Supplementary Table S1. Answer key for the 20 knowledge items, guideline sources, and reasons for excluding four items

The answer key below is the key used in the analysis. It was derived from published guidance after the data had been collected, and the source used for each item is documented. Items B1 to B10 correspond to the ten knowledge items of the questionnaire published by Ma et al. (Hum Resour Health 2025;23:45), which gives no answer key; items B11 to B20 have no counterpart in it. Tier A indicates that a single, unambiguous guideline statement corresponds to one response option. Tier B indicates that the guideline supports one response option only after an interpretive step, such as translating units or terminology or applying the guidance to the wording of the item. Tier C indicates that the answer is contestable and requires expert adjudication. Sixteen items were scored; four could not be keyed reproducibly and were excluded from all analyses. The key has not been reviewed by independent content experts.

Item	**Keyed answer**	**Tier**	**Scored**	**Guideline source(s) and rationale for the keying decision**
B1. Risk of refeeding syndrome	Not keyed	C	No. Interpretation of the vignette requires expert adjudication.	ASPEN 2020 two-column criteria (PMCID: PMC10096600; PMC9002385). The case meets moderate-risk criteria for BMI (17.3 kg/m², within the 16-18.5 kg/m² range) and serum potassium concentration (3.1 mmol/L, indicating minimal depletion). However, 'giảm ăn nghiêm trọng, chỉ ăn cháo loãng 1 tuần' [markedly reduced intake, with only thin rice porridge for 1 week] could meet the significant-risk criterion of intake <50% of requirements for ≥1 week. The uncertainty arises from interpretation of the vignette rather than the guideline. Expert adjudication is required to determine whether the description indicates intake below 50% or 75% of requirements.
B2. Classify a BMI of 27.4 kg/m² using Asia-Pacific cut-offs	C. Obese	A	Yes	The Asia-Pacific criteria define overweight as BMI ≥23.0 kg/m² and obesity as BMI ≥25.0 kg/m² (class I) (PMCID: PMC10078503). Vietnamese national cut-offs are 23.0 and 25.0 kg/m², respectively.
B3. Identify cachexia in a patient with cancer (BMI 30 kg/m² and 15% weight loss)	B. Cachexia	A	Yes	The 2011 international consensus defines cachexia as weight loss >5% over 6 months (PMCIDs: PMC3939686, PMC10587946, PMC12105605, and PMC9493094). Obesity does not exclude cachexia.

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B4. Choose an assessment tool for a patient with loss of body weight, muscle, and fat	A. SGA	A	Yes	Subjective Global Assessment is an assessment tool that includes physical examination for loss of subcutaneous fat and muscle wasting (PMCIDs: PMC8371506, PMC11622758, and PMC11579573). Nutrition Risk Screening 2002 is a screening tool (PMCID: PMC7828813). Because the stem describes physical examination findings, an assessment rather than a screening tool is required.
B5. Statements about skinfold measurement	A. True, true, false	B	Yes	Statement 3 is false because oedema can distort skinfold measurements (PMCIDs: PMC12905421 and PMC8432171). The triceps is a standard measurement site (PMCID: PMC11622758).
B6. Statements about 24-hour dietary recall	C. True, false, true	A	Yes	Statement 2 is false because a 24-hour dietary recall records all foods, beverages, and supplements consumed. A Vietnamese national source also supports this interpretation: Ministry of Health 2025 draft technical-procedures guidance, p. 164, 'thu thập thông tin chi tiết về tất cả các loại thực phẩm và đồ uống và sản phẩm bổ sung' [collect detailed information on all foods, beverages, and supplements]. International sources: PMCIDs PMC11934355, PMC7451278, PMC4473025, and PMC4597614.
B7. Meal schedule for a patient with type 2 diabetes receiving four daily insulin injections	Not keyed	C	No. No guideline specifies a meal schedule for the case described.	No single guideline corresponds to a specific meal-timing option. The case includes a blood glucose concentration of 4.3 mmol/L at 06:30 and a BMI of 15.2 kg/m², but selecting an option on that basis would require clinical judgement rather than application of a citable rule. The intended answer therefore requires confirmation by the item writer or expert adjudication.
B8. Protein requirement for a patient with lung cancer receiving adjuvant chemotherapy	C. 1.2-1.5 g/kg/day	A	Yes	SEOM 2018 recommends 1.2-1.5 g/kg/day (PMCID: PMC6339658); ASPEN guidance for head and neck cancer gives the same range (PMCID: PMC13047306); and ESPEN recommends at least 1.0 g/kg/day (PMCID: PMC10739567).

