PREVENTION OF MALNUTRITION IN HOME-DWELLING ELDERLY

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Why is malnutrition an issue?

- 3 million individuals in the UK are at risk of developing malnutrition
- 93% of these individuals live alone in the community.
- One third to one half of Elderly US citizens aged 65 years and over in the community setting are also reported to be malnourished or are at risk of malnutrition upon admission to hospital.
- Malnutrition costs over £13 billion within UK healthcare systems.
- Cost of life is much higher! (Blaikley 2012).

Definition of Malnutrition

- No universally accepted definition (Holdoway 2012a)
- "Poor nutrition" but can individuals be overweight and obese?
- Malnutrition should not be defined just by weight but also by the quality of food consumed (Blaikley 2012).
- May explain why malnutrition maybe often unrecognised and untreated (Farrer et al 2013).
- "Malnutrition is a state in which a deficiency, excess or imbalance of energy, protein and other nutrients causes adverse effects on tissue/body -> poor function and or clinical outcome (Elia 2003)

Causes of malnutrition

Physiology-the "anorexia of aging"

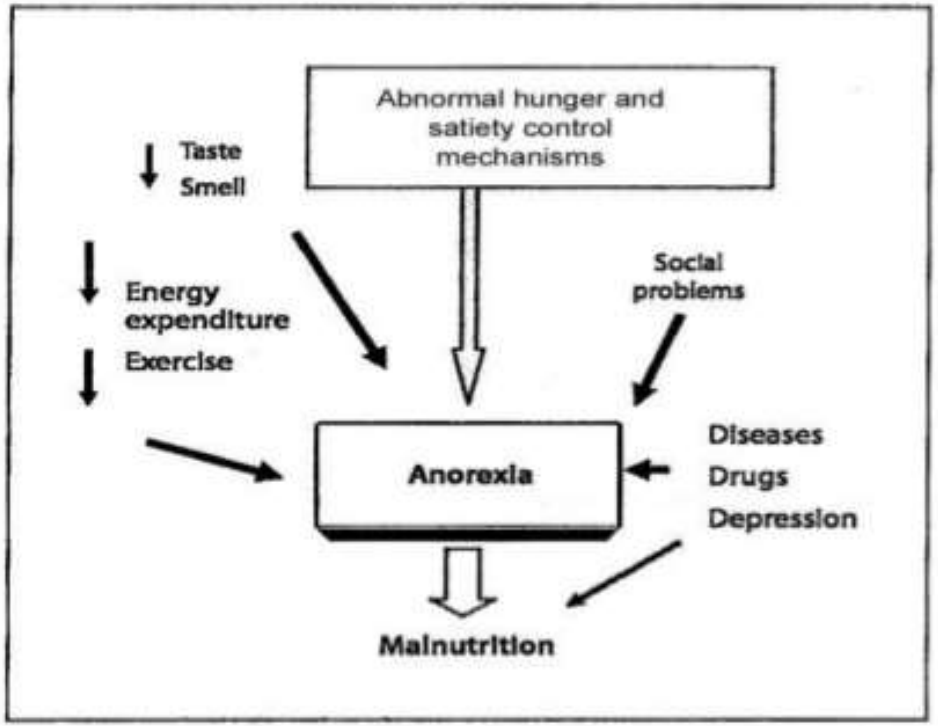


Fig. 1. Mechanisms of malnutrition in the elderly: role of anorexia.

However..

Social Factors	Psychological Factors	Physical Factors	Medical Factors	Polypharmacy
Poverty	Depression	Poor dentition Loss of taste and smell	GI disease	Antibiotics
Inability to shop cook and prepare food	Dementia Alzheimer's disease	Ill fitting dentures	Acute and chronic infections	NSAID
Inability to feed oneself.	Alcoholism	Immobility due to stroke dysphagia	LTC, COPD CHD	CNS agents
Cooking for one	Cholesterol phobia	Prone to falls	RA Parkinson's	Polypharmacy
Loneliness.	Bereavement	Impaired vision	D&V and constipation	Pulmonary medication

