidson B, Teterina A, and Lou W. Malnutrition at hospital admission – contributors and effect on length of stay: a prospective cohort study from the Canadian Malnutrition Task Force. *Journal of Parenteral and Enteral Nutrition*. Downloaded from pen.sagepub.com on January 27, 2015.
- 6.2 Allison SP. Institutional feeding of the elderly. *Current Opinion in Clinical Nutrition and Metabolic Care* 2002; 5: 31-34.
- 6.3 Bourdel-Marchasson, I, Barateau, M, Rondeau, V, Dequae-Merchadou, L Salles-Montaudon, N, Emeriau, JP, Manciet, G & Dartigues, JF. A Multi-Center Trial of the Effects of Oral Nutritional Supplementation in Critically Ill Older Inpatients. *Nutrition* 2000; 16: 1-5.
- 6.4 Collins CE, Kershaw J, Brockington S. Effect of nutritional supplements on wound healing in home-nursed elderly: A randomized trial. *Nutrition* 2005; 21: 147-155.
- 6.5 Detsky AS, McLaughlin JR, Baker JP, et al. What is subjective global assessment of nutritional status? *JPEN J Parenter Enteral Nutr*. 1987; 11(1):8-13.
- 6.6 Doll-Shankaruk M, Yau W, Oelke C. Implementation and Effects of a Medication Pass Nutritional Supplement Program in a Long-Term Care Facility. *Journal of Gerontological Nursing* 2008; 34: 45-51.
- 6.7 Grover, LR, Harris, L, Tubinis, R, Norman, E, Ferraro, C, & Genesis Eldercare/NeighborCare Nutrition Services. Success of a Nutritional Medpass Program in Long Term Care Centers. *NCP* 1998; 13(1): 53.
- 6.8 Jukkola K and MacLennan P. Improving the efficacy of nutritional supplementation in the hospitalized elderly. *Australasian Journal on Ageing* 2005; 24(2): 119-124.
- 6.9 Klipstein-Grobusch K, Reilly JJ, Potter JM, Edwards CA & Roberts MA. Energy intake and expenditure in elderly patients admitted to hospital with acute illness. *British Journal of Nutrition* 1995; 73: 323-340.
- 6.10 Lewis DA and Boyle KD. Nutrition supplement use during medication administration. *Journal of Nutrition for the Elderly* 1998: 17(4): 53-59.
- 6.11 Lewis DA and Boyle KD. Gaining Strength: Supplements Revised. A post acute unit reduces inpatient weight loss. *Nursing Management* 1998; 29(9): 37-38
- 6.12 McWhirter JP & Pennington CR. Incidence and recognition of malnutrition in hospital. *British Medical Journal*; 1994. 308: 945-949.

- 6.13 Potter JM, Klipstein K, Reilly JJ, et al. The nutritional status and clinical course of acute admissions to a geriatric unit. *Age and Ageing* 1995; 24: 131-136.
- 6.14 Potter JM, Roberts MA, McColl JH, Reilly JJ. Protein Energy Supplements In Unwell Elderly Patients-A Randomized Controlled Trial. *Journal of Parenteral and Enteral Nutrition* 2001; 25(6): 323-329.
- 6.15 Roberts M, Potter J, McColl J & Reilly J. Can prescription of sip-feed supplements increase energy intake in hospitalized older people with medical problems? *British Journal of Nutrition* 2003; 90: 425-429.
- 6.16 Robinson, GE. Prevent weight loss...push calories with meds. *Journal of the American Dietetic Association* 1997; 97(9): A-100.
- 6.17 Sullivan D, Sun S, Wallis RC. Protein energy undernutrition among elderly hospitalized patients. A prospective study. *Journal of the American Medical Association* 1999; 281: 2013-2019.
- 6.18 Welch P, Porter J, Endres J. Efficacy of a Medication Pass Supplement Program in Long-term Care. *Journal of Nutrition for the Elderly* 2003; 22(1): 19-28.
- 6.19 White JV, Guenter, P, Jensen G, Malone A, Schofield M, Academy Malnutrition Work Group, the ASPEN Malnutrition Task Force, ASPEN Board of Directors. Consensus statement of the Academy of Nutrition and Dietetics/American Society of Parenteral and Enteral Nutrition: Characteristics recommended for the identification and documentation of adult malnutrition (undernutrition). *J. Acad. Nutr. Diet.* 2012; 112:730-738.

Practice Guideline and Operation Procedure Adopted from:

Health Sciences Centre, Deer Lodge Centre, and Grace Hospital on-site Medication Pass Practice Guidelines

Practice Guideline and Operation Procedure Developed by:

WRHA Acute Care Dietetic Practice Council
Nutrition & Food Services
Chair, Brenda Hotson, RD Msc

Appendix 1

There is limited data on drug-nutrient interactions when administering Med Pass nutritional supplements with medications. There is a potential for the absorption of some medications to be altered. The recommendations are based on weak evidence demonstrating drug-nutrient interactions between the medications listed and other nutrition supplements with varying administration patterns, volumes, protein and electrolyte content. (i.e. does not exactly match Med Pass program).

There may be certain circumstances where medications need to be taken on an empty stomach or potentially interact with electrolytes (i.e. calcium) in the Med Pass nutritional supplement. In such cases, the healthcare team may discuss the administration times of certain medications in relation to the Med Pass supplementation and space them accordingly. The team should consider other nutritional supplements kept at the bedside and oral intake as well.

Appendix 1 - Drug Nutrient Interactions

Medication	Recommendation
Phenytoin Suspension	<p>Draw a phenytoin level within 1-2 weeks (minimum of 1 week) after starting or stopping Med Pass. The level should be compared to levels prior to the implementation of the Med Pass (if available).</p> <p>Rationale - Phenytoin suspension can have erratic absorption. Phenytoin levels may fluctuate based on nutritional factors (i.e. protein, carbohydrate and possibly calcium intake). Phenytoin levels should be monitored when intake has significantly changed³</p>
Ciprofloxacin - (infections other than uncomplicated UTI)	<p>Space the ciprofloxacin 2 hours from the Med Pass nutritional supplement.</p> <p>Rationale – Several studies show a reduction in ciprofloxacin bioavailability and maximum concentrations with co-administration with varying amounts of nutritional supplements^{1,2}</p>

- 1 Noer et al. The effect of enteral feeding on ciprofloxacin pharmacokinetics. (Poster presentation).Pharmacotherapy. Vol. 10. No. 3. 1990.
- 2 Mueller et al. Effect of Enteral Feeding with Ensure on oral Bioavailabilities of Ofloxacin and Ciprofloxacin. Antimicrobial Agents and Chemotherapy. Vol. 38, No. 9 1994.
- 3 Micromedex , 2014.