*P. Baumann, A. Heinzelmann, N. Zigan, L. Imhof, D. Händler-Schuster.* ***Identification of electrical equipment from overall power consumption: Does it work?*** *Gerontechnology 2016;15(suppl):4s*; doi:10.4017/gt.2016.15.s.821.00 **Purpose** Monitoring behaviours and activities of daily living at home, using videos or motion sensors, could be ethically questionable or not well accepted by individuals. One possible solution is the measurement of energy consumption. To date, studies measured power consumption and activities of daily living of elderly in well-defined laboratory situations. In the Swiss ERED project (Emergency Recognition through Energy Data Analysis) nurses and technicians are working together to develop and test a new system that leads to the recognition of daily routines as measured by power and water consumption in real life situations[1]. We hypothesized, that usage of electrical equipment could be identified based on overall power consumption[2]. **Method** Data collection started in December 2015 and will be terminated in fall 2016 with data from totally 5 households of elderly living alone (all aged over 70, 3 women and 2 men) and 3 households of additional persons (families) for testing. Power and water consumption is measured over a 6-month period by means of high performance electricity and water meters[3]. Data is analysed using descriptive statistics and specifically developed algorithms. Findings are illustrated using a representative case from the sample. **Results & Discussion** First results show that electrical equipment can be identified under certain circumstances. We obtained key insights in relation to the application of energy measurement devices, steps in data management, and preliminary results of device identification strategies using algorithms. Challenges in the accurate identification of electrical equipment via the power line continue to exist. Findings of this study, for example the collection of the data and designing an automatic analysis algorithm, however are important for the further development of new systems, which can be applied in real life situations.

**References**

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