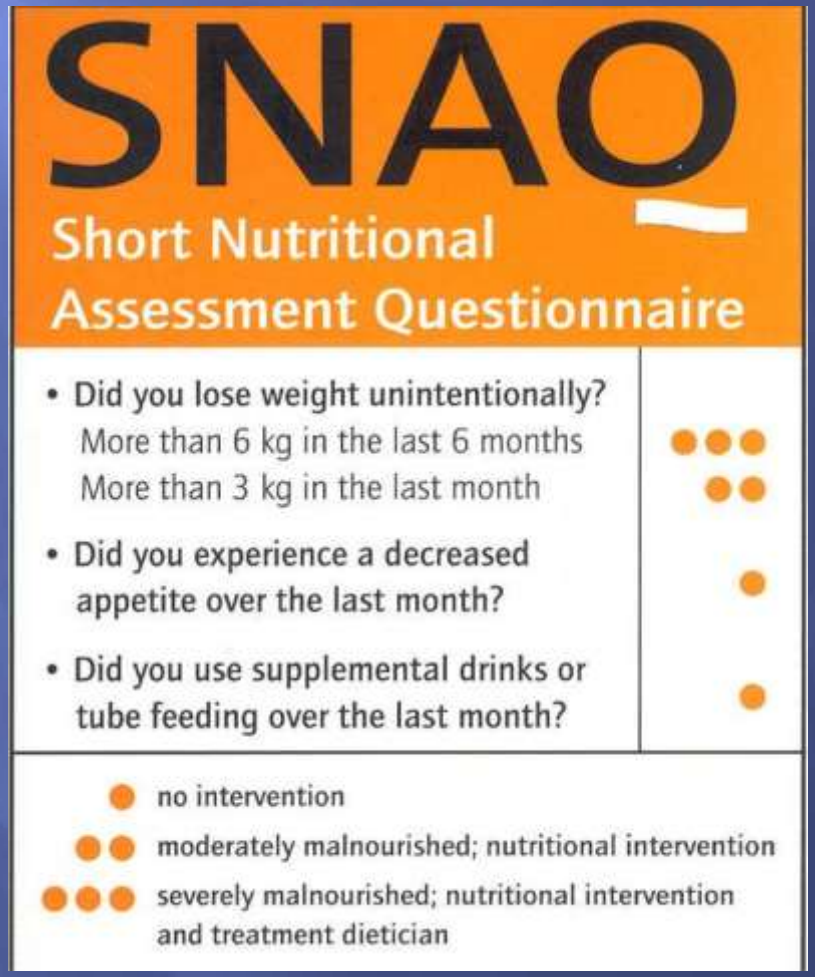
Identification of malnutrition

- Screening fundamental step to enable holistic evidenced based INDIVIDUALISED intervention (Malnutrition Taskforce 2013). Yet NOT routine?
- Screening barriers (Green et al 2013)
- Supportive organisational culture
- Acceptability of screening tool
- Professional judgement and subjectivity of results
- Training and primary secondary care interface.
- It's my home I don't want to be screened (Evans 2012)
- Reliability: Findings from Green et al (2013 in one healthcare setting therefore not transferable!

