Nutrition Care in Palliative Cancer Patients

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Topics

- ✓ What is palliative care?
- ✓ Research and challenges
- ✓ The terminology problem
- ✓ Case example
- ✓ Assessment
- ✓ Weight loss
- ✓ Interventions
- ✓ Conclusion

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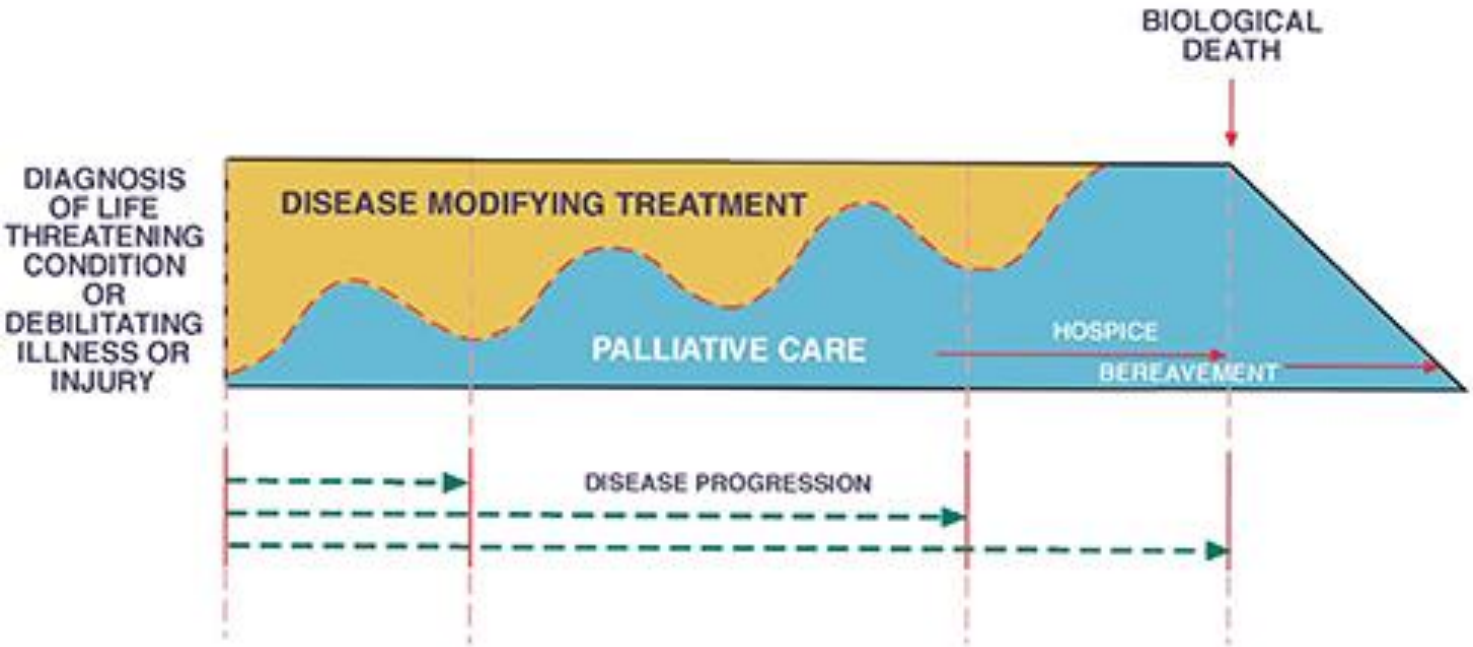
Palliative care

Say "palliative care" and most people imagine cancer patients being made comfortable in an end-of-life hospice setting.



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WHO Definition of Palliative Care

- Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

Palliative care:

- provides relief from pain and other distressing symptoms;
- affirms life and regards dying as a normal process;
- intends neither to hasten or postpone death;
- integrates the psychological and spiritual aspects of patient care;
- offers a support system to help patients live as actively as possible until death;
- offers a support system to help the family cope during the patients illness and in their own bereavement;

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Palliative care:

- uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated;
- will enhance quality of life, and may also positively influence the course of illness;
- is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.

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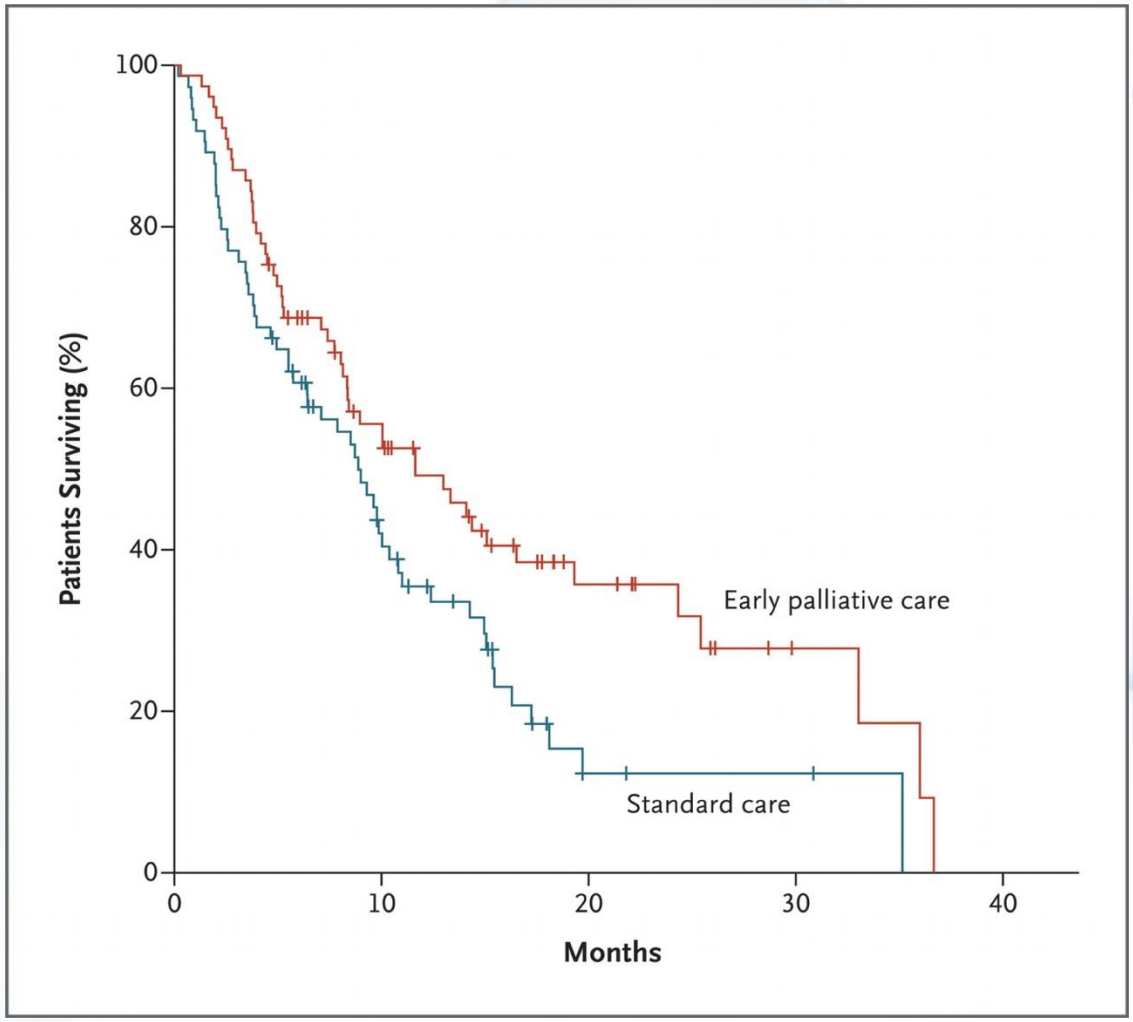
Early Palliative Care for Patients with Metastatic Non-Small-Cell Lung Cancer



