

Identification of Malnutrition Improves Patient Care and Hospital Financial Outcomes

A Cooperative Study



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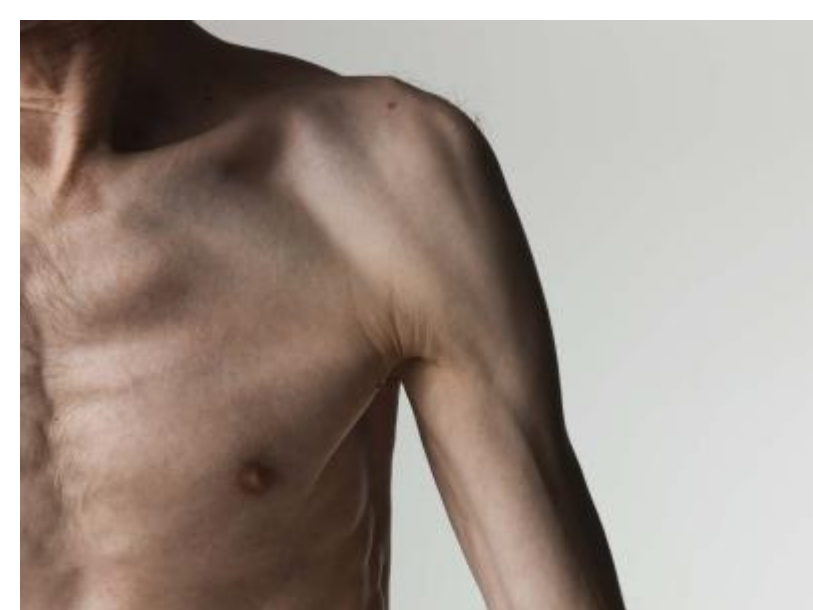
Background

Malnutrition has long been shown to negatively affect patient outcomes. It is currently estimated that 40% of hospitalized patients are malnourished. The identification of malnutrition has been hampered by a lack of accepted and validated clinical factors. A recent algorithm (2013) from benchmark organizations, the American Society for Enteral and Parenteral Nutrition (ASPEN) and the Academy of Nutrition and Dietetics (AND), uses clinically proven parameters for the diagnosis of malnutrition. These evidence based standards have been adopted as the standard for identifying patients with malnutrition in the United States. Prior to the development of these evidence based standards malnutrition was not consistently documented or clinically supported. The documentation of malnutrition can have a financial impact by increasing reimbursement, SOI (severity of illness), and ROM (risk of mortality) scores for the hospital. In addition, enhanced awareness of malnutrition may improve the interdisciplinary approach to treatment.

Objectives

- 1) Enhance the physician awareness of the presence of malnutrition as identified by the new standards and encourage interdisciplinary collaboration for early intervention.
- 2) Determine the impact of the documentation of malnutrition on the hospitals' reimbursement including DRGs, SOI, and ROM.
- 3) Implement an ongoing process to facilitate the identification and documentation of malnutrition.

What Does Malnutrition Look Like?



Method

Using the new evidence based criteria for malnutrition, a prospective study was undertaken by the Departments of Clinical Documentation Improvement (CDI) and Food and Nutrition Services (FNS) to identify, document, and track malnutrition in patients at EMCP. For the month of March 2016, all patients screened by a Registered Dietitian (RD) were evaluated using the ASPEN/AND criteria. The RD documented malnutrition (including severity and clinical criteria) in the nutrition consult in the Electronic Medical Record (EMR). CDI received notification (via email) on a daily basis of patients with malnutrition documented by the RD. CDI placed a query on the chart requesting that the provider review the nutrition consult and document the diagnosis of malnutrition (if the provider agreed with the assessment). After discharge, CDI reviewed the coding attestation to ensure the diagnosis was coded. CDI evaluated the impact of the documentation of malnutrition on reimbursement, SOI, and ROM. CDI used the "Relative Weight of the DRG" with and without the diagnosis of malnutrition and assessed reimbursement using the hospitals' blended rate as provided by the hospital finance department. In addition, SOI and ROM (both scores that are accepted standards of outcome measures) were compared by evaluating the score with and without the diagnosis of malnutrition.

