Welcome!

Please introduce yourself in the chat room - name, role and place of work.
## Agenda – Week 8

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.00 – 8.05</td>
<td>Welcome and Updates</td>
<td>Louise Johnson</td>
</tr>
<tr>
<td>8.05 – 8.15</td>
<td>Frailty, Sarcopenia and Deconditioning</td>
<td>Susan Bridge</td>
</tr>
<tr>
<td>8.15 – 8.25</td>
<td>Deconditioning and Bone Health</td>
<td>Clare Cockill</td>
</tr>
<tr>
<td>8.25 – 8.35</td>
<td>Fuel for Rehabilitation (Nutritional Rehab)</td>
<td>Louise Albrich</td>
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<tr>
<td>8.35 – 8.50</td>
<td>Panel Discussion</td>
<td>Debbie Lane</td>
</tr>
<tr>
<td>8.50 – 9.00</td>
<td>Rounding Up</td>
<td>Louise Clark</td>
</tr>
</tbody>
</table>
UPDATES

Over to you...

Professional groups
General rehabilitation
Respiratory
Stroke
Frailty
Psychology
Mental Health
Staff (wellbeing- careers- development)

Please type any details in the chat box
Frailty, Sarcopenia and deconditioning

Sue Bridge: Trainee Advanced Clinical Practitioner/Physiotherapist,
Frailty Assessment Unit,
Yeovil District Hospital
Frailty

‘a distinctive health state related to the ageing process in which multiple body systems gradually lose their in-built reserves’

(British Geriatric Society, 2014)
The slide into Frailty

Resilience – ability to withstand or recover from stressors/events.

Deconditioning - (accelerated) decline in multiple domains.

Recovery – More than ‘back to baseline’ return of reserves, readjustment to change

Inflammation is an important driver (Li H et al. Aging Dis 2011; 2(6): 466-73).
Identifying Frailty In Practice

Comprehensive Geriatric Assessment (CGA) alongside the clinical frailty scale (CFS) is recognised as the gold standard for management for frailty (Rockwood et al, 2005).
Clinical Frailty Scale - CFS
(Rockwood et al, 2005)
The Frailty Cycle

Sarcopenia - definition of three criteria

Criteria:                                                                 Diagnosis:
1. Low muscle strength        Criteria 1 alone = probable
2. Low muscle quantity or quality Criteria 1+2 = confirmed
3. Low physical performance Criterion 1+2+3 = severe

(European Working Group on Sarcopenia in Older People, 2019)

In terms of human health – ‘The Perfect storm’
Not just about getting old

• Age-associated muscle loss
• Inflammatory conditions (e.g., organ failure, malignancy)
• Osteoarthritis
• Neurological disorders
• Sedentary behavior (e.g., limited mobility or bedrest)
• Physical inactivity
• Under-nutrition or malabsorption
• Medication-related anorexia
• Over-nutrition/obesity
Effect on muscle

- Denervation
- Cellular changes to reduce neuromuscular junction function
- Fibre function (and trend to type 2 fibres)
- Mitochondrial oxygen handling worse

POSSIBLE TO MEASURE:

- **Muscle strength and power** – grip strength
- **Muscle quality - DEXA**
- **Physical performance** - gait speed, TUAG, chair stand.
- **In clinical practice** - symptoms or signs of falling, feeling weak, slow walking speed, difficulty rising from a chair or weight loss/muscle wasting – test further? SARC –F questionnaire

- Increased risk of falls, fracture, inability to perform ADLs

- Associated with conditions cardiac, respiratory disease, cognitive impairment, reduced mobility, loss of independence, increases cost of care.
Activity and Exercise

• Physical activity guidelines older people to keep healthy – 150 min of moderate (walking)-to-vigorous or 75 min of vigorous aerobic but may need to be adapted and may not be possible (McLeod, 2019)

• Addition of protein supplements uncertain benefit but most older people eat less than recommended 1.0 -1.2 grams per KG per day (PROTAGE study, 2013)

• Management of osteoporosis, promoting bone strength, and for the management of vertebral fracture symptoms- Strong, steady straight (National Osteoporosis Study, 2019)

