

## STUDY SUMMARY

# Preoperative Nutrition-Enhanced Recovery After Surgery Protocol for Thoracic Neoplasms

Robinson LA, Tanvetyanon T, Grubbs D, Robinson NA, Pierce CM et al.  
*J Thorac Cardiovasc Surg* 2021;162(3):710-720.

### Objective:

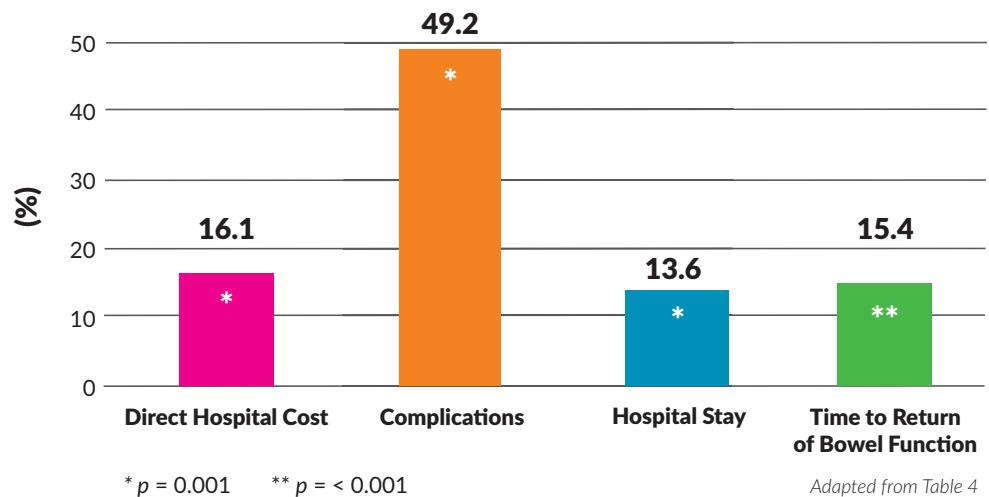
To evaluate outcomes associated with a preoperative nutrition program used for a two-year period vs. previous standard of care.

### Methods:

Retrospective review of patients receiving curative surgery from the same surgeon for thoracic cancers (largely lung). A normally nourished study group (n=229) that was surgeon educated on a preoperative nutritional-enhanced recovery after surgery (N-ERAS) protocol was compared with a normally nourished historical control (n=233) receiving only standard preoperative nutrition. The N-ERAS presurgical protocol included an oral immunonutrition (IM) drink containing L-arginine, n-3 fatty acids and nucleotides (IMPACT Advanced Recovery®) taken for 5 days, daily multispecies probiotics and 1-2 doses of a carbohydrate-loading drink. IM supplementation continued during hospitalization.

### Results:

- Favorable reductions associated with use of the N-ERAS Protocol:



- Patient compliance to N-ERAS approached 100% and patients expressed feeling empowered to participate in their care.
- Given the reduction in hospital costs (mean \$2198 per patient), the hospital projected a savings of \$503,342 over two years.
- Multivariable analysis found use of N-ERAS independently predicted the absence of complications (odds ratio [OR], 0.46; 95% CI, 0.26-0.79;  $p = 0.005$ ).
- Propensity score matching produced 169 well balanced pairs confirming N-ERAS was associated with an absence of complications ( $p = 0.003$ ), a mean reduction in hospital stay of 0.5 days ( $p = 0.001$ ), and a reduction in hospitals costs by a mean \$2252 ( $p < 0.001$ ).

### Conclusions:

- The N-ERAS protocol is patient compliant and when added to fast-track thoracic cancer surgery resulted in accelerated recovery. Consideration of use is appropriate to general thoracic surgeons using any technical approach.

Please use the link to access the article: <https://pubmed.ncbi.nlm.nih.gov/32713631/>

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