

Oral Nutritional Supplements: Dietitian Preferences and Prescribing Practices



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BACKGROUND

- Oral Nutritional Supplements (ONS) augment food intake in those at risk of malnutrition
- Typically ONS selection is dietitian-led
- Dietitians' ONS prescribing practice is poorly understood and may be influenced by own preference
- Phenylthiocarbamide (PTC) is used to test sensitivity to bitter taste

AIMS

- 1) Examine dietitian hedonic impressions of 3 ONS products
- 2) Explore ONS prescribing practices
- 3) Study PTC sensitivity in relation to ONS taste preferences

METHODS

- Prospective Observational Study
- Clinical dietitians completed the following
 - 1) **5 Hedonic Tests of 3 ONS Products** (5 flavours)
 - a. Altraplen (Low volume milkshake): 125ml/300kcal/12g protein
 - b. Altraplen Protein (Milkshake): 200ml/300kcal/20g protein
 - c. Nutricrem (Dessert): 125g/225kcal/12.5g protein
 - 2) **Prescribing Practice Questionnaire**
 - 3) **PTC Test**



Appearance, Smell, Taste, Aftertaste, Consistency & Overall Impression rated using Hedonic Scale:

Descriptive Statistics Generated by Microsoft Excel

RESULTS

Dietitian Hedonic Ratings & Overall Impression: Median (range)

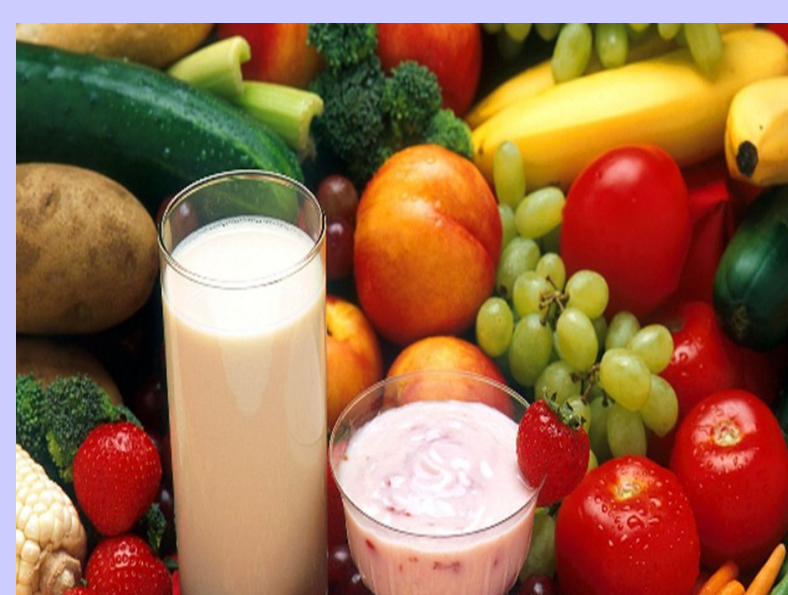
Product	Flavour	N =	Appearance	Smell	Taste	Aftertaste	Consistency	Overall Impression
Altraplen	Banana	13	4 (2-5)	4 (1-6)	3 (1-6)	4 (1-6)	3 (1-6)	2 (1-6)
	Hazelnut Chocolate	20	3 (1-5)	2 (1-6)	1 (1-5)	2 (1-5)	2 (1-6)	1 (1-5)
	Strawberry	15	5 (2-6)	3 (2-5)	2 (1-6)	2 (1-5)	3 (1-5)	2 (1-6)
	Vanilla	14	4 (2-6)	4 (2-6)	2 (1-7)	3 (1-5)	4 (1-5)	2 (1-6)
Altraplen Protein	Strawberry	18	2 (1-5)	3 (1-5)	2 (1-6)	3 (1-6)	2 (1-7)	2 (1-6)
	Vanilla	13	2 (1-3)	3 (2-5)	2 (1-7)	3 (1-7)	2 (1-4)	2 (1-7)
Nutricrem	Chocolate Orange	31	3 (1-7)	3 (1-6)	2 (1-5)	3 (1-6)	2 (1-7)	2 (1-5)
	Strawberry	10	3 (2-5)	4 (3-5)	2 (1-5)	3 (1-5)	2 (2-6)	2 (1-5)
	Vanilla	21	3 (1-6)	4 (1-6)	3 (1-7)	4 (1-7)	3 (1-7)	3 (1-7)

(1= Like a lot; 7= Dislike a lot)

31 dietitians: 30 female, 1 male

Hedonic Impressions (lower score indicated greater appeal)

- “Taste” was best rated hedonic feature across all products
Median = 2 (range 1-3)
- “Consistency” well rated: Median = 2.5 (range 2-4)
- “Appearance”, “Smell” and “Aftertaste” were least favoured
- Overall Impression” very favourable: Median = 2 (range 1-3)



Prescribing Practices

- 7 of 31 prescribed ONS in clinical practice
- Remainder advised physician colleagues
- Prescribing decisions and practices were based on
 - 1) Nutritional Value, 2) Patient Acceptability, 3) Pharmacy Contract, 4) Public Funding for Product. 5) Product Volume
- Dietitian’s own preference and palatability rated least important

Phenylthiocarbamide (PTC) Sensitivity

- 30 of 31 dietitians took the PTC test
- 8 had positive PTC result (6 mild bitter taste; 2 strong bitter taste)
- PTC sensitivity did not correlate with ONS hedonic ratings

DISCUSSION

- Hedonic features well rated across product range suggesting wide appeal
- ONS described as “very palatable” and “refreshing” with “excellent flavour”
- Consistency described as “smooth” and “creamy”
- Future research should examine patient ONS hedonic ratings and compare with dietitian ratings

CONCLUSIONS

- Product palatability and overall impression highly rated
- Low-volume milkshake ranked most positively for taste
- Nutritional value and patient acceptability were the most important considerations in dietitian ONS prescribing
- Future research will replicate this study in patient cohort