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# Why is it important to monitor nutrition intake among hospital patients?

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# Undernutrition in patients

- 25 – 50 % are undernourished at admission
- Even more undernourished at discharging

This is a big problem where  
**FOCUS** frequently is missing



## Undernutrition involves:

- Increased complication rate
  - More infections
    - Pneumonia
    - Urinary infections



## Undernutrition involves:

- Increased complication rate
  - Increased infections
  - Increased risk for anastomotic leakage

Trabal J. Nutr Rev 2015  
Jones KD. Paediatr Int Child Health 2014  
Li F. Expert Rev Neurother 2014  
Rytter MJ. PLoS One 2014



## Undernutrition involves:

- Increased complication rate
  - Increased infections
  - Increased risk for anastomotic leakage
- Reduced wound healing

Greenhalgh DG. Surg Clin North Am 2015  
Molnar JA. Adv Wound Care 2014  
Li Z. Wound Repair Regen 2014



## Undernutrition involves:

- Increased complication rate
  - Increased infections
  - Increased risk for anastomotic leakage
- Reduced wound healing
- Reduced quality of life

Gorenc M. Rep Pract Oncol Radiother 2015  
Baldwin C. Proc Nutr Soc 2015  
Guyonnet S. Clin Geriatr Med 2015  
Elia M. Clin Nutr 2015



## Undernutrition involves:

- Increased complication rate
  - Increased infections
  - Increased risk for anastomotic leakage
- Reduced wound healing
- Reduced quality of life
- Increased length of hospital stay

Allard JP. JPEN 2015  
Gupta D. Ann Nutr Metabol 2011



## Undernutrition involves:

- Increased complication rate
  - Increased infections
  - Increased risk for anastomotic leakage
- Reduced wound healing
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- Increased length of hospital stay
- Increased convalescence

Giusto M. World J Gastroenterol 2014  
Bozetti F. Nutrition 2014  
Marshall S. J Hum Nutr Diet 2014





## Undernutrition involves:

- Increased complication rate
  - Increased infections
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- Reduced quality of life
- Increased length of hospital stay
- Increased convalescence
- Increased mortality

Kovarik M. Lung cancer 2014  
Tassone EC. J Clin Nurs 2015



# How much does undernutrition costs?

**NHS**

*National Institute for  
Health and Clinical Excellence*

## Nutrition support in adults

Oral nutrition support, enteral tube feeding  
and parenteral nutrition



[www.socialstyrelsen.se/Publicerat/2000/3115/2000-3-11.htm](http://www.socialstyrelsen.se/Publicerat/2000/3115/2000-3-11.htm)