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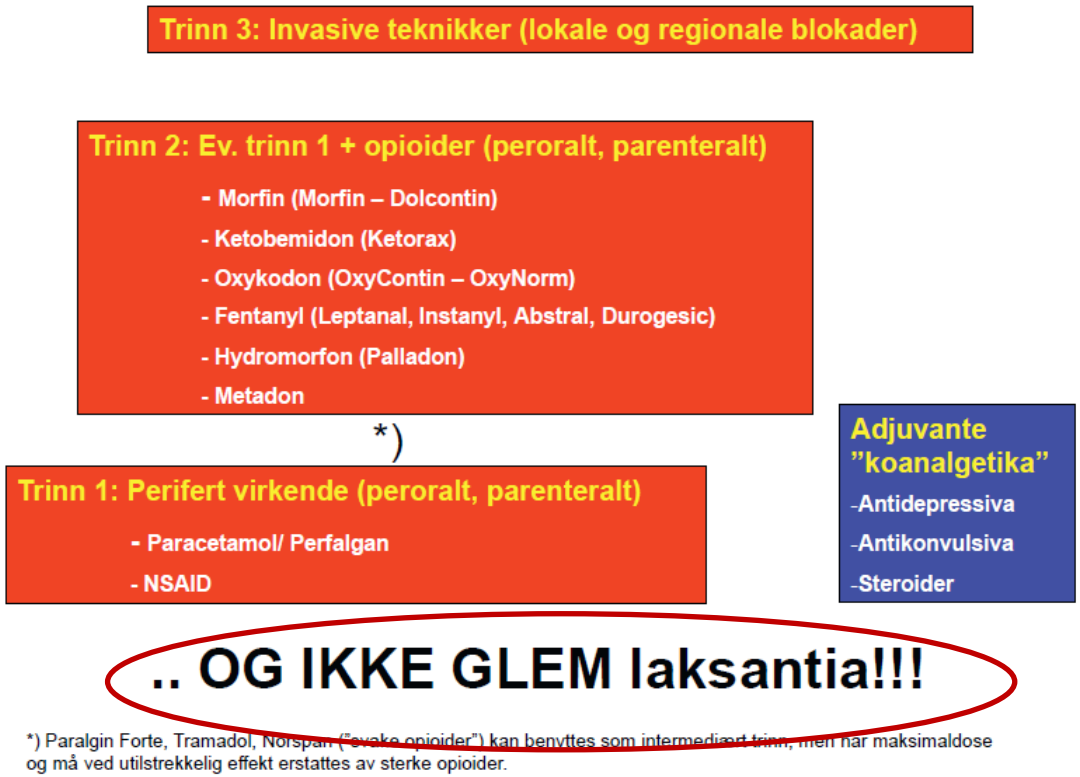
Temel JS et al. N Engl J Med 2010;363:733-742.

Parachutes reduce the risk of injury after gravitational challenge, but their effectiveness has not been proved with randomised controlled trials.

Smith G, Pell J

BMJ 2003

Smertetrapp



….. and the food

Lindring i Nord, 2012

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Nutrition disorders and nutrition-related conditions

- Malnutrition; syn: Undernutrition
- Disease-related malnutrition (DRM)
- Cachexia (=inflammatory-induced DRM)
- Acute disease or Injury-related malnutrition
- Chronic disease-related malnutrition
- Cancer cachexia
- Non-cachectic DRM (= DRM without inflammation)
- Starvation – food deprivation
- Sarcopenia
- Frailty

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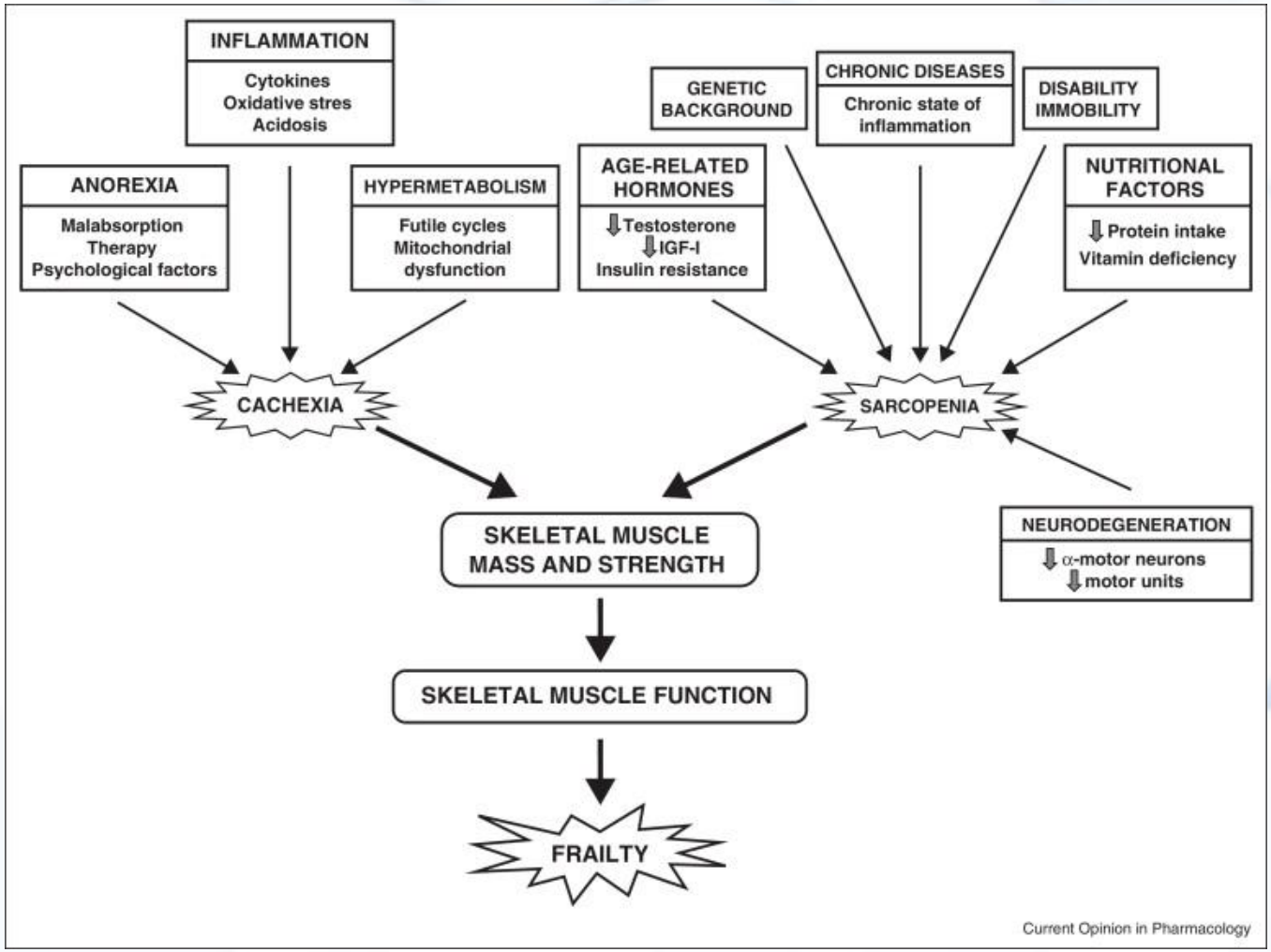

