

Nottingham ICE (N-ICE) Cream - A more nutritious, palatable and preferred high protein, vitamin D fortified vanilla ice cream –

A step towards improving patient care

Arunpreet Sahota¹, Jack Wallman², Richard Worrall² and Opinder Sahota³.



¹ Medical Student, Leicester University; ²Department of Food Sciences, University of Nottingham; ³Department of Healthcare for Older People, Nottingham University Hospitals NHS Trust, UK

Introduction

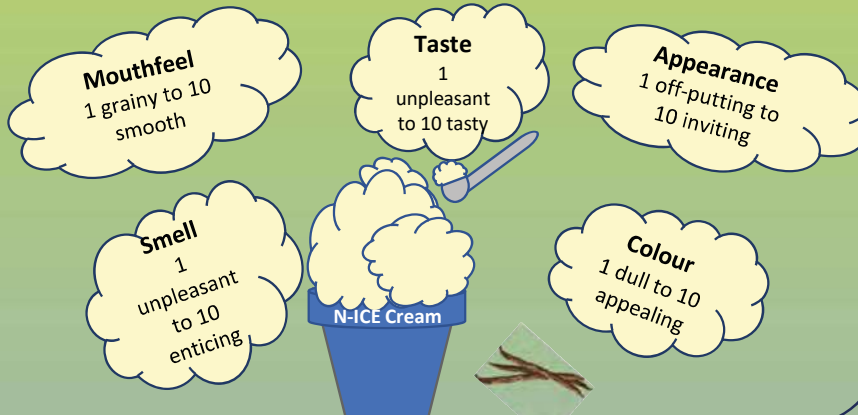
Oral Nutritional Supplement (ONS) drinks are commonly used to support nutritional intake in older people, however these are poorly consumed and frequently wasted. Fortified ice-cream offers a more acceptable ONS.

Methods

In collaboration with the University of Nottingham, Department of Food Sciences, we developed a high protein vanilla ice cream (20g of protein/120mL), fortified with vitamin D (400IU), Nottingham ICE Cream: **(N-ICE) Cream**
An anonymised Google consumer survey was undertaken amongst older patients from the Nottingham Osteoporosis Patient Support group who each had a serving of 120ml to taste.

Further comparison was made with an over-the-counter Oral Nutritional Supplement drink Amyes Complete™ (similar in energy and protein content to N-ICE Cream).

We evaluated (on a rating scale of 1-10) 5 characteristics



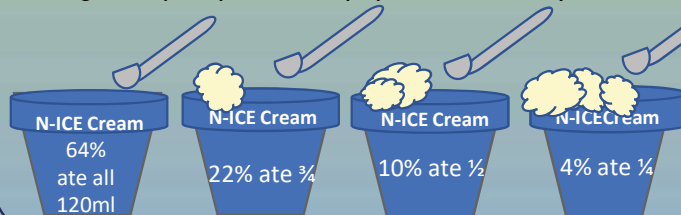
V



Amyes Complete™

Results 32 participants completed the consumer survey. The mean (SD) age of the patients was 79.1 (4.5) yrs.

Percentage of the participants and the proportion of 120ml they were able to consume



The mean (SD) scores out of 10:

Taste was 8.95 ± 1.02

Mouthfeel 9.14 ± 0.98

Smell 8.86 ± 1.06

Appearance 8.95 ± 1.12

Colour 9.10 ± 1.14

Overall acceptability was 8.92 ± 1.1.

Participants who preferred N-ICE Cream



Taste 94% (30/32)

Mouthfeel 91% (29/32)

Smell 88% (28/32)

V

Participants who preferred Amyes Complete™

Taste 6% (2/32)

Mouthfeel 9% (3/32)

Smell 13% (4/32)



1. Overall if given a choice, 30/32 (94%) of the participants preferred N-ICE Cream over the Amyes Complete™ ONS drink.
2. The retail cost of Amyes Complete was £2.50 and 88% (28/32) of the participants said they would be willing to pay the same amount for N-ICE Cream.

Conclusion

N-ICE Cream is highly acceptable, nutritious and preferred by the consumer group evaluated when compared to an ONS Amyes Complete™ drink. Further studies are now planned in in-patients.