• Individualised multifactorial falls assessment and prevention interventions including home hazard assessment and safety advice in written and verbal format. Strength and balance training identified as an effective single intervention and as a component in multifactorial programmes (NICE, 2017)
Interventions

• Frail older adults benefit from exercise interventions although the optimal program remains unclear (Carmen de Labra et al, 2015)

• To minimise the impact of pro inflammatory illnesses in frail or pre-frail older people - progressive mild-moderate exercise for those able to do so in a structured programme (Allen, 2015)

• Beneficial outcomes from a home – based exercise intervention for older people with frailty by promoting strength, endurance and balance to maintain basic mobility skills and self – management (Clegg et al, 2018).

• Resistance (RET) maybe more effective reducing chronic disease and maintaining mobility in older adults. Interventions for pre-frail and frail older adults should include multi- component exercises- RET, aerobic, balance and flexibility tasks. However inconsistent definition of frailty and some are exercise alone and some with nutrition/vit D (Jadczak et al, 2018).
Conclusions

• Comprehensive holistic assessment of frailty to identify feasible person centred goals.
• Need to identify where an individual person is on the frailty continuum and target interventions to prevent adverse health outcomes.
• Focus on accepted evidence based multi-domain health interventions for frailty
• Further research into appropriate interventions aimed to prevent, reduce or reverse frailty.
COVID-19 Impact on
Bone Health, Yeovil Hospital

Clare Cockill, Clinical Nurse Specialist
Lead for Osteoporosis, Fracture Liaison (FLS) and DXA Services at Yeovil Hospital

Email: clare.cockill@ydh.nhs.uk
Fragility fractures: a long term condition

“Hip fracture is all too often the final destination of a 30 year journey fuelled by decreasing bone strength and increasing falls risk”

Osteoporosis causes weak bones.

Normal Bone

Bone with Osteoporosis
Figure 9. The cycle of impairment and fracture in osteoporosis [112]

- Comorbid conditions
- Beliefs about physical activity and fracture
- Prescribed treatment and advice from HCPs
- Treatment compliance and persistence

Psychological and social
- Fear of falling/fracture
- Depression
- Altered body image
- Low self-esteem
- Reduced social interaction

Reduction in activities requiring physical function

Loss of muscle/bone strength

Fracture (location/number)

Pain & changes in spinal alignment

Impaired physical function

(Reproduced from Osteoporos Int 2017 May;28(5):1597-1607 with kind permission of Springer)
Getting the Right Treatment at The Right Time

**IOF Global Patient Charter**

Through this Charter, as a patient or family member of a patient, I call for the rights to:

1. **DIAGNOSIS:**
   Timely and accurate assessment of fracture risk, falls risk and diagnosis of osteoporosis.

2. **PATIENT CARE:**
   Access to effective intervention options (treatment, lifestyle changes) and to regular drug treatment review by appropriate healthcare professionals.

3. **PATIENT VOICE:**
   Involvement and choice in a long-term management plan with defined goals.

4. **SUPPORT:**
   Care and support from society and healthcare providers, to ensure active and independent living.

Ref: IOF Compendium of Osteoporosis 2019
DXA scanning stopped but FLS has continued to identify patients with fractures - less have presented (July not complete yet). Probably only frailest fallers getting falls assessments.

Records entered by Index Fragility Fracture(s) - Date diagnosed (data item 1.12)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
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</thead>
<tbody>
<tr>
<td>2020</td>
<td>682</td>
<td>137</td>
<td>108</td>
<td>104</td>
<td>92</td>
<td>83</td>
<td>107</td>
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<td>2019</td>
<td>1515</td>
<td>106</td>
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<td>2018</td>
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<td>2017</td>
<td>1402</td>
<td>124</td>
<td>115</td>
<td>117</td>
<td>126</td>
<td>145</td>
<td>125</td>
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<td>2016</td>
<td>1486</td>
<td>170</td>
<td>136</td>
<td>120</td>
<td>126</td>
<td>115</td>
<td>109</td>
<td>122</td>
</tr>
</tbody>
</table>

Last Updated: 30/07/2020 11:14
Covid challenges:

- No face2face appointments
- Delays in injectable treatments
- No strength & balance
- Reduced support for lifestyle changes

Maintained timely treatment letters and recommended more start treatment
Covid challenges:

- No face2face appointments
- No video consultations
- No peer support
- No group education session
- All regular meetings with lay voice cancelled

Patients have been VERY grateful for any involvement in care received – even if this has been by telephone or letter.

