

Nutritional assessment & support for the upper GI cancer patient

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Outline

- Nutritional status & implications
- The role of nutrition & the dietitian
- Identifying patients
- Nutrition support during treatment
- Nutrition after treatment
- Summary



Nutritional status of UGI patients



Weight loss & symptom burden at diagnosis

Khalid et al., 2007

151 new patients (122 GI & 29 Lung)

33% lost $\geq 10\%$ body weight in 6/12 prior to presentation

| Symptom | Percentage (%) |
|---------------------|----------------|
| No appetite | 38 |
| Early satiety | 27 |
| Pain | 23 |
| Taste changes | 20 |
| Nausea | 18 |
| Dry mouth | 17 |
| Constipation | 14 |
| Vomiting | 11 |
| Diarrhoea | 11 |
| Problems swallowing | 9 |
| Smells bother me | 7 |
| Mouth sores | 1 |



Implications

- Weight loss of $\geq 10\%$ in the 6/12 prior to surgery is an independent risk factor for post surgical complications
(Bozzetti et al., 2007)
- Weight loss prior to chemo
 - More frequent and severe dose limiting toxicity
 - Poorer QoL
 - Shorter survival

(Andreyev et al., 1998)

Nutritional issues persist throughout patient journey

Bozzetti et al., 2009

- Oesophageal patients – mean weight loss of 16.3 % (16-40%)
- Nutritional risk highest in UGI patients



The role of nutrition & the dietitian



The role of nutrition & the dietitian

Tailored nutritional support:

- ↑ nutritional intake
- ↓ therapy associated weight loss
- ↓ treatment interruptions

(Ravasco et al., 2005; Ravasco et al., 2012)

- Prevents or minimises further weight loss (Baldwin et al., 2012)
- Dietitian input required by locally agreed OG guidelines, throughout the treatment pathway
- Recognised and elucidated in National & International guidelines (Allum et al., 2011; Arends et al., 2017)



Identifying patients at risk



Royal Marsden Nutrition Screening Tool

| Question | If answer to the question is yes then score |
|---|--|
| 1. Has the patient experienced unintentional weight loss in the last 3 months? (> 7 kg in men or > 5.5 kg in women) If not, unintentional weight loss less than the above | 10 5 |
| 2. Does the patient look underweight? | 5 |
| 3. Has the patient had a reduced food intake (less than 50% of meals) in the last 5 days (this may be due to mucositis, dysphagia, nausea, bowel obstruction, vomiting)? | 5 |
| 4. Is the patient experiencing symptoms that are affecting food intake e.g. mucositis, nausea, vomiting, diarrhoea, constipation? | 3 |
| Total score | |

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Risk of Malnutrition

0-4 Low Risk 5-9 Medium Risk 10+ High Risk

Nutrition support during treatment

Case study



Mr R

| | |
|---|--|
| 55 year old | Self-employed carer for disabled wife Financial difficulties |
| Oesophageal adenocarcinoma | Dysphagic, only tolerating liquids |
| Neo-adjuvant chemo Oesophagogastrrectomy Adjuvant chemo | Stressed Disempowered Confused Overwhelmed |
| Anthropometry: <ul style="list-style-type: none">• Weight – 80kg• BMI – 30.0kg/m² (obese) | Weight history: 20% weight loss in last 3/12 secondary to dysphagia and stress |



Nutrition support during chemotherapy

Aim and methods

- Minimise risk of toxicity due to weight loss
- Help complete intended chemo dose
- Preserve performance status and QoL

- Focus on managing symptoms
- Texture modification & food fortification
- Oral nutritional Supplements (ONS)
- Explore artificial nutrition
(NG, NJ, jejunostomy, PN if GI tract cannot be accessed)



A word on Oral Nutritional supplements (ONS)

- London Procurement Programme (LPP) demonstrated inappropriate prescribing, dosing & poor compliance with ONS

How can we minimise these issues:

- Supporting literature (Fearon et al., 2003)
- Flavour preferences & palatability (Sultan et al., 2012)
- Ease of preparation (Hubbard et al., 2012)
- Regular encouragement (Hubbard et al., 2012)



Results of nutrition support during chemo

**Weight stable (78kg, BMI: 29.4kg/m²)
Swallow resolved**

But 4 dietetic reviews during chemotherapy

Dysphagia, mucositis, taste changes, nausea & vomiting

- Liquidised food + Scandishake
- Fortisip Yogurt Style tds + liquidised food
- Fortisip 5 x per day + Forticreme Complete
- Discussion around NG/NJ
- Physiotherapy input was key



Nutritional Support after treatment



Nutrition after surgery

Mr R's weight loss after surgery:

2/52 post op – 74kg (5% weight loss)

6/12 post op – 70kg (10% weight loss)

Early satiety, anorexia, reflux, diarrhoea

- Little and often intake
- Food fortification & low volume ONS
- Pattern of eating and drinking
- Appropriate medications



Longer term considerations

Vitamins & minerals

- IM B12 injections every 3 months
- Iron (esp. total gastrectomy) & Calcium
- Fat soluble vitamins (D, A, E)
90% had ≥ 1 deficiency at 18 months post op

(Heneghan et al. 2015)

Chronic weight loss & altered bowel habits

49% $\geq 10\%$ weight loss 18-24 months (Heneghan et al. 2015)

Malabsorption - ? Pancreatic insufficiency, small intestinal bacterial overgrowth, bile acid malabsorption

Referral to Gastroenterologist



Summary

- High risk group with nutritional problems from diagnosis, during and after treatment
- Malnutrition affects tolerance to treatment and patient outcome
- Nutritional intervention:
 - Timely
 - Appropriate
 - Review & monitoring
 - Adapt to need
- Good communication with GPs in short & long-term
- Refer to other specialists