Figure 2. Differential factors involved in cachexia and sarcopenia. The factors promoting cachexia are different from those behind sarcopenia.

Josep M Argilés, Silvia Busquets, Britta Stemmler, Francisco J López-Soriano
Cachexia and sarcopenia: mechanisms and potential targets for intervention
Current Opinion in Pharmacology, Volume 22, 2015, 100–106

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Definition and classification of cancer cachexia: an international consensus

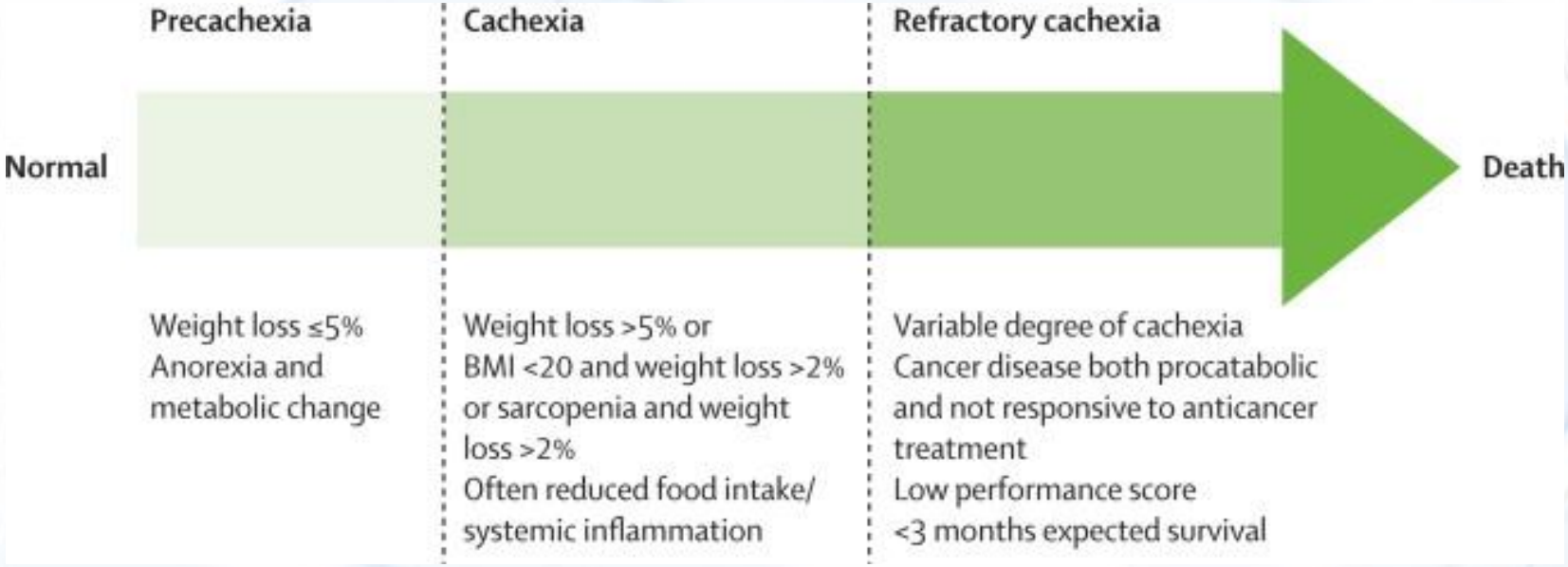

Figure 2. Stages of cancer cachexia.

Fearon K et al. Lancet Oncol , 2011;12:489–495

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Cancer cachexia: Developing multimodal therapy for a multidimensional problem

