

Nutrition/ONS Guidance for Hospitalized Non-ICU Adult Patients with COVID-19

February 2022



COVID-19 Patients Present with High Nutritional Risk¹⁻⁴

- Patients requiring hospitalization and positive for COVID-19 have increased nutritional requirements due to a severe acute inflammatory status
- Many patients have comorbidities (diabetes, chronic kidney disease, etc.) which put them at even higher nutritional risk
- Patients often present with decreased food intake and difficulty eating which prevents them from meeting their nutritional requirements

Conduct Nutrition Screening^{1,2,5}

- Conduct nutrition screening within 24 hours of hospital admission using a validated nutrition screening tool to identify (at-risk of) malnutrition in all patients

Estimate Nutritional Requirements^{1,2,6-10}

- **PROTEIN:** Estimate protein needs based on increased requirements for adult patients with acute or chronic disease (1.2-1.5 g protein/kg BW/day), and severe illness or marked malnutrition (up to 2 g protein/kg BW/day)
- **ENERGY:** Determine energy requirements using indirect calorimetry, if available, or estimate using weight-based formulas: 25-30 kcal/kg actual body weight (ABW)/day for non-obese (BMI <30) and underweight patients, and 11-14 kcal/kg ABW/day for obese patients (BMI >30)
- **MICRONUTRIENTS:** Assure daily provision of recommended dietary allowances (RDA) for micronutrients including vitamins C, D, A, E & B-vitamins, and zinc, selenium & iron. Deficiency of these micronutrients has been associated with adverse clinical outcomes during viral infections

Initiate Nutrition Care^{1,2,11,12}

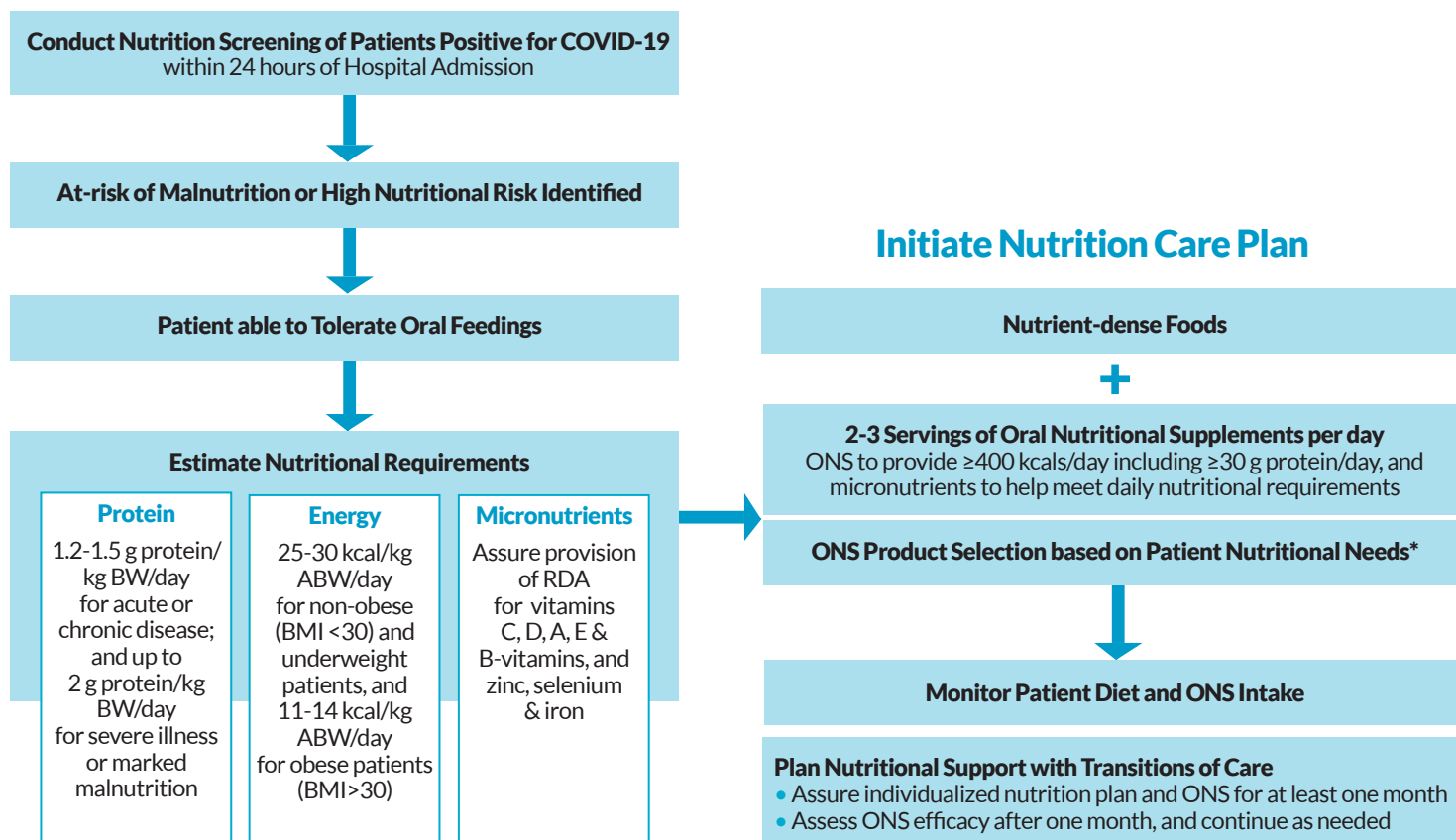
- Provide a diet rich in nutrient-dense foods and initiate oral nutritional supplements (ONS)
- Provide 2-3 servings of ONS in accordance with patient needs and regular food intake
- ONS shall provide ≥400 kcals/day including ≥30 g protein/day, and micronutrients to help meet daily nutritional requirements
- Select ONS based on patient nutritional needs and presence of specific co-morbidities*