Return rate on questionnaires was 75-86% in Jan, Feb, Mar. – now dropped to 65% April, May.

Lots of telephone calls initially, now dropping off, more referrals coming in.

Less asking to go on waiting list for education session as pandemic goes on and viable alternative to face2face not sorted out yet.
Covid challenges:
• No face2face appointments
• No community classes
• No peer support
• No group education session
• Reduced access to support networks

Patients given online support details to obtain further help and information and they are learning to get support online rather than face2face.
• The Osteoporosis Society has maintained its Nurse Helpline and has had lots of calls.
• People have been doing more walking during lockdown and report feeling better for it.
Challenges to be addressed:

1. **Assessment consultations** – ongoing clinic space for face2face, video and telephone consultations.

2. **Hospital based treatments** – every system set up pre-COVID has needed to be changed and there is an ongoing back log with new referrals to start treatment coming in greater numbers now.

3. **Peer support and education for patients** – could be done through Virtual Group Clinics but requires new way of working and an IT literate person to spend time setting these up with patients.

4. **Peer support and education for professionals** – online learning and virtual meetings/training/conferences.
What can I do to keep my bones strong and prevent fractures?

Well balanced calcium rich diet
Weight-bearing exercise
Maintain appropriate body weight
Not smoking
Not excessive alcohol
Adequate vitamin D

Plus adequate protein intake for Seniors to help combat muscle loss

for a breakfree future
Website details for advice:

National guidance about osteoporosis treatments produced by The Royal Osteoporosis Society

• For patients – reassurance that all treatments okay with COVID

• For health professionals – managing injectable treatments
The Rehab nutritional journey
diet post COVID-19 or ICU

Louise Albrich, BSc MSc RD
Advanced Dietitian in Nutrition Support & Critical Care
and interim Dietetic Service Manager & Professional Lead
Yeovil District Hospital

ReSTORe network
31 July 2020
## What nutritional implications are there?

Consider the patient’s **point on their journey of recovery**

<table>
<thead>
<tr>
<th></th>
<th>Pre-morbid</th>
<th>ICU</th>
<th>Hosp DC</th>
<th>3month FU</th>
<th>Later mths/hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Function/strength</strong></td>
<td>Fraility/ Sarcopenia/ ADL/ activity</td>
<td>Early rehab for strength and function ↑ frailty/ sarcopenia</td>
<td>High therapy needs ↑ frailty/ sarcopenia</td>
<td>High therapy needs ↑ frailty/ sarcopenia</td>
<td>Ongoing exercise rehabilitation ↑ frailty/sarcopenia</td>
</tr>
<tr>
<td><strong>Nutritional status</strong></td>
<td>Malnourished Obese</td>
<td>Lose 2% muscle per day (fevers, glycaemic control, renal fx)</td>
<td>Continued muscle loss – ↑ frailty/ sarcopenia (fevers, glycaemic control)</td>
<td>Some continued muscle loss OR lack of muscle gain – effects function</td>
<td>Fat mass gain</td>
</tr>
<tr>
<td><strong>Intake</strong></td>
<td>7+days poor intake pre COVID</td>
<td>% target received?</td>
<td>Post-ICU manages &lt;50% needing suppl NG feed/ONS Modified diet/fluids?</td>
<td>Eating ‘normally’ or enough or ‘right’? Modified diet/fluids?</td>
<td>Eating balanced but 'right' for recovery?</td>
</tr>
<tr>
<td><strong>Symptoms</strong></td>
<td>Any pre-existing symptoms?</td>
<td>Symptoms: appetite, taste, satiety, dyspnoea (breathing effort), dysphagia, GUT sx, fatigue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td>Metabolic health Bone health</td>
<td>Hyper inflammatory Hyperglycaemia Renal function</td>
<td>Metabolic control Bone health Skin, nails and hair</td>
<td>same</td>
<td></td>
</tr>
</tbody>
</table>

