**EVALUATION OF MOBILITY AID SYSTEM (SAM ERGONOM) - TABULATED SUMMARY**  
**UPDATED ON 01/03/2017**

### DESCRIPTION

**Study Title**  
Evaluation of the influence of the “SAM ERGONOM” bed mobility aid device on the mobility of elderly patients (≥ 65 years old): a randomised, single-centre study.

**Type of study**  
A prospective, single-centre, randomised study comparing two medical devices (SAM Ergonom versus lifting column)

**Study Date**  
2015

**Sponsor**  
CHU (Centre Hospitalier Universitaire [University Hospital Centre]) of Nîmes, Department of Research and Innovation

**Principal investigator**  
Dr VIOLLET, Department of Physical Medicine and Physical Rehabilitation, CHU of Nîmes

**Methodologist**  
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**Investigation site(s)**  
CHU of Nîmes, Physical Medicine and Physical Rehabilitation

**Other information**  
Clinical study NCT01746433  

### METHOD

**Inclusion criteria**  
Patients older than sixty-five years, stable medical condition, no cognitive deficit, difficulty in performing “lying-sitting” transfers in less than ten seconds, with a postural balance of 2 out of 4*, consent.  
*Level 2 according to the Postural Balance Scale: Seated postural balance maintained without back support, but loss of balance if pushed, irrespective of the direction.

**Primary endpoint**  
Transfer from lying position to sitting position in less than ten seconds (Success/Failure; %)

**Secondary endpoints**  
Necessary time to sit down (min) and evaluation of the movement of the mass centre during the action of sitting.

**Sample size**  
38 patients

**Randomisation**  
19 patients in the exposed group (SAM), 19 patients in the control group (lifting column)

**Analysis of the results**  
Statistical analysis.

**Abbreviations**  
NA Not applicable. F: Female. M: Male.

### RESULTS

**Subjects analysed**  
38 patients

**Follow-up period**  
NA

**Characteristics Of the patients included**  
F/M distribution: 1.92  
Average age 84.7 years (71; 93)

**Experimental protocol**  
Positioning of the patient: bedridden, centred pelvis, greater trochanter at the level of the joint of the headrest two consecutive attempts (Learning, timed observation phase).

**Primary endpoint**  
“Lying-sitting” transfer successful for 89.5% of the patients of the SAM Ergonom group versus 68% for the lifting column.  
17 successes with SAM and 2 failures versus 13 successes and 6 failures with the lifting column.  
In one case out of three, the lifting column do not help with the “Lying-Sitting” transfer.  
The difference between the two systems is significant.

**Secondary endpoints**  
Necessary time to sit down: 12.5 seconds (4;24) in the SAM group; 12 seconds (5;20) in the lifting column group.  
There is no significant difference between the two systems.

**Side effects**  
None.

### CONCLUSION

The SAM Ergonom device was designed to help the elderly with difficulties in performing the “Lying-Sitting” transfers. Its principle is to improve lateral rotation and trunk flexing by bringing the mass centre close to the edge of the bed. The results of this study show that this device improves the “Lying-Sitting” recovery motor diagram of the patients included.

SAM may influence the motor strategy during psychomotor regression syndrome by bringing the mass centre to an anterior rotation in 90% of the cases for the first five seconds versus 50% in retropulsion among the patients using lifting columns.