

Guidelines & References

ESPEN expert group recommendations for action against cancer-related malnutrition

ESPEN practical guide: Clinical nutrition in cancer

Clinical Oncology Society of Australia.

Position statement: Cancer-related malnutrition and sarcopenia

Grading

Uses tumour biopsy

X to 4

Higher grade = undifferentiated = more intense treatment

Staging

TNM. Higher number = more severe

T = tumour size

N = number of lymph nodes which contain cancer

M = Distant metastasised

T4N3M1 = large tumour which has spread significantly to lymph nodes and has metastasised – will continue to grow & spread rapidly

Terminology

Benign (nonmalignant) = not cancer

Malignant = cancer

Metastasis = spread of cancer cells

Neoadjuvant: Treatment given as a first step to shrink a tumour before the main treatment (usually surgery). Includes chemo, radiation or hormone therapy

Adjuvant: Additional treatment given after the primary treatment to lower the risk of the cancer coming back. Includes chemo, radiation, hormones, biological or targeted therapy

Cancer cachexia: unintentional weight and muscle loss in people with cancer, not fully reversible by eating more

Types of cancers

Carcinomas Most common. Arise from epithelia cells. Breast, prostate, lung, colorectal, melanoma.

Lymphoma Cancer of the lymphatic system (hodgkin lymphoma and non- Hodgkin lymphoma)

Leukemia Cancer of white blood cells, often starting in bone marrow

Multiple myeloma A cancer of plasma cells in the bone marrow.

Sarcomas From bone, muscle, fat. Osteosarcoma (bone), Leiomyosarcoma (smooth muscle tissue)

Glioblastoma An aggressive brain tumor.

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Treatment

Chemo Oral, IV or injection

Given in cycles – gives the healthy cells a chance to grow back. C3D8 = cycle 3 (of 8), Day 8 (of the 14 day cycle)

S/E: V&D, constipation, dysphagia, fatigue, altered taste, oral thrush, thickened saliva, reflux, dry mouth, mucositis

Immunotherapy Helps the patients own immune system to fight cancer Eg. immune checkpoint inhibitors or monoclonal antibodies

Not as big effect on nutrition

Radiation (XRT) Kills or slows the growth of cells by damaging the DNA. In a big machine, similar to a CT scan. Measured in "grey" and given in "fractions"

S/S occur after 2 weeks of treatment & accumulate

S/E: Fatigue, dysphagia, diarrhea, vomiting, thick saliva, pain, taste changes, damage to bowels (eg bleeding)

Intervention

Malnutrition assessment: SGA, PG-SGA SF (for chemo)

Malnutrition screening – MST, MUST

Sarcopenia screening (SARC-F)

HPHE - ONS/Fortification/EN

Educate: Food safety & hygiene – Immuno-compromised. Avoid illness

Depending on the person/prognosis: low-inflammatory foods – more so in people In remission



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Intervention (cont)

Consider: site of cancer, refeeding risk, tube position (is it in the right place?)

Nut Reqs

Energy ~125kJ

Chemo & Radiation: >125kJ/kg

Cancer cachexia: >125kJ/kg

Malnutrition = repletion (125-145kJ)

Protein ~1.2-1.5g

Chemo & Radiation: >1.2g/kg

Older/chronically ill/repletion: 1.2-1.5g/day

Renal failure: 1.0-1.2g/kg

Cancer cachexia: > 1.4g/kg

Example PESS

*Inadequate oral intake related to loss of appetite and nausea 2 to chemotherapy, as evidenced by pt consuming ~__% of EER and __% of EPR**

Food and nutrition knowledge deficit

Inadequate protein-energy intake

Nutrition Strategies – based on S/S

CTCAE Grading 1 to 5. 1 = mild, intervention not indicated. 5 = death related to S/S.

Taste Changes

↓ **taste:** add salt or seasoning, ginger, pickles, honey, adding herbs/spices, pickles, marinades, sauces etc

↑ **taste:** use straw. No added sugar products. Low salt alternatives. Avoid fizzy drinks/mints/chewing gum

Too salty: Roast meats over deli meats. Add sugar or honey to food.

Too sweet: Avoid added sugars/fruit etc. Plain breakfast cereals. Add salt or lemon juice.

Nutrition Strategies – based on S/S (cont)

Metallic: ginger, small sips of flavoured drinks. Non-metallic cutlery. Suck on boiled lollies
Feel like “sand”, “straw” “cardboard” – Change the consistency of the food, soft, moist foods, add sauces/gravies, soups & smoothies, drink lots of water, medications to replace saliva

pink lady – Gaviscon + a numbing agent – pharmacist

Smell changes

Ask friends/family to cook for you

Cook in bulk and freeze

Bland foods.

Cold or room temp (avoid hot)

Avoid strong flavours: garlic, onion etc

Anorexia *Loss of appetite or desire to eat = ↓ food intake*

Educate on malnutrition & importance in treatment

Using smaller plates

More frequent small meals

EN/ONS

N/V

Medications – pharmacist

Cold food – usually better tolerated. sandwiches, salads, jelly, custard and yoghurt (NEMO)

Smaller frequent meals – avoid having an empty stomach
Peppermint or ginger

Salty snacks/dry crackers, biscuits, noodles, cereal, toast, pretzels, crackers

Avoid alcohol and high volumes of coffee

Nutrition Strategies – based on S/S (cont)

sucking on ice blocks

regular small sips of water or cold clear fluids – cordial, lemonade, ginger ale, juice

Mucositis & pain when swallowing

Artificial sweeteners

Sugar free gum

Avoiding hot food

Avoiding sources of trauma – hard toothbrush, crispy foods

Diarrhoea

Medical management – consult medical team/Pharmacist

Monitor dehydration & electrolyte losses

Consider non-treatment causes – Fibre, lactose, intolerances, sugar-free products

Adequate hydration – electrolyte solutions

Limiting fatty/greasy dishes, high fibre foods and fizzy drinks

Bland foods

Avoid caffeine

Try low lactose alternatives

Loss of appetite

Meds: Appetite stimulants

Early satiety: prokinetics (stimulates GI movement) – consider constipation

HPHE & ONS – Sustagen, up & go, milkshakes etc

6 smaller meals/day

Encourage to eat by the clock – avoid waiting until they are hungry

Eat when appetite is better – commonly morning



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Nutrition Strategies – based on S/S (cont)

Encourage favourite foods – discuss with family

Social eating

Softer foods that don't require chewing

Cook in bulk and freeze – less exposure to food smells

Have ready-prepared meals/snacks

Encourage gentle exercise

Oral Health

Regular sips of water to keep mouth hydrated & stimulates saliva

Gum, sucking on lollies

Sodium bicarb mouth wash



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