ADL = activities of daily living; 6MWT = 6 minute walk test; NG = Nasogastric; ONS = Oral nutritional supplements; ;
Post-ICU **Physical** nutrition-related factors

- Profound muscle loss (in 87%) *(known to be 2%/day on ICU so 18% on ICU DC)* \(^1\)
- Weight regain in 50%*(known what only on \(\frac{1}{2}\) to \(\frac{2}{3}\) of baseline function recovered\(^2,3\))
- Some (36%) are concerned about their weight \(^1\)
- Be aware of muscle wasting (sarcopenia) in the overweight recovering patient
- Other symptoms: shortness of breath (49%), pain (43%) etc.

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1. Albrich L, Hickson M, SNACCsurvey 2018;
2. Herridge MS, NEMJ 2003;
3. Hermans & van den Berghe 2015
Post-ICU Physiological/gastrointestinal nutrition-related

- Appetite is poor at discharge and at 3 months (50-62%) \(^1,2,3\)
- Early satiety is present (59%) \(^3\)
- Taste changes reported (49%) \(^1,3\)
- Dysphagia reported in a third at discharge, quarter at 3 months, and a fifth at 6 months \(^2,3,4\)
- Bowel problems persist
- Other symptoms: hair loss, etc. \(^3\)

1. Merriweather JL, E J Clin Nutr;
2. Choi J, J Pain Symptom Manage, 2014;
3. Albrich L, Hickson M, SNACCsurvey 2018;
Post-ICU Psychological nutrition-related factors

- Emotional difficulties are prevalent (46-57%) \(^1\)
- Sleep disturbances continues (54%) and worsens fatigue \(^1\)
- Appetite is often influenced by these factors \(^2,3\)
- Patients are more dependant on help with shopping and cooking \(^4\)
- These difficulties may be compounded for those living alone

2. Rattray JE, Hull AM, J Am Nurs, 2008;
4. Albrich L, Hickson M, SNACCsurvey 2018
Physiological nutritional need, intake and utilisation

• Expert opinion tells us of the continued hyper-metabolic state and the need to optimise nutrition in the rehabilitation phase ¹,²
• There appears to be an anabolic resistance alongside continued low grade inflammation ³,⁴
• However, patients report eating less at home ⁵
• Only a quarter of patients received diet advice at home ⁵
• A third of patients expressed a need for dietary advice at home ⁵
• Supplemental oral nutrition likely needed for 2-3 months ²

Good recovery takes +++ therapies

- Physio, occupational, psychological, medical pharmacological, medical, and nutritional THERAPY
- It takes the a truly multidisciplinary approach to rehab
- Incorporating nutrition could optimise outcomes #FueltoFunction
- Nutrition repairs/heals, replete/rebuilds and nourish/nurtures #NourishRecovery\textsuperscript{1,2}
- Just giving meals may not be enough – the ‘right’ nutrition #RightNutritionMatters and #NotJustCalories
- Remember MDT aka #MusclesNeedDietandTherapy and AHP aka #AlsoHaveProtein
- Nutritional therapy means to educate, motivate, and support using medical nutrition #WhatDietitiansDo
- Nutrition should be integral to therapy/ rehab pathways

Assess and monitor nutritional status, symptoms and function

Provide first line advice, information and nutrition handover (#fueltofunction)

Refer if worsened/ not regaining, or other nutrition counselling needed

Personalised nutrition plan #notjustcalories and rationale for prescribable products

## How to identify nutritional need?

### Assess and monitor nutritional status, symptoms and function

<table>
<thead>
<tr>
<th>Function/strength</th>
<th>ICU DC</th>
<th>Hospital DC</th>
<th>3month FU</th>
<th>Tools to Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A high risk’ for early rehab?</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Grip strength</td>
</tr>
<tr>
<td><strong>Fuel intense rehab? #Move&amp;Shake</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Functional test (chair-raise, sit-to-stand, 6MWT)</td>
</tr>
<tr>
<td><strong>Fuel high rehab needs? (muscle loss/weak/tired) #Move&amp;Shake</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Calf circumference</td>
</tr>
<tr>
<td><strong>Fuel rehab needs? #Move&amp;Shake</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Calf circumference</td>
</tr>
<tr>
<td><strong>?Degree of frailty/ sarcopenia: Rockwood &gt;5; SARC-F &gt;4</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Calf circumference</td>
</tr>
</tbody>
</table>

