

## Nutrition of Patients Infected with Coronavirus

Ganiev Nodirbek Rustam ugli

Tashkent Medical Academy, Medical prevention and public health

### ABSTRACT

Nutrition management/treatment is very important to enhance immune response for an infected person against RNA viral infection. There is sufficient evidence to demonstrate that immune response can be weakened by inadequate nutrition. Therefore, verification of the nutritional status of COVID-19 infected patients before/during and after the administration of general treatment and providing appropriate nutrition and dietetics interventions is important. The use of a normal modified diet as the base for any nutrition management is encouraged.

**KEYWORDS:** COVID-19, nutrition, procedure, method, diagnosis, result.

### INTRODUCTION

The symptoms of COVID-19 range from mild to severe symptoms that need specialized management. The symptoms are;

- a) Uncomplicated Illness-runny nose, fever, cough, headache, sore throat
- b) Mild pneumonia- breathing difficulty, inflammation in the lungs
- c) Severe pneumonia
- d) Acute respiratory distress syndrome
- e) Septic Shock

### MAIN PART

The symptoms include runny nose, fever, cough, headache and sore throat.

### RECOMMENDATIONS

- Ensure intake of adequate fluids; at least two liters of water per day or more if there is fever.
- Fever increases the need for more calories: Increase the amount of nutritious food by increasing the number of times you eat. The food should include a variety of foods including energy-rich foods, meat, milk, legumes and pulses, fruits and vegetables.
- Consider supplementation with Vitamin C, zinc, Vitamin A, B6, D, E, iron, Folate and fiber if not getting enough from the diet.
- Ensure enough sleep, reduced stress, exercise, avoid intake of alcohol and tobacco products.
- Coughs can be relieved by use of honey, pineapple and chicken soup, gargling and hand washing.
- Sore throat can be relieved by taking tea, honey, ginger, turmeric, sage.

- The use of culinary herbs like oregano, sage and cinnamon as well as increased consumption of fruits and vegetables is encouraged to improve antioxidant levels in the body.
- Limit intake of refined carbohydrates such as sugar, sweets, cake, soft drinks and sugar sweetened beverages.
- Limit intake of foods containing trans-fats and saturated fats e.g. fat and skin from meat, hydrogenated vegetable oils, shortening, fried foods, cookies, and pastries.
- Fluid intake should be based on weight, on average 40kg-60kg 1.5L- 2.0L, 60-80kg 2.0L- 2.5L, above 80kg 2.5L-3.0L or 30-35mL/kg with allowances for extra losses via drains.

### **NUTRITION RELEVANT SIGNS AND SYMPTOMS IN PULMONARY DISEASE COUGH**

- Use honey and lemon, warm water/fluids.
- Continue taking prescribed medication.

### **EARLY SATIETY**

- Eat small frequent nutrient dense meals

### **ANOREXIA**

- Eat preferred nutritious meals or snacks. Increase intake of fruits. Vitamins and mineral supplements may improve on appetite and food intake.

### **PATIENTS WITH WEIGHT LOSS**

- Ensure adequate intake of food from all food groups.
- Adequate protein intake is key to prevent muscle wasting.
- Protein 1.2-1.7gms/kg/day
- Energy 30-35gms/kg/day

### **DYSPNEA (SHORTNESS OF BREATH)-**

- Eat a diet with fewer carbohydrates and healthy fat e.g. canola, sunflower, avocado, corn oil (liquid at room temperature) to meet energy requirements for the period when breathing is difficult.
- Eat proteins from a good source like eggs and lean meat in addition to a healthy diet.
- Provide adequate but not excessive nutrients. Avoid overfeeding. If need be, reduce the feeds to 50% of required intake and increase the amount slowly as the patient stabilizes.

### **VOMITING**

- Eat small frequent nutritious meals.
- Consider intake of dry foods and snacks
- Do not take food together with fluids. Take fluids separately.
- Eat while seated at 45 degrees to 90 degrees and take some time before laying down again.

Breastfeeding protects against morbidity and death in the post-neonatal period and throughout infancy and childhood. The protective effect is particularly strong against infectious diseases that are prevented through both direct transfer of antibodies and other anti-infective factors and long-lasting transfer of immunological competence and memory. Therefore, standard infant feeding guidelines should be followed with appropriate precautions for IPC as follows;

- Infants born to mothers with suspected, probable, or confirmed COVID- 19 should be fed according to standard infant feeding guidelines, while applying necessary precautions for IPC;
- Breastfeeding should be initiated within 1 hour of birth. Exclusive breastfeeding should continue for 6 months with timely introduction of adequate, safe and properly fed complementary foods at age 6 months, while continuing breastfeeding up to 2 years and beyond;
- Mothers who are not able to initiate breastfeeding during the first hour after delivery should still be supported to breastfeed as soon as they are able. This may be relevant to mothers who deliver by caesarean section or those who have medical instability;

As with all confirmed or suspected COVID-19 cases, symptomatic mothers who are breastfeeding or practicing skin-to-skin contact or kangaroo mother care should practice respiratory hygiene, including during feeding (for example, use of an N95 mask when near a child if the mother has respiratory symptoms), perform hand hygiene before and after contact with the child, and routinely clean and disinfect surfaces with which the symptomatic mother has been in contact.

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