Dietitians working as part of a multidisciplinary team are clinically and cost effective in the management of critically ill patients.

Dietitians in critical care:

• work with patients who have been admitted to the intensive care unit for the management of acute life threatening disorders. This can encompass patients with a wide range of medical conditions e.g. following major elective surgery, trauma, burns, severe infections and respiratory disorders.

• undertake nutritional assessments to determine patients’ nutritional risk, recommendations for the most appropriate route of providing nutrition (this can be by oral intake, tube feeding or intravenous feeding) and to prescribe tailored feeding regimens which meet patient’s nutritional requirements.

• are essential and integral members of the critical care team (consultant intensivist, medical and nursing staff, pharmacists, physiotherapists) and attend ward rounds and multidisciplinary meetings where nutritional goals and plans are discussed.

• provide on-going education and training for clinicians, nurses and allied health professionals.

• evaluate and lead nutrition-related audit and research to ensure they continue to strive for the best treatments for their patients and to widen the current scientific evidence base.

Key Fact

Input from a dietitian is associated with an increase in energy provision, a reduction in energy deficits and earlier optimisation of alternative approaches to delivering nutrition when patients fail to tolerate their total nutritional requirements through their current route of administration, whether this is through oral intake or by tube feeding. (Core Standards for Intensive Care Units, 2013).
**Case study**

The number of investigations and procedures that patients require while on the intensive care unit can often affect the amount of time that is available to deliver nutrition. Standard feeding protocols provide little opportunity to ‘make up’ for lost feeding time which can result in large energy and protein deficits. Evidence suggests a significant linear relationship between mortality risk and calories received on the ICU (Alberda, 2009).

A Dietitian led group based in a Liverpool ICU used a novel feeding protocol originally designed in Canada (Heyland, 2010) that overcame these barriers in order to deliver more nutrition in less time. Following the implementation of the protocol patients received more of their prescribed volume of enteral nutrition. The average amount of missed feeding time reduced from 45 hours to 36 hours and the percentage of prescribed feed delivered increased from 69% to 88%.

The dietitian was an essential member of the research team, providing the expertise required to define and report appropriate dietetic interventions and nutritional outcomes.

**Key Fact**

Nutritional therapy must be an integral part of patient care, and systems must be in place to ensure dietetic time is funded in line with service requirements (i.e. number of patient beds within the unit, the speciality) (NHS Modernisation Agency, 2002).

**Key Fact**

Analysis from the International Nutrition Survey continually shows that there is a direct correlation between total amount of funded dietitians in Critical Care and the better provision of nutrition support and earlier initiation of enteral nutrition (tube feeding) (GPICS, 2015).

**Key Fact**

Patients have a significantly shorter length of stay when they receive enteral nutrition (tube feeding) according to the advice of the registered dietitian (Braga et al 2006).

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**Improving outcomes**

Evidence suggests that an accumulation of energy and protein deficits is linked to poorer patient outcomes including increased length of hospital stay, prolonged time needing mechanical ventilation (breathing support machine) and increased risks of infections (GPICS, 2015; Schetz et al., 2013). Furthermore, poor outcomes may also extend to an increased risk of mortality and a decreased functional status (ability to perform normal daily activities to meet basic needs) at the time of hospital discharge. (Tremblay and Bandi, 2003).

**Concluding**

Specialist critical care dietitians have the highly developed knowledge, skills and expertise to be able to manage the complex issues seen in these patients, and are best placed to provide nutritional advice to the multi-disciplinary team on the optimal way to manage the nutritional needs of all critically ill patients.

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**References**


The Faculty of Intensive Care Medicine: The Intensive Care Society. Core Standards for Intensive Care Units. 2013. www.ficm.ac.uk/sites/default/files/ICUs%20Ed.1%20%20282013%29.pdf
