

Nutrition and Hydration in Wound care

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Emma

- 75 year old lady
- Currently inpatient in community hospital
- Grade 2 pressure damage on sacrum
- Needs some assistance with meals due to weakness in her arm
- Lives with her daughter in a bungalow
- Has become increasingly frail
- Husband died approx. 9/12 ago, and moved in with her daughter at this point

Nutritional Screening

Primary cause of malnutrition is disease related malnutrition.

This means that nutritional requirements are not because of one of the following:

- decreased dietary intake
- increased nutritional requirements
- impaired ability to absorb nutrients

- So why screen?
- How should we screen?
- Emma has a MUST score: 1 (BMI 19kg/m²)

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[V] Screening for malnutrition (initial) (Must) Re-assessment

Step 1 BMI Score

BMI kg/m ²	Score
>20 (>30 obese)	= 0
18.5-20	= 1
<18.5	= 2

MUST step 1 (BMI score) outcome

Step 2 - Weight Loss Score

Unplanned Weight Loss in Past 3-6 Months %	Score
<5	= 0
5-10	= 1
>10	= 2

MUST step 2 (weight loss score) outcome

Step 3 - Acute Disease Effect Score

Condition
If patient is acutely ill and there has been, or there is likely to be, no nutritional intake for >5 days

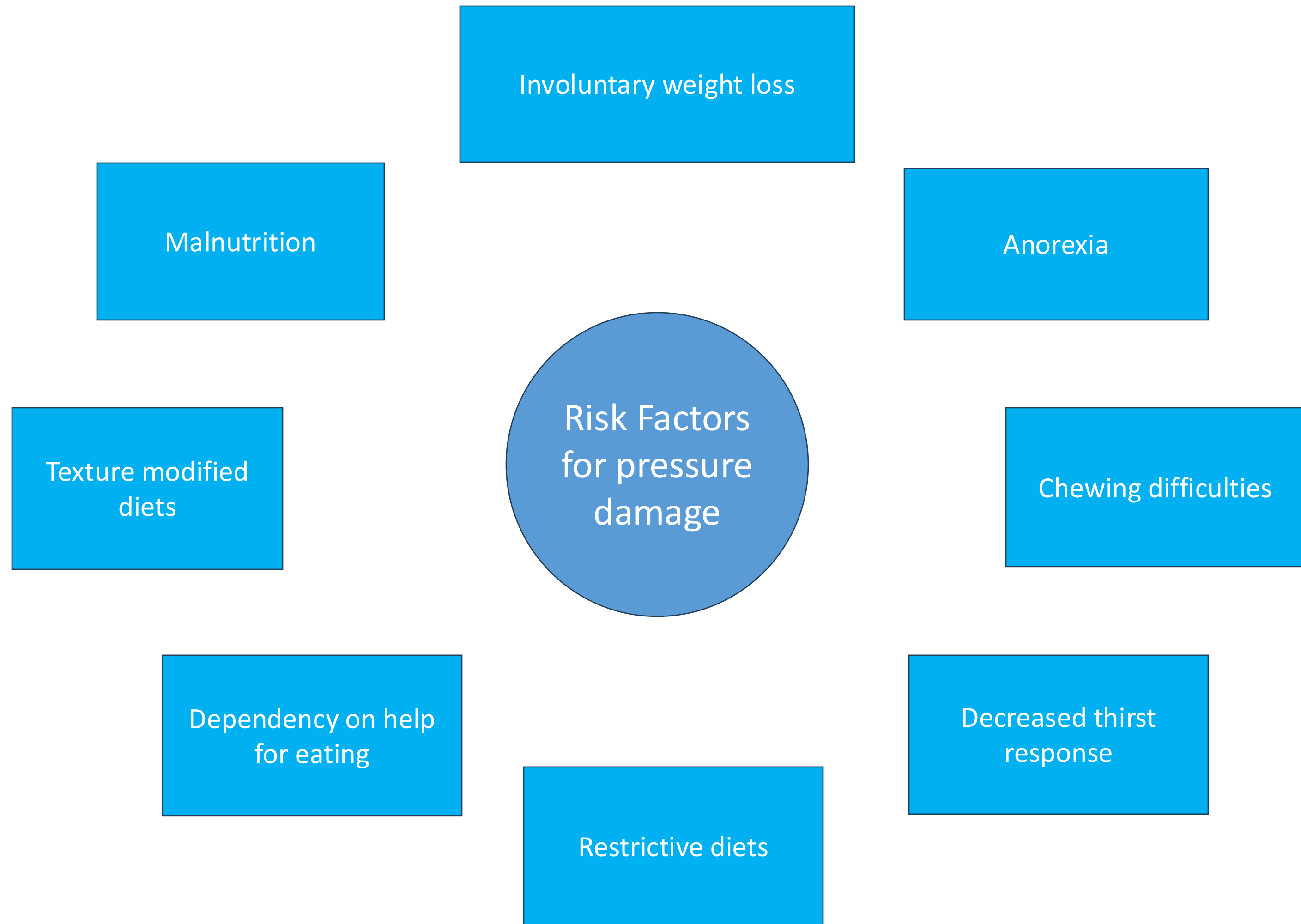
MUST step 3 (acute disease effect score) outcome