### Nutritional status

<table>
<thead>
<tr>
<th>Nutritional status</th>
<th>ICU DC</th>
<th>Hospital DC</th>
<th>3month FU</th>
<th>Tools to Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ventilated 2days+ / MUST&gt;2? (BMI, wt loss, min eating 5d+) Muscle wasting!</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Weight change</td>
</tr>
<tr>
<td><strong>MUST &gt;2? (BMI, wt loss, min eating 5d+) Muscle wasting signs?</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Mid upper arm circumference</td>
</tr>
<tr>
<td><strong>Concerned re underweight? Unintentional weight loss? (loose rings/clothes)</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
</tr>
<tr>
<td><strong>Concerned about weight loss or gain? (fat mass)</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
</tr>
</tbody>
</table>

### Intake

<table>
<thead>
<tr>
<th>Intake</th>
<th>ICU DC</th>
<th>Hospital DC</th>
<th>3month FU</th>
<th>Tools to Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feed interruptions? Sedation/ fluids calories?</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
</tr>
<tr>
<td><strong>Eating &lt;1/2 meals? Post-ICU suppl NG? Post-ICU ONS?</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
</tr>
<tr>
<td><strong>Lost appetite/ interest in eating?</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
</tr>
</tbody>
</table>

### Symptoms

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>ICU DC</th>
<th>Hospital DC</th>
<th>3month FU</th>
<th>Tools to Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GI intolerance?</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
</tr>
<tr>
<td><strong>2 or more nutrition related symptoms</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
</tr>
<tr>
<td><strong>2 or more nutr-rel symptoms (swallowing?)</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Severity (0-10)</td>
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### Health

<table>
<thead>
<tr>
<th>Health</th>
<th>ICU DC</th>
<th>Hospital DC</th>
<th>3month FU</th>
<th>Tools to Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Glycaemic control, renal support</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Satisfaction/ confidence</td>
</tr>
<tr>
<td><strong>New diagnoses</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Satisfaction/ confidence</td>
</tr>
<tr>
<td><strong>Want nutrition advice?</strong></td>
<td>ICU Ward</td>
<td>First 6-12/52 / com pt</td>
<td>Later mnths/ys</td>
<td>Satisfaction/ confidence</td>
</tr>
</tbody>
</table>

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**Tools to Monitor**
- Grip strength
- Functional test (chair-raise, sit-to-stand, 6MWT)
- Calf circumference
- Weight change
- Mid upper arm circumference
- Severity (0-10)
- Satisfaction/ confidence
- #notjustcalories
- #fueltofunction

**Assess and monitor nutritional status, symptoms and function**
- Provide first line advice, information and nutrition handover (#fueltofunction)
- Refer if worsened/ not regaining, or other nutrition counselling needed
- Personalised nutrition plan #notjustcalories and rationale for prescribable products

---

**ICU DC**
- Ward
- First 6-12/52 / com pt
- Later mnths/ys

**Hospital DC**
- First 6-12/52 / com pt
- Later mnths/ys

**3month FU**
- First 6-12/52 / com pt
- Later mnths/ys
What first line advice should be given?

| ICU DC       | Hospital DC | 3month FU |  
|--------------|-------------|-----------|---
| **ICU**      | Ward        | First 6-12/52 to months/years later or community patient |
Eating well/Improving eating/Nutrition support for COVID19  
If not had Covid19:  
Eating well with a small appetite  
Store cupboard essentials  
High Protein Foods and [protein fact sheet for health care professionals](https://www.bda.uk.com/resource/nutrition-at-home-after-critical-illness.html) (these leaflets are also useful for Covid19)  
Post-ICU: [https://www.bda.uk.com/resource/nutrition-at-home-after-critical-illness.html](https://www.bda.uk.com/resource/nutrition-at-home-after-critical-illness.html)  

