

APPENDIX I

CONFERENCE POSTERS, ABSTRACTS AND NON-PEER REVIEWED PUBLICATIONS

The compliance factor



Targeted prescribing of oral nutritional supplements is vital for effective treatment of malnutrition

Sharon Kennelly

THE prevalence of malnutrition among healthy adults in Ireland is estimated to be about 3%.¹ However, among high risk groups such as older people (>65 years) and those with chronic diseases, malnutrition is much more common and it can have a detrimental effect on their wellbeing.

Malnutrition has serious implications for the health of the individual, as well as placing a huge demand on the health service. Some Irish studies have investigated the rates of malnutrition in different settings. It was shown that 16% of older patients (>65 years) admitted to hospital were malnourished and 48% were 'at risk' of malnutrition.² A small study of patients attending general practice found that the prevalence of malnutrition was 16%.³ Currently there is no information available in Ireland about the rates of malnutrition in older persons and those with chronic disease living in the community. Studies from the UK have found that the prevalence of malnutrition varies according to the criteria used. It is estimated to affect 10–60% of patients in hospital and nursing homes, 10% or more of older free-living subjects and less than 5% of younger adults.⁴

In the UK several organisations including the British Association for Enteral and Parenteral Nutrition (BAPEN) have been

working for the past number of years to highlight the problem of malnutrition, every year BAPEN carries out a national survey in the UK on malnutrition in hospitals and community residential care sites called 'Nutrition Week'. This year for the first time, Irish dietitians working in the hospital and the community setting participated and surveyed patients in hospitals and community residential care sites around the country. Hopefully this will provide us with some valuable information into the prevalence of malnutrition in these areas later this year.

The effects of malnutrition on the individual include:

- Reduced wound healing
- Reduced immune response
- Loss of lean muscle mass
- Reduced respiratory function
- Impaired thermoregulation
- Increased risk of falls
- Depression
- Self neglect
- Higher mortality.⁵

Malnutrition also results in increased costs to the health service as patients who are malnourished have longer hospital stays, are more likely to be discharged to a nursing home, need more medications, need more community services such as public health nursing and visit

their GP more often.

The Malnutrition Advisory Group (MAG) of BAPEN released new figures in 2009 from an economic evaluation which estimated that the annual cost of malnutrition in the UK was £13 billion per year, over twice the estimated cost of obesity. New estimates have revealed that the cost of treating malnourished people in Ireland may have been as high as £1.5 billion in 2007.⁶ We also know that we are spending approximately €28 million per year (based on 2008 figures for medical card and other drug payment schemes) in the community on a common treatment for malnutrition which is oral nutritional supplements (ONS) and an unknown additional amount in our hospitals. (Figures from the HSE Primary Care Reimbursement Scheme 2009).

Importance of ONS

Oral Nutritional Supplements are defined as products which are designed to increase nutritional intake. They are also often called 'sip feeds' although they include a range of products other than liquid drinks, such as powders and semi-solid dessert style products.⁷

The benefits of oral nutritional supplements have been demonstrated by many studies in the hospital and community settings. Unfortunately, there are less high quality studies available on ONS in the

community setting and this is why some reviewers have concluded that there is poor evidence for the use of ONS in the community setting.^{7,8}

Benefits seen from the use of ONS with specific patient groups include:

- Improvements in energy and nutrient intake
- Weight gain and attenuation of weight loss
- Increased muscle strength and activity levels
- Improvement in clinical outcomes such as mortality, complication rates, and length of hospital stay.

However, the available studies from the community setting tell us that these benefits are generally only significant when ONS are used with malnourished patients (therefore there is a stronger indication for prescribing ONS to those who have a BMI ≤ 20 kg/m²)⁵

While ONS are useful in treating and preventing malnutrition they should not be used as first line treatment without investigating the underlying causes of the malnutrition and dealing with them, ie. difficulties with cooking and shopping for older people. It is also important that the patient is provided with advice on how to improve their diet using ordinary foods where possible, either before or in addition to prescribing ONS.⁷ Ideally, ONS should 'supplement' the diet and be taken between meals and not to replace normal meals.