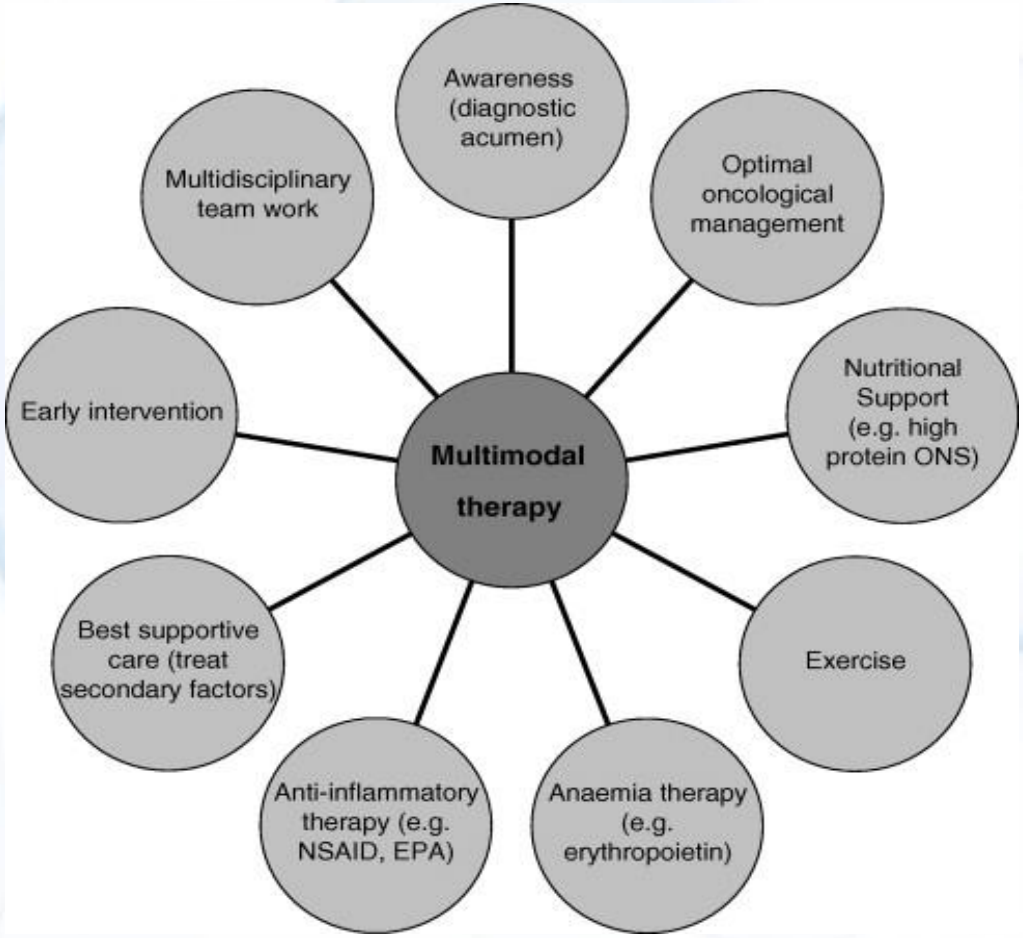

Fig. 5. Multimodal rehabilitation for cancer cachexia. Stabilisation of weight and physical performance are reasonable goals which may be exceeded in some and unmet in others.

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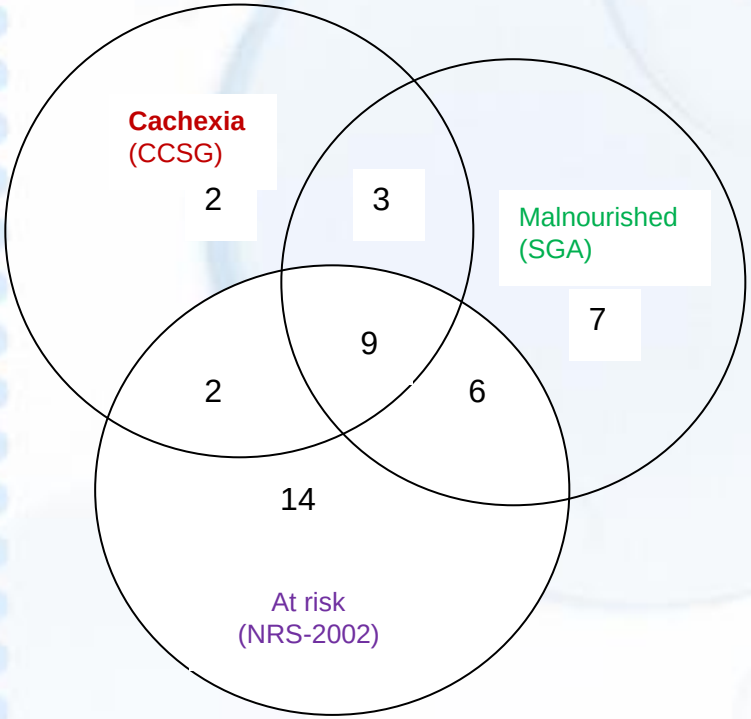
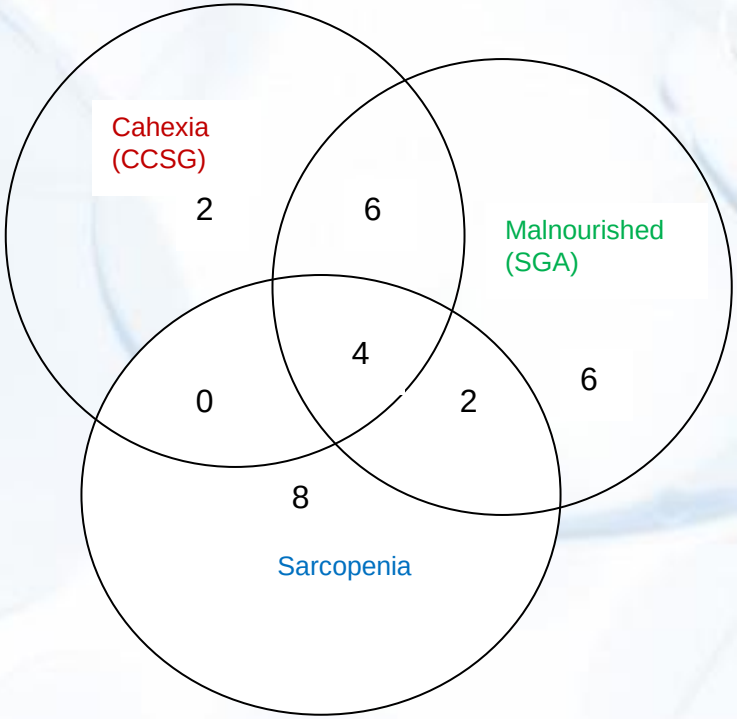
Fearon KCK. Eur J Cancer, 2008;44:1124–1132

Overlaps different nutrition disorders / conditions in patients with advanced colorectal cancer



N=73



N=49

Thoresen, 2012

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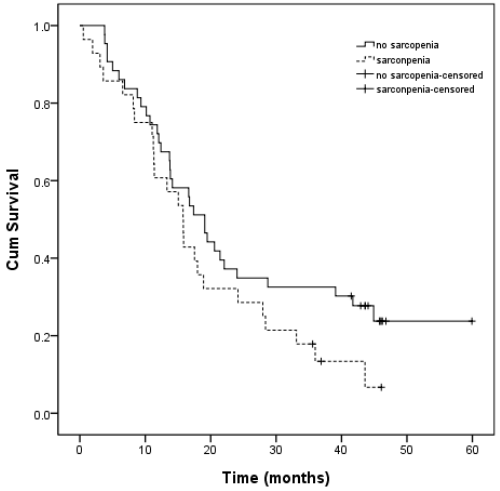
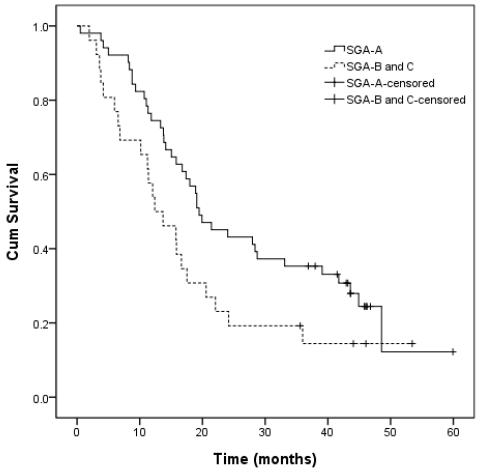
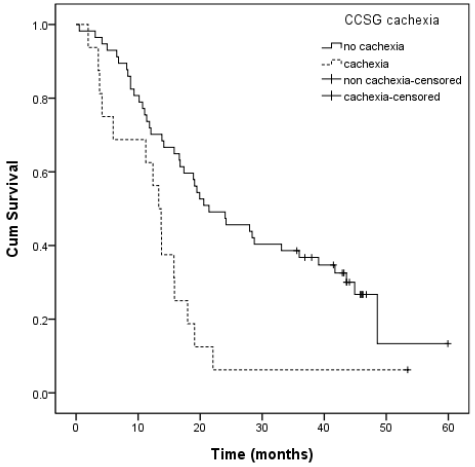
Outcome, survival







