

53° Congresso Nazionale Società Italiana di Gerontologia e Geriatria

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# Supplementazione orale nella prevenzione e nel trattamento della malnutrizione

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Malnutrizione e ONS

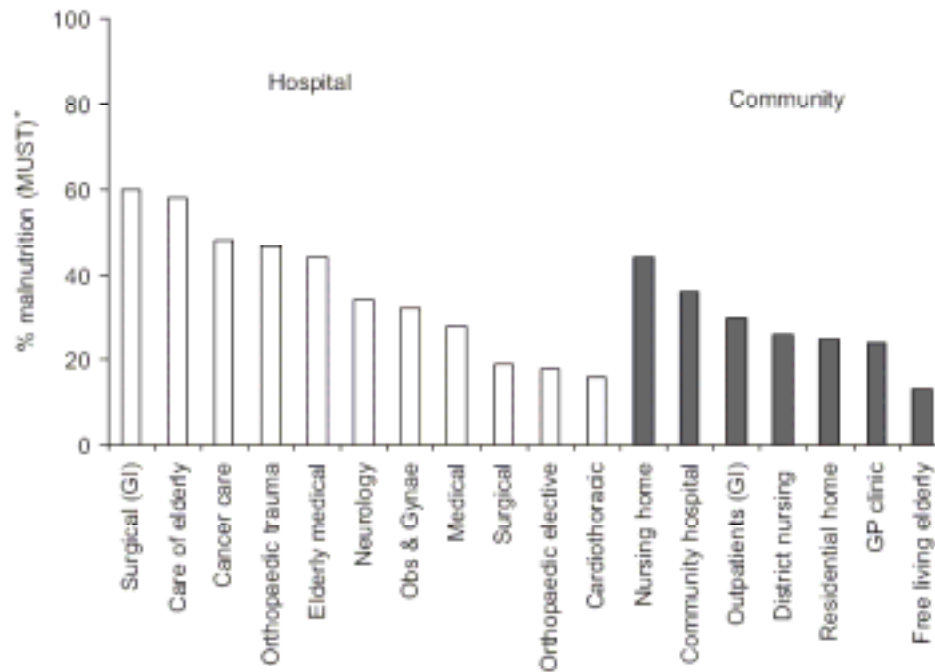


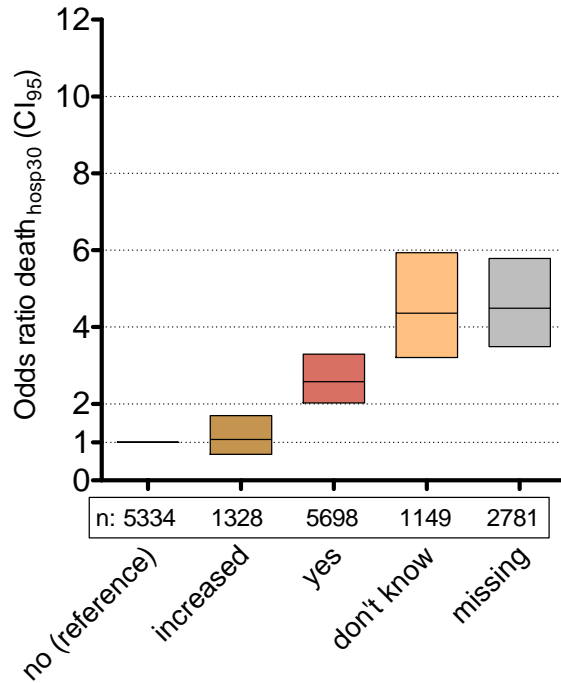
Figure 1 Prevalence of disease-related malnutrition (using 'MUST') in patients in hospital and community settings in the UK.<sup>1,2</sup>  
 \*Malnutrition = medium and high risk using 'MUST'.

Stratton RJ & Elia M. *Clin Nutr Suppl* 2007; 2: 5.23

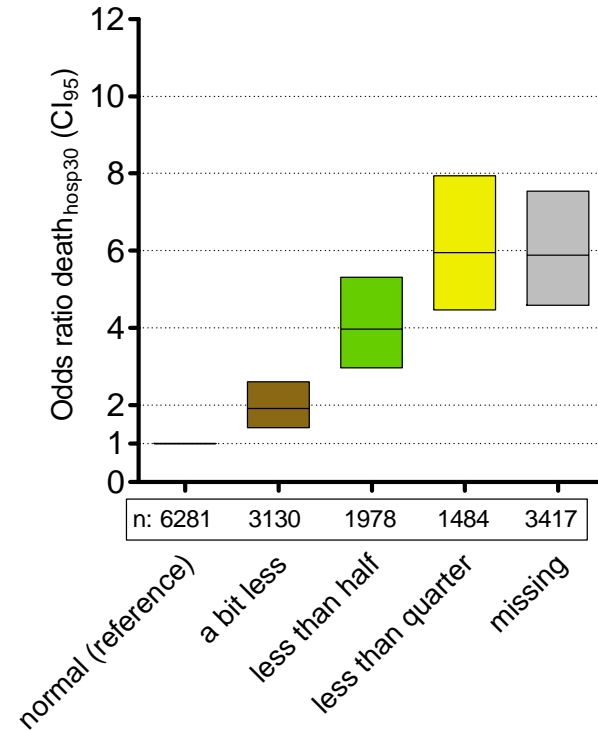
## Higher Healthcare Costs: BAPEN 2005 Report

