Appendix 02. Questionnaire

Code:
Date:……/……/2023

Knowledge, Attitude, and Practices of Nutrition Workforce in Public Hospitals: A Cross-sectional Study in Red River Delta Region, Vietnam

A. Socio-demographic information					
A1	ID	….....	**A2**	Phone number	….....
A3	Date of birth (DD/MM/YYYY)	……/……./….	**A4**	Sex	1. Female 2. Male
A5	Marital status	1. Single 2. Married	**A6**	Ethnicity	1. Kinh 2. Others (specify):.....
A7	Province of residence	1. Ha Noi 2. Hai Phong 3. Nam Dinh 4. Thai Binh	**A8**	Hospital classification	1. Central/National hospital 2. General hospital, provincial 3. Specialized hospital, provincial 4. General hospital, district 5. Specialized hospital, district
A9	Employment status	1. Full-time 2. Part-time 3. Contract 4. Intern	**A10**	Employment position	1. Head of Department 2. Deputy Head of Department 3. Chief Nurse 4. Chief of Unit/Division 5. Staff 6. Others (Specify): .....
A11	Hospital's name		….....		
A12	How many people are there in your Nutrition department/unit/group?		….....		
A13	Please indicate your experience working as a nutrition officers, or nutrition-related health worker.	Name of institution: …..	From: ….. (YYYY/MM) To: ….. (YYYY/MM)		Position responsibilities (select all that applies): 1. Clinical nutrition (screening, assessment, intervention, monitoring nutrition status of patients, developing therapeutic dietary plans) 2. Administrative work 3. Food safety and hygiene monitoring 4. Scientific research 5. Providing training and education for students and interns 6. Community nutrition 7. Others (please specify): .....
A14	Please select your background post-secondary diploma or certificate.	1. Doctor of Medicine/Medical Doctor 2. Bachelor's, Nursing 3. Bachelor's, Public Health 4. Doctor of Preventive Medicine 5. Doctor of Traditional Medicine 6. Oral-maxillofacial Doctor 7. Dietetic Technician => *Year of completion: ……..* 8. Bachelor's, Food Technology 9. Bachelor's, Nutrition => *Year of completion: ……..* 10. Chef/Cook 11. Bachelor's, Food Engineering 12. Doctor of Pharmacy 13. Others (please specify): …..			

Please detail all your post-secondary nutrition-related diplomas, certificates, and training (Select all that applies)		
A15	Please choose the duration of your short-term clinical nutrition and dietetics training/course/certificate	1. None 2. One month *Year of completion: ……* 3. Three months *Year of completion: ……* 4. Six months *Year of completion: ……* 5. Others (please specify name of certificate and its duration): ..... *Year of completion: ……*
A16	Please select your graduate and post-graduate degree, diploma, and/or certificate	1. None 2. Master's degree 2.1. Master of Nutrition: *Year of completion: ……* 2.2. Other Master's Degree*: (please specify subject:* *.....)* *Year of completion: ……* 3. PhD degree 3.1. PhD degree in Nutrition *Year of completion: ……* 3.1. Other PhD degree *(please specify subject:* *.....)* *Year of completion: ……* 4. Specialist MD 4.1. First Degree Specialist in Nutrition *Year of completion: ……* 4.2. Other First Degree Specialist *(please specify specialization: ……..……)* *Year of completion: ……* 4.3. Second Degree Specialist in Nutrition *Year of completion: ……* 4.4. Other Second Degree Specialist *(please specify specialization: ……..…)* *Year of completion: ……* *5.* Resident Doctor 5.1. Resident Doctor in Nutrition *Year of completion:* *……* 5.2. Other Resident Doctor *(please specify specialization:* *……..)* *Year of completion: ……*

