Using this approach, supportive care therapies are offered while the disease is treated with conventional therapies, such as surgery, chemotherapy, and radiation. Nutritional, psychological, behavioral, and social services support, as well as rehabilitation therapy, are available to enrich a patient’s overall well-being and quality of life. This study supports the idea that nutritional support is an important component of this process. Additionally, performing preoperative nutrition assessments should improve patient selection for lung resection.

Providing integrative cancer care with individualized nutritional support and monitoring of nutritional status throughout a patient’s journey can influence complication rates, mortality, and survival. Just some food for thought.

References


that can unfavorably impact outcomes. This preoperative
detective work is as important as the intervention itself.
To this end, nutrition (and now immunonutrition) status
has emerged as a critical determinant of postsurgical and
oncologic outcome.¹ Yet, the best method to quantify nutri-
tional deficiency, risk stratify, and identify actionable tar-
gets still remains nebulous and serves as an area of active
investigation.

Takahashi and colleagues² investigate 3 different nutri-
tional scoring systems for patients undergoing lung
resection for non–small cell lung cancer. The group retro-
spectively reviewed 475 patients and assessed 3 different
scores—Prognostic Nutritional Index (PNI), Controlling
Nutritional Status score (CONUT), and Geriatric Nutri-
tional Risk Index (GNRI). All scoring systems used albu-
min, with PNI adding total lymphocyte count, GNRI
adding measured and ideal body weight, and the CONUT
adding total cholesterol and total peripheral lymphocyte
count. Interestingly, all systems proved to be independent
predictors for postoperative complications and overall sur-
vival. Using the receiver operating characteristic curve, the
authors identified optimal cut-offs within each scoring sys-
tem and evaluated each model for overall survival across
and within all pathologic stages. PNI proved to be the
most accurate across the stages, followed by GNRI. The
CONUT score discriminated survival only within stage
III disease.

The validation of these nutritional scoring systems
should be welcomed, and these data add meaningfully to
the existing literature of non–small cell lung cancer outcomes prediction. However, this is certainly not the end
of the story, nor even the beginning of the end, and we doubt
it is even the end of the beginning. The PNI scores were pre-
dictive within each lung cancer stage, yet notably the GNRI
and CONUT were not. Unfortunately, this limits the appli-
cability of these assessment tools in early-stage cancer,
where they might be most important.³ The authors were
rightly reserved in declaring a winner among the scoring
systems until further work is completed in a prospective
manner. Meaningful comparative statistical analysis is
also limited, as all 3 scores use albumin, introducing multi-
collinearity. In addition, there was a lack of dynamic mea-
surement of scores (preoperative vs postoperative), which
could have provided useful insight and strengthened predic-
tion. Finally, the group did not include comorbidities in
the analysis, questioning if the scores would still be indepen-
dent predictors of outcomes if this important confounder
was integrated.

Preoperative nutritional assessments provide a start to-
ward the identification of inflection points that might be
modifiable but when in the preoperative process should
these scores be calculated? And even if additionally
validated, how is this information implemented in real
time? Protein loading, immunonutrition, and exercise
rehabilitation programs are a few pre-habilitation strategies
with varied success in enhancing outcomes in thoracic
surgery, but how might time to treat be impacted? Whether
these approaches actually modify nutritional scores, and if
repeat improved scores are correlated with better
postoperative outcomes, remains to be clarified. Ideally,
these nutritional parameters need to be complemented
with frailty indicators, comorbidity indices, and functional
status to provide an overall picture of risk and maximize
prognostic power. The predictive capacity of these
nutritional assessments for other treatment modalities,
such as radiation and chemotherapy, would be particularly
interesting, as it might change treatment algorithms. The
clinical appetite to develop nutritional prognosticators is
ample, and currently the plate is full of ideas to pursue,
thus providing plenty of food for thought.

References

1. Yılmaz A, Tekin SB, Bilici M, Yılmaz H. The significance of Controlling Nutri-
tional Status (CONUT) score as a novel prognostic parameter in small cell lung

ison of three nutritional scoring systems for outcomes after complete resection of

3. Hino H, Saito T, Matsui H, Taniguchi Y, Murakawa T. Utility of Geriatric Nutri-
tional Risk Index in patients with lung cancer undergoing surgery. Eur J Cardio-
thorac Surg. April 1, 2020 [Epub ahead of print].