Sarcopenia ------ N=28
No sarcopenia ____ N=43
Log rank test, p=0,058

Malnourished ------ N=26
Well nourished ____ N=51
Log rank test, p=0,055

Cachexia ------ N=16
No cachexia ____ N=57
Log rank test, p=0,003

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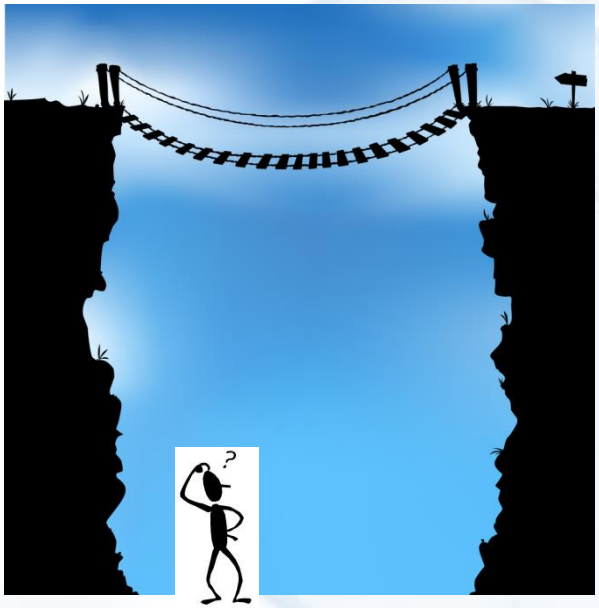
Thoresen, 2012

What do we do in mean time….

Best possible practice on an individual base.

Evidence-based practice

Clinic Research



"Evidence-based medicine is the integration of best research evidence with clinical expertise and patient values."

(Sackett D et al. Evidence-Based Medicine: How to Practice and Teach EBM, 2nd edition. Churchill Livingstone, Edinburgh, 2000, p.1)

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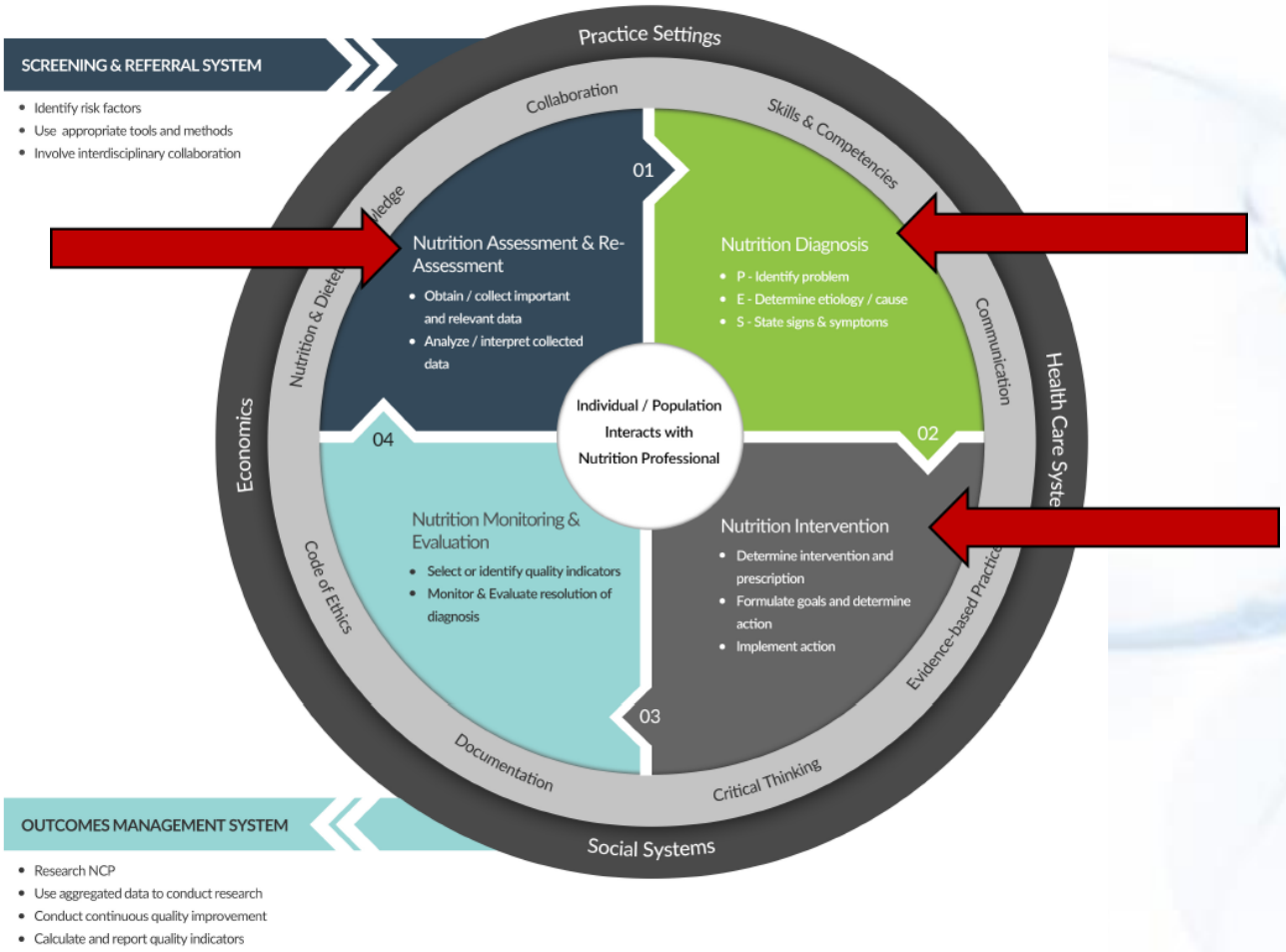
THE NUTRITION CARE PROCESS MODEL



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Nutrition focus and goal

Expected survival	Main goal
Months - year	Nutrition status
Weeks - months	Quality of life
Days	Symbolism

De trodde Arne (85) var dement, men da han fikk mat, skjedde et lite mirakel

Pleierne fant ham avmagret og glemsk i leiligheten. Da Arne Brattestad (85) begynte å spise, skjedde det noe oppsiktsvekkende.

