

The prescription before the procedure *Reframing preoperative nutrition as an essential component of surgical care*

Preoperative assessment is a fundamental component of safe surgical care. Before surgery, patients routinely undergo clinical evaluation to determine operative risk and optimise perioperative management. Nutritional status, however, is seldom assessed with the same consistency despite substantial evidence that malnutrition, sarcopenia and metabolic dysfunction adversely influence postoperative outcomes. Increasingly, nutritional assessment is being recognised as an integral component of high-quality perioperative care, requiring coordinated input from the multidisciplinary team rather than being viewed solely as a dietetic intervention.

The terms preoperative and perioperative are often used interchangeably; however, they describe distinct phases of surgical care. The perioperative period is an umbrella term that encompasses the entire surgical journey, including the preoperative, intraoperative and postoperative phases. In contrast, the preoperative period specifically refers to the interval between the decision to perform surgery and the actual operation. It is during this window that nutritional assessment can be undertaken and optimisation strategies implemented to enhance a patient's physiological resilience and improve postoperative outcomes.

In this issue of the *South African Journal of Clinical Nutrition*, Hasson et al. provide timely insight into the knowledge, attitudes and practices of South African dietitians and surgeons regarding perioperative nutritional management. This cross-sectional study used electronic questionnaires, with responses from 67 dietitians and 35 surgeons across South Africa in both the private and public healthcare sectors, revealing that only 13% of dietitians and 5.7% of surgeons had an excellent knowledge score.¹ Whilst there is strong agreement among both healthcare professional groups (90% of dietitians and 80% of surgeons) that improving a patient's nutritional status in the weeks leading up to surgery will improve surgical outcomes, the findings reveal that only 57% of surgeons reported 'always' referring malnourished patients to dietitians for preoperative optimisation and 5.9% of dietitians reported 'always' receiving such referrals.¹ Their findings reveal that practices among dietitians and surgeons in South Africa are not fully in accordance with clinical guidelines, highlighting important gaps between recognising the importance of preoperative nutrition and implementing it in routine surgical practice.

Although surgical techniques and perioperative management have advanced considerably, surgery continues to impose substantial physiological stress.² The resulting metabolic response places increased demands on energy stores, immune competence and tissue repair, making nutritional status an important determinant of postoperative recovery.² Nutritional optimisation has long been recommended for malnourished surgical patients, but the introduction of Enhanced Recovery After Surgery (ERAS) established it as a routine element of perioperative care rather than a targeted intervention.³ More recently, prehabilitation has expanded this approach by emphasising

optimisation before surgery to improve patients' capacity to withstand the physiological stress of the procedure.^{2,4}

South Africa reflects the complex nutritional challenges increasingly observed in many low- and middle-income countries. While undernutrition remains prevalent in vulnerable populations, overweight, obesity and diet-related non-communicable diseases have risen sharply, often coexisting with persistent micronutrient deficiencies.⁵ This coexistence of multiple forms of malnutrition presents important challenges for perioperative nutritional care. Nutritional risk is no longer confined to the visibly underweight patient.⁶ The patient with obesity may also be malnourished, characterised by sarcopenia, poor diet quality, micronutrient deficiencies or metabolic dysfunction.⁷ Consequently, the question before surgery should no longer be 'Is this patient fit for surgery?' but rather 'Is this patient nutritionally and metabolically prepared to withstand the stress of surgery?'.

Within the broader framework of perioperative optimisation, nutritional prehabilitation remains an underutilised component of surgical care. Hasson et al.¹ reported that only a small proportion of surgeons and fewer than half of the dietitians routinely perform preoperative nutritional screening. Furthermore, none of the surgeons surveyed reported using a validated nutrition screening tool. These findings highlight a missed opportunity to identify patients at nutritional risk before surgery, and this omission may contribute to increased postoperative complications, prolonged hospital stays, higher healthcare costs, and greater morbidity and mortality. As with any questionnaire study, the findings should be interpreted in light of the modest sample size, self-reported practice and potential response bias. Nevertheless, the consistency of the findings across both professional groups suggests that the concerning gaps identified warrant attention.

While these findings were reported in a South African context, the lack of routine nutritional screening is not unique to South Africa. This reflects a broader need to raise awareness of the importance of preoperative nutritional assessment and to implement validated screening tools within surgical pathways. Similar patterns have been reported internationally, with surveys from the United States, United Kingdom and Canada demonstrating that, despite widespread recognition of the importance of perioperative nutrition, routine nutritional screening, use of validated screening tools and timely referral to dietitians remain inconsistent in surgical practice.⁸⁻¹⁰

The challenge is no longer a lack of evidence supporting preoperative nutritional optimisation. International perioperative nutrition guidelines, including those published by the European Society for Clinical Nutrition and Metabolism (ESPEN),² the American Society for Parenteral and Enteral Nutrition (ASPEN)¹¹ and the Enhanced Recovery After Surgery (ERAS) Society,¹² consistently recommend routine nutritional screening and optimisation before major surgery. The challenge

now lies in translating these recommendations into routine clinical practice. The findings by Hasson et al. reinforce the need for nutritional screening to become a standard component of every preoperative assessment rather than an intervention reserved for patients who appear visibly malnourished. Nutritional risk is not always apparent and cannot be determined by body mass index (BMI) alone. Validated screening tools, such as the Nutrition Risk Screening 2002 (NRS-2002), the Malnutrition Universal Screening Tool (MUST) and the Mini Nutritional Assessment (MNA), provide a simple and effective means of identifying patients at nutritional risk, facilitating timely referral for comprehensive nutritional assessment and appropriate intervention before surgery. Patients identified as at risk should then undergo a comprehensive nutritional assessment, during which internationally recognised diagnostic criteria, such as the Global Leadership Initiative on Malnutrition (GLIM) criteria, can be applied to confirm the diagnosis of malnutrition and guide appropriate nutritional interventions before surgery.¹³

The importance of the study by Hasson et al.¹ in this issue extends beyond describing current practice. It establishes a baseline understanding of clinicians' knowledge and behaviours in South Africa, identifies barriers to implementation and highlights opportunities to strengthen multidisciplinary perioperative care. The findings support the development of context-specific South African guidance on preoperative nutritional assessment and optimisation. Although international guidelines provide an important evidence base, local recommendations that consider South Africa's healthcare systems, disease burden and nutritional challenges may facilitate more consistent implementation across both public and private sectors.