B. Questions pertaining to clinical nutrition knowledge (Select only one answer for each question/clinical case study)		
B1.	**Clinical case study 1.** A 50-year-old female patient is admitted to hospital for severe shortness of breath/dyspnea, high fever, and weight loss. She does not have any background co-morbidities. At admission, the patient weighs 47kg and her height is measured at 1.65cm (BMI = 17.3 kg/m^2). According to the nutrition worker's nutritional assessment, she has lost 4 kilograms in the past 2 weeks due to a severe reduction in food intake. The patient only ate some diluted porridge for a week before her admission. Subclinical data at admission: Potassium of 3.1 mmol/L, Sodium of 137 mmol/L. Question: According to the American Society for Parenteral and Enteral Nutrition's (ASPEN) 2020 guideline, classify the patient's risk for refeeding syndrome.	A. No risk of refeeding syndrome B. Moderate risk of refeeding syndrome C. High risk of refeeding syndrome D. Don't know/Not sure
B2	**Clinical case study 2.** A male patient's anthropometric data is as followed: Height = 1.72cm, Weight = 81kg. His BMI is 27.4 kg/m^2. Question: According to the Asia-Pacific BMI classification, what is the interpretation for his anthropometric data?	A. Normal weight B. Overweight C. Obese D. Don't know/Not sure
B3	**Clinical case study 3.** The BMI of a male cancer patient is 30 kg/m^2. He reports having lost 15% of his body weight over the past 6 months. Question: What nutritional problem is the patient facing?	A. Malnutrition B. Cachexia C. Non-detrimental weight loss D. Don't know/Not sure
B4	**Clinical case study 4.** A 60-year-old female was diagnosed with reflux esophagitis via an endoscopy 6 months ago. Her symptoms include epigastric pain, vomiting, a reduction in oral food intake and a significant weight loss of 9kg in the past 6 months. Her physical examination reveals moderate muscle loss and subcutaneous fat loss. The patient is admitted to the Department of Internal Medicine for treatment. Question: Which tool is the most appropriate to describe the patient's nutritional status?	A. SGA (Subjective Global Assessment) B. NRS (Nutrition Screening Risk) C. Modified NUTRIC score (Modified Nutrition Risk in Critically III Score) D. MNA (Malnutrition Nutrition Assessment) E. Don't know/Not sure
B5	**Statements about assessing subcutaneous fat.** **Statement 1**. Subcutaneous fat thickness reflects the distribution and storage of fat, and correlates to total body fat. **Statement 2**. Clinically, subcutaneous fat thickness is usually measured at the midline of the triceps muscle, called triceps skinfold thickness. **Statement 3.** It is appropriate to measure subcutaneous fat thickness in patients with severe edema of the arms.	A. True, True, False B. False, True, True C. True, False, False D. Don't know/Not sure
B6	**Statements about assessing 24-hour recall.** **Statement 1.** Monitoring 24-hour recall can help discover any reduction in oral nutrition intake of patients. **Statement 2.** During a 24-hour recall, the nutrition-related health worker investigates all foods (no beverages) consumed in the last 24 hours until the start of the interview. **Statement 3.** The nutrition worker uses information about the patient's nutritional status and their ability to respond to diets in order to better adjust their nutrition care plan.	A. True, True, False B. False, True, True C. True, False, True D. Don't know/Not sure