Malnutrition Assessment Decision Tree

Criteria	Y/N
Insufficient energy Intake	
Weight loss	
Loss of muscle mass	
Loss of subcutaneous fat	
Localized or generalized fluid accumulation that may mask weight loss	
Diminished functional status (handgrip)	

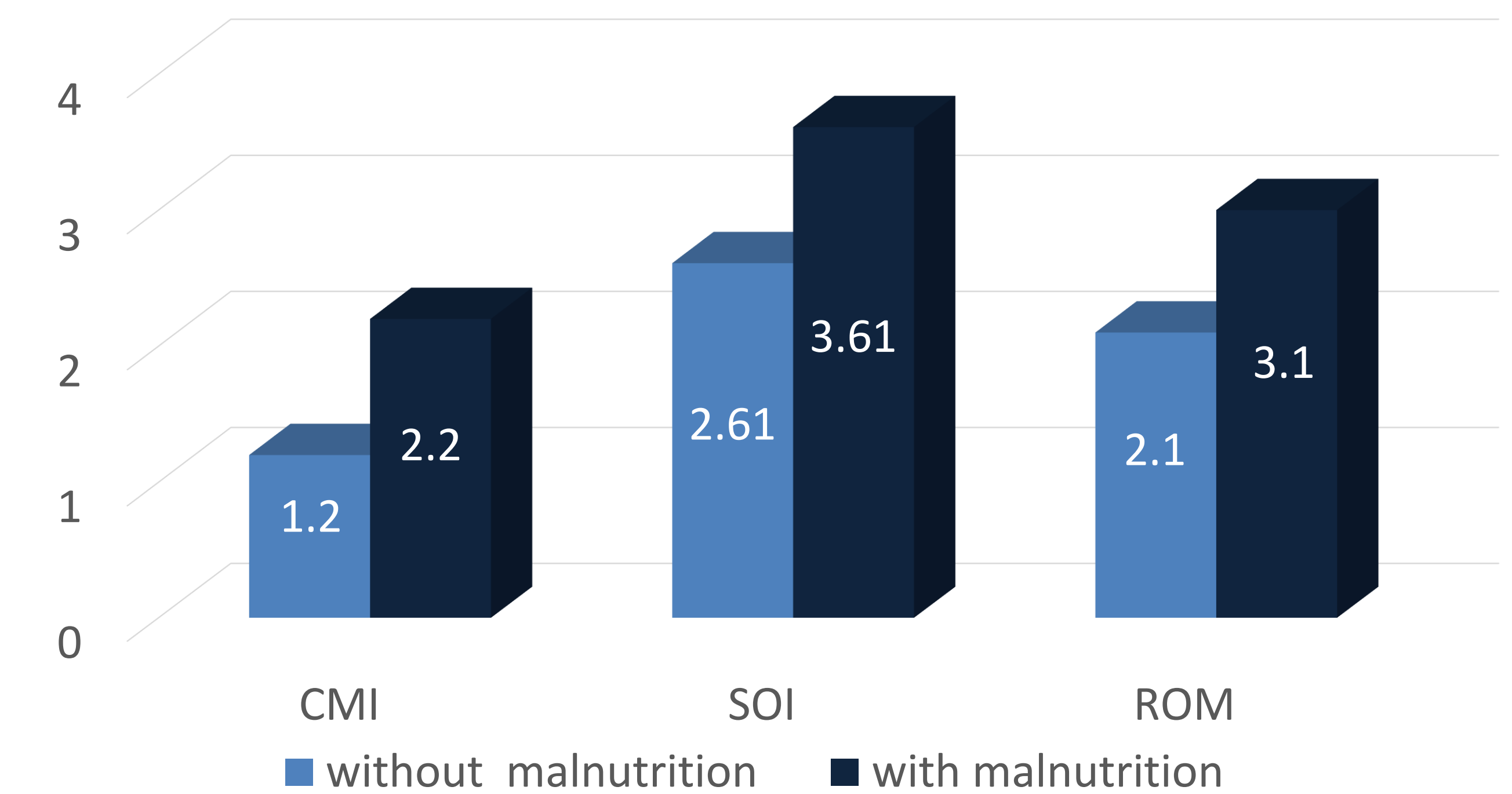
If ≤ 1 box is marked yes...not currently malnourished, if ≥ 2 boxes are marked yes...patient is malnourished

** Guidelines based on Journal of Parenteral and Enteral Nutrition, JPEN J Parenter Enteral Nutr 2012 36:275, Online version can be found at <http://pen.sagepub.com/content/36/275>

