

Coronavirus
COVID-19
Public Health
Advice

Supporting nutritional intake in nursing homes during the COVID-19 pandemic

Dietetic perspective : The HSE Nutrition Supports Pack for Residential Care Settings for Older Persons during COVID-19
Available at www.hse.ie/nutritionsupports

**Dr Sharon Kennelly , Clinical Specialist Dietitian
HSE National Nutrition Support Programme**



Building a
Better Health
Service

Seirbhís Sláinte
Níos Fearr
á Forbairt

The Key Message

Malnutrition Risk- Treat without delay

- There is only a small window of opportunity to **act swiftly and appropriately** to prevent someone's physical decline due to decreased nutritional intake exacerbated by illness and associated clinical interventions.
- Malnutrition can be life-threatening if poor nutritional intake or an inability to eat persists for several weeks (NICE, 2006)



Why is nutrition support so important ?

- In absence of COVID-19 infection
 - Slow frailty progression/build resilience
 - Optimise health and immunity
 - Quality of life
- During COVID -19 infection
 - Decrease complications and morbidity
 - Quality of life
- Post-COVID -19 recovery
 - Optimum rehabilitation
 - Quality of life

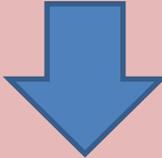
Covid-19 infection increases malnutrition risk due to the effects of the disease and its management (e.g. anorexia, breathlessness, impact of management options (sedation, CPAP/NIV), changes to taste and smell, psychological factors (e.g. anxiety), social restrictions etc.)

(MAG , 2020)

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Increased nutritional requirements
Decreased intake /absorption
Inflammation
Immobility

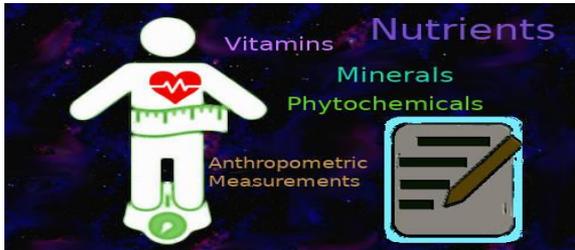


Lean tissue and functional loss
Poorer outcomes
Increased Frailty

Covid-19 infection increases malnutrition risk due to the severity of the disease and its management (e.g. anorexia, weakness, impact of ventilation options such as CPAP/NIV), changes to taste and smell, psychological factors (e.g. depression), social restrictions

(IMAG , 2020)

Dietitians Role in the Residential Care Facility



Nutritional Assessment & Care Plan development



Nutrition Steering Committee /Team Leaders

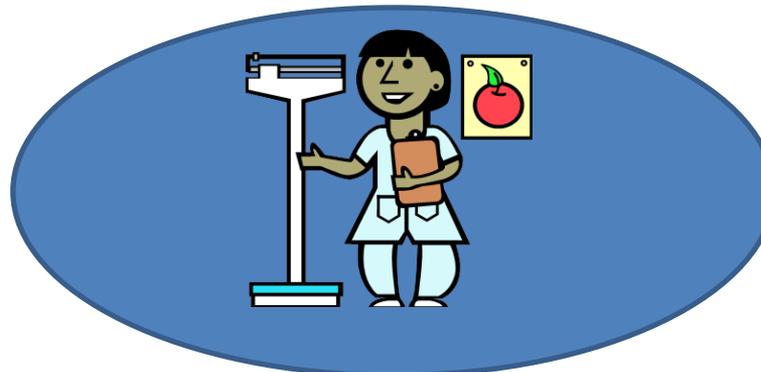


Liaison with catering menu review

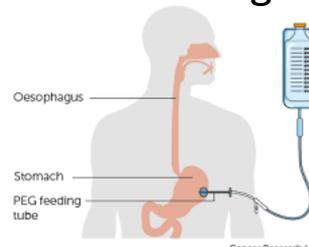
Snack Menu					
<small>All snacks on this page are suitable for residents who do not have a swallowing difficulty. Please check any specific requirements, food allergies and intolerances. Please call regarding an individual resident's food and fluid requirements.</small>					
Level 1 - Suitable for those with a mild level of cognitive impairment					
Level 2 - Soft and bite sized snacks from the menu before an adjustment					
Level 3 - Minimal and simple snacks from the menu before an adjustment					
Level 4 - Personalised snacks					



Specialised Diets
Mealtime observation



Tube feeding



Nutrition hydration policy development & Audit

Overview

How to identify residents at risk? (SCREEN)



