J. VERRIER, E. KAROUBI, R. ARTICO. ***Falls prevention: Benefits to adding exergame to physiotherapy.*** *Gerontechnology 2016;15(suppl):118s*; doi:10.4017/gt.2016.15.s.902.00 **Purpose** The use of exergames was mostly studied in the prevention of falls on outpatients and nursing home ones over 75 years old, and still showing a degree of autonomy[1]. The Wii and its applications were not tested inside a re-education program of geriatric patients hospitalized in a re-education hospital service. Exergames are commonly used in a dedicated room with specific staff and are considered as an activity or treatment of its own[2,3]. We aimed to test the daily use of the Wii during re-education sessions in a re-education hospital service geriatric department. We tested the potential of the Wii as a tool in the daily life of rehabilitation staff, to be considered and accepted as parallel bars or Bobath table. **Method** This study employed a pretest-posttest design to determine the feasibility and efficacy of Nintendo Wii Fit® exergames to improve balance. Twenty-one participants (eight women, eleven men, mean age 85.0±4.7 years), were recruited in a re-education hospital service. They were randomly assigned in two treatment groups. The Wii group (eleven participants, 54% women, mean age 83.0±3.8 years) conducted two sessions of Wii Balance Board (WBB) and two physiotherapy sessions while the PHY (physiotherapy) group (ten participants, 60% women, mean age 87.0±5.5 years) conducted only physiotherapy sessions. Inclusion criteria were to be at least 65 years old, to have fallen at least one time during the previous year, obtained 10 or more to Mini Mental State Examination. Exclusion criteria for this study included fallen or severe injury, unstable health or the inability to attend intervention sessions during a one week period. The balance of participants was assessed every two weeks with Timed Up and Go (TUG) and the Berg Balance Scale (BBS). **Results & Discussion** Results showed that patients made significant progress on their two type balance evaluation. Indeed TUG evaluation showed a lower time between pretest and posttest ($p<0.001$) and BBS evaluation showed an increase in score ($p<0,001$). Our principal result is that the two groups increased their balance equivalently, there is no significant difference between the two groups in their progression TUG ($p=0.097$) and BBS ($p=0.773$) (*Figure 1*). This results suggest that WBB is an appropriate tool in association to classical physiotherapy to improve and diversify balance re-education with geriatric patients. Overall patient using the Wii and its gears showed willingness to carry on. We had an explicit positive reception from patients who were eager to carry on, asking for more. Such activity does not need a lot of space or gear: a Wii, a WBB and a mobile screen. Thus, Wii can be used in a regular rehabilitation room with more than one patient inside that allowed a successful integration in our re-education hospital service.

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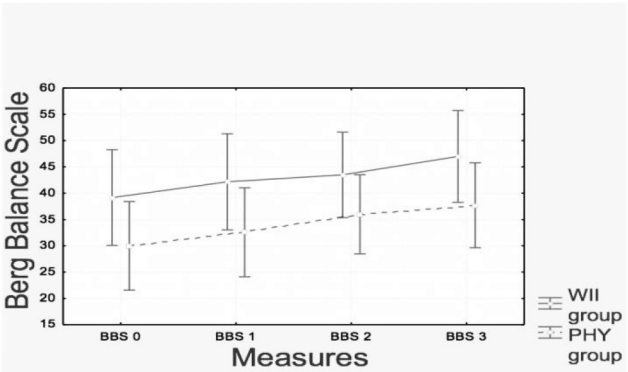

Figure 1. Berg Balance Scale score evolution within WII group and PHY (physiotherapy) group