

Introduction

Most skilled nursing facilities (SNFs) stock a multitude of nutritional supplements without any understanding of patient needs or costs to the facility. One facility evaluated their current nutritional supplements to determine: cost per serving, nutritional characteristics of the products, and a cost-effective approach to supplementation. Comparisons were made to determine if we could minimize the formulary, maximize patient benefit, decrease nursing administration time, better utilize storage space and create a better understanding of prescribed products.

Although liberalization of diets in (SNFs) is the current trend, providers still offer supplements for residents whose needs are not quite being met through usual means; and it is still believed that state surveyors look for these types of interventions as proof that the facility and provider are making every attempt to correct deficiencies despite lack of proof that they actually affect desired outcomes.

Methods

An analysis in one nursing home revealed that 13 products were stocked at the facility. The supplements could be categorized into 5 major categories:

- A = diabetic supplements;
- B = high caloric density supplements (1.5 2 Kcal / cc);
- C = renal specialty supplements;
- D = usual density supplements (1 Kcal / cc); and
- E = protein powder supplements.

Each of the 13 supplements was analyzed as to its cost per usual serving, administration cost, and nutritional characteristics. During the month of June 2007, 51 residents were monitored daily for supplement consumption and then the average consumption per product was calculated.

MINIMIZING NUTRITIONAL PRODUCTS IN SNFs: **COST-EFFECTIVE NUTRITIONAL SUPPLEMENTATION FOR NURSING HOME RESIDENTS** Authors: Scott M. Bolhack, MD, CMD; G.M. Anderson, BSNS; Barbara Viggiano, RN; Shirley Grant, LPN; Rebecca Torres

Percent of Supplements Consumed x 30 days (June 2007 Average Percentage of Supplement Consumed 81

Resident			
Sample	A1	B1	
1	89	79	
2	100	85	
3	76	100	
4	54	60	
5	81	83	
6	41	74	
7	73	94	
8	68	78	
9	79	87	
10	61	97	
11	84	100	
12	97	81	
13	70	100	
14	65	100	
15	85	79	
	A1	B1	

Average Percentage o Supplement Consumed



Dietary Supplement Grid By Serving June 2007													
	A1	A2	B1	B2	B3	C1	C2	C3	D1	D2	D3	E1	E:
Average % Consumed per serving	75		86			96			81			100	
K Cal per cc	1.06	1	2	1.5	1.5	2	2	2	1	1.06	0.7	115 per OZ	1.0
Grams of protein per ounce	1.8	1.3	2.6	2.3	2	2.3	0.9	2.2	1.3	1.1	1	28.75	4.
Usual Serving Size	237 cc	240 cc	90 cc	240 cc	237 сс	240 cc	7 grams	9.5 gi					
K Cal per serving	240	224	177	360	360	475	475	475	240	250	170	28	25
Average K Cals consumed	180		152.2			456			194.4			28	
Grams of protein per serving	14.4	10.4	7.8	18.4	16	18.4	7.2	17.6	10.4	8.8	8	7	9.
Average Gm protein consumed	10.8		6.71			17.66			8.42			7	
supplement cost per serving	0.89	1.77	0.54	1.37	1.46	1.9	2.08	2.28	0.59	0.82	0.82	0.26	0.5
administration cost per serving	0.33	0.33	1	33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	1	1
Total cost per serving	1.22	2.1	1.54	1.7	1.79	2.23	2.41	2.61	0.92	1.15	1.15	1.26	1.5

Results

Only 5 supplements were in use during the entire 30 day study. The average percent of supplement consumed varied by category from 75 -100%. (Exhibit 1) Administration of the supplements varied from 1 - 3 minutes depending upon the amount of time required to prepare the product. The cost per serving for each supplement ranged from \$.92 to \$2.61. (Exhibit 2) There were differences in the grams of protein and Kcal per serving depending on the category of product described above.

Conclusion

The approach to supplementation in SNFs can be improved by this type of simple analysis. The study facility made several changes based on the data:

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(1) 8 products were currently being stored but not used and these products could be replaced by less expensive ones with equal nutritional value, consequently they were removed as choices;

(2) within each category, a single product was chosen that was most costeffective and easy to administer;

(3) an educational program was then created to reeducate the staff and providers on the unique nutritional strength of each product selected;

(4) a formulary was created to meet specific nutritional goals while remaining cost-effective for the facility.