

Extended nutritional care in COVID-19 patients



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Description of the initiative

Context: SARS-Co-V2 infection usually involves the gastrointestinal tract (as well), affecting nutritional intake and nutritional status, particularly in case of COVID-19, leading to a high risk of malnutrition. Symptomatology of COVID-19 include anorexia, ageusia, nausea, fatigue, enteritis, stomach ache, tightness of breath with oxygen dependency. All hospitalized COVID-19 patients suffer from respiratory distress and need extra energy and proteins in excess. Combined with a long period of physical inactivity, a serious loss of muscle mass, muscle strength, and physical functioning is highly probable. **Rationale:** To assess malnutrition during hospital admission and in recovery of COVID-19 patients. **Objective:** Describe nutritional status of COVID-19 patients, its related complaints, and (effects of) optimisation of nutritional care during/after hospital stay.

Planned activities & deliverables

Study population: Part 1: COVID-19 patients admitted at hospital, and during recovery in elderly or rehabilitation care, and at home with home care (with consulting dietitian); **Part 2:** COVID-19 patients consulting dietitians in home, elderly or rehabilitation care. Data are collected both pro- as well as retrospectively. **Step 0 ethical approval:** passed. **Step 1 inclusion:** Adults with COVID-19 contamination wt consulting a dietitian. **Step 2 monitoring:** Dietitians' recorded malnutrition related symptomatology, document nutritional care, nutritional status (weight, weight development, body composition, handgrip strength, SARC-F), comorbidity (in hospital at day 4/5 and e.o.w. after: outside hospital at every dietetic consultation); duration of hospital/ICU stay, mortality. **Step 3 analysis:** Description, sharing, nutritional advice within 12 month.

Resources & enablers

Financial needs for personnel: 28.750 euro; 0.4 fte dietitian-researcher; **specification:** coordination, instruction to research protocol and computerized questionnaires (castor), guiding contributing dietitians in all care settings. **Success factors:** The project started 27 April 2020; extended network of Dutch dietitians in all care settings, and study team with documented record of successful, nutritional, clinical research and good history of implementation of their results of research to improve health care.

Results/outcomes & expected impact

Implementation: we have popular websites for dietitians (<https://zakboekdietetiek.nl/>) (Wierdsma and Kruijenga), Dutch Dietetic Association (NVD) endorsement, the NVD journal (Kruijenga, chief editor, <https://ntvd.media/>), Nutrition and Dietetics course (Weijs, Kruijenga) as well as Medical course (Soeters); **optimal nutritional care/innovative:** by first describing nutritional care and development in nutritional intake, complaints and status, the impact of nutritional therapy on COVID-19 course will be documented. By association analysis with duration of complaints, care, SARC-F development, and mortality care-outcome relationships are examined, and evidence-based optimization of nutritional care and advice may be implemented; **nutritional policy/international:** we aim to influence nutritional policy in the Netherlands directly and immediately; the project can be extended/upscaled to other Western countries to establish an ESPEN wide network, database and nutritional practice improvement.