B7	**Clinical case study 5.** A 30-year-old female patient is admitted for the following symptoms: increased thirst, increased urination, and a weight loss of 6kg in the 1 month before hospitalization. Her plasma blood glucose at admission is 18 mmol/L. The patient is diagnosed with Type 2 Diabetes Mellitus, hypothyroidism, and thalassemia. Her current weight is 38kg. Her current height is 1.58m (BMI = 15.2 kg/m^2). The patient's current insulin regimen at day 4 post-admission is: 6IU Actrapid at 7am, 6IU Actrapid at 11am, 6IU Actrapid at 6pm, and 10IU Glargine at 10pm. Her capillary blood glucose measures at: 11am (before meal) is 12mmol/L, at 5:30pm (before meal) is 13 mmol/L, and at 6:30am (before meal) is 4.3mmol/L. Question: How would you plan this patient's eating schedule?	A. 3 main meals a day at: 7:15am, 11:15am, and 6:15pm. B. 3 main meals a day at 7:15am, 11:15am, and 6:15pm. 2 snacks at 9am and 10:30pm. C. 3 main meals a day at 7:15am, 11:15am, and 6:15pm. 3 snacks a day at 9am, 3pm, and 10:30pm. D. 3 main meals a day at 7:15am, 11:15am, and 6:15pm. 1 snack a day at 10:30pm. E. Don't know/Not sure
B8	**Clinical case study 6.** A 56-year-old male patient was diagnosed with lung cancer six months ago and underwent surgery right after. He is currently receiving adjuvant chemotherapy and has no comorbidities. In the past two days, his oral intake has been minimal and therefore he is receiving supplemental parenteral nutrition. At admission, his weight was 53kg and his height was 1.72m (BMI = 17.9 kg/m^2). Question: Determine the patient's protein requirement?	A. 0.8 - 1 g/kg/d B. 1 - 1.2 g/kg/d C. 1.2 - 1.5 g/kg/d D. 2 - 2.5 g/kg/d E. Don't know/Not sure
B9	**Clinical case study 7.** A 50-year-old male patient was diagnosed with esophageal cancer. He has lost approximately 10kg in the past 6 months due to loss of taste and dysphagia. He was readmitted to the hospital 6 months after his esophagectomy due to his dysphagia and loss of taste becoming more severe in the six weeks leading up to hospitalization. Currently, he is encouraged to increase his oral intake by using dysphagia-specific thickeners. He is also receiving supplemental nutrition via his jejunostomy tube. Currently, at physical examination, his abdomen is soft, non-tender, and without fluid retention. His bowel sounds are present. The jejunostomy and tube site is clean and dry. Question: In the initial feeding phase, what is the appropriate enteral formula for this patient?	A. Monomeric (elemental) enteral formula B. Semi-elemental enteral formula C. Standard polymeric enteral formula E. Don't know/Not sure
B10	**Clinical case study 8.** An elderly female patient's medical history includes a stroke 3 years ago. While performing a bedside swallow exam, the nutrition officer noted that she swallows 2 times in 30 seconds. Question: How would you interpret the patient's condition?	A. Normal swallowing B. Patient is at risk of dysphagia C. Patient has dysphagia D. Don't know/Not sure
C. Questions pertaining to attitudes (Select only one answer for each statement below)		
C1	1. I believe that nutritional screenings should be done within the initial 36 hours of admission.	1. Agree 2. Disagree 3. Don't know/Don't remember
	2. Due to time and personnel limitations, I often feel resistant or unable to perform nutritional screenings for all newly admitted patients.	1. Agree 2. Disagree
	3. I believe that nutritional screening is vital in already malnourished patients.	1. Agree 2. Disagree

C2	1. I think that directly measuring a patient's weight is not significantly different from asking them their weight since most people pay attention to their weight nowadays. Therefore, I usually obtain patients' weight by asking them, rather than bringing a scale and measuring their weights at bedside, which allow me to save a lot of time.	1. Agree 2. Disagree
	2. I frequently examine and calibrate the scale before measuring patients' weights by checking my own body weight.	1. Yes 2. No
	3. I print the World Health Organization's growth charts for children and frequently keep them in my locked personal cabinet.	1. Yes 2. No 3. Don't know/Don't remember
C3	1. I believe that performing nutritional assessments for patients is an indispensable part of my daily work.	1. Agree 2. Disagree
	2. Nutrition assessments for patients can be a burden on nutrition-related health workers because the number of staff in the nutrition department is often much lower than that in other clinical departments.	1. Agree 2. Disagree
	3. The nutrition department makes available printed copies of some nutrition screening and assessment tools such as SGA, PG-SGA, MNA, MST, NRS2002, etc.	1. Yes 2. No 3. Don't know/Don't remember
C4	1. I store the skinfold caliper in the locked equipment cabinet.	1. Yes 2. No 3. Equipment not available 4. Don't know/Don't remember
	2. My nutrition department/unit/group has skinfold calipers, and I have one with me as I perform my work in clinical units.	1. Yes 2. No 3. Equipment not available 4. Don't know/Don't remember
C5	1. I have an illustration book of foods to aid in patient interviews about the type and quantity of food they consume.	1. Yes 2. No
	2. I often spend time listening to patients talk about their food portions, likes, and dislikes, which takes about 15 minutes for each patient.	1. Yes 2. No
	3. I do not usually write down patients' 24-hour recalls.	1. Yes 2. No 3. Don't know/Don't remember
C6	1. I think that menu planning and determining therapeutic dietary plans for patients with non-communicable chronic disease is my responsibility.	1. Agree 2. Disagree 3. Don't know/Don't remember
	2. I think that I should take into consideration the patient's flavour preferences when planning their dietary menu plan.	1. Agree 2. Disagree 3. Don't know/Don't remember
C7	1. I think that menu planning and determining enteral/tube-feeding diet plans for patients is my responsibility.	1. Agree 2. Disagree 3. Don't know/Don't remember
	2. I think that the quality of commercial tube feeding formula is better than the blenderized tube feeding that is made by my hospital's kitchen staff with the recipe provided by my department. This is because with commercial formula, manufacturers can adjust and add additional nutrients, such as vitamins and minerals.	1. Agree 2. Disagree 3. Don't know/Don't remember
C8	I think that determining macronutrients needs for patients requiring total parenteral nutrition is the responsibility of nutrition physicians and clinical physicians due to its difficulty and complexity.	1. Agree 2. Disagree 3. Don't know/Don't remember