Step 4 - Overall Risk of Malnutrition
Add the scores from steps 1, 2 and 3 together to calculate the overall risk of malnutrition.

Score	Risk
0	Low risk
1	Medium risk
2 or more	High risk

Malnutrition universal screening tool score

(Comments, Changes,) Actions



(NICE, 2005)

So what next?

Management pathway – what can you do now?

- First line dietary advice – Food first
- Food Charts/History
- OTC sip feeds – Aymes shakes, Complian shake
- Referral to the dietitian – as Grade 2



The science bit.....

Role of Dietary Factors in wound healing

Nutrient	Function in wound healing	Effects of deficiency
Protein	Required for synthesis of new tissue	Slower wound healing Tissue of poor tensile strength
Fat	<ul style="list-style-type: none">• Required to prevent dietary or tissue protein being used as an energy source• Fatty acids have a key role in membrane synthesis	Loss of fat stores Impaired immunocompetence
Carbohydrate	Required to prevent dietary or tissue protein being used as an energy source	Protein stores will be utilised

Role of Dietary Factors in wound healing

Nutrient	Function in wound healing	Effects of deficiency
Vitamin A	Improves cell mediated immunity	Increase in wound infections
Vitamin B complex	Coenzymes for energy metabolism Cofactor for collagen depositions/cross linkage	Impaired immunity
Vitamin C	Protection of metalloenzymes for oxidation Collagen synthesis Collagen cross linkage	Decreased neutrophil Wound dehiscence
Zinc	Cofactor in enzyme systems	Reduced collagen synthesis Impaired wound strength

Practical advice for dietary counselling



bda.uk.com/resourceLibrary/printPdf/?resource=pressure-ulcers-pressure-sores-diet

Practical advice for dietary counselling

- Overall dietary balance
- Think blood glucose – have we got good glycaemic control?
- Think micronutrients and vitamins - do we need to consider an OTC A-Z multi-vitamin at least in the short term
- Think fluid

Where do we go from here?

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- Emma has found she has gone off eating meat due to difficulties with chewing
- Has never drunk milk except in her tea, and doesn't want to try.
- Has the occasional yoghurt and is open to increasing her intake.
- Likes Italian food – so enjoys pasta and lasagne
- Feels lethargic during her meals and only tends to manage less than half portions
- Prefers soft options
- **Where do we go from here?**

Nutritional supplementation

- When?
- Why?
- What?



Monitoring/Evaluation of Treatment

- When?

Frequency is depending on setting

- Why?

Is the plan effective?

- What?

MUST screening, prescription compliance and appropriate prescribing



Summary

- Nutrition is a fundamental part of wound care management
- Nutritional screening is key for everyone but integral to the wound care management pathway
- Although the biology behind the nutritional interventions is very complex, we don't need to make our nutritional approach complicated
- Think food first, but also don't feel afraid of nutritional supplementation – a short term intervention they can be really valuable