C. Cridelich, R. Collomp, F. Capriz-Ribière, B. Baldin, F. Rocher, L.H. Heng, Y.Caritu, P. Robert, P. Malléa. Actigraphy place in the good use of psychoactive drugs with elderly: Pilot study. *Gerontechnology 2010;9(2):278;* doi:10.4017/gt.2010.09.02.135.00 **Purpose** Psychotropics consumption is a major health problem, particularly for the elderly[1]. In France, one out of every two aged seventy years and older uses psychoactive drugs[1]. Gerontechnologies, such as actigraphy could contribute significantly to a better use of psychoactive drugs, by allowing a more objective evaluation of the psychological and behavioural reactions. The main objective of the MEDACT study (for MEDication ACTion) is to estimate the sensibility of the actigraphic parameters for phases identified as critical during psychotropic treatments (initiation of the treatment, a significant modification of posology and weaning). **Method** This study is conducted within the health Innovation and Uses Centre (CIU-S), which aims to estimate the interest of new technologies in the field of health. The objective of this presentation is to present the methodology of this study. Experimental, monocentric and non-randomized pilot study includes 30 subjects, older than 75 years old, hospitalized in the gerontology centre of the Nice University hospital and requiring a psychotropic treatment. This population will be divided in 3 groups: initiation phase (n=10), modification of posology phase (n=10) and a stop of psychotropic treatment phase (weaning) (n=10). After a presentation and the acceptance of the experimental protocol, an actigraph is positioned on the subject's chest. The actigraph will be carried during 7 days, distributed between 3 days for the initial phase (before modification) and 4 days for the final phase (post-modification). Once the protocol is ended, the actigraph is removed from the subject's chest and the information recorded for every subject is stored in an IT support and kept in a closed room. Data collected by the actigraph will also be compared with the classic statements (observations of medical team) and with the activities statements (nature and length) via a daily completed scale by the patient. At the end of the study, an informative letter explaining the outcomes of this experimental protocol will be sent to all participants, when all data will have been treated and interpreted. The evaluation criteria is represented by the motor activity, measured continuously by actigraph with an activity index expressed on average by time slots, and on the other hand, expressed by the medical team and the patient using a standardized questionnaire. At the same time, the acceptability rate and the time of technical unavailability of the actigraph will be measured. **Results & Discussion** The MEDACT study will start in March 2010. The results expected are the obtaining of reliable, precise information with an easy exploitation for a health professional, to optimize in terms of efficiency and tolerance a treatment justified by psychotropic drugs. If the results of this study are positive, the experimentation will be continued with a clinical evaluation of the actigraphy as parameter of decision and patient monitoring.

References

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Keywords : psychotropic, elderly, actigraphy, pilot study

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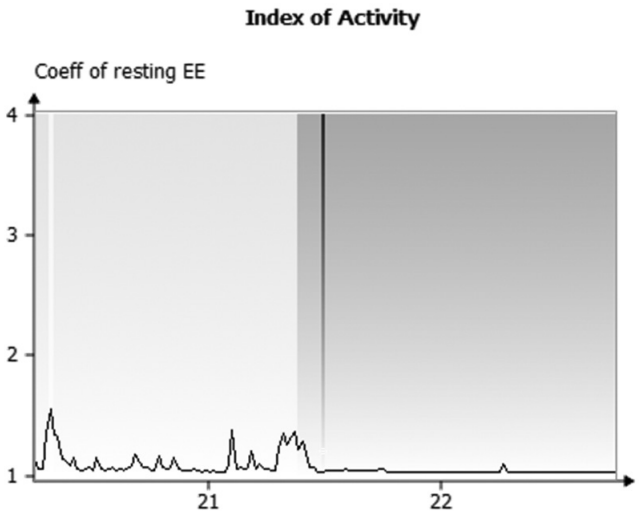

Figure 1. Activity diagram