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Audit of Correct Order Entry of Registered Dietitian Recommendations for Nutrition Support

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BACKGROUND

In 2014 the Centers for Medicare and Medicaid services (CMS) authorized pertinent order-writing privileges for Registered Dietitians (RDs) in the acute-care setting, including oral diets, enteral nutrition (EN), and parenteral nutrition (PN). Granting RDs order-writing privileges has been shown to reduce costs in acute care hospitals, including reduced labor, shorter patient stays, lower readmission rates, decreased mortality, and less waste due to incorrectly ordered PN and EN. Nutrition support orders completed by providers other than RDs are associated with hypercaloric feeds in critically ill patients, while simultaneously not meeting protein needs; an imperative macronutrient in critically ill patients

Several quality improvement (QI) analyses have demonstrated that optimizing accuracy and efficiency of clinical nutrition interventions improves patient outcomes, including increased calorie and protein delivery, decreased length-of-stay, decreased mortality, and improved quality of life post-discharge.

A study conducted at a 613-bed tertiary academic medical center observed a \$169,000 savings from correctly entered PN support orders when RDs were granted order writing privileges. This cost savings was a direct result of reduced inaccurate PN orders, pharmacy labor, and material waste. This did not take into account potential additional cost savings related to all aspects of therapeutic diet ordering.

OBJECTIVE

To quantify what percentage of enteral and parenteral nutrition orders were entered accurately based on Registered Dietitian recommendations.

