OFFICIAL TITLE: Functional recovery after monolateral or bilateral total hip arthroplasty

PROTOCOL IDENTIFYING NUMBER: CLF17/02

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Statistical analysis plan

The statistical analysis will be performed at the end of the study through SPSS 20.0. Categorical variables will be described in terms of proportion, while the continuous variables will be described in terms of mean and standard deviation or median and interquartile ranges. Outcomes measures will be checked for normality through Kolmogorov-Smirnov test. T-Student test will be used to confirm the homogeneity of the demographic and continuous variables before surgery for stabilometric task (weight distribution between the two lower limbs, mid-lateral and anterior-posterior displacement of the CoP, pelvis, hip, knee and ankle kinematic, muscular activation normalized by MVC, timing of the muscle activation respect to the movements of the tibiotarsic joint and activation frequency) , during gait analysis (ground reaction force, spatio temporal parameters, pelvis, hip, knee, ankle kinematic and timing of muscles activation), during the segmental strength test (time of the support of the lower limbs in the position decided by the operator), related to the TUG (execution time of the trial) and to the NRS scale (value from 0 to 10).

The inter-group and intra-group differences after will be evaluated by ANOVA test for repeated measurements and then an eventual post hoc analysis will be conducted. The statistical significance value will be set at Alpha=0.05.