**Assess and monitor nutritional status, symptoms and function**

**Provide first line advice, information and nutrition handover (#fueltofunction)**
Refer for nutrition review.

Assess and monitor nutritional status, symptoms and function

Provide first line advice, information and nutrition handover (#fueltofunction)

Refer if worsened/not regaining, or other nutrition counselling needs

ICU DC Hosp DC 3month FU

ICU Ward

First 6-12/52 to months/years later

Inpatient referral system

If in community - follow local Malnutrition care pathway but refer to community dietetics as needed: in Somerset Dietetic E-referral form
If under YDH care – refer to YDH Dietetics dietitians@ydh.nhs.uk

Initial assessment form completed by PTA. This comprises of Completeness, Validation, Goal Setting and Outcome Measure gathering (BAPS, SNIFF/BS and 3D-SS STS). Following questions to ascertain if further referrals or signposting required. The Patient Association Nutrition Checklist 4 questions are included below.

- Any weight or stature loss noted? (method/ring issues)
- Significant or worsening plus patient concerned or want diet advice for comorbidities?
- Explanable – Very likely in early stage
- Have first the advice and refer to dietetics

- Any difficulties with eating or drinking?
- New issue with chewing or swallowing?
- Symptoms like poor appetite, nausea, taste changes, feel full, effort of breathing, chest/heart pain, etc.
- Email refer to SALT and Dietitian (patients seen by SALT on ward already have PU in community)
- Patient Association Nutrition checklist then signposting and referral to Dietetics

- Any difficulty with activity around the home?
- Access around home
- Shopping/ preparing cooking/necessities
- Check existing support network/ Red Cross Support at home

- Any changes to Speech thought or behaviour?
- Mood and Personality
- Talking Therapies / Psychology
- Memory and Planning
- OT / Talking Therapies
- Cognition in speech
- Email SLT

Any relevant referrals will be made after this appointment. The patient will be informed of this and kept up to date with progress of referral. Any signposting can be sent via their preferred contact method (email or post).

All information will be taken into account and factored into their rehabilitation plan. If patient answer “No” throughout then no referral will be made at this point unless indicated in the future.
# Why personalised nutritional rehabilitation?

**Assess and monitor nutritional status, symptoms and function**

**Provide first line advice, information and nutrition handover (#fueltofunction)**

**Refer if worsened/ not regaining, or other nutrition counselling needs**

**Personalised nutrition plan #notjustcalories and rationale for prescribable products**

## ICU DC  Hosp DC  3month FU

<table>
<thead>
<tr>
<th>ICU</th>
<th>Ward</th>
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| Diet counselling on health condition (COPD, Diabetes, IBD, cancer, liver disease, stroke, obesity, chronic wounds etc.) | Diet care planning and counselling for nutrition support and fuelling function at home/ care facility  
  - Protein source, dosing and timing 1.2 |
| Diet care planning and counselling for nutrition support and fuelling function | Diet counselling on symptom management |
| Diet counselling on symptom management | Food security, preparation and social aspects. |
|                               | Food beliefs and psychological aspects of eating. |

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<thead>
<tr>
<th>First 6-12/52 to months/years later</th>
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<tr>
<td>Diet counselling on existing/new health conditions (as on left)</td>
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<tr>
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Summary

- Nutritional rehabilitation as a piece of the rehab puzzle
- Nutrition related symptoms do occur in Covid19 and are common post-ICU
- Nutrition matters and requirements may be high in recovery post ICU
- Dietetics can help with targeted nutrition therapy
- AHPs can be advocates for #AlsoHaveProtein
- It takes the whole MDT, because #MuscleNeedsDietAndTherapy
- Nutrition fuels and replenishes so cannot be an afterthought #FuelToFunction
- So let's, nourish and nurture muscle mass and function to optimise rehab #NutritionalRehab #NourishRecovery
Pushing the nutritional rehab agenda during COVID-19

Louise Albrich highlights the amazing work ICU dietitians are doing to push nutrition rehab higher up the agenda

COVID-19 has shown a light on the impressive work of NHS intensive care units (ICU). Dietitians in ICU are an essential workforce ensuring the nutritional needs of critically unwell patients helping to give them the best chance of recovery. However, nutrition has a continued role to play after the patient leaves ICU as part of post ICU rehabilitation.