STUDY POPULATION

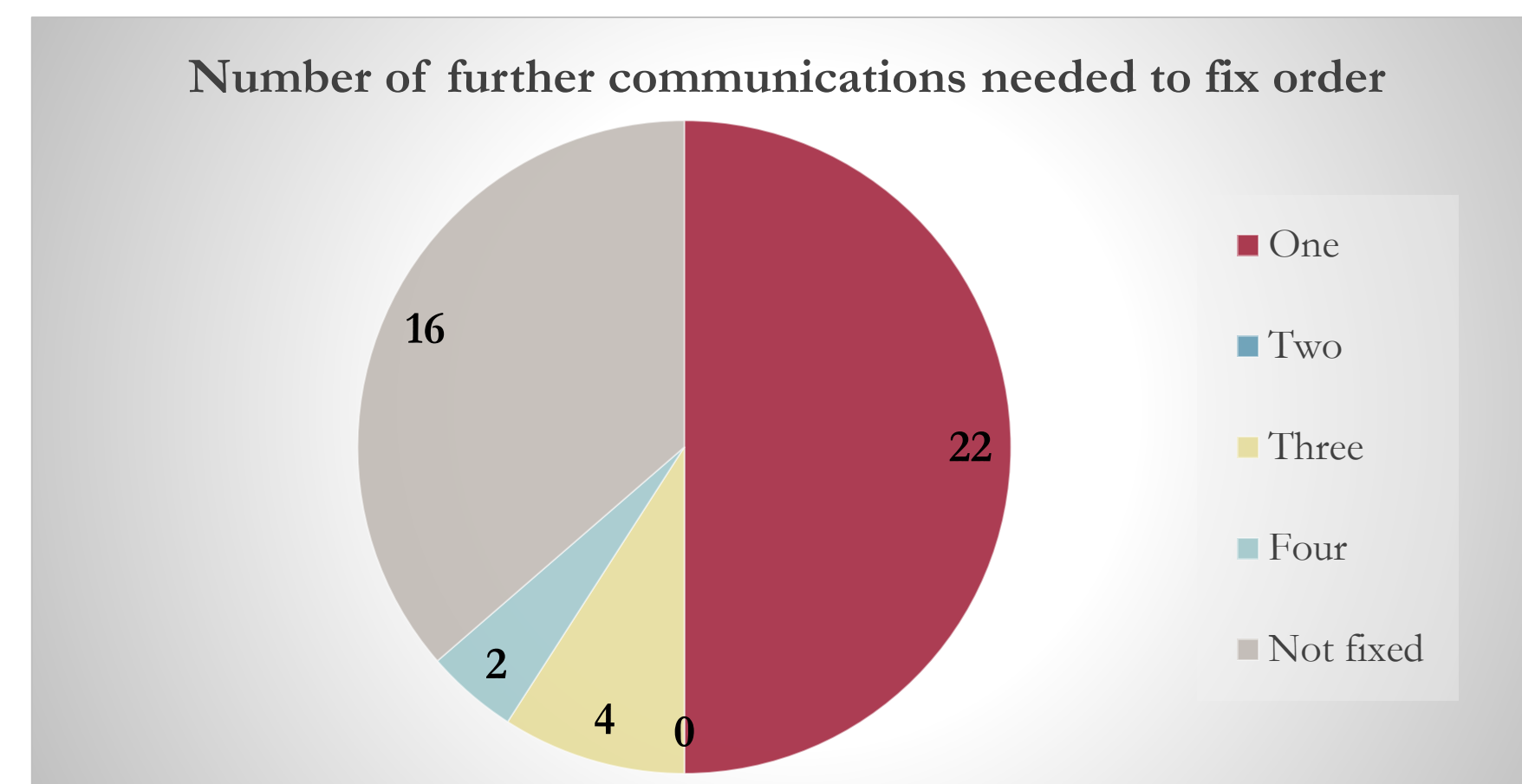
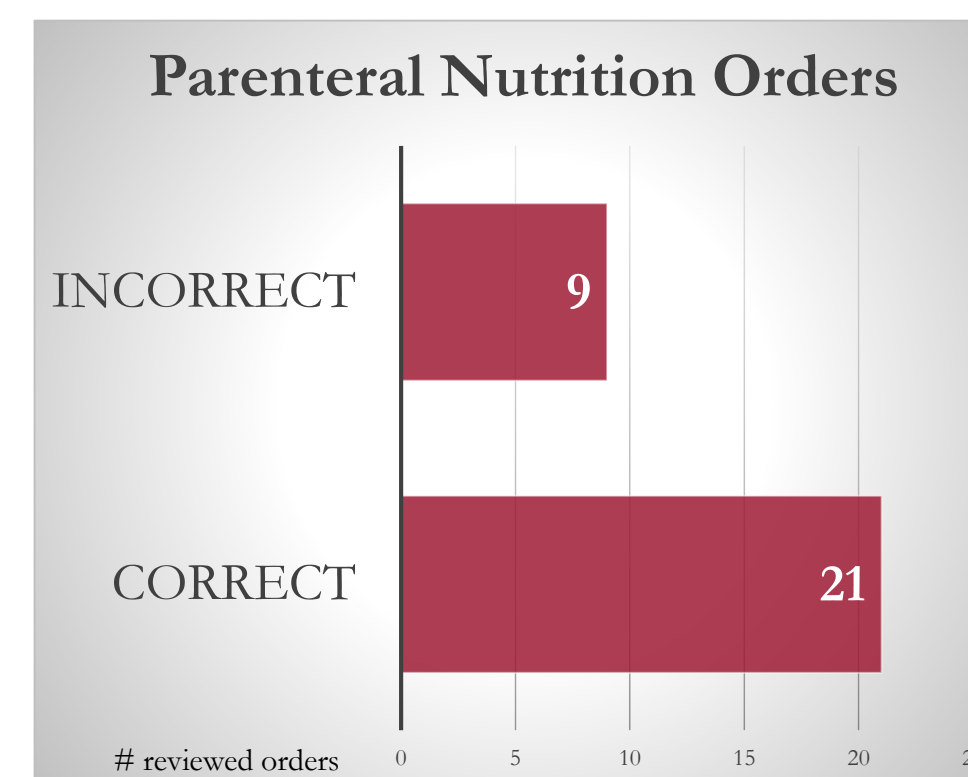
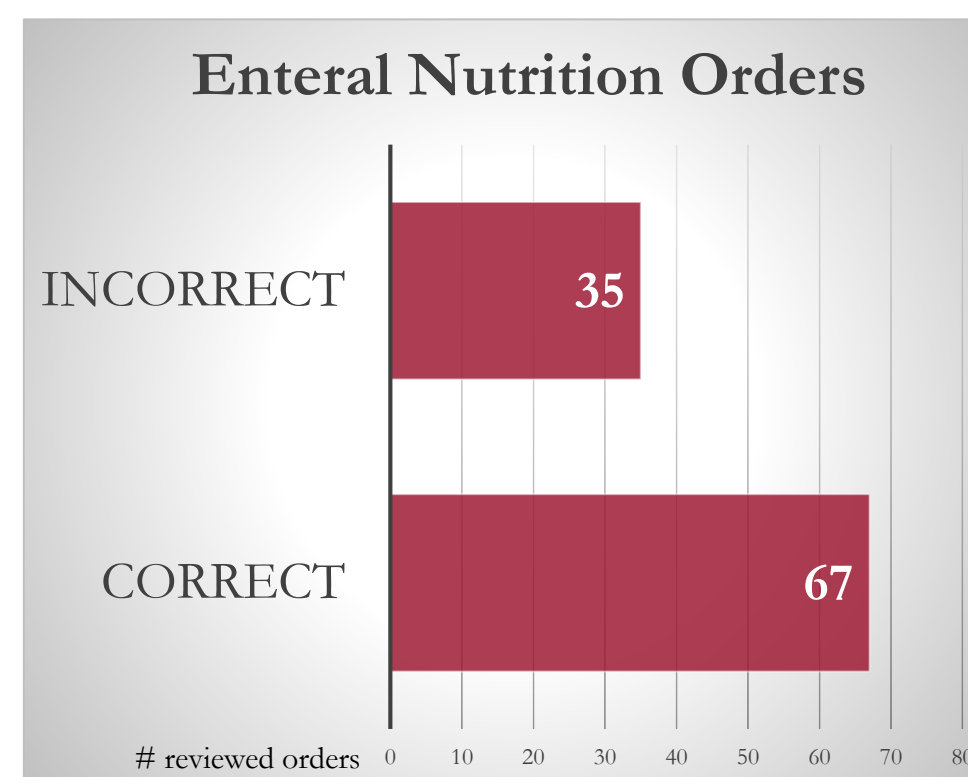