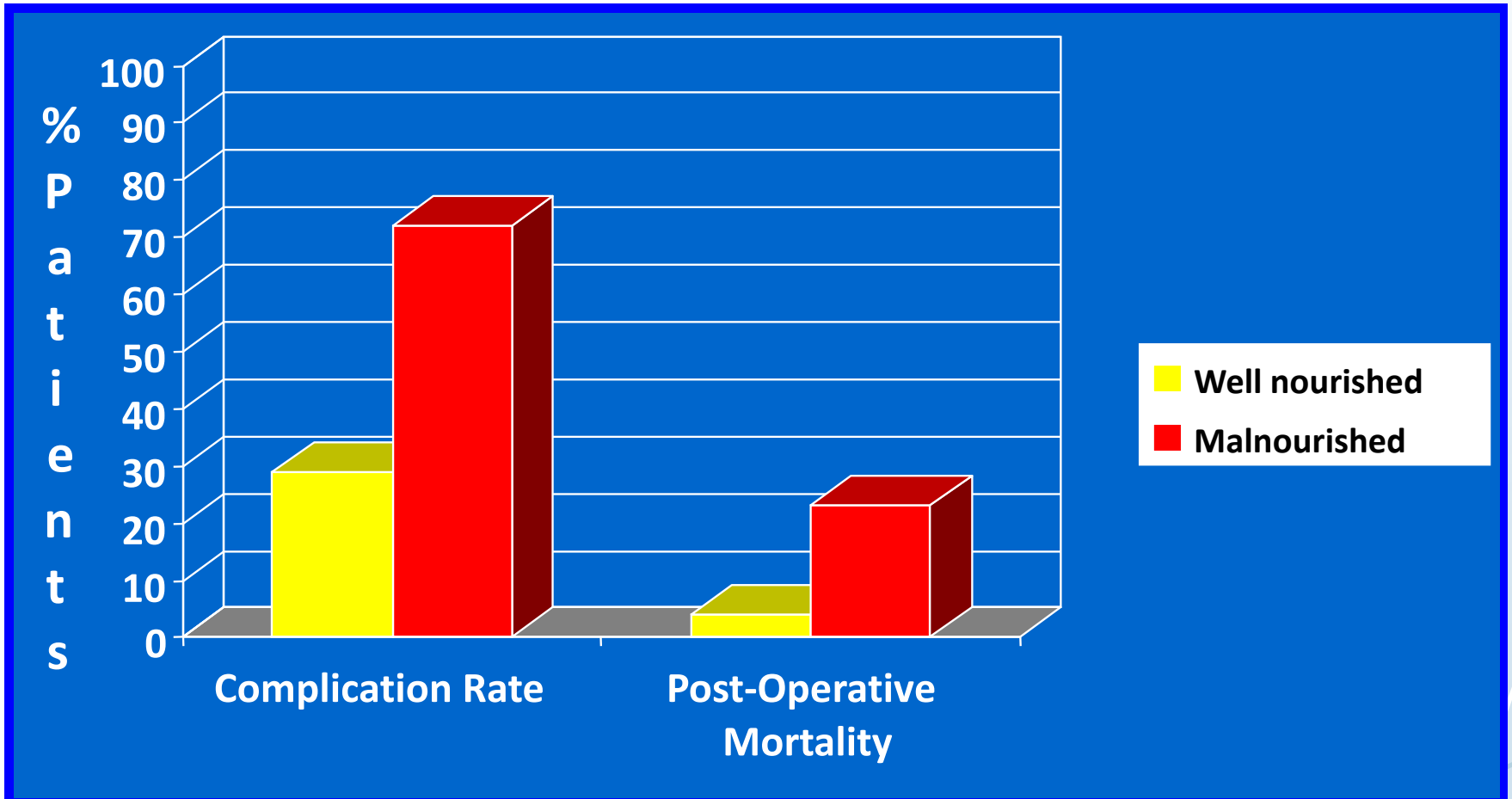
**140 millions €**



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- Reduced wound healing
- Reduced quality of life
- Increased length of hospital stay
- Increased convalescence
- Increased mortality

# Complications of Abdominal Operations for Malignancy



Meguid et al. Am J Surg 1988

# Meta-analysis of 27 RCTs with 1710 patients (complications) and 30 RCTs with 3250 patients (mortality).

Neurology, GI disease, liver disease, malignant disease, elderly,  
abdominal surgery, orthopaedic surgery, critical illness/injury, burns.

Hospital or community

Oral supplements or tube feeding

Complications	28% vs. 46% <sup>1)</sup>
Infections <sup>2)</sup>	24% vs. 44% <sup>1)</sup>
Mortality	17 % vs. 24% <sup>1)</sup>

<sup>1)</sup> P <0.001; <sup>2)</sup>10 RCTs only

Stratton RJ, Green CJ, Elia M. Disease-related malnutrition. CABI Publishing 2003

# How to monitor nutrition intake?

- Nutritional screening tools
  - NRS 2002
  - SGA
  - MUST
  - MNA
- Assessment
  - Risk for malnutrition
  - Malnourished
- **Nutrition treatment → Monitoring → Nutritional goal**

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**Thank you for your attention**