Monitor Patient Diet and ONS Intake^{1,2,5}

- Encourage patient compliance and monitor nutritional intake
- If patient is unable to meet their nutritional requirements (to be assessed every 48-72 hours), initiate supplemental enteral feeding

Plan Nutritional Support with Transitions of Care¹

- Nutritional support should continue after hospital discharge with ONS and individualized nutrition plans. This is especially important since pre-existing nutritional risk factors continue to apply and acute disease and hospitalization are likely to worsen the risk or condition of malnutrition
- Assure ONS usage for at least one month. Assess ONS efficacy after one month, and continue as needed



*Nestlé Health Science Oral Nutritional Supplement Offerings by Diet Order

ONS Diet Order	ONS Product Selection (Vanilla Flavor)	Total Kcals (per serving)	Kcal per mL	Protein (% Total Energy)	Carbs (% Total Energy)	Fat (% Total Energy)	Vitamins & Minerals
High Protein	BOOST® High Protein Drink (institutional)	240 Kcals (237 mL)	1.0	20 g (33% TE)	28 g (44% TE)	6 g (23% TE)	27
High Calorie	BOOST PLUS® Drink (retail and institutional)	360 Kcals (237 mL)	1.5	14 g (15% TE)	45 g (50% TE)	14 g (35% TE)	26
High Protein, High Calorie	BOOST® Very High Calorie (VHC) (institutional)	530 Kcals (237 mL)	2.24	22 g (17% TE)	52 g (39% TE)	26 g (44% TE)	26
Diabetes Friendly	BOOST Glucose Control® Drink (retail and institutional)	190 Kcals (237 mL)	0.8	16 g (33% TE)	16 g (34% TE)	7 g (33% TE)	25
Renal Friendly	NOVASOURCE® Renal Drink (institutional)	475 Kcals (237 mL)	2.0	21.6 g (18% TE)	43.5 g (37% TE)	23.8 g (45% TE)	25
	NOVASOURCE® Renal Drink (retail)	500 Kcals (250 mL)	2.0	23 g (18% TE)	46 g (37% TE)	25 g (45% TE)	25

For specific product information, visit www.NestleMedicalHub.com

References: 1. Barazzoni R et al. *Clin Nutr* 2020;39:1631-38. 2. Jin et al. *MMR* 2020;7:4. 3. Bhatraju PK et al. *NEJM* 2020;382(21):2012-22. 4. Rabi FA et al. *Pathogens* 2020; 9:231. 5. ASPEN Adult Malnutrition Care Pathway 2015. 6. Bauer J et al. *J Am Med Dir Assoc* 2013;14:542-59. 7. Deutz NEP et al. *Clin Nutr* 2014; 33:929-36. 8. McClave SA et al. *JPEN* 2016;40:159-211. 9. Zang L, Liu Y. *J Med Virol* 2020;92:479-90. 10. Semba RD, Tang AM. *Br J Nutr* 1999;81:181-89. 11. Volkert D et al. *Clin Nutr* 2019;38:10-47. 12. Gomes F et al. *Clin Nutr* 2018;37:336-53.

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