Importance of complying with ONS

As with any treatment or medication, ensuring patient compliance is an important issue. ONS are a relatively costly treatment. For example the cost for a patient with a medical card prescribed two 200ml packs of high energy sip feeds (1.5kcal/ml) per day for one year is approximately €1,700 (not including GP and pharmacy costs). Studies involving ONS supplementation have reported varying levels of compliance by patients. A review including 55 studies of ONS supplementation with older people, found that compliance was reported as 'good' in 31% of (17/55) of studies.

However considerable problems with compliance were reported to affect 24-45% patients involved in these studies.⁷ An Irish study in which patients that were already prescribed ONS by their GP were interviewed by a community dietitian found that almost half of patients (48%, 38/78) reported not to be compliant with their ONS prescriptions.¹⁰

Reasons suggested for non-compliance with ONS include: patient's taste

Tips to encourage compliance with ONS

- Refer to a dietitian if possible who can provide individualised advice about diet and ONS to patients and can monitor compliance and appropriate treatment outcomes
- If there is no dietitian service available:
 - Assess ONS acceptability, check flavour preferences with patients, sip feeds come in milk based, juice based, sweet and savoury varieties
 - Give sample to try prior to prescribing or prescribe a smaller amount for one to two weeks on initial prescription. Some companies now provide mixed trays of different flavours of sip feeds for patients to establish preferences
- At each review offer a constant choice of flavours and styles of ONS and adjust prescription to individual tolerance
- Use neutral flavour ONS added to normal savoury foods such as soups and casseroles to improve palatability
- Dietitians and nutritional supplement companies produce written materials such as recipes and appetising serving ideas incorporating ONS which can be given to patients and their carers
- Serve ONS from the fridge rather than room temperature
- Try powdered milkshake style ONS which are added to fresh milk which can be more palatable to some patient groups
- Divide the total amount of ONS to be taken into smaller doses taken as 'shots' throughout the day, eg. 50ml amounts at a time
- Older patients may need assistance and encouragement to help take ONS
- Get the timing right. Offer between meals or as a bedtime drink, avoid offering with meals or just before meals to maximise intake from ordinary foods
- No more than the equivalent of 600 kcals/day per ONS prescription should be prescribed unless under the supervision of a dietitian, eg. two 200ml bottles of high energy sip feed.(1.5kcal/ml)

perception, loss of appetite, taste fatigue, age, and lack of recognition of ONS as a food and drink product. The practice of ongoing 'inappropriate prescriptions' for ONS has been suggested to result in boredom and taste fatigue by patients.¹¹

Therefore it is important that we use ONS only for patients who have a clinical indication for them, that we monitor both the patient compliance and the effectiveness of ONS in achieving desired outcomes such as weight maintenance or weight gain as appropriate.

It is important to regularly ask patients and carers about compliance, further-visible signs of non-compliance such as stockpiling in the home can be observed by health professionals in the community. Health professionals should also be aware that patients can sometimes use ONS for other purposes such as giving them to other family members or even household pets which was observed in a small number of patients in a recent Irish study.¹⁰

Factsheets on the appropriate use of ONS and other resources developed for health professionals is available at the website of the Irish Nutrition and Dietetic Institute at www.indi.ie

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An Educational Intervention Including 'MUST' is Successful in Improving Knowledge about Oral Nutritional Supplements and Prescribing Practices Among Community Based Health Professionals



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INTRODUCTION

General Medical Practitioners (GPs) and Nurses (Community and Private Nursing Homes) are largely responsible for the management of patients prescribed Oral Nutritional Supplements (ONS) in the Community setting in Ireland. However these professionals receive little training in nutrition and practices related to ONS are not always evidence-based (Loane et al, 2004). In an earlier phase of this study we found that 39 % of patients in the community prescribed ONS were not 'at risk' of malnutrition i.e. they had a MUST score of 0 (Kennelly et al, 2006). A UK study in the community setting found that 77% of cases where ONS were prescribed they were 'inappropriately prescribed' (Gall et al , 2001).

MUST (MAG; BAPEN , 2000) is known to be effective in promoting evidence based-nutritional assessment and monitoring patients in many health care settings (Stratton et al ,2003)

AIMS

To develop and implement an educational intervention incorporating MUST, for GPs and Nurses and to determine the effects on knowledge and reported practice in relation to ONS post the intervention using questionnaires as assessment tools

METHODS

This is an educational intervention study with pre, post evaluation and follow up at six months. The assessment tools used were 3 different self-administered questionnaires.

