



ESPEN Congress Prague 2007

Nutrition and Wound healing
Nutritional Support and Nursing Care

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Nutritional Support and Nursing Care

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Nutrition and Wound Care

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Content

- Nutritional screening and assessment
- Methods of nutritional support
- Routs of nutritional support
- Nursing role

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Patients at Risk of Poor Wound healing

- Obese
- Diabetic
- Elderly
- Immobile
- Surgical Patients
- Cancer Patients

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Malnutrition in Hospital

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- Surgical procedure or other
- Prolonged feeding pause or poor feeding
- Prolonged IV fluids with glucose
- Multiple diagnostic exams
- Lack of sensibility from health professionals for the malnutrition problems and inadequate diagnostic

Malnutrition in Hospital

- 30 to 50% of in-patients are malnourished
- The malnutrition incidence increases with the length of stay
- The absence of daily protein reposition implies loss of extensive muscular mass and reduction in enzymatic function with various organic functions compromised
- The body supports the loss of all glycogen and lipid reserves. But the loss of 25-30% of proteins may lead to death

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The impact of nutrition on wound healing

- Malnourished patients have an increase anabolic activity in vital organs in detriment of metabolism in skin and muscles (1981, Stein & Buxby; Protein metabolism in surgical patients, Surg Clin North Am)
- Malnourished patients submitted to adequate nutrition in the first 24 hours after surgery , have accelerated healing (1991, Shroeder et al, Effects of immediate postoperative enteral nutrition on body composition, muscle function and wound healing; J: Parent Enter Nut)

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Nutritional Screening -Tools

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- Malnutrition Universal Screening Tool (MUST)
- Mini-Nutritional Screening and Assessment tool (MNA)
- Nutritional Risk Screening (NRS 2002)
- Others (ex. Braden and Norton)



Nutritional Assessment - Aim

- To identify patients at risk
- To quantify a patient's risk of developing malnutrition related complications
- To monitor the adequacy of nutritional therapy

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Nutritional Assessment -methods

- Anthropometry
- Biochemical markers
- Dietary assessment
- Clinical examination
- Body composition assessment

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Assessment of Nutritional Requirements

- Harris-Benedict (in rest)

Men: $66,5 + (13,8 \times \text{weight}) + (5 \times \text{height}) - (6,8 \times \text{age})$

Women: $665,1 + (9,6 \times \text{weight}) + (1,8 \times \text{height}) - (4,7 \times \text{age})$

In practice:

30-35 Kcal/Kg/day to maintain

40-45 kcal/kg/day to promote anabolism

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Nutritional Support

Obesity (overnutrition)

- Prevention
- Treatment

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Nutritional Support

Under-nutrition

- Prevention
- Treatment
- Promotion of healing

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Nutritional Support

Improve natural eating:

- Fortified foods
- Flavour enhancement
- Food delivery systems
- Feeding assistance
- Supplements

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Nursing Care

Natural eating improvement

- Good tooth care; dental prosthesis;
- Personalized diet
- Personal meal time keeping
- Good tasting; hot; small; frequent meals
- Conviviality
- Right food consistence

And promote exercise!

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Enteral Nutrition - Routs

- Nasogastric tube
- Nasoduodenal or nasojejunal techniques
- Gastrostomy or Jejunostomy

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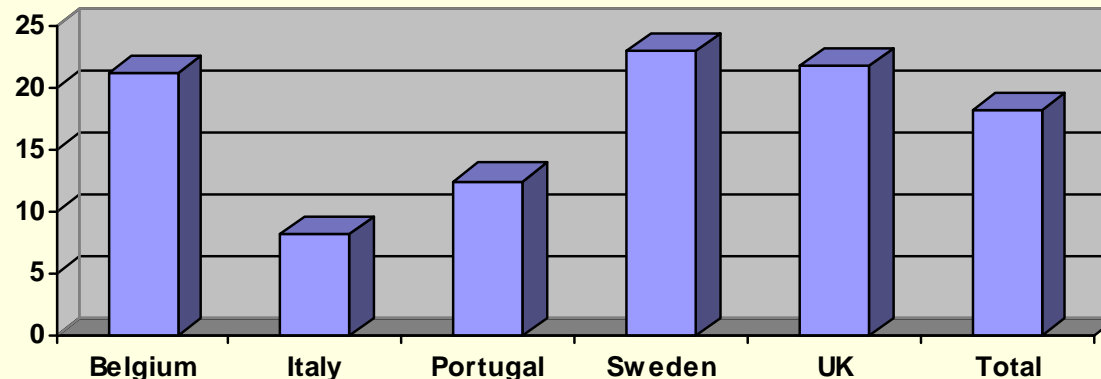
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What can we do?

- Education, education and ... education
- Use attractive protocols
- Help nurses in managing nutrition status

Introduce the Mediterranean diet !



EPUAP PU PREVALENCE 2001

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Conclusion

- Nutrition intervention should start early, should be personalised and permanently adapted
- The management of wounds particularly chronic wounds needs to be multidisciplinary and multifactor to have efficacy. Nutrition plays a MAJOR role
- Before treating, prevent. To prevent wounds, first prevent malnutrition !

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