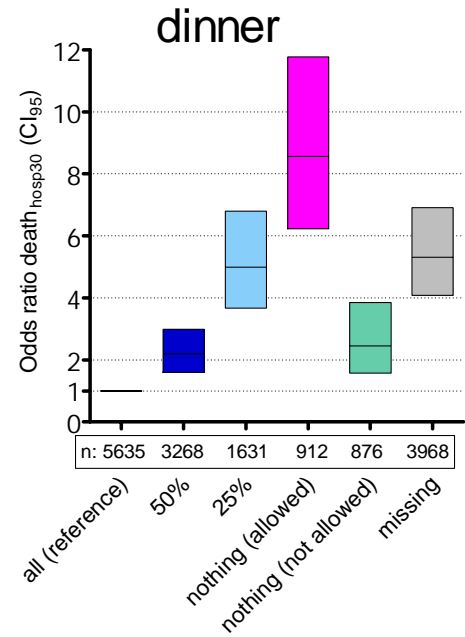
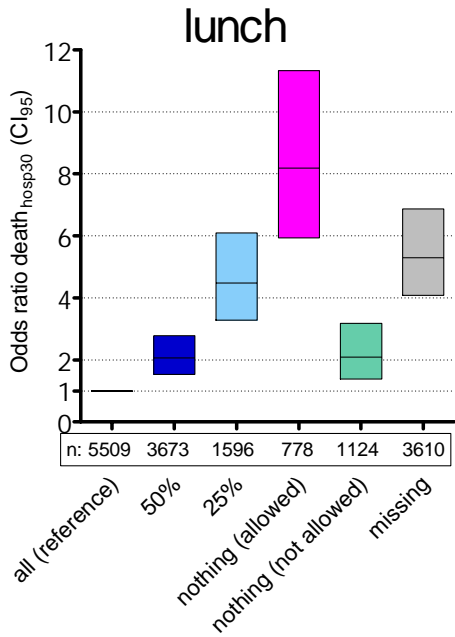
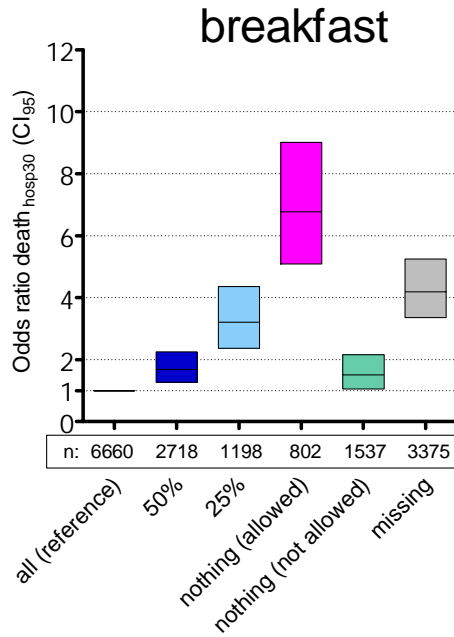
- Malnourished patients had more:
  - GP visits (↑ 65%)
  - Hospital admission (↑ 82%)
  - >30% longer LoS
  - Greater likelihood of admission to care homes

Have you lost weight unintentionally within the last 3 months?

