

Tesi su proposta

ACTITEST – Clinical Evaluation of ACTIGRAFO to Monitor Physical Exercise during Heart Failure Follow-up

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Place of development: Hospital de Clínicas, Universidad de la República, Uruguay

Timing: 1 month preparation in Torino & 5 months at NIB, prior to defense in POLITO July 2020

The Politecnico di Torino has developed an original instrument, ACTIGRAFO, presently commercialized by Medical Technology SRL, also responsible for the manufacturing and distribution of STEP32, a statistical gait analysis system. ACTIGRAFO has the ability to recognize and classify standing, sitting, walking and climbing as well as going down the stairs during several days of normal life of a person. This is important in the follow up of chronic patients as well as during guided rehabilitation after surgery. Among them is the follow-up of Heart Failure (HF) patients.

The “laurea magistrale” (LM) thesis starts with the study of the instrument ACTIGRAFO and of the SIMIC application at NIB and UMIC, follows with the analysis of the problem of inertial sensors included in ACTIGRAFO, as well as the details of HF follow up included in the SIMIC App. This leads to the establishment of a detailed protocol to evaluate ACTIGRAFO for HF patient follow-up at home. Frequent interactions with the the clinical unit UMIC of the Hospital de Clínicas are expected to fine tune the protocol, prior to putting it in practice. Ethics Committee procedure will be put in place, without altering the timing of the project. Instruction in the use of ACTIGRAFO and execution of the protocol is part of the Thesis.

Medical Technology SRL provides enough ACTIGRAFO devices for the study and has been asked to complement the financial support POLITO assigns for LMs abroad.

Final parts ar the writing of a paper in cooperation with co-authors and preparation of the Thesis to be defended in July 2020 in Torino.