Preoperative nutritional optimisation should not be viewed as the sole responsibility of the dietitian. Rather, it requires a coordinated multidisciplinary approach involving surgeons, anaesthetists, physicians, nurses and dietitians, each with a role in identifying nutritional risk, facilitating timely referral and implementing evidence-based nutritional interventions. Multidisciplinary preoperative assessment clinics can provide an ideal opportunity for routine nutritional screening as part of standard preoperative care pathways. Incorporating validated nutritional screening tools into such clinics would facilitate the early identification of patients at nutritional risk, prompt referral for comprehensive nutritional assessment and intervention, and ensure that patients are better prepared to withstand the metabolic demands of surgery.

The findings by Hasson et al. serve as a timely reminder that improving surgical outcomes begins long before the first incision. Perhaps the most important prescription before the procedure is not another investigation or another medication, but a nutritional assessment and an opportunity to optimise the patient's physiological reserve before surgery. Routine nutritional screening, timely dietetic referral and evidence-based nutritional optimisation should no longer be regarded as optional adjuncts to surgical care, but as fundamental components of high-quality perioperative practice.

ORCID

Francis-Mico Price  <http://orcid.org/0000-0003-2533-0041>

Louise van den Berg  <http://orcid.org/0000-0002-4819-4110>

References

- Hasson S, Chinnery G, Visser J. Knowledge attitudes and practices of perioperative nutrition management in gastrointestinal (GIT) surgery in South Africa. *South African J Clin Nutr.* 2026;39(3):148–155. <https://doi.org/10.1080/16070658.2026.2653347>
- Weimann A, Braga M, Carli F, et al. ESPEN guideline: clinical nutrition in surgery. *Clin Nutr.* 2017;36(3):623–650. <https://doi.org/10.1016/j.clnu.2017.02.013>
- Altman AD, Helpman L, McGee J, et al. Enhanced recovery after surgery: Implementing a new standard of surgical care. *CMAJ.* 2019;191(17):E469–E475. <https://doi.org/10.1503/cmaj.180635>
- Evans DC, Martindale RG, Kiraly LN, et al. Nutrition optimization prior to surgery. *Nutr Clin Pract.* 2014;29(1):10–21. <https://doi.org/10.1177/0884533613517006>
- WHO. Malnutrition [Internet]. 2024 [cited 2026 Jul 2]. Available from: <https://www.who.int/news-room/fact-sheets/detail/malnutrition>
- Morgan RW, Samuel K, Heller R. Preparing patients for surgery: perioperative care and general practice. *InnovAIT Educ Inspir Gen Pract.* 2022;15(11):652–660. <https://doi.org/10.1177/17557380221120441>
- Wells JC, Sawaya AL, Wibaek R, et al. The double burden of malnutrition: aetiological pathways and consequences for health. *Lancet.* 2020;395(10217):75–88. [https://doi.org/10.1016/S0140-6736\(19\)32472-9](https://doi.org/10.1016/S0140-6736(19)32472-9)
- Bellafronte NT, Nasser R, Gramlich L, et al. A survey of preoperative surgical nutrition practices, opinions, and barriers across Canada. *Appl Physiol Nutr Metab.* 2024;49(5):687–699. <https://doi.org/10.1139/apnm-2023-0195>
- Matthews LS, Wootton SA, Davies SJ, et al. Screening, assessment and management of perioperative malnutrition: a survey of UK practice. *Perioper Med.* 2021;10(1):30. <https://doi.org/10.1186/s13741-021-00196-2>
- West MA, Wischmeyer PE, Grocott MPW. Prehabilitation and nutritional support to improve perioperative outcomes. *Curr Anesthesiol Rep.* 2017;7(4):340–349. <https://doi.org/10.1007/s40140-017-0245-2>
- Mueller C, Compher C, Ellen DM. A.S.P.E.N. clinical guidelines: nutrition screening, assessment, and intervention in adults. *J Parenter Enter Nutr.* 2011;35(1):16–24. <https://doi.org/10.1177/0148607110389335>
- Ljungqvist O, Scott M, Fearon K. Enhanced recovery after surgery. *JAMA Surg.* 2017;152(3):292–298. <https://doi.org/10.1001/jamasurg.2016.4952>
- Cederholm T, Jensen GL, Correia MITD, et al. GLIM criteria for the diagnosis of malnutrition – A consensus report from the global clinical nutrition community. *J Cachexia Sarcopenia Muscle.* 2019;10(1):207–217. <https://doi.org/10.1002/jcsm.12383>

Francis-Mico Price 

Midline Dieticians Inc., Johannesburg, South Africa
micoprice@gmail.com

Louise van den Berg 

Department of Human Nutrition, University of Pretoria, Pretoria,
South Africa

© 2026 The Author(s)

<https://doi.org/10.1080/16070658.2026.2714614>