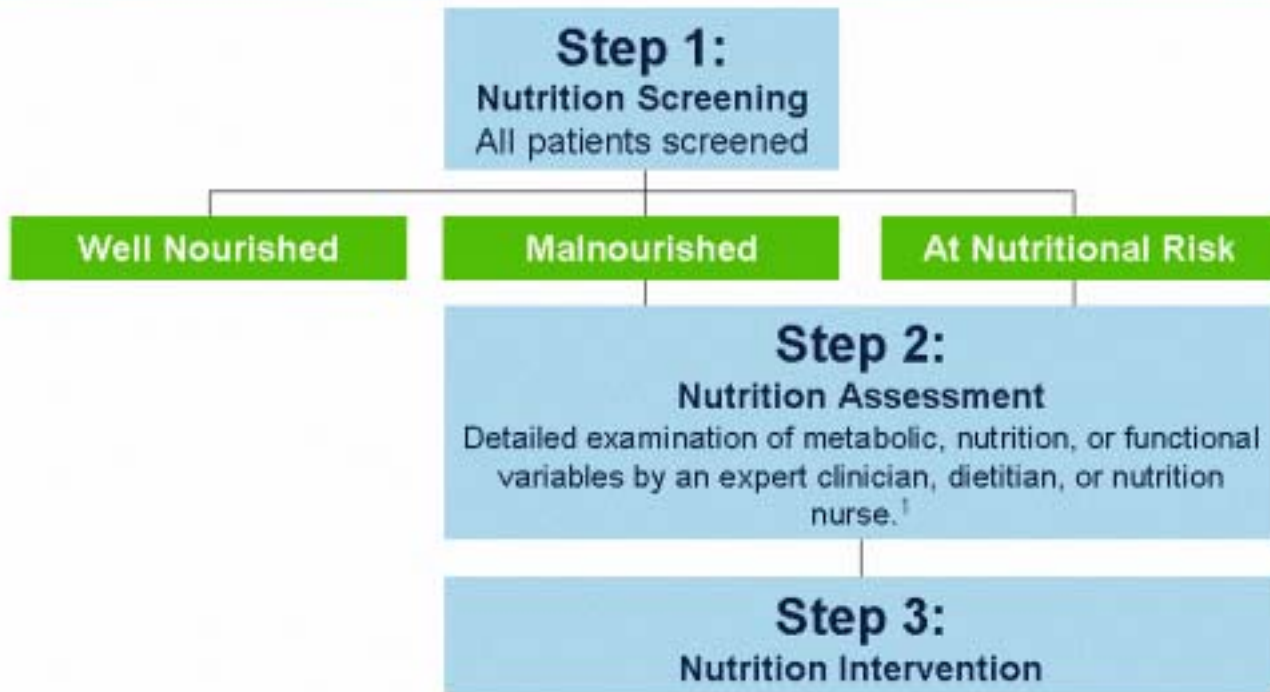


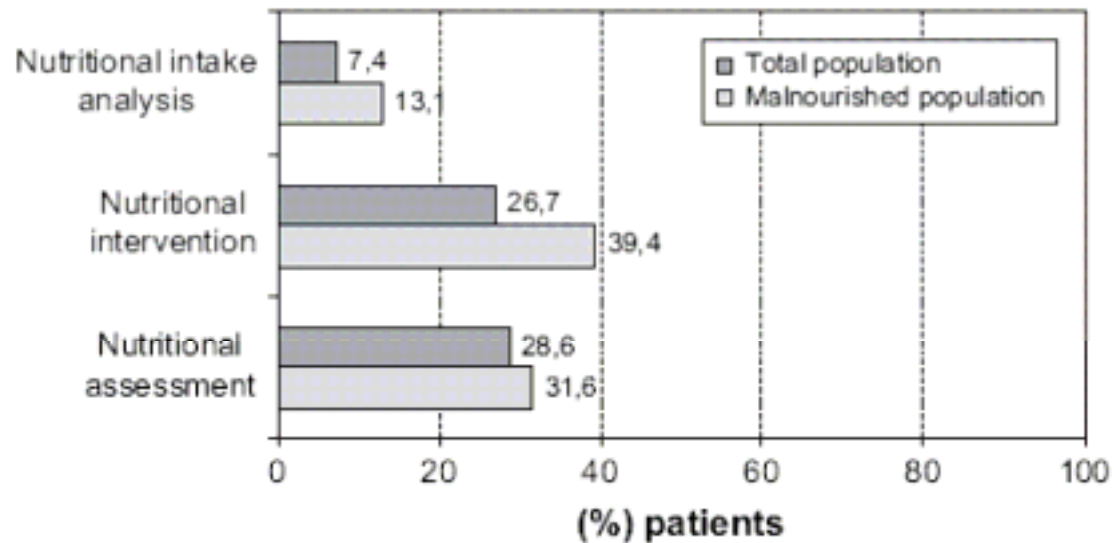
How well have you eaten during the last week?





# Nutrition Care Pathway





**Figure 3** Medical doctors' performance on nutritional care during hospitalisation within the total and malnourished population.

*Bavelaar JW et al. Clin Nutr 27:431-8, 2008*



**Table 3** The application of vitamin preparations and additional feeding by dietitian and medical doctor

		Well-nourished	Malnourished	Significance (Pearson's $\chi^2$ )
<b>Dietitian</b>				
Vitamin preparations	Yes	8 (50.0)	25 (80.6)	0.045 <sup>a</sup>
	No	8 (50.0)	6 (19.4)	
Additional feeding	Yes	6 (37.5)	25 (80.6)	0.003
	No	10 (62.5)	6 (19.4)	
<b>Medical doctor</b>				
Vitamin preparations	Yes	42 (24.3)	19 (27.9)	0.556
	No	131 (75.7)	49 (72.1)	
Additional feeding	Yes	12 (6.9)	9 (13.2)	0.119
	No	161 (93.0)	59 (86.8)	

<sup>a</sup> Fisher's exact test (2-sided) was used.