Who to assess for further treatment? (ASSESS)



What treatment is appropriate? (TREAT)

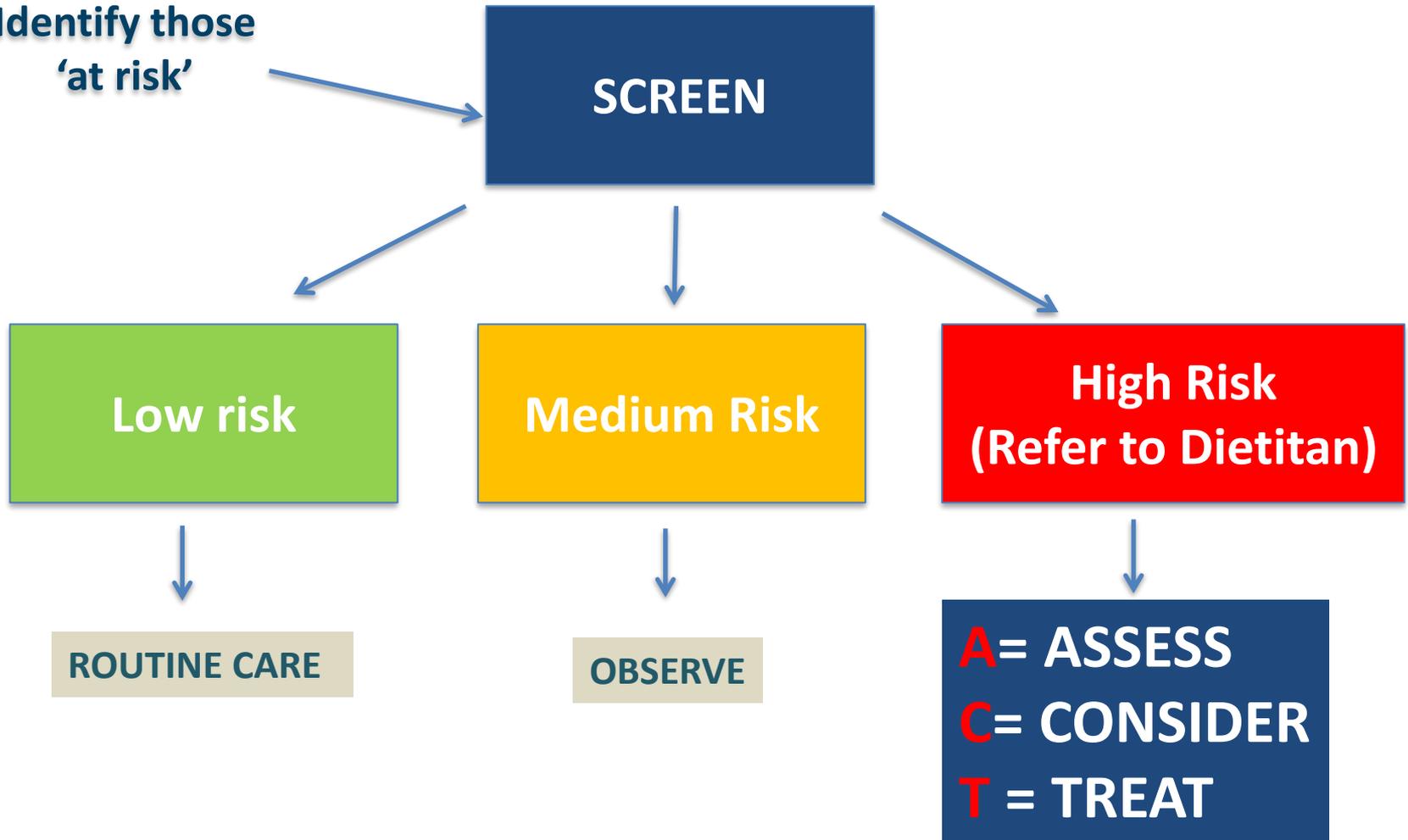
- Dietary counselling
- Special Dietary Requirements e.g. Diabetes, Renal, Gluten Free
 - Modified consistency diets
 - Food fortification
 - Oral nutritional supplements
 - Enteral tube feeding



Screening is only screening !