C9	1. I think that menu planning and determining therapeutic dietary plans for patients with dysphagia is a new technique that I do not feel confident performing.	1. Agree 2. Disagree
	2. In my opinion, menu planning and determining therapeutic dietary plans for patients with dysphagia seem like a task for the kitchen/foodservice staff since they mainly concern cooking and mixing techniques.	1. Agree 2. Disagree 3. Don't know/Don't remember
D. Questions pertaining to practices (Select only one answer for each statement, unless the question states otherwise)		
D1	Which nutrition screening tools are used in your hospital? (Select all that applies)	1. BMI/body weight assessment relative to height or age 2. Subjective Global Assessment - SGA 3. Malnutrition Universal Screening Tool - MUST 4. Malnutrition Screening Tool - MST 5. Mini Nutrition Assessment - Short Form - MNA-SF 6. Nutrition Risk Index 7. PG-SGA (Scored Patient Generated - Subjective Global Assessment) 8. NUTRIC SCORE modified 9. BBT (Boston - Bach Mai Tool) 10. Don't know/Not sure 11. Others (please specify): .....
D2	1. I do not calculate patients' BMI.	1. Yes 2. No
	2. I measure standing height for paralyzed or bedridden patients.	1. Yes 2. No
D3	1. The nutrition assessment form is attached to patient's file at clinical departments (or is available on their electronic medical record).	1. Yes 2. No
	2. I frequently use the available nutrition assessment forms for patients (paper or electronic) or refer to standard guidelines from nutrition societies when I assess patients' nutritional status.	1. Yes 2. No
D4	1. I measure subcutaneous fat thickness of patients with anasarca (extreme, whole body fluid retention) using specialized equipment.	1. Yes 2. No
	2. I measure subcutaneous fat thickness of patients with my hand.	1. Yes 2. No
D5	1. I don't usually look at the nutritional values of products that patients bring into the hospital, since I think that is their personal information.	1. Yes 2. No
	2. I do not estimate the nutrition value from patient's 24-hour recall in the hospital, since I find it difficult to remember the nutritional values of a lot of food products without references or guidebooks.	1. Yes 2. No
D6	1. In patients with non-communicable chronic disease, I usually allow them to eat the food they always like since they have their own preferences and I also want to maintain their nutritional intake to reduce the risk of malnutrition while inpatient.	1. Yes 2. No
	2. In patients with diabetes, I always divide their meals into 3 main meals and 3 snacks.	1. Yes 2. No
D7	1. At discharge, if a patient wishes to have a personalized home enteral feeding dietary plan, I rarely can provide those materials for the patient and their family due to certain limitations of my department.	1. Yes 2. No
	2. I send my hospital's blenderized tube feeding formula to laboratories yearly to evaluate its nutritional values.	1. Yes 2. No
	3. At my hospital, tubefeeds are prepared by our kitchen with our department's guidance or we use commercial products available on the market.	1. Yes 2. No

D8	1. With patients requiring total parenteral nutrition, I will discuss with patients' principal physicians about the amount of fluid they are allowed per day.	1. Yes 2. No
	2. I often do not screen for refeeding syndrome in patients requiring total parenteral nutrition.	1. Yes 2. No
D9	1. With patients with dysphagia, I visit them during mealtimes to see how they are eating and to help better their intake.	1. Yes 2. No
	2. With patients with dysphagia, I sometimes provide nutritional care guidance and instructions to their family members if needed.	1. Yes 2. No
	3. Is your hospital using any thickeners in diets for patients with dysphagia?	1. Yes, we are using (please specify name of products): …..... 2. No, we are not using any.