*Bavelaar JW et al. Clin Nutr 27:431-8, 2008*



Malnutrizione e ONS

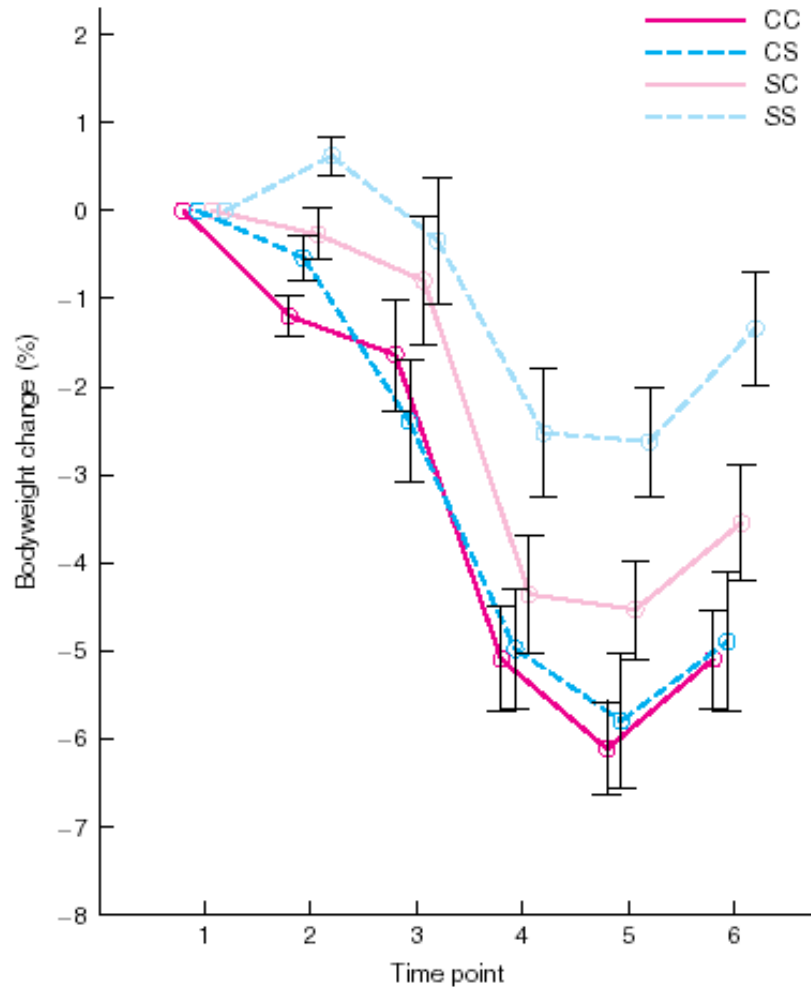
Randomized trial

## Randomized clinical trial of the effects of preoperative and postoperative oral nutritional supplements on clinical course and cost of care

F. Smedley<sup>1</sup>, T. Bowling<sup>1</sup>, M. James<sup>2</sup>, E. Stokes<sup>2</sup>, C. Goodger<sup>3</sup>, O. O'Connor<sup>4</sup>, C. Oldale<sup>5</sup>, P. Jones<sup>6</sup> and D. Silk<sup>4</sup>

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*Br J Surg* 2004; 91: 983-990



*Br J Surg 2004; 91: 983-990*



ORIGINAL ARTICLE

## Use of oral supplements in malnourished elderly patients living in the community: a pharmaco-economic study<sup>☆</sup>