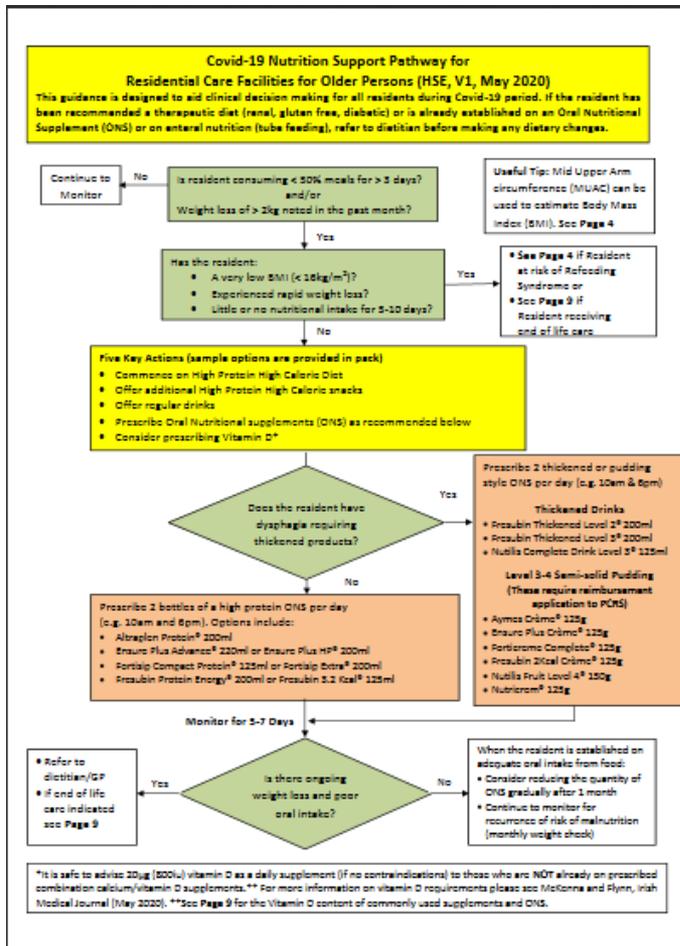
- but it allows you target resources and care

Identify those
'at risk'



COVID-19

Nutrition Support Guidance –Version 1



Aim: To highlight importance of nutrition and to give emergency guidance

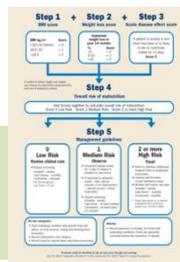
- Developed by Dietitians from HSE residential care facilities with input from SALT colleagues
- HSE Clinical Advisory Group approval
- Feedback from NCPOP, DONs, GPs, Pharmacy
- Liaison with nutrition industry, professional bodies
- Does not replace agreed local policies pathways or services or AHP input**

• 2 week turnaround

Nutrition Screening during COVID -19

If you have a pathway and are able to maintain this don't change it !

- **MUST**
- (Malnutrition Universal Screening Tool)



- **MNA-SF**
- Mini-Nutritional Assessment Short Form

- Six parts to assess food intake loss, weight loss, mobility, physical stress or acute illness, cognitive status, and BMI
- Older person specific tool
- Some evidence that it may be a more sensitive tool than MUST in context of COVID-19 in acute setting

(Liu et al, 2020)

(MAG, 2020)

Nutrition Screening during COVID -19

European Journal of Clinical Nutrition
<https://doi.org/10.1038/s41430-020-0659-7>

ARTICLE



Health issues and nutrition in the elderly

Clinical significance of nutritional risk screening for older adult patients with COVID-19

Gaoli Liu¹ · Shaowen Zhang¹ · Zhangfan Mao¹ · Weixing Wang² · Haifeng Hu¹

- 40- 85%* patients over 65 years with COVID-19 were at risk of malnutrition (*variance depending on tool used)
- Patients at risk of malnutrition had significantly longer LOS, higher hospital expenses, poorer appetite, and heavier disease severity than those not at risk
- **Authors recommend early intervention for patients with COVID-19 who are found to be at nutritional risk to prevent further decline in nutritional status and improve clinical outcomes**

In absence of formal screening – i.e. ‘war-times’



Be vigilant for residents who have:

- **Sudden changes in appetite and food intake**
 - Are eating less than half of meals when previously would have eaten most or all of meals
 - Importance of feedback from staff who provide assistance with eating
- **Unplanned weight loss**
 - Increase frequency of weight monitoring if possible, importance of staff observation e.g. when assisting e.g. loose clothes, belt notch.
- **Onset of new GI symptoms or dysphagia**
 - Abdo-pain, loss of appetite, nausea, vomiting, diarrhoea, swallowing difficulties, loss of smell or taste
 - Intolerance of enteral feed (If tube fed)

Protected Mealtime : Real challenges

Importance of dining experience and assistance with feeding

Additional pressures during COVID -19 due to ICP measures , reduced staff, increased numbers of residents requiring assistance, no dining room experience , no visitors or days out .