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B9. Initial enteral formula for jejunostomy feeding in a patient with intact gastrointestinal function	C. Standard polymeric formula	B	Yes	The European Consensus on Malabsorption, co-endorsed by ESPEN, states that polymeric formulae are generally preferred and that elemental formulae are reserved for severe malabsorption (PMCID: PMC12188380). Semi-elemental formulae have not shown a benefit over polymeric formulae in unselected patients (PMCID: PMC7818740). The stem specifies intact gastrointestinal function.
B10. Interpret a bedside swallow screen (two swallows in 30 s)	B. At risk	A	Yes	Fewer than three swallows in 30 seconds is abnormal (PMCIDs: PMC6900275, PMC10713102, and PMC12135609); one or two swallows indicate a moderate risk of dysphagia (PMCID: PMC6567641). A screening test identifies risk rather than establishing a diagnosis.
B11. Timing of screening according to the 2021 Ministry of Health guideline	Not keyed	A	No. The cited national guideline document was unavailable.	The supplied document was a different source: Hướng dẫn quy trình kỹ thuật về Dinh dưỡng lâm sàng [Guidance on Technical Procedures for Clinical Nutrition], Ministry of Health 2025 draft (unsigned; decision number and date blank; stated effective date 1 July 2026). Its screening procedure (pp. 15-17) applies to all patients presenting for examination and treatment but does not specify a time limit after admission. The item cites the 2021 in-hospital clinical nutrition guideline, which was unavailable. The online responses were collected between 11 March 2026 and 5 May 2026, before the draft document's stated effective date; the completion dates of the paper questionnaires are not recorded (Methods 2.5).
B12. Population for which NRS-2002 is recommended	A. Inpatients aged ≥18 years	A	Yes	ESPEN recommends NRS-2002 for hospitalised adult patients (PMCIDs: PMC11579573, PMC8058175, and PMC8398199). A Vietnamese national source also supports this mapping: Ministry of Health 2025 draft technical-procedures guidance, p. 16, assigns tools by setting: 'người bệnh nội trú: NRS 2002, MST; người bệnh ngoại trú: MUST; bệnh nhi: STRONG-kids, STAMP' [inpatients: NRS-2002 or MST; outpatients: MUST; paediatric patients: STRONGkids or STAMP].

Item	Keyed answer	Tier	Scored	Guideline source(s) and rationale for the keying decision
B13. GLIM phenotypic criteria	A. Weight loss, low BMI, and low muscle mass	A	Yes	GLIM defines three phenotypic components: non-volitional weight loss, low BMI, and reduced muscle mass (PMCIDs: PMC13260961, PMC8882738, and PMC12481054). Response option B lists the etiologic criteria.
B14. Energy target in the acute phase of critical illness (ESPEN)	A. 15-20 kcal/kg/day	B	Yes	ESPEN recommends hypocaloric feeding (<70% of energy expenditure) during the early acute phase (ICU days 1-3) (PMCIDs: PMC9923975 and PMC6998073). Of the available response options, only 15-20 kcal/kg/day represents hypocaloric feeding. Because conversion from a percentage of energy expenditure to kcal/kg/day required interpretation, this item was classified as Tier B.
B15. Gastric residual-volume threshold for withholding feeding (ASPEN 2016)	C. >500 mL	B	Yes	SCCM/ASPEN 2016 states that withholding enteral nutrition for a gastric residual volume <500 mL, in the absence of other signs of intolerance, should be avoided (PMCID: PMC8411156). The same guideline recommends against routine monitoring of gastric residual volume. Therefore, response option D would be more consistent with the guideline if the question asked whether routine monitoring was indicated. Within the wording of this item, which presupposes a threshold for withholding feeding, response C is correct.
B16. Protein requirement for a patient with stage 4 CKD who is not receiving dialysis	A. 0.6-0.8 g/kg/day	B	Yes	KDOQI recommends 0.6-0.8 g/kg/day for non-diabetic patients with non-dialysis-dependent stage 3-5 CKD (PMCID: PMC8273814), whereas its low-protein recommendation is 0.55-0.60 g/kg/day (PMCID: PMC11857991). KDIGO 2024 suggests 0.8 g/kg/day (PMCID: PMC11813190), which lies on the boundary between response options A and B; therefore, the item was classified as Tier B.

Item	Keyed answer	Tier	Scored	Guideline source(s) and rationale for the keying decision
B17. Most likely complication in a patient on parenteral nutrition with fever and a red, swollen catheter site	A. CRBSI	A	Yes	Total parenteral nutrition is an independent risk factor for catheter-related bloodstream infection (PMCIDs: PMC10035840 and PMC12150976); hyperglycaemia predisposes patients receiving total parenteral nutrition to catheter-related sepsis (PMCIDs: PMC3301898 and PMC3363468). The definitions of the alternative response options do not fit the clinical presentation.
B18. Number of IDDSI levels	C. 8 levels (0-7)	A	Yes	The IDDSI framework has eight levels covering liquids (0-4) and foods (3-7) (PMCIDs: PMC12857527, PMC8555115, and PMC13206351).
B19. Diet on postoperative day 3 after colectomy	Not keyed	C	No. The answer depends on the intended perioperative care model.	The answer depends on the perioperative care model. Enhanced Recovery After Surgery and early-feeding evidence favour an early regular or soft diet (PMCIDs: PMC3226591 and PMC4027902). One protocol progressed from clear liquids on postoperative day 2 to a regular diet on postoperative day 3 (PMCID: PMC10475250). The item was therefore excluded from all analyses.
B20. Three components of MUST	A. BMI, weight loss, and acute disease effect	A	Yes	MUST includes three components: BMI, unplanned weight loss during the previous 3-6 months, and the acute disease effect (PMCIDs: PMC9482444, PMC11579573, PMC12198732, and PMC5670098).

Note: PMCID, PubMed Central identifier. ASPEN, American Society for Parenteral and Enteral Nutrition; BMI, body mass index; CKD, chronic kidney disease; CRBSI, catheter-related bloodstream infection; ESPEN, European Society for Clinical Nutrition and Metabolism; GLIM, Global Leadership Initiative on Malnutrition; IDDSI, International Dysphagia Diet Standardisation Initiative; ICU, intensive care unit; KDOQI, Kidney Disease Outcomes Quality Initiative; KDIGO, Kidney Disease: Improving Global Outcomes; MST, Malnutrition Screening Tool; MUST, Malnutrition Universal Screening Tool; NRS-2002, Nutritional Risk Screening 2002; SCCM, Society of Critical Care Medicine; SEOM, Spanish Society of Medical Oncology; SGA, Subjective Global Assessment.