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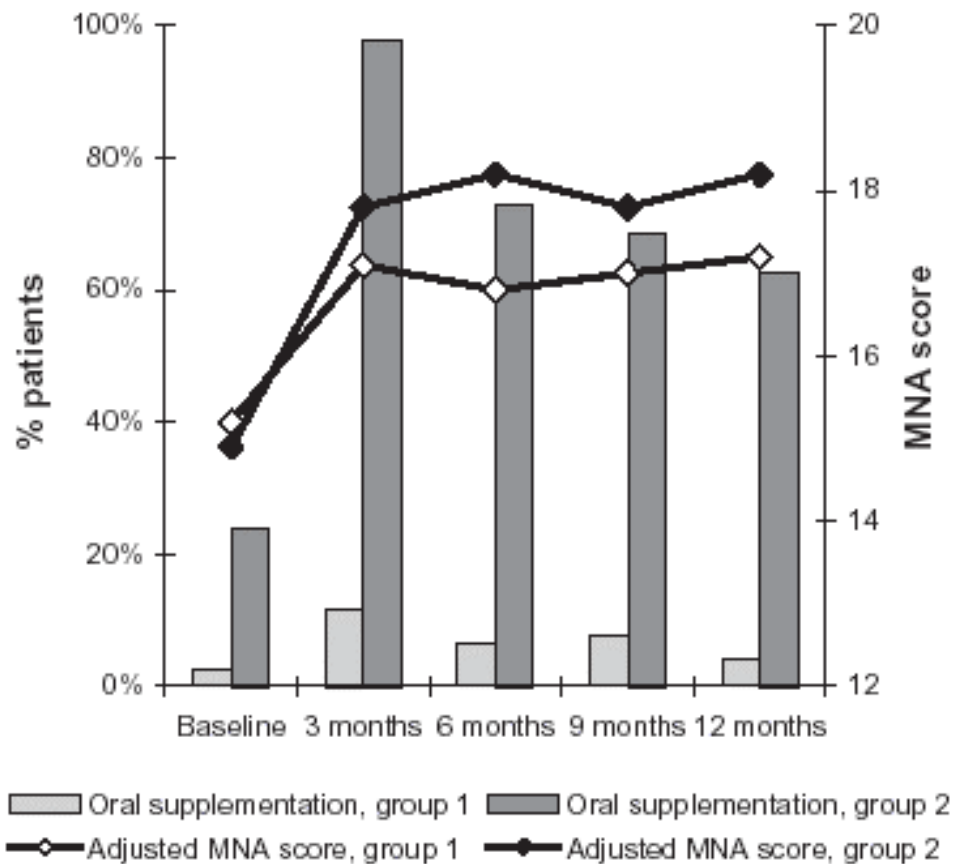
<sup>c</sup>Service de Gériatrie Clinique, CHU, Montpellier, France

<sup>d</sup>MDS Pharma Services, Sèvres, France

<sup>e</sup>Laboratoire de Nutrition Humaine, Clermont-Ferrand, France (In memoriam)

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Received 14 August 2003; accepted 10 February 2004



*Arnaud-Battandier F et al. Clin Nutr 2004; 23: 1096-1103*

**Table 5** Adjusted health care costs, mean per patient (EUR).

	Group 1 N = 125	Group 2 N = 186	Difference
Oral supplementation [90% CI]	37	565	+ 528 [ + 478; + 578]
Other medical care			
Hospital admissions	2123	1572	- 551
Nurse visits	362	217	- 145
GP visits	42	32	- 10
Physiotherapist visits	39	37	- 2
Specialist visits	2	3	+ 1
Examinations	5	7	+ 2
Other costs	84	66	- 18
Sub-total [90% CI]	2657	1934	- 723 [-1 444; -43]
Total cost [90% CI]	2694	2499	- 195 [-929; + 478]