What can we do to limit the impact of local Infection Control and Prevention guidelines?

- Food intakes monitored and documented in the relevant notes, e.g. food chart
- Make mealtime setting calm and free from any unnecessary distractions
- Ensure food at the appropriate temperature? Fridge in room ?
- Importance of access regular fluids and high protein high calorie snacks
- Soft foods -sore throat – Extra sugar / Butter /Flavourings? -altered or taste and smell . Presentation is still very important.
- Fresh air before a meal . Company with a favourite staff member.

Key Actions

Making the Most of Every Bite

High Protein High Calorie Menu

- Three energy and protein dense meals per day
- Local system to ensure that 'at risk' residents receive this
- Food fortification : Adding additional butter, cream , cheese, skimmed milk powder to meals
- 3 snacks per day
- Snack and fluids supply in room if possible / individually packaged foods /own fridge
- Recipes and Dementia resource at www.hse.ie/nutritionsupports

(Energy and Protein Requirements available at ESPEN,2020)

Snack Menu					
All snacks on this page are suitable for residents who do not have a swallowing difficulty. Please refer to any specific recommendations from Speech and Language Therapist regarding an individual resident's food and fluid requirements.					
					
Toasted cheese	Scone with butter, cream & jam	Tinned sardines	Crackers	Cheddar cheese	Bowl of cereal

Level 7 Easy to chew (S)



Crustless sandwiches

Level 6 Soft and bite s



Bite sized soft fruit

Level 5 Minced and m



Mashed tinned fruit

Rice pudding

Level 4 Pureed, extreme



Pureed Fruit



MAKING THE MOST OF EVERY BITE

High Protein High Calorie Cookbook for Patients and their Carers

Dr Aoife Ryan PhD MINDI
 Dr Éadaoin Ní Bhuachalla PhD RD MINDI
 Ms Jane Healy BSc MA
 Ms Ann O'Connor BA, MA, City & Guilds 706/3



Key Actions

Make the Most of Every Sip

Drinks Menu							
							
Whole Milk	Fortified Milk	Hot Chocolate	Tea or Coffee	Cranberry, Orange or Prune Juices		Smoothies / Milkshakes	
<p>Please refer to any specific recommendations from Speech and Language Therapist for individual residents.</p>							

- Include fluids that also have calories and protein in Drinks Menu instead of fluids with low/no nutritional value tea, coffee, Bovril, packet soups
- Consider introducing High protein milkshakes or soup in am & pm between meals
- Foods with high fluid content Ice-pops, ice-cream , custard
- Recipes available in ‘Making most of every bite cookbook’ at www.hse.ie/nutritionsupports

Oral Nutritional Supplements

Evidence suggests protein & energy requirements can be significantly increased with use of ONS

As per guidance in pack

- **2 x High Protein ONS per day (> 20% energy from protein)**
- Consider volume patient is likely to take , taste preferences .
- Safe swallowing recommendations (See guidance and SALT) .
- Can be combined with foods e.g. neutral or vanilla flavours added to porridge ,as a custard over puddings etc.
- Can be divided into shots of smaller volumes over day
e.g. 4 x 60-100ml shots instead of 125mls or 200ml.b.d
- In our experience after breakfast and late pm good times .
- **Consult dietitian if using as a short term sole source of nutrition**
 - (1-2 ONS will not meet nutritional needs, MANY types are not suitable)

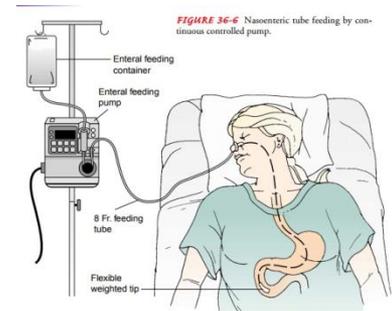
Monitoring

When the resident is established on adequate oral intake from food:

- Food records , weight stable or increasing
- Consider reducing the quantity of ONS gradually after 1 month. Continue to monitor for recurrence of risk of malnutrition

If further weight loss / reduced appetite :