Establishing a heart attack, stroke or COPD have well established pathways that most clinicians know about, but many times also have have critical care pathways too. However, evidence on effectiveness has varied which poses the question - can nutrition be the missing link here? In addition, in pathways where nutrition is included, items in them tend not to go far enough or the messages and services could do with being more effectively aligned. As nutrition experts, we know that poor nutrition has a negative impact on both the recovery time and overall outcomes.

Spread the nutritional rehab message
My interest in nutritional rehab began over four years ago when, through linking in with our local post-ICU rehab pathway, my eyes opened to the nutritional issues that go along with the chronic physical, physiological and psychological aftereffects of critical illness. Networking within dietetic research in this field then snowballed into me completing a Masters in Clinical Research survey project on the ‘Symptoms and Nutritions After Critical Care (SINAC)’. I have since joined the BDA Critical Care Specialist Group committee, helped on working groups to develop handover documents and nutrition audits, and more recently been involved with BDA working groups to produce guidance and webinars.

There is now a wave of interest in post-ICU recovery and increased awareness of the role nutrition plays. This is therefore an opportune time for dietitians to unite and to push the agenda for nutrition to have a higher profile on rehabilitation pathways not just for the post-ICU, but also other COVID or non-COVID patients starting their journey of rehabilitation.

It is, however, important we share the right messages in a consistent manner. Use the numerous resources on offer from the BDA and specialist groups and share anything you have developed back with them. Rather than working in silos, teams across the country can collaborate on ideas, guidance, projects, or research, through a focused coordinated approach with the BDA or clinical leaders at the helm. If nothing else, the contact even just for moral support and to have a sounding board!

Although we have little evidence on which nutritional rehabilitation approach will be most effective, some evidence suggests that early, efficient and prolonged nutrition intervention has a significant effect on overall recovery outcomes. The nutritional advice should therefore be to eat enough of the right nutrition (proteins and nutrient dense) given at the right time and balanced with advice for good metabolic health. So help spread the word on Fat and Protein Rich, #FPR (aka muscle needs diet and therapy), FARP (aka also have protein eat #FatAndProteinRich)

Add functional aspects to your care
Our most critically ill patients are currently leaving hospital with profound weight loss, with the extensive acute care causing greatly effecting their functional ability. Therapists are mobilised to provide therapy for these patients, which includes functional assessments. Although dietitians recommend assessment of nutritional risk, measures of frailty or sarcopenia also link with nutritional need. So these measures may prove to be useful objective tools for dietitians to also use because what matters to patients is whether they can do more as they recover. These assessments are already included within many rehabilitation services in order to quantify the impact of lost muscle, strength and function and the subsequent impact of therapy.

Therapists and other allied health professionals are an enormous unexplored workforce that can be mobilised to help patients’ nutritional rehab journey, e.g.:
- Find out about the rehabilitation pathway of your patients – look from critical care, the ward, or in the community
- Check to see if nutrition is one of the elements within the pathway and what messages are given
- Suggest a tool to screen nutritional risk e.g Patient Association Checklist (https://bit.ly/2PdG0jD) or eMUST (https://bit.ly/2n6zFpm alongside frailty and sarcopenia scoring)
- Suggest resources for in-clinic diet advice about increasing nutrient density of diet (https://bit.ly/27YTMER or https://pracos.co.uk)
- Agree referral criteria and methods to dietitians for those higher rehab and nutritional risk patients.

Thank you

The BDA website has guidance on nutrition for critical care, on the ward and at home:
- https://bit.ly/3iMO0is

Any questions, feel free to contact me on louise.albrich@ydh.nhs.uk or @LouiseAlbrichHD
And finally …

• Thank you all for joining this call
• Slides and other resources referred to will be uploaded to SW AHSN models of care platform on the ReSTORe portal
• We will be taking a break over the summer – back in September.
• If you have ideas for future topics or would like to speak at a future session then please contact Deborah.Lane@ydh.nhs.uk