*Arnaoud-Battandier F et al. Clin Nutr 2004; 23: 1096-1103*

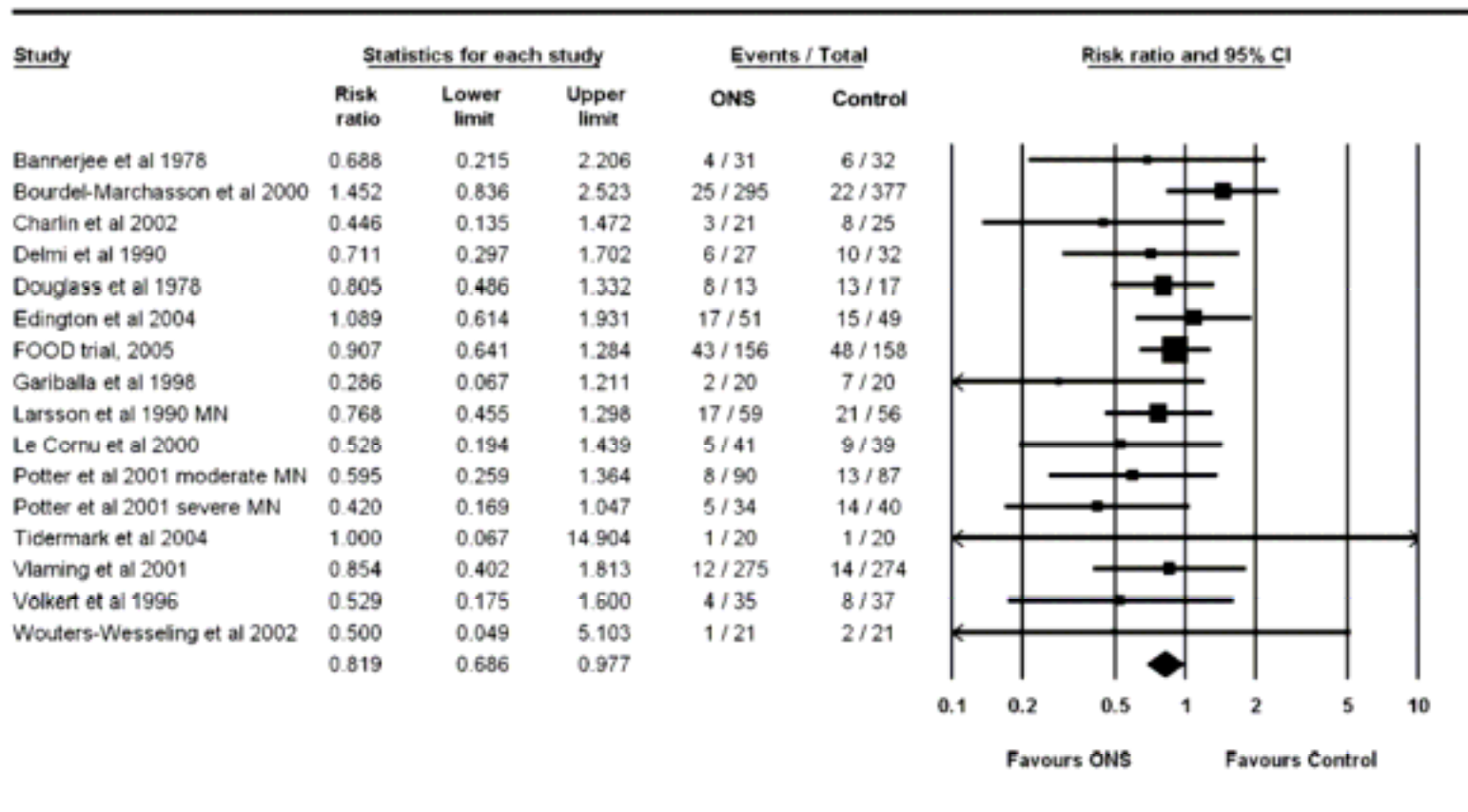
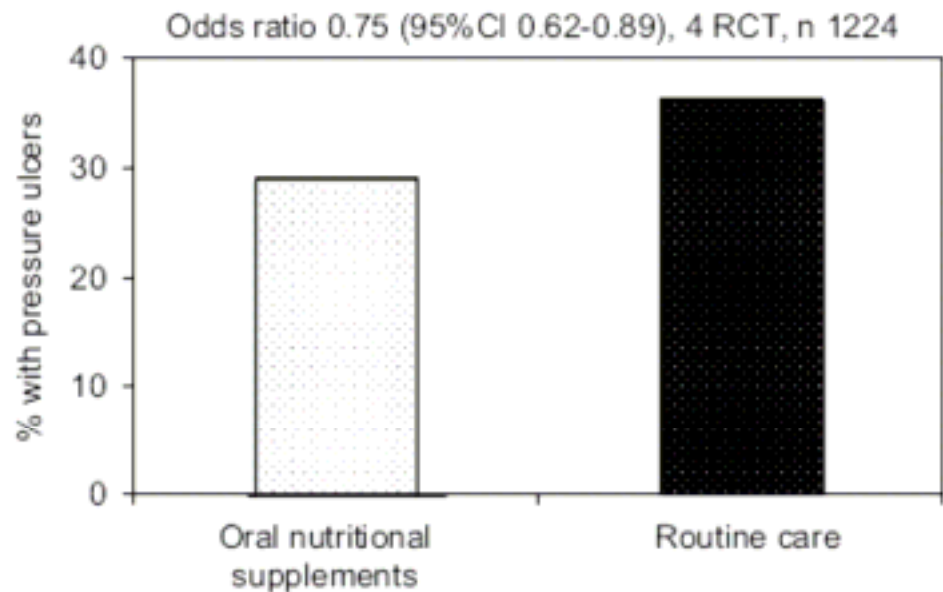


Figure 2 Mortality with oral nutritional supplements (ONS) versus standard dietary care: a meta-analysis undertaken by NICE.<sup>11</sup> MN: malnutrition; CI: confidence intervals.

Stratton RJ & Elia M. *Clin Nutr Suppl* 2007; 2: 5.23





**Figure 3** Prevention of pressure ulcers in at-risk patients with oral nutritional supplements: summary results from a meta-analysis.<sup>21</sup>