- MDT discussion needs to happen as soon as possible taking into account Advanced Care Plan
- Short –term NG feeding may be appropriate to consider for some residents in residential care facilities
- Local MDT communication pathways for decision making needs to be in place
- (Guidance on when to initiate Enteral (Tube) Feeding during COVID-19 ESPEN ,2020)



Other considerations

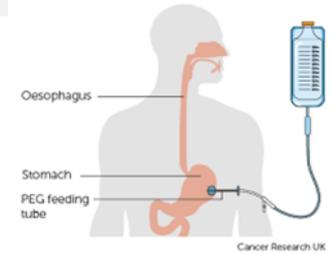
Importance of Advanced Care Planning

- Include nutrition and hydration wishes in ACP conversations and clearly document these
 - IV hydration, bloods, use of ONS, NG feeding, longer term tube feeding.
- Good communication between the MDT team and with the patient and family is essential

End of life considerations

- Advise patient and family that, at this time, care should focus on enjoyment of food rather than quantity of food consumed or reversing weight loss.
- Provide assistance and support at mealtimes as required.
- Offer favourite foods.
- Encourage the resident to eat little and often as tolerated.
- Additional resources at www.hse.ie/nutritionsupports

Residents with long term enteral feeding tubes



- Residents who use enteral nutrition (tube feeding) and are experiencing weight loss or difficulties tolerating their usual enteral feeding regimen should be referred to a dietitian immediately.
- Any new resident who has recently transferred to the nursing home on enteral nutrition, should be referred to a dietitian.
- If deemed necessary to hold the feed for a prolonged length of time (>1day), reintroduce at a lower rate and increase rate every 4-6hours. **Inform the dietitian** so this can be monitored

Refeeding Syndrome

(See also detailed guidance at www.irspen.ie)

If risk factors for re-feeding syndrome are present /suspected the following is recommended in consultation with the GP:/Senior Clinician in charge

- Where possible an initial check of blood mineral levels is advisable.
 - Include K⁺,Mg⁺⁺,PO₄³⁻,Ca⁺⁺, U&E's (unless palliative /end of life)
- Reintroduce food & Oral Nutritional Supplement (ONS) gradually, building up slowly to full meals and ONS dosage over 5 days – refer to dietitian for specific guidance. Same applies to enteral feed (Consult dietitian).
- Prescribe Thiamine ≥250mg IV daily for 3 days OR 200-300mg PO for 10 days
- Prescribe general multivitamin and mineral supplement
- **In acute setting:** it is recommended best practice to request blood test electrolytes (U&E, Ca, PO₄, Mg) daily for 5 days and then alternate days until stable. Electrolytes should be replaced where required, and ECG monitored where possible.
- **In residential care facilities :** What is possible ? An initial check repeated after 2-3 days - It is a challenge to supplement safely in this setting!



Vitamin D and SARS-CoV-2 virus/ COVID-19 disease

Susan A Lanham-New,¹ Ann R Webb,² Kevin D Cashman,³ Judy L Buttriss,⁴ Joanne L Fallowfield,⁵ Tash Masud,⁶ Martin Hewison,⁷ John C Mathers,⁸ Mairead Kiely,³ Ailsa A Welch,⁹ Kate A Ward,¹⁰ Pamela Magee,¹¹ Andrea L Darling,¹ Tom R Hill,⁸ Carolyn Greig,¹² Colin P Smith,¹³ Richard Murphy,¹⁴ Sarah Leyland,¹⁵ Roger Bouillon,¹⁶ Sumantra Ray,^{11,17,18} Martin Kohlmeier^{18,19}



Issue: *Ir Med J*; Vol 113; No. 4; P58

Optimisation of Vitamin D Status for Enhanced Immuno-protection Against Covid-19

- It is safe to advise 20µg (800iu) vitamin D as a daily supplement (if no contraindications) to those who are NOT already on prescribed combination calcium/vitamin D supplements.
- For more information on vitamin D requirements please see McKenna and Flynn, Irish Medical Journal (May 2020).
- Vitamin D content of commonly used supplement and ONS

Vitamin D



Issue: *Ir Med J*; Vol 113; No. 5; P79

Covid-19, Cocooning and Vitamin D Intake Requirements

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2. Faculty of Life and Health Sciences, University of Ulster, Northern Ireland

Response to Article Entitled 'Optimisation of Vitamin D Status for Enhanced Immuno-Protection against Covid-19' by D.M. McCartney et al - *Ir Med J*; Vol 113; No. 4; P58

