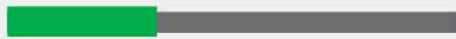


NUTRITION IN THE ICU

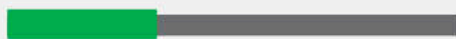
NUTRITION – KEY FACTS



At least **one third** of patients in developed countries have some degree of malnutrition upon admission to the hospital.



If left untreated, approximately **two thirds** of those patients will experience a further decline in their nutrition status.



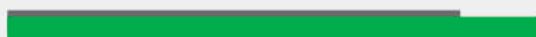
Among patients who are not malnourished upon admission, nearly **one third** may become malnourished while in the hospital.



According to the NutritionDay ICU Audit, it takes **1 week** to reach 1500kcal intake in most ICUs in the world.



Undernutrition is associated with **prolonged length** of stay, mechanical ventilation, infection and mortality.



Overnutrition is associated with **prolonged** mechanical ventilation and infection, and increased morbidity.

Source: Tappenden et al. (2013) *Jrnl of the Acad. of Nutr. and Dietetics*, 113(9); Singer (2019) *Critical Care* 23(1).

OBJECTIVES OF NUTRITION THERAPY IN THE ICU

Preserve lean body mass

Maintain immune function

Avert metabolic complications



Source: VanBlarcom and McCoy (2018) *Crit. Care Nurse*, 38(3):44-52.

NUTRITION DISORDERS AND RELATED CONDITIONS

- ✓ Malnutrition/Undernutrition
- ✓ Sarcopenia/Frailty
- ✓ Overweight/Obesity
- ✓ Micronutrient abnormalities
- ✓ Refeeding syndrome

Source: Singer et al. (2019) *Clinical Nutrition*, 38:68-79.

NUTRITION CARE PROCESS

- 1 Nutrition Assessment
- 2 Nutrition Diagnosis
- 3 Nutrition Intervention
- 4 Nutrition Monitoring and Evaluation



Source: Cederholm T et al. (2017) *Clin. Nutrition*, 36:40-64.

KEY PRINCIPLES TO IMPROVE NUTRITION FOR THE CRITICALLY ILL

- Create a culture where all stakeholders value nutrition
- Redefine clinicians' roles to include nutrition care
- Recognise and diagnose malnourished patients and those at risk
- Implement comprehensive nutrition interventions and monitor continuously
- Communicate nutrition care plans
- Develop a discharge nutrition care and education plan

Source: Tappenden et al. (2013) *Jrnl of the Acad. of Nutr. and Dietetics*, 113(9).