1. Knowledge questionnaire (8 multiple choice questions), administered (Pre-, post- & 6 months post-intervention)
2. Intervention evaluation questionnaire (to determine satisfaction with content & format of intervention)
3. Qualitative questionnaire-Six months post-intervention to determine changes in practice & satisfaction with MUST and other resources provided

Fig.1 Numbers of health professionals who completed the education intervention and evaluation tools at each stage of the study



Topics included in education session

- Causes of malnutrition
- Basic dietary advice (Food fortification)
- Evidence-based use of ONS
- Use of 'MUST' and structured referral to the Community Dietitian (New Service)
- Resource packs including MUST and 2 patient advice leaflets were provided.

Table 1. Description of format and location of education intervention for each health professional group

Health Professional Group (Size)	Timing and Location of Intervention
GP's and Practice Nurses (1-5 per group)	< 1 hr lunch time at the practice site
Staff Nurses in Nursing Homes (1-5 per group)	2hrs afternoon on site (1/2 hour practical session)
Community Nurses (10 -15 per group)	3hrs afternoon at 5 local health centres (1 ½ hour practical session)

HIGH PARTICIPATION RATES

All 53 eligible community nurses , staff from 8/10 General Practices and nursing staff at 7/7 eligible nursing homes agreed to participate

Table 2. Changes in mean knowledge scores pre-,post- & six months post-education intervention

	Pre- Intervention	Post- Intervention	6-Month Follow-Up	P
Total Group	3.6 (n=87)	6.6 (n=91)	6.3 (n=57)	n/a
Matched pairs	4.0 (n=52)	7.0 (n=52)	6.3 (n=52)	P<0.001*

* Friedman Test

HIGH SATISFACTION WITH 'MUST'

80% (44/55) attendees reported that MUST was an acceptable for their work setting .67% (35/55) had used MUST in the course of their work. MUST was reported 'very easy', 'easy' to use by 62% (34/55) of GPs & Nurses.

POSITIVE CHANGES IN PRACTICE RELATED TO ONS

- 69% (38/55) said they weighed patients more often
- 78% (43/55) gave appropriate dietary advice
- 46% (25/55) gave appropriate advice on ONS to patients at risk of malnutrition

CONCLUSION

A once-off educational intervention incorporating MUST can increase the knowledge of health professionals in the short term and can improve prescribing practice of ONS in the community

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'Must' have tool



'MUST' is an essential screening tool to identify patients at risk of malnutrition

Sharon Kennelly

Recent media focus on the rising

trends of obesity and diabetes in Ireland has meant that the problem of malnutrition (underweight, body mass index $<20\text{kg}/\text{m}^2$) is often overlooked. While Irish data is lacking, an estimated two million people in the UK are malnourished.¹

Several studies have investigated the prevalence of malnutrition in different settings in Ireland. A study of patients on admission to hospital found that 48% of older persons (>65 years) were 'at risk' of malnutrition.² A study of patients attending their GP found that 16% were malnourished.³ A study in a residential care home found that 10% residents were malnourished and 39% were 'at risk' of malnutrition.⁴

Nutrition screening tools are designed to provide rapid, general and often initial evaluation of patients. Several nutrition screening tools are available, and the 'MUST' (malnutrition universal screening tool) is a relatively new tool launched in 2003. It was developed by the multidisciplinary group of healthcare professionals of the malnutrition advisory group (MAG) of the British Association of Enteral and Parenteral Nutrition (BAPEN), and was tested in both the hospital and community setting for accuracy, reliability and

ease of use.⁵ It has been proven to be a superior tool in identifying malnutrition and predicting mortality.⁶

Using the tool involves three steps:

- Assessment of current weight status (BMI)
- Assessment of recent change in weight
- Assessment of the presence of an acute disease, resulting in or likely to result in no dietary intake for more than five days.

One of the key advantages of 'MUST' is that it is linked to a care plan; previously a gap existed for the transfer of nutrition screening information into a meaningful action plan for the patient. Other advantages include the fact that 'MUST' allows for the use of subjective criteria and alternative measurements when weight and height are not readily available therefore it is a useful tool for certain patients, for example bed-bound elderly living at home.⁷

In the UK a number of studies have been published where 'MUST' has been implemented successfully in different settings.¹ In the Irish setting 'MUST' has also been implemented in several hospital and community sites including residential care homes.⁴ One Irish study involved training facilitated by community dietitians for GPs, practice nurses, staff nurses

in private nursing homes and community nurses (public health nurses, community registered general nurses) in the use of 'MUST'. Evaluation involving follow-up six months after training was carried out. The majority of health professionals thought that 'MUST' was 'easy to use' and an appropriate tool for their work.⁸

To get the maximum benefits of 'MUST' it should be implemented in strategic manner. To build the environment for the implementation of 'MUST' health professionals in a setting 'MUST' come together and decide how 'MUST' can fit into existing services and care pathways and develop new policies if necessary.