Questions raised from oncology nurses.

«What to do if the patient can not eat / drink anymore?»

«What do we do at the nursing home or home care then?"

«Patient / family asks for intravenous feeding.»

«What is right to do?"

«Information / discussion with relatives - what do we or do we not, why and how?»

Case

65 year old male

Diagnose colorectal cancer, treatment; surgery and adjuvant chemoterapy in 2012.

Spring/summer 2013; abdominal pain, nausea, weight loss. Op. jejunotransversostomi.
Peritoneal carcinomatosis.

Chemotherapy

Autumn 2013;
Palliativ chemotherapy, ended due to severe side effects.

January 2014; admittet to palliative care unit for pain treatmen. Abdominal pain after food intake.

Referred to dietitian for assessment. Intravenious feeding was an option.

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Guidelines on artificial nutrition versus hydration in terminal cancer patients. European Association for Palliative Care.

Step I involves assessing the patient concerning the following:

1) oncological/clinical condition;
2) symptoms;
3) expected length of survival;
4) hydration and nutritional status;
5) spontaneous or voluntary nutrient intake;
6) psychological profile;
7) gut function and potential route of administration;
8) need for special services based on type of nutritional support prescribed.

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Bozzetti et al. Nutrition, 1996 Mar;12:163-167.

…Case…

1. Condition

Peritoneal carcinomatosis

2. Symptoms

Pain after food intake, mild edema in ankles

S-Alb 30 g/L, CRP 113 mg/L, Hb 11,3 g/dl

3. Expected length of survial

??

4. Hydration and nutritional status

181 cm, 59 kg, BMI 18, Weight loss 30 kg/6 months = 34 %

Severe malnourished

…case…

5. Spontaneous or voluntary nutrient intake

Diet record; 1350 kcal og 50 gram protein.

Covered 65% av energy and 55% of protein need (estimated).

6. Psychological profile

Skeptical to intravenous feeding due to earlier experience.

Want to increase intake per os.

…case…

7. Gut function and potential route of administration

Has intestinal passage, but pain after food intake

8. Need for special services

Home care or nursing home

Desicion

The patients autonomy was respected

Food plan at discarge

Food and drinks, oral nutrition supplements

… case…

2 weeks later rehospitalised Palliative Care Unit

Suspected intestine perforation, Nil per os,

Referred to gastrosurgeons and planned for intravenouse feeding.

Lab; Albumin 18 g/L, CRP 260 mg/L,

weight 55 kg, BMI 17,

Bedridden, fetus positioned

Psychological profile

Wanted his brother to participate in descion making.

Brother argued pro nutrition

Desicion….

…case…

Descision

Put on intravenous nutrition

«Intestine perforation/fistula» was an abscess and the patient could continue to eat

Was discharged to nursing home end of January with i.v. feeding (1100 kcal and 50 g protein)

WHO status grade 3- 4

Anticipated short survival

Case…what happened..

In april 2014
Moved to his home
Medical treatment; antibiotics on and off

Lab; S-albumin 32, CRP 70, Hb 10,4
WHO status grade 2 -3.
Continued i.v. feeding and hydration
Good tolerance
Weight stable

Passed away in June

N. Sarhill
F. Mahmoud
D. Walsh
K. A. Nelson
S. Komurcu
M. Davis
S. LeGrand
O. Abdullah
L. Rybicki

Evaluation of nutritional status in advanced metastatic cancer

Table 2 Gastrointestinal symptoms (n=352)

Symptom	%
Weight loss[a]	85
Anorexia	81
Early satiety	69
Dry mouth	69
Constipation	59
Nausea	49
Bloating	43
Vomiting	38
Abdominal pain	37
Dyspepsia	35
Belching	35
Hiccup	25
Diarrhea	24
Sore mouth/throat	22
Decreased taste	16
Odynophagia	15

[a] Weight loss (any severity) in the 6 months prior to assessment

Support Care Cancer (2003) 11:652–659

	Percentage of patients with symptoms: carers view (n=207)	Ranking order of frequency: general practitioners view (n=77)
Weakness	72	9
Pain	71	1
Anorexia	70	3 equal
Weight loss	62	-
Constipation	43	2
Insomnia	43	10
Nausea	39	3 equal
Vomiting	32	8
Dyspnoea	33	7
Dysphagia	30	5

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Oncology in practice 94/2

If we are to counteract the weight loss we need to know the reasons why patients lose weight.

Weight loss - Etiology
(Cause/Contributing Risk Factors)

- Physiological causes increasing nutrient needs, e.g., due to prolonged catabolic illness, trauma, malabsorption
- Decreased ability to consume sufficient energy
- Lack of or limited access to food, e.g., economic constraints, restricting food given to elderly and/or children
- Cultural practices that affect ability to access food
- Prolonged hospitalization
- Psychological causes such as depression and disordered eating
- Lack of self-feeding ability

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Undernutrition

Reduced intake: due to candidiasis of the mouth, stomatitis, taste changes, dry mucus membranes, mouth sores, dysphagia, obstruction, vomiting, constipation, nausea, pain, diarrhea, dyspnoea, depression, psykosocial factors, side effect of medication

Increased loss: Malabsorpsion, short bowel, dumping, cronic diarrhoea, fistulas, ascites.

Immobilisation

Other catabolic conditions: Infections, heart-, lung-, kidney disease, diabetes, livercirrhose

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It is important to treat weight loss caused by cancer and its treatment.

- It is important that cancer symptoms and side effects that affect eating and cause weight loss are treated early. Both nutrition therapy and medicine can help the patient stay at a healthy weight. Medicine may be used for the following:
- To help increase appetite.
- To help digest food.
- To help the muscles of the stomach and intestines contract (to keep food moving along).
- To prevent or treat nausea and vomiting.
- To prevent or treat diarrhea.
- To prevent or treat constipation.
- To prevent and treat mouth problems (such as dry mouth, infection, pain, and sores).
- To prevent and treat pain.

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http://www.ncbi.nlm.nih.gov/books/NBK66004/

Guidelines; energy and protein

	Energy	Protein
REO	Ambulatory patients: 30-35 kcal/kg/day Bedridden patients: 25-30 kcal/kg/dag Age >70 år: reduce 10 %	No
National guidelines	Ambulatory patients: 30-35 kcal/kg/day Bedridden patients: 25-30 kcal/kg/dag Age >70 år: reduce 10 %	No
EPCRC	No	No
ESPEN	If not measured, 25-30 kcal/kg/day	> 1 g/kg/day, if possible up to 1.5 g/kg/day

Dietary treatment of weight loss in patients with advanced cancer and cachexia: A systematic literature review

Trude R. Balstad[a], Tora S. Solheim[a,b], Florian Strasser[c], Stein Kaasa[a,b], Asta Bye[d,e,*]

Conclusion

- not possible to conclude firmly on the effectiveness of dietary interventions in advanced cancer and cachexia. (limited number of conducted studies, the inconsistent results, moderate quality of the included studies)

- this review shows that dietary counseling can have some effect on body weight and energy intake although heterogeneity between studies is present.