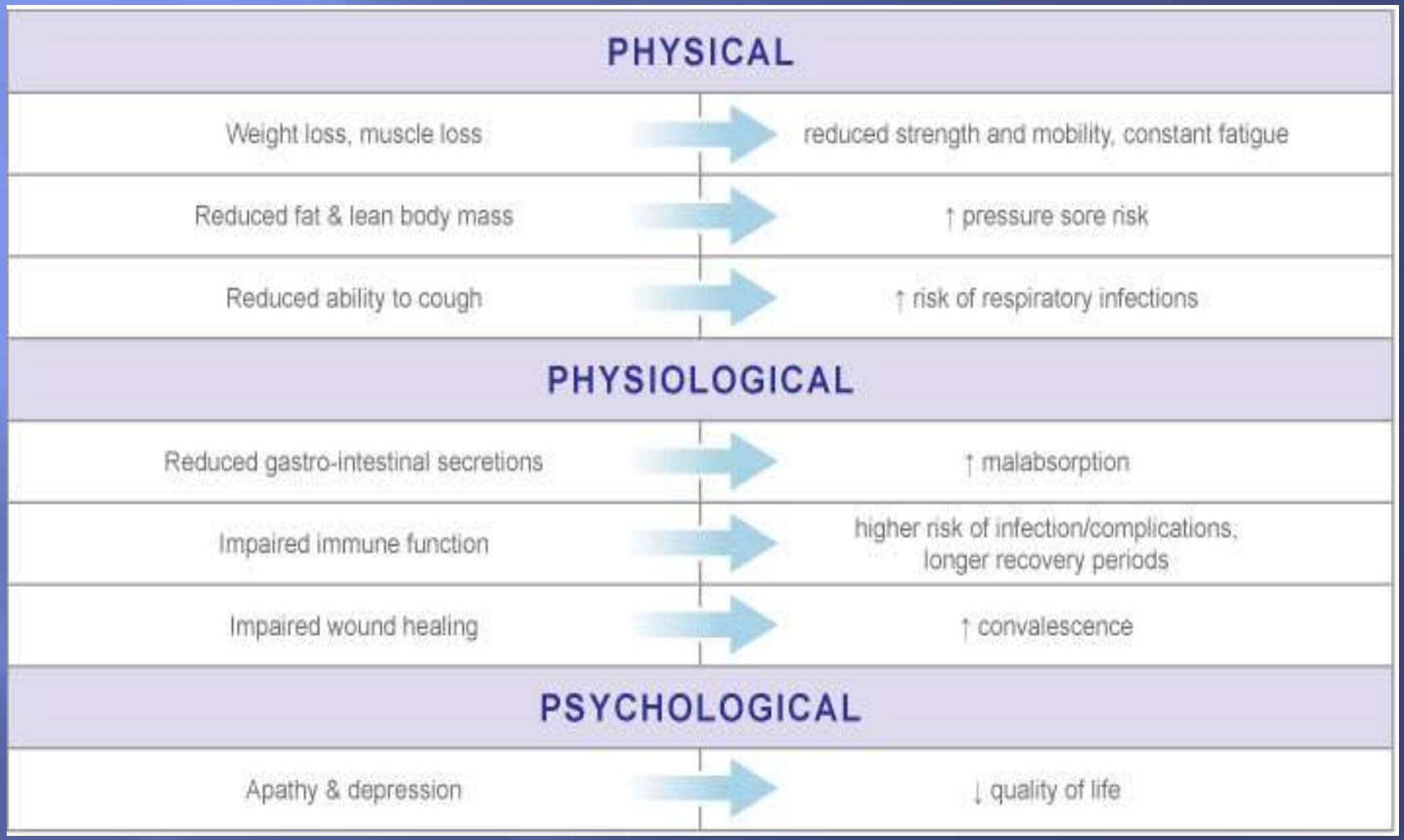
Screening Tools

- UK MUST (Malnutrition Universal Screening Tool) BAPEN 2015).
- Mini Nutritional Assessment Tool (MNA) more appropriate and reliable in home dwelling elderly.
- Both use BMI to indicate risks of malnutrition
- BMI = Bury me Immediately (Ashwell 2012). Replacement? Body Adiposity Index?
- BMI categories are weight categories and they're not exact health categories," Flegal et al 2014
- Lbm replaced by fat in elderly (Fry and Rasmussen 2011)
- One tool cannot be applied to different populations and clinical areas (Van Bokhorst Van der Scheren 2013)

SNAQ


SNAQ
Short Nutritional Assessment Questionnaire
• Did you lose weight unintentionally?
More than 6 kg in the last 6 months
More than 3 kg in the last month
• Did you experience a decreased appetite over the last month?
• Did you use supplemental drinks or tube feeding over the last month?
no intervention
moderately malnourished; nutritional intervention
severely malnourished; nutritional intervention and treatment dietician

