Tracking feeding history supports adequate nutrition delivery

Adequate feeding is essential to recovery from critical illness and improved outcomes. Ensuring optimal nutrition across care settings requires collaboration from a multidisciplinary team, which includes working with the patient in the hospital and caregivers at home.

Patients need the right access to nutrition at the right times, often starting early to lessen caloric deficits that can lead to malnutrition. Enteral feeding should be offered to patients ages infant and older who are physically unable to eat and swallow or who are unable to get sufficient nutrition through eating and swallowing and continued until a patient can obtain adequate nutrition through oral feeding alone.[1,2]

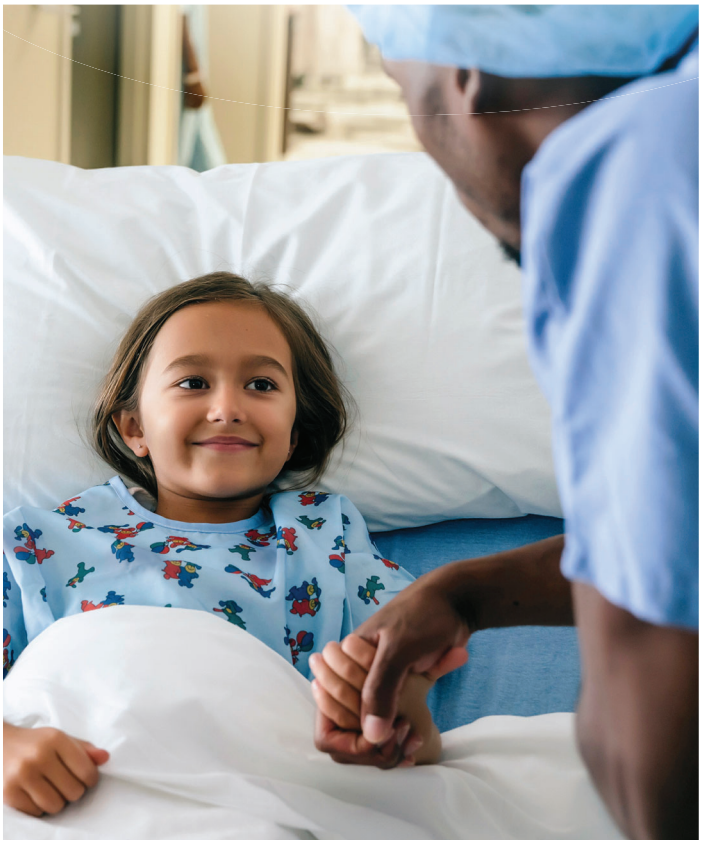
Patients face barriers to adequate nutrition because of feeding intolerance and other issues that affect assimilation of nutrients. Accurately tracking the patient's feeding history at the bedside helps customize the patient's feeding prescription and manage issues that can put a patient at risk of malnutrition.

Risks of inadequate nutrition and malnutrition

Malnutrition is estimated to affect between 20% and 50% of hospitalized patients and contributes to higher readmission rates. Patients malnourished in the hospital are nearly 50% more likely to be readmitted.[3]

Malnutrition puts patients at risk of infection, poor wound healing, longer lengths of stay, higher mortality and increased healthcare costs.[4]

Research has shown that many patients in post-ICU hospitalization trend toward underfeeding and don't receive adequate nutrition and energy intake. This can worsen if they receive oral feedings only or have their feeding tube removed too soon. Supplemental enteral nutrition has been associated with patients in the ICU receiving better protein and energy intake as compared to oral feeding.[5,6]



When considering patient needs after discharge, home enteral nutrition is recommended for patients who are at high risk of being malnourished.[2] Caregivers and care teams must accurately track nutrition intake at home to help prevent complications or detect them early. Patients who experience malnutrition at home are at higher risk of being readmitted to the hospital.[4]

Despite receiving prescriptions for adequate nutrition, some patients in the hospital and at home still risk malnutrition because of feeding intolerance. Some causes of feeding intolerance are:

- Poor gastroenteric access with the wrong feeding tube or wrong feeding location
- Partial bowel obstructions
- Medication side effects
- Hyperglycemia
- Electrolyte imbalances

Ensuring the delivery of adequate nutrition throughout the patient's medical journey from hospital to home may improve outcomes and quality of life.[7]

Challenges of determining adequacy

Nutritional adequacy tends to vary throughout each phase of a patient's illness. Finding an adequate feeding prescription is highly individualized and timing, method and dose vary by patient.[8]

Equations to estimate adequate feeding for patients are often inaccurate. Many factors contribute to how well a patient can assimilate nutrition, so close coordination between the care team and patient is required to understand those factors, address them and adjust nutrition needs.

