

Calorific controversy for intensive care patients

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Patients who are fed more calories while in intensive care have lower mortality rates than those who receive less of their daily-prescribed calories, according to a recent study of data from the largest critical care nutrition database in the world.

"Our finding is significant as there have been a number of previous studies in the area of [critical care](#) nutrition that have produced conflicting clinical recommendations and policy implications," says study lead Daren Heyland, a professor of Medicine at Queen's, director of the [Clinical Evaluation](#) Research Unit at Kingston General Hospital, and scientific director of the proposed Technology Evaluation in the Elderly Network. "Since caloric delivery is essential for improving the chances of these critically ill patients, it's vital that we know what the optimal level is."

Dr. Heyland's team examined the records of 7872 mechanically ventilated, artificially fed patients in 352 ICUs in 33 countries. They found that patients receiving at least two-thirds of their prescribed [calorie intake](#) had reduced [mortality rates](#) when compared with patients receiving less than one-third of their prescribed calorie intake. The researchers identified that the optimal [caloric intake](#) was about 80 to 85 per cent of total prescribed calorie intake.

World-wide, patients in ICUs typically receive 50 to 60 per cent of their prescribed calories so efforts to improve caloric delivery are important to improve the chances of critically ill patients surviving their illness.

In a further study, Dr Heyland and his research team examined the use of supplemental intravenous nutrition, in addition to the traditional use of feeding tubes. They concluded that efforts to improve the delivery of nutrition delivered via a feeding tube into the stomach are more important than the use of supplemental intravenous nutrition.

More information: These respective findings were both recently published in *Critical Care Medicine*, a leading US-based ICU journal.

Provided by Queen's University

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