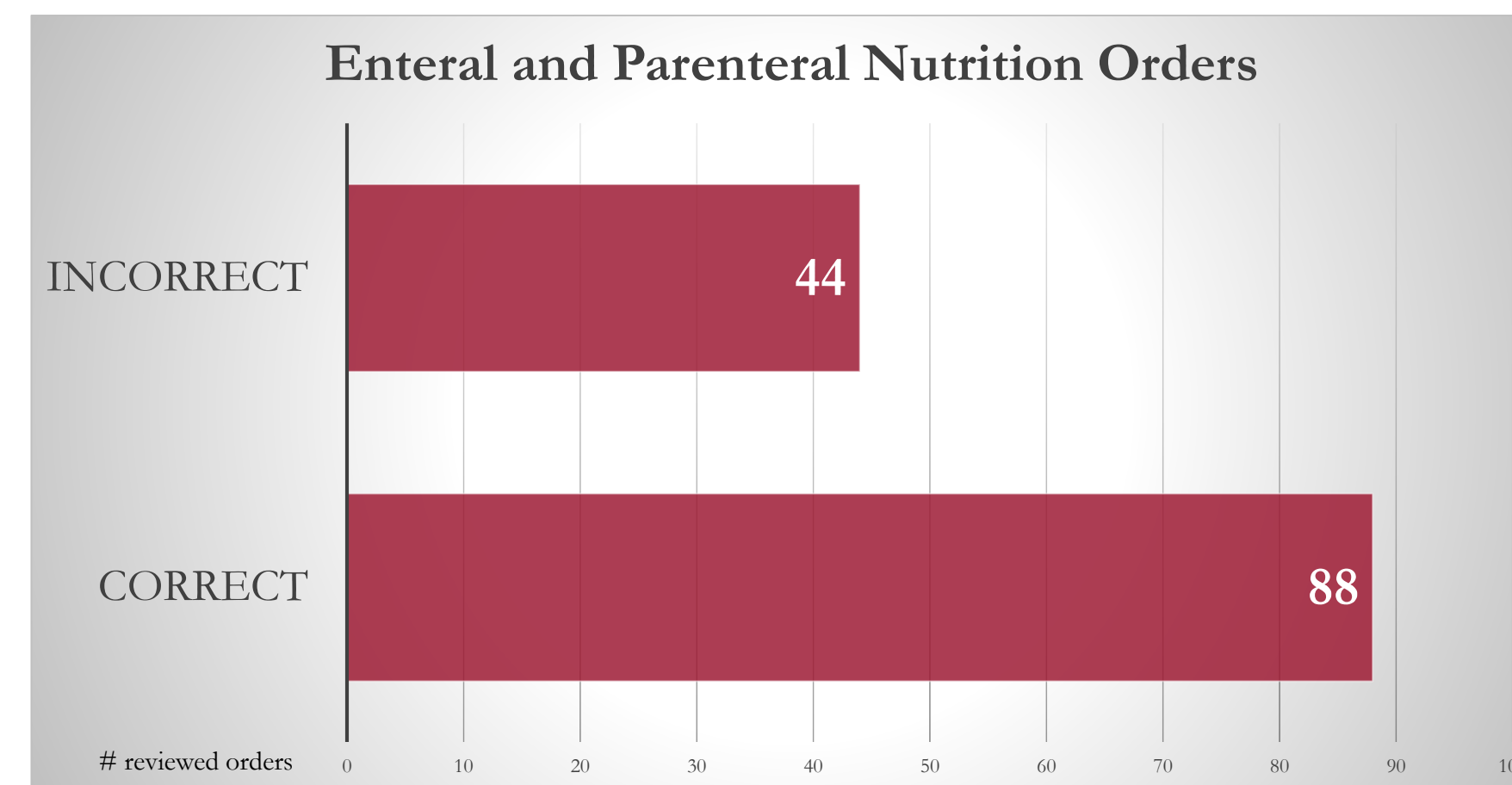
Adult and pediatric patients admitted to Maine Medical Center undergoing audit from January 23rd 2023 to February 3rd 2023.