Clinical Warning Signs



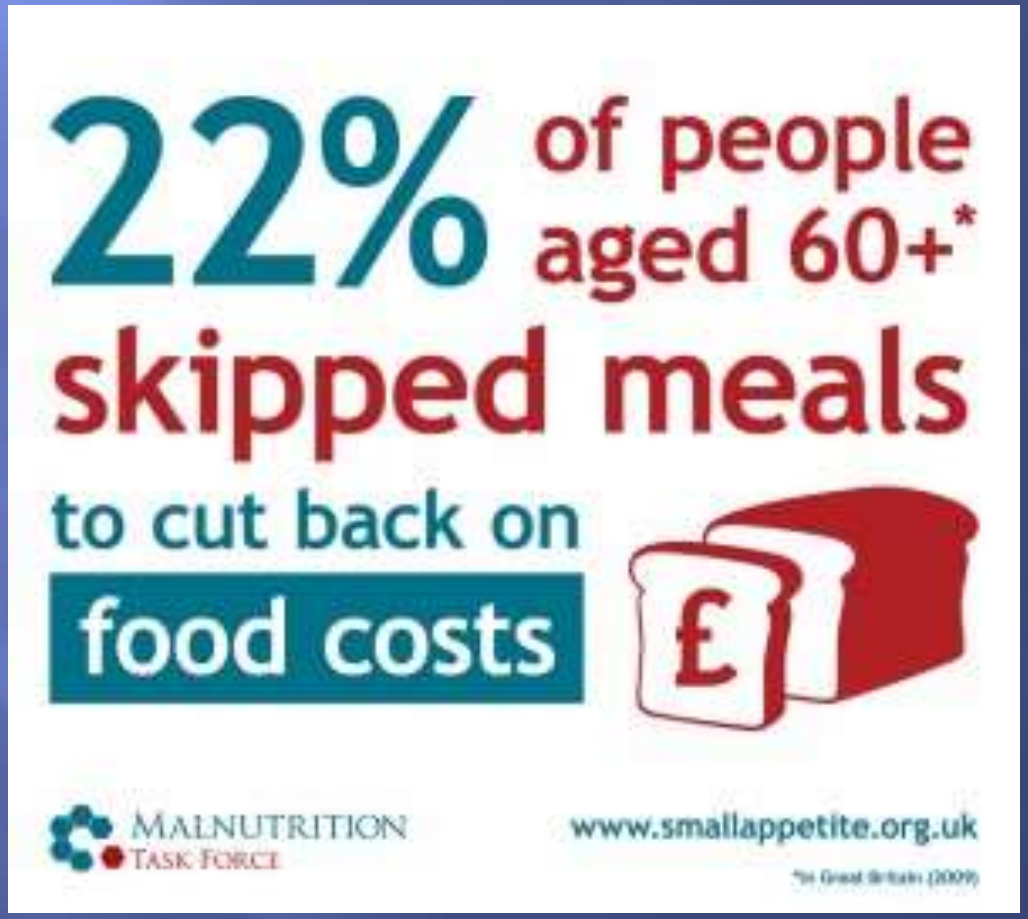
Prevention is better than cure

- Treatment should take into account biopsychosocial problems, nutritional status, dietary intake, ability to increase food intake Malnutrition Taskforce 2013)
- However opinions differ as to the most clinically effective method of malnutrition management according to risk
- Manage according to protocol and guidelines (Brotherton 2012)
- Guidelines are Guidelines!
- UK government push for empowerment and self management. (Department of Health 2012).

Patient Empowerment

- Work with client and family to identify their ability to eat and drink THEN formulate a plan of care which is tailored to suit individual needs (Holdoway 2012).
- Client may require clinical and social input;
- "Heat my home or eat a meal?" (Finance support) Medicare? UK political "hot potato"
- Can't cook and meals for one don't cut the mustard!
- Ensure medication reviews some medicines may cause nausea and lead to weight loss/polypharmacy/drug nutrient interaction.
- Cancer cachexia, PD MND, Stroke etc.. Work with MDT to monitor disease states.

Why does this happen?



Food First approach

- Increasing calorific content in existing diet which needs to be individualised.
- Existing Illness, medications, what is manageable?
- However evidence is equivocal
- Stratton et al (2007) data which examined clinical effectiveness and cost of FFA is limited and should be treated with caution. Leslie (2011) advocates FFA useful for individuals with short appetites.
- FFA should only be used if the client can afford to purchase the right foods, cook them or has a carer to do so! (Brother ton 2012)

ONS Guidelines

- Before nutritional supplements are prescribed, patients should have tried first-line dietary measures as briefly outlined above.
- Nutritional supplements should be supplied along with appropriate dietary advice. They should not be used on a long-term basis without regular monitoring and reassessment.
- The choice of supplement depends on its nutritional profile, palatability and acceptability, as well as cost.
- Patient preference is important in order to ensure good concordance
- Nutritional needs and food intake determine the number of supplements required. This should not usually exceed 500-600 kcal daily (about two cartons of sip feed), unless under the care of a dietician.
- Supplements should only be used as the sole source of nutrition following dietetic advice. (Sambrook 2015).

Oral Nutritional Supplements

- Evidence supports that oral nutritional supplements and dietary counselling can increase dietary intake and improve quality of life in elderly with PEM or at malnutrition risk (Guyonnet and Rolland 2015).
- Recent review use of ONS can increase weight in community-dwelling as well as acute and chronically ill elders (Gammack and Sanford 2015)
- However equivocal results; ONS does not improve function or mortality in the general elderly population but has shown benefits in those who are frail or malnourished.
- Improvement in functional status and mortality was not seen in post-acute, hip fracture, or demented populations. (Gammack and Sanford 2015)

ONS Elderly UK

- Many clients who have a clinical need for supplements may either not receive them, not receive them for long enough, or keep on receiving them via prescription when it is not required! (Brotherton et al 2012)
- Zip code lottery! NHS is NOT national! Care Quality Commission (2015) has identified that the consistency and quality of care in the NHS differs throughout the United Kingdom.

Promoting concordance

- Compliance is when patient behaviours coincide with healthcare providers recommendations"
- In the case of ONS compliance = the consuming the prescribed volume when indicated (Ruxton 2104)
- Systematic review (Hubbard et al 2013) pooled results of 46 studies with 4328 patients. Identified mean compliance rate of 78% with better compliance in community as opposed to hospital settings.
- However same study suggested that compliance with ONS was much lower in the elderly

Timing of ONS

- Studies which evaluate the timing of ONS in relation to concordance are inconclusive.
- Best practice to offer ONS as a snack in between meals but not too close to a meal.
- One size does not fit all…
- Requires further research but also working with individuals on a one to one basis to establish what works best.

Conclusion

- Malnutrition is a common problem and is still often unrecognised and untreated
- If malnutrition remains untreated there is a well documented risk of increased morbidity and mortality
- Clinicians must always be vigilant for signs that their clients are struggling with diet and fluid intake.
- Clinicians need to take an MDT approach to malnutrition management

- “Levels of malnutrition in the community are far too high and it is only with the implementation of holistic evidenced based care can malnutrition be prevented”

Alison Burton-Shepherd 2013.