Consideration should be given to issues such as: the availability of accurate weighing scales and height measures, a case may need to be made for funding if these are not available. A supporting dietetic service is also advantageous because 'MUST' recommends referral to the dietitian if patients are deemed to be at 'high risk' of malnutrition. Training in the use of 'MUST' should be a continuous process with regular updates for existing and new staff.

If you are interested in using 'MUST' in your work setting it is advisable to organise training and support from an independent expert in nutritional assessment, ie. a dietitian. If you work in the community setting for example a HSE residential care site, HSE community nursing, or a primary care team, speak to a dietitian working in your setting or contact the local community dietitian manager to see what support can be provided for training on the use of 'MUST'.

It has been recommended that all patients prescribed oral nutritional supplements (ONS), ie. commercially manufactured high protein and/or high energy drinks, powders and puddings available to be prescribed under the demand led-schemes of the HSE should be screened using 'MUST' prior to prescribing and continue to be monitored.

Information on how to use the 'MUST' and explanatory literature can be found at: www.bapen.org.

A factsheet on 'MUST' and other resources developed for healthcare professionals the Irish are available at the website of the Irish Nutrition & Dietetic Institute at: www.indi.ie

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References on request from nursing@medmedia.ie
(Quote Kennelly NITC 10 (xx))

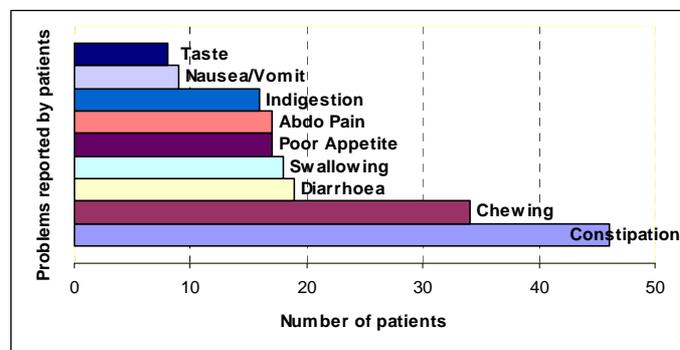
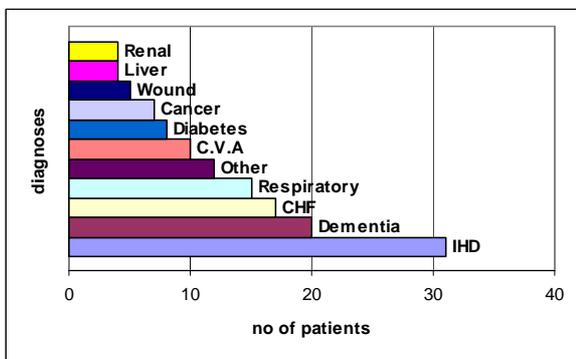
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Oral nutritional supplements in the community in Ireland: who is using them? By S. KENNELLY¹, S. SUGRUE², N.P. KENNEDY³, G. FLANAGAN¹ and C. GLENNON¹, ¹Community Nutrition & Dietetics Department, Health Service Executive Dublin Mid Leinster, Pearse House, 28 Pearse Street, Co. Westmeath, Republic of Ireland, ²Department of Biological Sciences, Dublin Institute of Technology Kevin Street, Dublin, Republic of Ireland and ³Department of Clinical Medicine, Trinity College Dublin, Republic of Ireland

Increasing health service spending on oral nutritional supplements (ONS) has focused attention on their use. A review of evidence for the use of ONS in the community has revealed that their beneficial effects are significantly greater in undernourished patients (BMI <20 kg/m²; Stratton *et al.* 2003). There are few data available describing the use of ONS in the community in the Republic of Ireland. The aim of this study was to obtain baseline information on patients prescribed ONS by a group of general medical practitioners (GP) in Co. Westmeath.