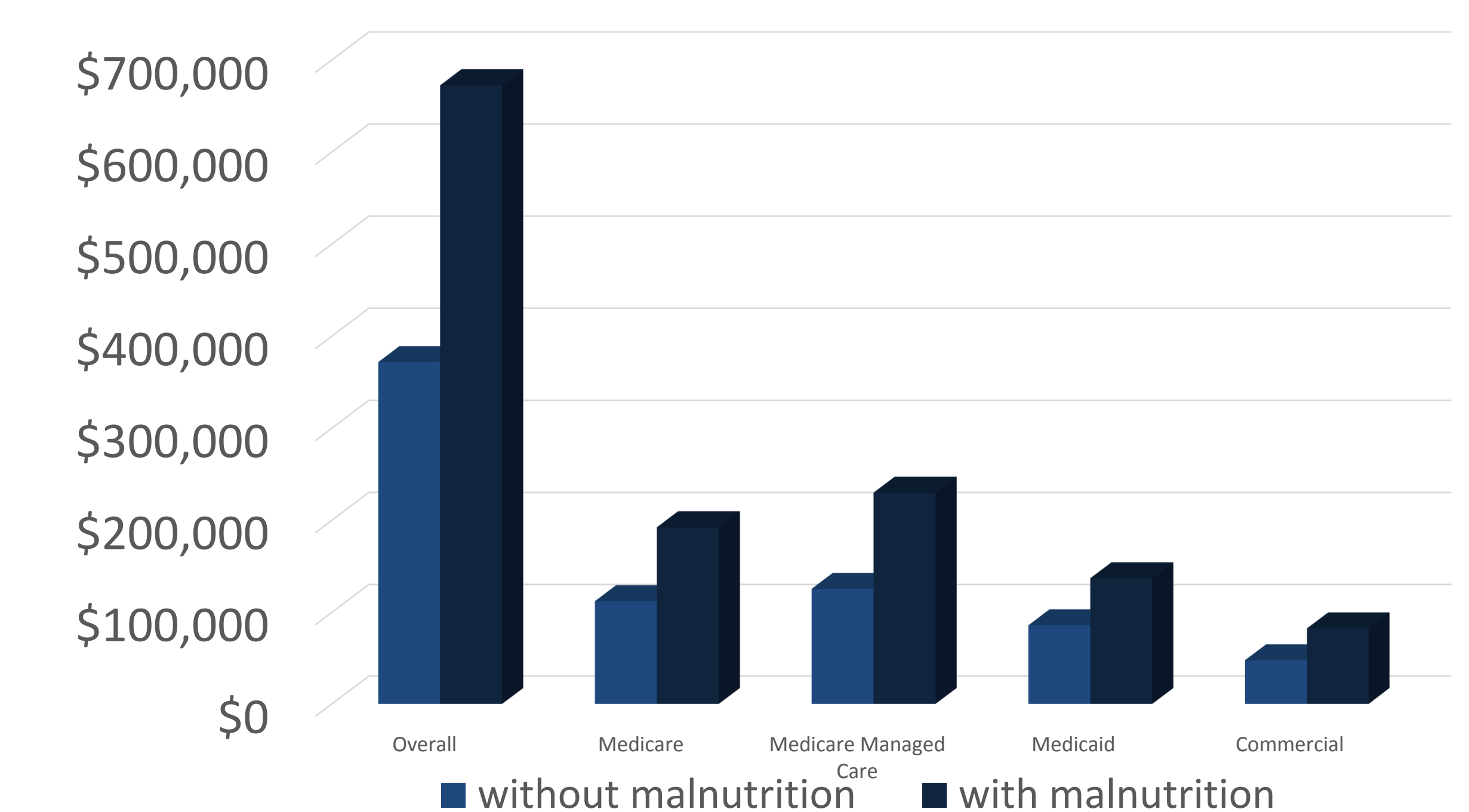
Results

During the month March 2016, 60 patients were identified and documented as malnourished by the RD staff. Prior to this date "0" patients had been identified with malnutrition using the new evidence based criteria. Using the above method to determine the impact on financial reimbursement, **March results yielded an increase in reimbursement of \$298,020. SOI/ROM scores also increased for 30 (50%) of the malnourished patients by an average of 43%**, allowing for improved evaluation of the hospitals' clinical outcomes. In addition, the awareness of malnutrition was demonstrated by the providers utilizing the screening form completed by the RD in the EMR. This also provided an interdisciplinary approach to treatment.

Malnutrition Impact on CMI, SOI & ROM



Malnutrition Impact on Reimbursement



Reimbursement based on blended rate of \$6000.00 (per finance).

Conclusions

Using the new evidence based standards will enhance the diagnosis and documentation of malnutrition. Positive results may include improved team awareness of the condition and enhanced treatment modalities. In addition, a positive effect can be seen with increases in financial reimbursement, SOI, and ROM. **This conservative calculation of revenue from 1 month could result in over \$3 million dollars of additional revenue annually as a result of malnutrition documentation.**

Currently, CDI is notified electronically of all patients identified by the RD as malnourished. CDI is reviewing the charts concurrently and querying the providers to ensure malnutrition (including severity and clinical supporting criteria) is documented in the inpatient medical record.

Definitions:

CMI –Case Mix Index - average relative weights for Medicare discharges over a specified period of time

Relative Weight – A weight assigned by Medicare used in determining reimbursement

Blended rate – reimbursement rate determined by CMS based on cost of living, location and services provided

SOI – Severity of Illness – refers to how sick the patient is (range 1 to 4 with 4 being the highest level of SOI)

ROM – Risk of Mortality – the likelihood of dying (range 1 to 4 with 4 being the highest level of ROM)

*3M – November 2005 – CDI Training Manual

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