*Stratton RJ & Elia M. Clin Nutr Suppl 2007; 2: 5.23*

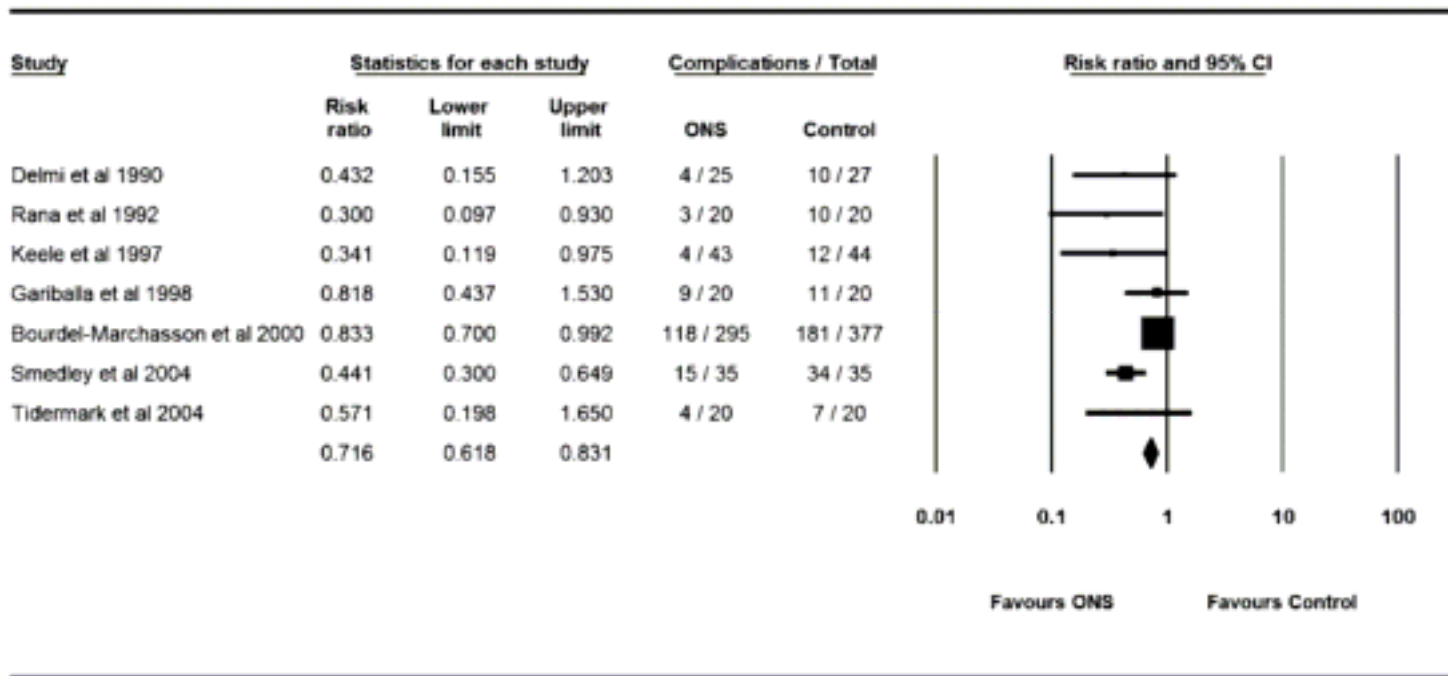


Figure 4 Complications with oral nutritional supplements (ONS) versus standard dietary care: a meta-analysis undertaken by NICE.<sup>11</sup>

Stratton RJ & Elia M. *Clin Nutr Suppl* 2007; 2: 5.23

# ESPEN GUIDELINES ON ENTERAL NUTRITION ONS: Key Populations

- Patients who are undernourished or at risk of undernutrition
- Frail elderly
- Geriatric patients after hip fracture and orthopedic surgery
- Patients at risk of developing pressure ulcers



Malnutrizione e ONS

# Challenge of Oral Nutritional Supplementation



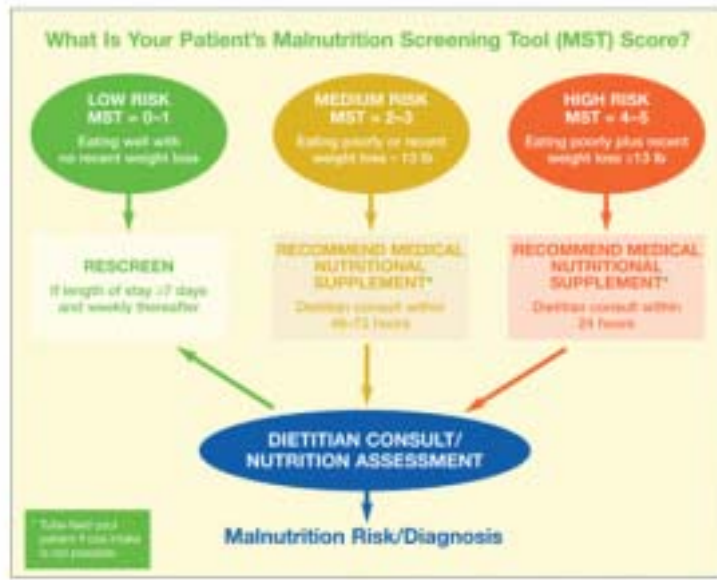
# Step 1: Identify Patients at Risk for Malnutrition

- ◆ Use the MST to identify patients
- ◆ Easy-to-use assessment tool accurately predicts malnutrition in your patients and promotes early nutrition therapy

