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SYNCHRONOUS VIDEO TELEMEDICINE IN LOWER EXTREMITIES CHRONIC ULCERS TREATMENT - RETROSPECTIVE COHORT STUDY

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Introduction: Lower extremity ulcers (LEU) are associated with considerable morbidity and even mortality. Their prevalence may further increase as a result of aging and its limited mobility may present a challenge to the healthcare system. Telemedicine (TM) is often defined as a process of using the information and communication technologies (ICT) to provide a remote health care to the populations where medical specialist's services availability is limited. The aim of the study was to assess the effectiveness of telemedicine video conferencing modality, compared to the usual face-to-face (FTF) treatment of LEU.

Methods: The retrospective cohort study was conducted at Maccabi Health Services Northern District Centers, Israel, and was based on patient's medical records database. Consecutive visits of patients to a wound care specialist for twelve-month observation period during 2015 were reviewed. Statistical analyses of cohort's populations and outcomes in both treatment modalities were performed using $\chi 2$ cross-tabulation, Student's t-test for numerical data, Binary Logistic Regression for confounding effects evaluation. Non-inferiority and equivalence of TM to FTF methods were assessed. Statistical significance of 0.05 was assumed throughout the study. All testing performed using IBM SPSS software, version 22 and WINPEPI, version 11.23.

Results: A final sample of 111 patients was analyzed, telemedicine (n=55) and usual care (n=56), with 593 visits in both cohorts. No significant difference in outcome measures (healing of ulcers) between these cohorts was detected (p=0.823). Nonetheless, TM required lower number of visits compared to FTF treatment (p=0.003). Non-inferiority of TM to FTF was demonstrated within the Δ= 20% range limits.

Conclusions: The study results indicate that Video-Conferencing (VC) based TM may be a feasible and effective method in LEU management.

Biography

Gamus A completed M.Sc. in Electrical Engineering, Certified System Analyst, PhD student on Synchronous Telemedicine applications in Lower Extremities Ulcerations at Tel-Aviv University, Israel. Over 25 years of experience in Telecommunications networks and Information Technologies services design and applications in Health domain. Independent Consultant for Telecommunications and Health services organizations worldwide with over 15 years' in Telemedicine applications design and implementation.

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