Background

- Malnutrition affects 30-50% of hospitalized patients.
- Malnourished patients are at greater risk of readmissions and longer hospitalizations compared to adequately nourished patients.
- General benefits of oral nutritional supplements (ONS) in adult malnourished hospitalized patients include decreased mortality and morbidity; decreased hospital length of stay; improved quality of life; and reduced readmission rates and costs.
- However, limited research assessing the role of nutrition-focused interventions including ONS on reducing readmissions and length of stay (LOS) among younger versus older patients exists.
- There is also lack of research examining the practical aspects of implementing changes specific to ONS consumption when:
  - Incorporating a valid, easy-to-use malnutrition screening tool upon admission
  - Developing and reinforcing ONS consumption

Objective

Assess the impact of a comprehensive, oral nutritional supplementation (ONS) quality improvement program (QIP) in older and younger malnourished adult patients on 30-day unplanned readmissions and hospital length of stay as compared to pre-QIP rates of historical comparisons.

Methods

- Two teaching hospitals and two community hospitals from Advocate Health Care, the largest healthcare system in Illinois, USA participated in the study.
- Two QIP+ hospitals implemented the same improvements as QIP hospitals along with accelerated delivery of ONS, patient education at discharge, and post-discharge patient compliance calls.
- Electronic Medical Record (EMR) was upgraded to include Malnutrition Screening Tool (MST), and conditions-specific ONS administration to all patients at-risk for malnutrition (MST ≥ 2).
- Data from 2588 patients (1269 QIP patients enrolled October 2014-April 2015, and 1319 retrospective historical controls admitted in QIP hospitals between October 2013-April 2014) were categorized into:
  - ≥65 years
  - <65 years

Results

- 1434 (65.4%) patients were ≥65 and 1154 (44.6%) were <65 years old.
- Pre-QIP readmission rates were 20% and 24% for the two subgroups, while LOS were 6.5 days and 8.0 days, respectively.
- Post-QIP 30-day readmission rate in patients ≥ 65 was 15.8%, showing an absolute rate reduction of 4.2% as compared to pre-QIP (21% relative risk reduction (RRR), R < 0.01).
- 7.6% absolute rate reduction (31.7% RRR, R < 0.01) was seen in patients <65 years.
- The post-QIP hospital LOS in patients ≥ 65 years was 5.4 days, showing an absolute reduction of 1.1 days (17% RRR, R < 0.01).
- Absolute reduction of 2.7 days (33.7% RRR, R < 0.01) post-QIP was reported in patients <65 years old.

Conclusion

- Unplanned 30-day readmissions and LOS among malnourished hospitalized patients can be significantly decreased through implementation of a comprehensive nutrition-focused QIP.
- Nutrition based interventions are necessary for all hospitalized patients at risk for malnutrition or malnourished, regardless of age.

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References