<b>1.</b> Have you lost weight recently without trying?		<b>2.</b> Have you been eating poorly because of a decreased appetite?	
No	0	No	0
Unsure	2	Yes	1
If yes, how much weight have you lost?		Appetite Score	
2-13 lb	1	<input type="text"/>	
14-23 lb	2	MST Score (Weight Loss and Appetite Scores)	
24-33 lb	3	<input type="text"/>	
>33 lb	4		
Unsure	2		



# Step 2: Order and Deliver Oral Nutritional Supplement

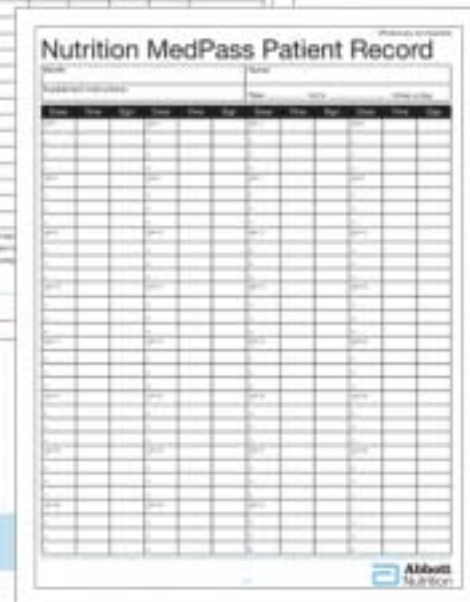


# Step 3: Track Intake and Monitor Results

- ◆ As needed, use the Nutrition MedPass Monitor and Patient Record forms to:
  - Monitor patient response to nutrition therapy
  - Track results
  - Make necessary adjustments to oral nutritional supplements



The Nutrition MedPass Monitor form is a grid-based tracking tool. It includes a header section for patient information and a main table with columns for 'Day 1', 'Day 2', 'Day 3', 'Day 4', 'Day 5', 'Day 6', 'Day 7', and 'Day 8'. The rows are organized into sections for 'Energy', 'Protein', and 'Fluids'. At the bottom, there are three numbered checkboxes: 1. Number of bottles administered, 2. Number of bottles administered, and 3. Percentage of bottles administered.



The Nutrition MedPass Patient Record form is a detailed grid for patient tracking. It features a header for patient information and a main table with columns for 'Day 1' through 'Day 8'. The rows are organized into sections for 'Energy', 'Protein', and 'Fluids'. At the bottom right, there is the Abbott Nutrition logo.



# Nutrition MedPass Outcomes: Improves Weight Status



Kerrigan ER. *J Am Diet Assoc.* 1996;96(suppl):A-32.

# Implementation of Nutrition MedPass

## Study protocol

- Main outcome measure: effect of Nutrition MedPass vs usual care on nutritional status of malnourished patients or patients at risk of malnutrition patients admitted to a Internal Medicine ward of a university hospital.
- Secondary outcome measure: effect of Nutrition MedPass vs usual care on morbidity of malnourished patients or patients at risk of malnutrition patients admitted to a Internal Medicine ward of a university hospital.
- Inclusion criteria:
  - adult, competent in-patients
  - informed consent
  - malnutrition/risk of malnutrition (MST screening tool)
- Exclusion criteria:
  - dysphagia
  - cognitive decline
  - diabetes mellitus

# Implementation of Nutrition MedPass

## Study protocol (2)

- Patients were randomly assigned to 4 groups:
  - Ensure Plus/Usual Care (n=25)
  - Ensure Plus/MedPass (n=25)
  - TwoCal/Usual Care (n=25)
  - TwoCal/MedPass (n=25)
- Outcome measures:
  - body weight
  - BMI
  - handgrip strength
  - albuminemia
  - total lymphocyte count
  - ....

# Implementation of Nutrition MedPass

## Challenges

- Convincing colleagues that nutrition is important for patients' outcome
- Convincing nurses that MedPass was not a further burden to their job
- Introducing to nurses the concept of malnutrition
- Introducing to nurses the concept that ONS are not similar to vitamin supplements

# Implementation of Nutrition MedPass

## Preliminary results

- As far as Nov. 20, 25 patients have been enrolled (14 usual care, 11 MedPass)
- Age (median): 73 vs 80 (usual care vs Medpass)
- Sex: 8M:6F (usual care) vs 6M:25 (MedPass)
- MST score (median): 4 vs 4
- $\Delta$  albumin: +1,8% (usual care) vs +10,9% (MedPass)
- $\Delta$  Handgrip strength: +31% (usual care) vs +68% (MedPass)

# Conclusioni

- **La malnutrizione è di frequente riscontro nella popolazione generale ed ospedalizzata**
- **La malnutrizione aumenta morbilità e mortalità**
- **L'uso di ONS è efficace sullo stato nutrizionale dei pazienti, riduce le complicanze e la mortalità**
- **In caso di scarsa compliance alla terapia nutrizionale con ONS, il programma MedPass può contribuire a far raggiungere i target calorici e proteici prescritti**