GP were considered eligible if they had >500 patients with a medical card, and had facilities for a dietetic clinic at their practice. A total of ten of seventeen eligible GP participated in the study. During a 3-month study period participating GP referred all adult patients prescribed ONS, excluding special ONS (e.g. for metabolic disorders). Eighty-nine patients were referred, of whom seventy-eight (sixteen male, sixty-two female, mean age 79 years) consented and were assessed by a dietitian. The majority were seen in their own home, others in nursing homes or in their GP's surgery. Nutritional risk was assessed using the Malnutrition Universal Screening Tool (MUST; Malnutrition Advisory Group, 2000).

. Twenty-eight patients lived in nursing homes or state residential homes, and fifty lived in their own home or a relative's home (of these twenty-seven lived alone). The majority (sixty-three of seventy-eight) of patients, were ambulant. The remainder (fifteen of seventy-eight) were either chair-bound or bed-bound.). Data shown below describes gastrointestinal disturbances and other problems affecting appetite reported by patients, and also the range of diagnosis seen among patients.



According to the MUST results, thirty-one of seventy-eight patients were at 'low risk', eighteen of seventy-eight was at 'medium risk', and twenty-nine of seventy-eights were at 'high risk' of malnutrition. Notably, only thirty-six of seventy-eight had a BMI <20 kg/m². Of fifty-three patients in whom weight and height could be measured nine of fifty-three were overweight (BMI 24.9–29.9 kg/m²) and five of fifty-three were obese (BMI >30 kg/m²). Fifty-six of seventy-eight patients were prescribed ONS for >6 months. Milk-based high-energy sip feeds were the most-commonly-prescribed supplements (Fifty-six of seventy-eight).

In the present study the majority of patients prescribed ONS in the community were older females and many had multiple chronic diseases. ONS were being prescribed to many patients who were not classified by MUST to be at significant risk of malnutrition and some were overweight or obese. The present study supports the need for structured evidence-based assessment of patients before the prescribing of ONS in the community.

Malnutrition Advisory Group (2000) *Malnutrition Advisory Group – Guidelines for the Detection and Management of Malnutrition*. Redditch, Worcs. : BAPEN.

Stratton RJ, Green CJ & Elia M (2003) In *Disease-related Malnutrition: An Evidence-based Approach to Treatment*, pp. 197–218, Wallingford, Oxon: CAB International.

Pre-Publication Abstract BAPEN 2007

An educational intervention including 'MUST' is successful in improving knowledge about oral nutritional supplements and prescribing practice among community-based health professionals S.KENNELLY¹, S.SUGRUE², N.P.KENNEDY³, G.FLANAGAN¹ and C.GLENNON¹, ¹Community Nutrition & Dietetics Service, Health Service Executive Dublin Mid-Leinster, Marlinstown Office Park, Mullingar, Co. Westmeath, Republic of Ireland, ²Department of Biological Sciences, Dublin Institute of Technology Kevin Street, Dublin, Republic of Ireland. ³Department of Clinical Medicine, Trinity College Dublin, Republic of Ireland).

General medical practitioners (GPs) and nurses are largely responsible for the management of patients prescribed oral nutritional supplements (ONS) in the community setting in Ireland. However, these professionals receive little training in nutrition, and practices relating to ONS are not always evidence-based (Loane et al, 2004). Seventy seven percent of ONS were 'inappropriately' prescribed in one study in the UK community setting (Gall et al, 2001). MUST (MAG, 2000) has been shown to be effective in promoting evidence-based nutritional assessment and monitoring of patients in many healthcare settings (Stratton et al, 2003)

We implemented an educational intervention that incorporated MUST, to address the knowledge and practice of GPs and Nurses in the community in relation to ONS. Topics covered included: causes of malnutrition, basic dietary advice, evidence for use of ONS, use of 'MUST' and referral of patients to the community dietitian (new service). Resource packs were provided, which included 'MUST' and patient information leaflets.

All 53 eligible community nurses, staff from 8/10 eligible general practices (GPs and practice nurses), and nursing staff at all 7 eligible nursing homes in a midlands county agreed to participate in the study. One community dietitian (SK) facilitated twenty-two education sessions over a three-month period.