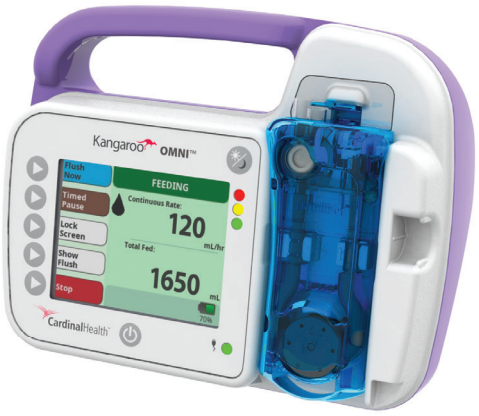
Studies have not concluded the superiority of one feeding method or timing over another.[8] Whether feedings are administered via bolus method or through an enteral feeding pump using continuous or intermittent modes, it is a highly personalized decision and should be decided by the care team in partnership with the patient and caregiver.[2]

A bedside feeding history of 30-day nutrition intake could enhance clinical assessment and aid in decision making. This data can offer guidance after discharge when patients and caregivers are more in control of their enteral nutrition.

How pump features support adequate feedings at home

A multidisciplinary care team for patients on enteral feeding should include a physician, nurse, dietitian and pharmacist. Before leaving the hospital, the patient's caregiver should receive education on adequate feeding and learn how to use the enteral feeding pump.[2] Although patients who have been discharged are more medically stable than hospitalized patients, they still face a risk of feeding intolerance.

Having the same enteral feeding pump from the hospital to home allows for a smoother transition. The choice of pump can also streamline administering and managing feedings.



Kangaroo OMNI™ Enteral Feeding Pump

Catalog No.	Description	Ship case
385400	Kangaroo OMNI™ Enteral Feeding Pump (includes power adapter and pole clamp)	1

Automation

The Cardinal Health™ Kangaroo OMNI™ Enteral Feeding Pump is designed to deliver optimal nutrition across the care continuum. Capable of recording 30 days of feed and flushing history and equipped with an interruption monitoring mode, it can aid patients and their care team in achieving nutrition goals in the hospital, the home or beyond.

An automated feed/flush feeding pump assists caregivers in providing reliable, adequate nutrition and promoting hydration. Home enteral nutrition guidelines recommend educating patients on how to use feed/flush features to prevent obstructions in the line.[2]

Automated feedings can also address potential complications from interruptions and support a patient's lifestyle. For example, patients who are active during the day for work or school may need overnight feedings, which can easily be delivered on a set schedule.[2] Automated, volume-based feedings, as opposed to rate-based feedings, help avoid incomplete enteral nutrition delivery despite interruptions.[9,10]

Objective nutrition data

Tracking feedings with a bedside history on the pump also helps determine adequate nutrition. A 30-day Feeding history on the pump shows the volume of nutrition actually delivered, in conjunction with other features that monitor interruptions, making it more reliable than the electronic medical record (EMR). The EMR is likely to record the prescribed volume, but it may not reflect the volume of feeding delivered. The EMR may not account for interruptions that paused feedings and led to incomplete delivery of the prescription.

The 30-day Feeding history allows the healthcare professional to compare the nutrition delivered with nutrition parameters to see if the patient is receiving adequate nutrition. This allows for a more accurate determination of the patient's nutritional needs.

Ensuring adequate nutrition for patients receiving enteral feeding requires monitoring of symptoms, outcomes and objective data of nutrition delivered. That's where a close partnership between the care team, caregiver and patient can help support better outcomes. Clinical expertise combined with a reliable enteral feeding pump that has enhanced features for accurate tracking supports the team's efforts to meet the patient's nutritional needs and address barriers to nutrition assimilation early.

CardinalHealth™ Kangaroo

For more information about the Kangaroo OMNI™ Enteral Feeding Pump, contact your Cardinal Health representative or visit **cardinalhealth.com/kangaroo**

Disclaimer: Before using any medical device, review all relevant information, including the label and the Instructions For Use.

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