- few studies measured energy intake, but it seems that dietary interventions can improve energy intake.

- the increase in energy intake seems not transferable to improvement in patients' weight.

- this review highlights that dietary intervention trials generally report poorly both when characterizing patient populations and when describing the nutritional intervention.

- However, nutrition is a crucial part of a multimodal cachexia intervention, and it is not plausible to increase or stabilize weight if nutritional needs are not met.

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Crit Rev in Oncol/Hemat 2014;91:210-221

Norwegian National guidelines, 03/2015

Symptom treatment
Pain, dyspnoea, dry mouth, nausea, constipation, GI obstruction

Nutrition
Nutritional status
Assessment
Interventions

Qualification requirements

https://helsedirektoratet.no/Lists/Publikasjoner/Attachments/918/Nasjonalt%20handlingsprogram%20for%20palliasjon%20i%20kreftomsorgen-IS-2285.pdf

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Nutrition interventions

Praktiske råd:

Tilby individuelt tilpassede, små og hyppige måltider (6-8 per dag)

Ha snacks, mellommåltider eller næringsdrikker lett tilgjengelig

Tilby kaloririk drikke fremfor vann

Tilby mat når pasienten er mest opplagt. Forsøk å tilby uten alltid å spørre først.

At man spiser, er viktigere enn hva man spiser

Tilrettelegg for endret konsistens ved tygge- eller svelgproblemer

Tilrettelegg for enklest mulig matlaging dersom pasienten må lage mat selv

Ved langsom ventrikkeltømming tåles ofte små, karbohydratrike måltider (frukt, kjeks, ristet brød osv.) bedre enn protein- og fettrike måltider

Tilby daglig multivitamintilskudd samt tran ved ensidig kosthold

Meal recommendation

SPIS LITE OG OFTE – 4+2

Det kan være lettere å spise nok om du spiser lite og ofte. Det anbefales at du spiser cirka fire hovedmåltider i løpet en dag, for eksempel frokost, lunsj, middag og kveldsmat. I tillegg bør du spise cirka to mellommåltider. Disse kan bidra mye til ditt næringsinntak. En tommelfingerregel er at det ikke bør gå mer enn tre timer mellom hvert måltid.

MAKS 11 TIMER MELLOM KVELDS OG FROKOST

Det kan være lurt å spise kveldsmat like før leggetid og eventuelt et lite måltid tidlig om morgenen hvis det går lang tid fra du våkner til du spiser frokost. Dette for å unngå at fasten gjennom natten blir lang. Det anbefales at det ikke er mer enn 11 timer fra siste måltid på kvelden til første måltid neste morgen. Har du dårlig appetitt tidlig på dagen, er det særlig viktig. Et tidlig mellommåltid kan for eksempel være en yoghurt med havregryn, frukt med syrnet melk, et glass juice, en håndfull nøtter eller noe annet som er enkelt og fristende.

HVORDAN KAN DU FÅ TIL 4+2 I DIN HVERDAG?

Merk gjerne inn på figuren når du spiser i dag. Trenger du ekstra påfyll for å nå anbefalingene, 4+2 og maks 11 timer nattfaste?

Smått, men godt http://www.emagcloud.com/TINE/140831_TINE_beriking_av_mat_170_x_240indd/index.html#/4/

Behandling av underernæring

Figur 3. Ernæringstrappen

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Clinical outcomes and contributors to weight loss in a cancer cachexia clinic

An interdisciplinary cachexia clinic specializing in management of weight loss and anorexia. At the University of Texas M. D. *Anderson Cancer Center,*

151 consecutive patients

First visit

Median weight loss 9%, BMI 20.8, nutrition impact symptoms 3,

41% hypermetabolic

Treatment

Medication, dietary counseling, exercise recommendation

Outcome

Improved appetite (score 7 -> 5), 31/92 (34%) weight gain at second visit

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Fabbro, 2011

Medical intervention

Table 2.

Prevalence of Secondary Nutritional Impact Symptoms and Their Treatment

Nutrition impact symptoms	*Number (%)*	*Corresponding interventions*	*Number (% treated among effected individuals)*
Early satiety	94 (62%)	Metoclopramide	74 (79%)
Constipation	78 (52%)	Laxatives	68 (87%)
Nausea or vomiting	67 (44%)	Antiemetics (mostly metoclopramide)	54 (81%)
Depressed mood	63 (42%)	Antidepressant (mostly mirtazapine)	51 (81%)
Dysgeusia	42 (28%)	Zinc supplement	20 (48%)
Dysphagia	21 (14%)	GI or speech therapy evaluation	5 (24%)
Dry mouth	14 (9%)	Artificial saliva	2 (14%)
Mucositis	11 (7%)	Opioids and topical mouthwash	3 (27%)
Dental pain	8 (5%)	Dental referral	2 (25%)

Fabbro, 2011

NUTRITION AND CANCER, *42*(1), 48–58

A Randomized Study of Nutritional Support in Patients With Colorectal and Gastric Cancer

Christina R. Persson, Birgitta B. K. Johansson, Per-Olow Sjöden, and Bengt L. G. Glimelius

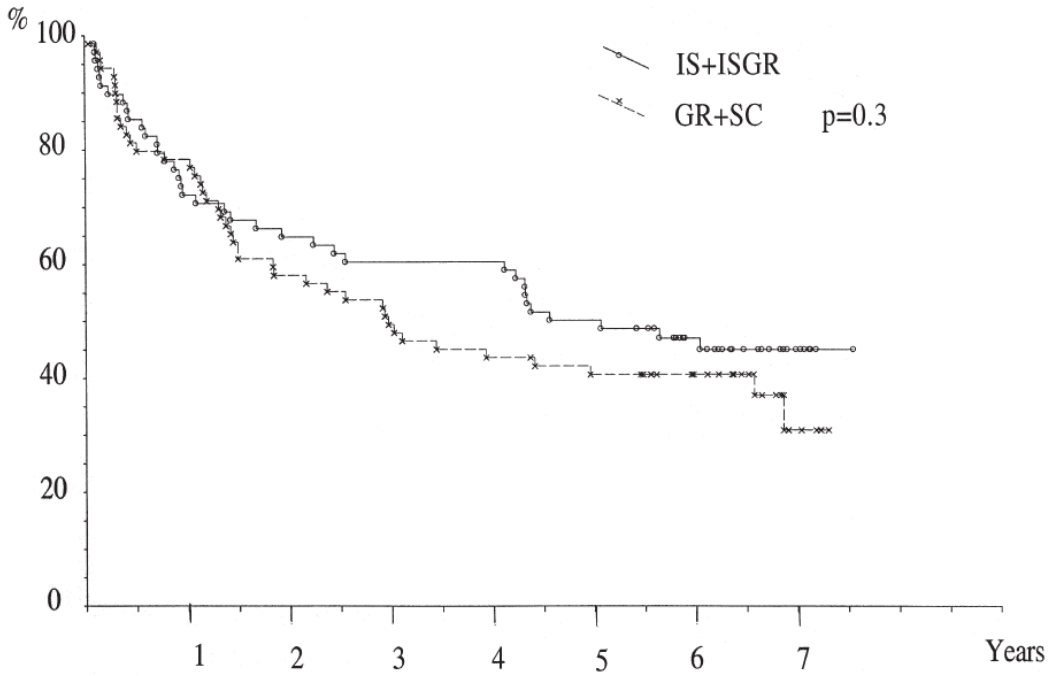

Figure 4. Survival in patients randomized to IS + ISGR and GR + SC groups, expressed as cumulative percent surviving.