Table 1 : Location and description of educational interventions for groups

Location	Profession of attendees (n=total attendees)	Duration	Group size per session
General practice	GPs (n=14) and practice nurses(n=9)	1 hr Lunchtime	2-5
Nursing home	Staff nurses (n=20)	2 hrs Afternoon	1-5
Community health centre	Community nurses (n=53)	3 hrs Afternoon	8-16

Participants' knowledge was assessed using self-administered questionnaires, comprising 8 multiple-choice questions. These were completed immediately before and after, and 6 months after the intervention. Follow-up qualitative evaluation was also undertaken at 6 months after the intervention.

Table 2 : Changes in mean knowledge scores pre-and post intervention

	Pre-intervention Mean score (n*)	Post-intervention Mean score (n*)	6-month follow-up Mean score (n*)	P
Total group	3.6 (n, 87)	6.6 (n, 91)	6.3 (n, 57)	n/a
Matched pairs	4.0 (n, 52)	7.0 (n, 52)	6.3 (n, 52)	P<0.001†

*n=number of health professionals who completed self-administered questionnaires

† Friedman Test

Six-months after the intervention, 80% (44/55) of attendees reported that 'MUST' was an acceptable tool for their work setting. 66.5% (35/55) had used 'MUST' in their work. MUST was reported 'easy' or 'very easy' to use by 62% (34/55). Evidence of improved practice was found, as 69 % (38/55) reported to weigh patients more often, 78 % (43/55) gave appropriate dietary advice and 46% (25/55) gave appropriate advice on ONS to patients at risk of malnutrition.

Our results suggest that a once-off educational intervention, incorporating MUST, can increase the knowledge of health professionals in the short term and can improve practice related to the use of ONS in the community.

References:

Gall M, Harmer J et al. (2001) Prescribing of oral nutritional supplements in primary care: can guidelines supported by education improve prescribing practice? *Clinical Nutrition*, 20(6), 511-515.

Loane D, Flanagan G, de Siùn et al. (2004) Nutrition in the community – an exploratory study of oral nutritional supplements in a health board area in Ireland. *Journal of Human Nutrition & Dietetics*, 17,.257-266

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Stratton RJ, Green CJ, Elia M (2003). In *Disease – related malnutrition: An evidence-based approach to treatment*. pp197-218, Oxon UK.CAB International.

Patients prescribed oral nutritional supplements in the community report social factors affecting access to food

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Introduction

Spending on Oral Nutritional Supplements (ONS) has increased rapidly in Ireland and the United Kingdom in the past number of years. Improvements in body weight, clinical outcomes, functional outcomes and mortality are more likely when ONS are used by patients in the community setting with BMI <20 kg/m², according to a recent meta-analysis (Stratton et al, 2003). However, in practice, primary healthcare professionals sometimes prescribe ONS for patients who are mildly/moderately malnourished when social circumstances do not allow the necessary modification of food intake (Gall et al, 2001). The aim of this study was to investigate social factors affecting access to food for patients who are prescribed ONS in the community setting.

Methods

During a three month study period a group of ten General Practitioners in a midlands county in Ireland, prospectively referred 78 adult patients (mean age 79y, SD10.5 y) to whom they had prescribed ONS. An interviewer assisted questionnaire was administered by a Community Dietitian. Nutritional screening using MUST (Bapen; Malnutrition Advisory Group, 2000) was complemented by recording details of social factors which might affect access to food. Free-living patients (50/78) were interviewed in the GP's clinic or at the patient's home, others (28/78) were seen in their nursing homes.

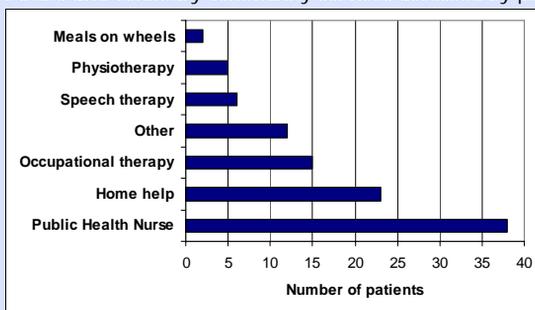
Results

Half of the subjects (39/78) were at low risk of malnutrition according to MUST. Forty two out of seventy eight (53.84%) had a BMI >20 kg/m². Some of the social factors are listed in table 1. None of the free living individuals reported attending any state-funded day-care services for older persons, older persons clubs or any other social groups. Community Services (state and voluntary) accessed by patients are illustrated below in Fig 1.