Vitamin D content of commonly used vitamin supplements and ONS listed in pathway			
The purpose of this table is to provide information on the Vitamin D content of products so this can be taken into consideration by prescribers. Products are listed in order of increasing vitamin D content.			
Vitamin D preparation	Vitamin D	Oral Nutritional Supplements	Vitamin D
Centrum 50+*	5µg (200iu)	High protein drinks	
Centrum Advance*	5µg (200iu)	Ensure Plus HP* 200ml	2.2µg (88iu)
Decavit*	5µg (200iu)	Fortisip Compact Protein* 125ml	2.6µg (104iu)
Calcichew D3 Forte*	10µg (400iu)	Altrapien Protein* 200ml	5µg (200iu)
Ideas*	10µg (400iu)	Fortisip Extra* 200ml	5µg (200iu)
Desunin* 800 iu	20µg (800iu)	Fresubin Protein Energy* 200ml	5µg (200iu)
Osteofos D3*	20µg (800iu)	Fresubin 3.2 Kcal* 125ml	10µg (400iu)
Cadelius*	25µg (1000iu)	Ensure Plus Advance* 220ml	13 µg (520iu)
Sona D1000*	25µg (1000iu)	Dysphagia products	
Thorens* (10,000iu/ml)	250 µg (10,000iu)	All puddings/thickened drinks except those listed below	≤3µg (120iu)
Zymad* Drops (10,000iu/ml)	250 µg (10,000iu)	Fresubin thickened (28.3)* 200ml	5µg (200iu)
		Fresubin 2Kcal Crème* 125g	6µg (240iu)

Need more information

- For general queries on nutrition support and to contact the office of the HSE national nutrition advisor at nutrition.national@hse.ie
- For queries on ONS reimbursement system at ONS.PCRS@hse.ie
- To contact local HSE community dietitian manager in your area. See contact details at www.hse.ie/nutritionsupports
- To contact a private registered dietitian www.indi.ie

Acknowledgements

Dietitians

- Margaret O Neill, HSE National Nutrition Advisor & Marian Mc Bride, Senior Dietitian
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- Maria McKenna Senior Dietitian, CHO 6 & Chair of Older Persons Interest Group INDI
- Marian McBride Senior Project Dietitian HSE
- Niamh Maher, Senior Home Enteral Feeding Dietitian, CHO 9
- Mary McKeon, Clinical Specialist Dietitian, CHO 8
- Carmel O' Hanlon Clinical Specialist Dietitian, Beaumont Hospital

Others

- Speech and Language Therapy Colleagues in CHO 8 & 9
- Medical colleagues, GPs Representative's, National Clinical lead for Older Persons and Palliative Care , National Clinical Advisory Group .
- Directors of Nursing, Public and Private Residential Care Facilities
- Medical Nutrition Industry Abbott, Fresenius Kabi, Nualtra , Nutricia, Aymes
- IRSPEN & INDI

References

- IrSPEN GUIDELINE DOCUMENT No. 1: Prevention and Treatment of Refeeding Syndrome in the Acute Care Setting Available at <https://www.irspen.ie>
- (ESPEN 2020) ESPEN expert statements and practical guidance for nutritional management of individuals with SARS-CoV-2 infection, Clinical Nutrition, <https://doi.org/10.1016/j.clnu.2020.03.022>
- (MAG 2020) Practical guidance for using 'MUST' to identify malnutrition during the COVID-19 pandemic Malnutrition Action Group (MAG) update available at <https://www.bapen.org.uk/screening-and-must/must-calculator>
- (NICE 2006) Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition Clinical guideline [CG32] Published date: 22 February 2006 Last updated: 04 August 2017. Available at <https://www.nice.org.uk/guidance/cg32>
- Department of Health (2019). Nutrition screening and use of oral nutrition support for adults in the acute care setting. (NCEC National Clinical Guideline No.22). Available at: <http://health.gov.ie/national-patient-safety-office/ncec/national-clinical-guidelines>.
- Liu et al (2020) Clinical significance of nutritional risk screening for older adult patients with COVID-19 EJCN DOI: 10.1038/s41430-020-0659-7
- Barazzoni R et al (2020) , ESPEN expert statements and practical guidance for nutritional management of individuals with SARS-CoV-2 infection, Clinical Nutrition, <https://doi.org/10.1016/j.clnu.2020.03.022>