European Journal of Cancer Care

Original article

The association of nutritional assessment criteria with health-related quality of life in patients with advanced colorectal carcinoma

L. THORESEN, MSC, *Oncology Clinic, St. Olavs University Hospital, Trondheim, and Institute of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology (NTNU), Trondheim, Norway,* G. FRYKHOLM, MD, PHD, SENIOR ONCOLOGIST, *Oncology Clinic, Radiumhemmet, Karolinska Institute and University Hospital, Stockholm, Sweden,* S. LYDERSEN, PHD, PROFESSOR MEDICAL STATISTICS, *Department of Neuroscience, Faculty of Medicine, Norwegian University of Science and Technology (NTNU), Trondheim,* H. ULVELAND, MSC, CLINICAL DIETITIAN, LECTURER, *Atlantis Medical College, Oslo, Norway,* V. BARACOS, PHD, PROFESSOR AND CHAIR IN PALLIATIVE MEDICINE, *Department of Oncology, University of Alberta, Edmonton, Alberta,* L. BIRDSELL, MD CANDIDATE, CLINICAL RESEARCH ASSISTANT, *Department of Oncology, University of Alberta, Edmonton, Alberta, Canada, &* U. FALKMER, MD, PHD, PROFESSOR IN CLINICAL ONCOLOGY, SENIOR PHYSICIAN, *Oncology Clinic, County Hospital Ryhov, Jönköping, and Department of Clinical and Experimental Medicine, Faculty of Medicine, University of Linköping, Sweden, and Department of Oncology, Aalborg University Hospital, Aalborg, Denmark*

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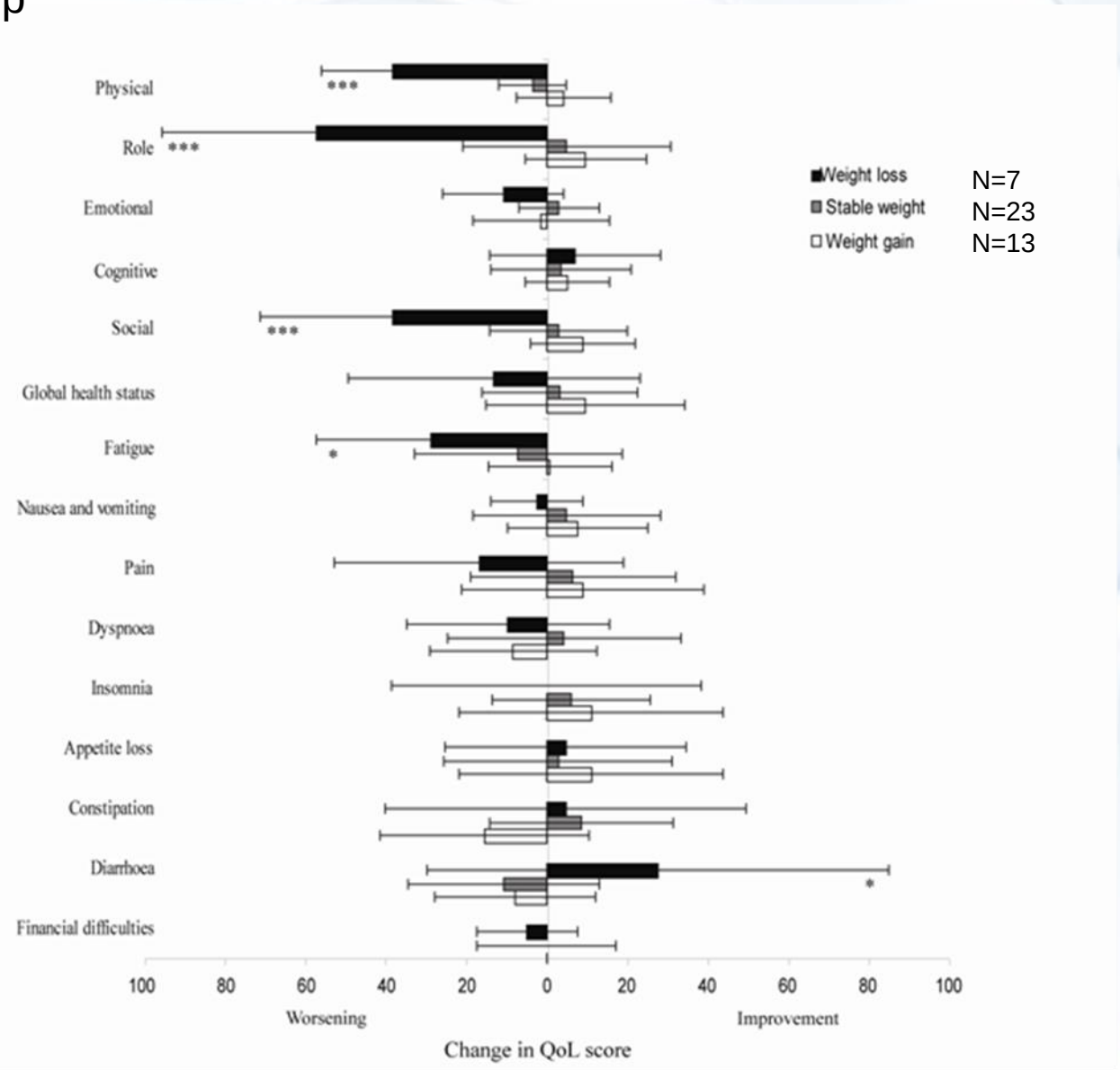
Change in mean quality of life scales and single symptoms during 3-month follow-up



Thoresen, 2012

Conclusion

- ✓ Oncology and palliative care should not be considered as separated entities, but they both constitute simultaneous care
- ✓ Diet research is limited in this topic
- ✓ Weight loss is frequent
- ✓ Nutrition is one of our basic human needs
- ✓ To increase or stabilize weight nutritional needs must be met
- ✓ Treatment of weight loss requires a multimodal approach