

Virtual Round care model in a Covid-19 Geriatric sub intensive unit

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Abstract

Introduction. Telepresence provides clinicians the ability to monitor patients as well to communicate with all the members of the healthcare staff. Covid-19 Units cope with high complexity in providing care and an integration amount the care team and the patients' relatives should be carried out to obtained successful outcomes and preventing complication. Virtual rounding (VR) has been successfully applied to cope with this task in the last 2000 years in medical units. Covid-19 patients due to safety rules may be prone to isolation and lack of communication with their family.

Purpose. The aim of our study was to evaluate the effect of structured virtual round protocol in a geriatric Covid-19 unit on anxiety and depression for the patients and their relatives.

Methodology. All the patients admitted to the geriatric Covid-19 unit from 1 February 2021 to 30 April were studied. Inclusion criteria to the study were the followings: no severe cognitive impairment (MMSE ≥ 24) or neuro sensorial deficits; informed consent to participate to the study. Forty-nine 49 (75% of patients) met the inclusion criteria. All the subject who were found to be eligible to the study underwent a VR standard protocol of care. VR was consisted with: 1) a video call with a tablet device conducted by a psychologist that established a cooperative communication between the health care staff (nurses and MD, their relatives) at the bed sides; 2) a video call with the patient's relatives in which it was clearly explained the standard care and the role of each healthcare member was also included. Anxiety and depression levels were assessed for the patients at baseline after the end of the protocol by the Hospital Anxiety and Depression Scale (HADS). Patients' relatives were investigated for depression at baseline and after the end of the protocol by the Beck Depression Inventory- Primary Care (BDI-PC). The Beck Depression Inventory for primary care has seven items with each item rated on a 4-point scale (0–3). It is scored by summing ratings for each item (range 0–21). Items are symptoms of sadness, pessimism, past failure, loss of pleasure, self-dislike, self-criticalness, and suicidal thoughts and wishes. The Hospital Anxiety and Depression Scale (HADS) is a self- assessment scale found to be a reliable instrument for detecting states of depression and anxiety. The anxiety and depressive sub-scales are also valid measures of severity of the emotional disorder. The questionnaire comprises seven questions for anxiety and seven questions for depression, and takes 2–5min to complete. For both scales, scores less than 7 indicate non- cases, 8-10 mild, 11-14 moderate, 15-21 severe. JMP software by SAS (v.16) was used for the statistical analysis.

Results. The present study included forty-nine 49 patients (67% male), mean age of 69.9 ± 14.7 years with one relative for each patient. The average mean of the hospitalization for each patients was 17.6 ± 5.7 days The mean VR duration time was 60 ± 5.5 minutes. VR showed a significant decrease in both Anxiety and depression for patients: (HADS Depression baseline 10.6 ± 3.1 vs 6.9 ± 2.7 end $p < 0.01$) (HADS Anxiety baseline 10.2 ± 3.4 vs 6.8 ± 3.0 end $p < 0.01$). VR has also reduced depression in the relatives of patients (BDI-PC 3.6 ± 2.4 vs 1.9 ± 1.9 $p < 0.01$).

Discussion. VR has reduced anxiety and depression in patients hospitalized in a sub-intensive

COVID 19 unit and it also has been found to be effective in decreasing depression in the relatives of these patients

Limitation. However, the study has some possible limitations considering its small size and that it was mono centric

Conclusions. Our data confirm the efficacy of VR in the sub-intensive care setting. This evidence supports the key role of a multidisciplinary team, focusing on the importance of social and psychological support during the hospital stay.

More studies will be consequently necessary to better validate the importance of VR as a standard care tool in intensive/sub- intensive care units for the elderly patients

Keywords

Virtual Rounding, Telehealth, Psychology, Mental health, Covid-19.

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Conflict of interest

Authors declare no conflict of interest

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