METHODS

A convenience sample of adult and pediatric patients receiving EN or PN were included in an audit of orders for 10 days. Orders were audited for accuracy with RD recommendations and tracked for appropriate changes made. Formula, rate, duration, and protein modular were audited for accuracy with EN and macronutrients; electrolytes, volume, insulin, duration of infusion were audited accuracy with for PN recommendations.

RESULTS

Eight RDs audited the accuracy of 132 nutrition support adjustments on 92 patient assessments over 10 days (1/23/2023 to 2/3/2023). Of the 132 communications for order changes (102 EN, 30 PN), 44 (33%) were entered incorrectly. Of 30 PN orders, 9 (30%) were entered incorrectly. Of 102 EN orders, 35 (34%) were entered incorrectly. Twenty-two orders were corrected with one further communication, four required three communications, two required four communications, and 16 orders were never corrected. This sample of 92 out of 475 patients seen by eight RDs includes only recommendations for changes to nutrition support orders.



CONCLUSIONS

‘A third of all audited nutrition support orders were entered incorrectly.’

- A third of all audited nutrition support orders were entered incorrectly leading to increased time spent on the part of both the RD and provider to correct the order, thus delaying optimization of nutrition support.
- Accuracy, efficiency, timeliness, and quality of nutrition care can be improved through the granting of specific nutritional ordering privileges to RDs either through appointment to the medical staff or through authorization of ordering privileges without appointment to the medical staff, as it is within their scope of practice and within state licensure.
- Further QI projects are needed to explore reasons for why orders are entered incorrectly to target education and process changes.
- Next steps include pursuing order writing abilities for RDs to align with current best practice guidelines and the official ruling of CMS in order to provide the utmost patient care in a timely manner.

REFERENCES

1. Medicare and Medicaid Programs; Part II—Regulatory provisions to promote program efficiency, transparency, and burden reduction. *Fed Reg*. 2013;78:27145-27146.
2. Peterson S, Dobak S, Phillips W, et al. Enteral and Parenteral Order Writing Survey-A Collaborative Evaluation Between the Academy of Nutrition and Dietetics' Dietitians in Nutrition Support Dietetics Practice Group and the American Society for Parenteral and Enteral Nutrition (ASPEN) Dietetics Practice Section. *Nutr Clin Pract*. Jun 2020;35(3):377-385. doi:10.1002/ncp.10467
3. Arney BD, Senter SA, Schwartz AC, Meily T, Pelekhaty S. Effect of Registered Dietitian Nutritionist Order-Writing Privileges on Enteral Nutrition Administration in Selected Intensive Care Units. *Nutr Clin Pract*. Dec 2019;34(6):899-905. doi:10.1002/ncp.10259
4. Phillips W, Doley J. Granting order-writing privileges to registered dietitian nutritionists can decrease costs in acute care hospitals. *J Acad Nutr Diet*. 2017;17(6):840-847.
5. Smith PE, Smith AE. High-quality nutritional interventions reduce costs. *Healthc Financ Manage*. 1997;51(8):66-69.
6. Kruijenga HM, Van Tulder MW, Seidell JC, Thijs A, Ader HJ, Van Bokhorst-de van der Schueren MA. Effectiveness and cost-effectiveness of early screening and treatment of malnourished patients. *Am J Clin Nutr*. 2005;82(5):1082-1089.
7. Rufenacht U, Ruhlin M, Wegmann M, Imoberdorf R, Ballmer PE. Nutritional counseling improves quality of life and nutrient intake in hospitalized undernourished patients. *Nutrition*. 2010;26(1):53-60.
8. Feldblum I, German L, Castel H, Harman-Boehm I, Shahar DR. Individualized nutritional intervention during and after hospitalization: the nutrition intervention study clinical trial. *J Am Geriatr Soc*. 2011;59(1):10-17.
9. McClave SA, Taylor BE, Martindale RG, et al. Guidelines for the provision and assessment of nutrition support therapy in the adult critically ill patient: Society of Critical Care Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (ASPEN). *J Parenter Enteral Nutr*. 2016;40(2):159-211.
10. Allingstrup MJ, Esmailzadeh N, Wilkens Knudsen A, et al. Provision of protein and energy in relation to measured requirements in intensive care patients. *Clin Nutr*. 2012;31(4):462-468.
11. Weijs PJ, Looijaard WG, Beishuizen A, Girbes AR, Oudemans-van-Straaten HM. Early high protein intake is associated with low mortality and energy overfeeding with high mortality in non-septic mechanically ventilated critically ill patients. *Crit Care*. 2014;18(6):701.
12. Roberts SR. Improving patient outcomes through registered dietitian order writing. *Nutr Clin Pract*. Oct 2013;28(5):556-65. doi:10.1177/0884533613499375

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