

EDITORIALS

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Nutrition in Medicine — A New Review Article Series

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Worldwide, 11 million deaths per year are attributed to suboptimal diets, including those with high sodium, low whole-grain, and low fruit content.¹ Dietary factors contribute to hypertension, obesity, heart disease, stroke, type 2 diabetes mellitus, and cancers, especially gastric and colorectal cancers.²⁻⁴ Up to one in four Americans are dieting at any given time.⁵ However, the relation between dietary intake and health is complex and incompletely understood. Recent data show that nutrition curricula worldwide are inadequate,^{6,7} and fewer than 1% of questions on medical licensing exams are related to topics in nutrition.⁸ Unsurprisingly, many medical students and physicians seek nutrition education elsewhere⁹ and express uncertainty around nutritional assessment and basic dietary strategies.^{10,11}

Complicating matters, emerging causes of malnutrition beyond traditional ones are becoming increasingly recognized — causes such as low socioeconomic status, dietary restrictions, and chronic illness. The increasing popularity of bariatric surgery and weight loss medications requires careful attention to and monitoring for potential posttreatment malnutrition in patients who receive such therapies. Malnutrition in older adults will become an increasingly pressing issue as a projected 1 in 4 Americans will be over 65 years of age by 2060.¹² Nutritional assessment in older adults is often complicated by coexisting conditions, polypharmacy, and end-of-life decisions and, thus, requires a nuanced approach.

Multiple professional societies have called for more nutrition education for current and future

physicians.¹³ Suggested core competencies in nutrition include the basic principles of food composition, nutrition across different life stages, essential nutrients, evidence-based diets, malnutrition, and nutrition in disease.¹⁴⁻¹⁶ President Joe Biden's 2022 National Strategy on Hunger, Nutrition, and Health emphasizes a “food is medicine” approach and echoes the need for more nutrition training for clinicians.¹⁷ Ongoing research related to precision nutrition, food additives and genetically modified foods, metabolomics and proteomics, climate change and food scarcity, telenutrition, culinary medicine, and novel nutritional biomarkers is exciting and continues to inform us in a field where more research is needed.

To help approach these knowledge gaps, the *Journal* announces the launch, in this issue, of a new review article series centered on fundamental and emerging concepts in nutrition, ranging from the basic “pharmacodynamics” of food to evolving topics such as the relation between the gut and immunity and the role of the gut microbiome in health and disease. We welcome ongoing feedback and the submission of rigorous original research related to nutrition, while acknowledging that equally important components of nutrition competency are patient-centered dietary counseling and multidisciplinary care that are difficult to capture in print.

We hope that these reviews will highlight how food is selected, ingested, digested, and metabolized, allowing clinicians to tailor it as prevention and intervention for many common diseases. Let

us move toward abandoning “food for thought” and adopting “food as practice” to improve the health of our patients worldwide.

Disclosure forms provided by the authors are available with the full text of this editorial at NEJM.org.

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Adjuvant Alectinib in ALK-Rearranged NSCLC — Here and Now

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In 2009, the groundbreaking Iressa Pan-Asia Study (IPASS)¹ showed the activity of gefitinib, a first-generation epidermal growth factor receptor (EGFR) tyrosine kinase inhibitor (TKI), and marked a pivotal shift in the treatment of advanced non-small-cell lung cancer (NSCLC) toward precision medicine. The trial highlighted the importance of identifying actionable genetic alterations in approximately a third of the cases, predominantly adenocarcinomas. This advancement underscores the necessity for detailed molecular analysis of tumors to personalize therapy. In addition, the emergence of different TKIs then allowed a focus on the management of brain metastases, which occur in 20 to 60% of patients with NSCLC during their disease course and which have substantial effects on patient outcomes and health care systems.^{2,3}

In a 2010 study involving heavily pretreated

patients who had NSCLC with anaplastic lymphoma kinase (ALK) gene translocations, 57% had a response to treatment with crizotinib, an ATP-competitive TKI.⁴ The percentage of patients and the kinetics of these clinical responses were similar to those reported in IPASS.¹

In the past 12 years, several ALK TKIs — namely, alectinib, brigatinib, ensartinib, and lorlatinib — were found to be superior to crizotinib. The advantages of these drugs are firmly grounded in several key attributes: their clinically relevant higher affinity for ALK, a broader inhibitory efficacy that addresses secondarily mutated proteins, and a more effective penetration of the blood-brain barrier. Treatment with alectinib, a second-generation ALK TKI, resulted in investigator-assessed progression-free survival of 34.8 months, as compared with 10.9 months with crizotinib, and 5-year overall survival of 62.5%.⁵