TABLE 1: Social factors affecting food intake, as reported by patients

	Total group n=78	Free-living n=50	Nursing home n= 28
Receiving community service state/voluntary	42	39	3
Difficulties managing grocery shopping	37	37	0
Eat main meals alone on >5 days of the week	36	26	10
Difficulties cooking /preparing food	36	36	0
Living alone	27	27	0
Regular use of ONS as meal replacements	19	15	4
Not enough money for food	14	14	0

Fig 1: State and voluntary community services accessed by patients.



Discussion

Social isolation, difficulty accessing and preparing food, as well as financial difficulties appear to have an important influence on decisions to prescribe ONS in the community setting. The use of ONS to compensate for gaps in community services has considerable cost implications for the health service. Education and training is required for primary healthcare professionals to highlight the underlying causes of malnutrition, which must be identified and addressed to improve patient's nutritional status in the long term, and also to ensure that ONS are not used as a solution to social problems.

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Gall MJ, Harmer JE, Wanstall HJ (2001). Prescribing of oral nutritional supplements in primary care: can guidelines supported by education improve prescribing practice? *Clinical Nutrition* 20(6): 511-515.
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 Stratton RJ, Green CJ, Eila M (2003). In Disease – related malnutrition: An evidence-based approach to treatment. Pp 197-218, Oxon UK. CAB International.

Patients prescribed oral nutritional supplements in the community report social factors affecting access to food By S.KENNELLY¹, S.SUGRUE², N.P.KENNEDY³, G.FLANAGAN¹and C.GLENNON¹, ¹Community Nutrition & Dietetics Department, Health Service Executive Dublin Mid Leinster, Pearse House, 28 Pearse Street, Mullingar Co. Westmeath Republic of Ireland, ²Department of Biological Sciences, Dublin Institute of Technology Kevin Street, Dublin, Republic of Ireland. ³Department of Clinical Medicine, Trinity College Dublin, Republic of Ireland.

Improvements in body weight, clinical outcomes, functional outcomes and mortality are more likely when oral nutritional supplements (ONS) are used in patients with BMI <20kg/m², according to a recent meta-analysis (Stratton *et al*, 2003). However primary healthcare professionals sometimes prescribe ONS for patients who are mildly/moderately malnourished when social circumstances do not allow the necessary modification of food intake (Gall *et al*, 2001).

Nutritional screening using MUST (Bapen; Malnutrition Advisory Group, 2000) was complemented by recording details of social factors which might affect access to food, in study of 78 adult patients (mean age 79y, SD10.5 y) prescribed ONS by a group of ten general medical practitioners (GP) in Co. Westmeath, Ireland. An interviewer-assisted questionnaire was used. Free-living patients (50/78) were interviewed in the GP's clinic or at the patient's home, others (28/78) were seen in their nursing homes.

Half of the subjects (39/78) were at low risk of malnutrition according to MUST. Forty two out of seventy eight had a BMI >20kg/m². Some of the social factors are summarised below:

	Total group n=78	Free-living n=50	Nursing home n= 28
Living alone	27	27	0
Eat main meals alone on >5 days of the week	36	26	10
Difficulties managing grocery shopping	37	37	0
Difficulties cooking /preparing food	36	36	0
Not always enough money for food needed	14	14	0
Regular use of ONS as meal replacements	19	15	4
Receiving community service state/voluntary	42	39	3

None of the free living individuals reported attending any state-funded day-care services for older persons, older persons clubs or any other leisure groups. Community services accessed by patients included public health nurse visits (38/78), home help assistance (23/78), occupational therapy (15/78), speech therapy (6/78), physiotherapy (5/78), meals-on-wheels (2/78), social worker (1/78) and other services (12/78). Some free-living patients reported having applied for home help services but having been declined (7/50).

Social isolation, difficulty accessing and preparing food, as well as financial difficulties, were reported by patients who had been prescribed ONS in the community setting. Education and training is required for primary healthcare professionals, as is the establishment of multidisciplinary support networks for primary healthcare professionals, to address patients' social issues that compromise their nutritional status.

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 Stratton RJ, Green CJ, Ellis M (2003). In *Disease – related malnutrition: An evidence-based approach to treatment*.pp197-218, Oxon UK.CAB International