untwisting and reverse scoliosis. The second concept is that of the bolt and the key to “unscrew”. All current braces are using the principle of push forces in opposite directions or pressure and expansion. The pelvis is the “bolt head” which is stabilized by a symmetrical pelvic base, lumbar and thoracic segments above act as a wrench to “untwist” scoliosis.

The third concept is that of segmental correction by superposition of three electronic moldings:
- in self-axial elongation force;
- in lumbar translation and lordosis;
- in inflexion, translation and thoracic kyphosis.

**Conclusion.**—These new concepts can avoid the prior plaster cast or major corrections on the positive plaster cast.

http://dx.doi.org/10.1016/j.rehab.2014.03.439

**P457-e**

**Walking dynamic study with dynamic amplification and control of motion splint**

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**Background.**—The loss of extension of the ankle and the foot, called steppage, is a walking dynamic study with dynamic results obtained without splint, with splint and with splint and cane.

**Conclusion.**—To one of these patients, the filmography analyze is completed by the use of shoes on functional mobility in stroke subjects. They could be used both with and without shoes. While several studies have shown that AFOs improve gait abilities in hemiplegic patients, it has remained unclear whether they should be used with shoes or without. The purpose of this study was to evaluate the effectiveness of the use of shoes on functional mobility in stroke subjects while utilizing AFO.

**Methods.**—Nine post-stroke hemiplegic patients who had maximum spasticity level of 1–2 according to Ashworth Scale participated in this study. Their functional mobility was assessed by means of the following tests: 10-m Walking test, Timed Up and Go test (TUG), Timed Up Stairs (TUS) and Timed Down Stairs (TDS). All the tests were performed with and without wearing shoes while AFO was being used in all conditions.

**Results.**—No significant differences were found for TUS and TDS, but the differences for TUG and 10-m Walk test were significant.

**Discussion.**—This study could suggest that the use of shoes along with AFO can potentially improve walking ability of subjects suffering from post-stroke hemiplegia much more compared to utilizing AFO only.

http://dx.doi.org/10.1016/j.rehab.2014.03.440

**P458-e**

**Delayed referral of lower limb amputees for rehabilitation; an audit study**

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**Keywords:** Lower limb amputation; Rehabilitation; Prosthesis

**Background.**—Average time duration for lower limb amputee rehabilita-

tion/fitting of prosthesis is 36.25 ± 14.97 days for primary amputation and 68.66 ± 33.52 days for re-amputation. This study aims to highlight all the causes, which delay referral for rehabilitation.

**Methods.**—This descriptive study was conducted at Armed Forces Institute of Rehabilitation Medicine (AFIRM), from April 2012 till to July 2012. Thirty-two patients recruited through non-probability convenient sampling. Amputation carried out as complication of diabetes mellitus, congenital amputation cases, patients having cardiopulmonary compromise, poor cognition, visual loss, peripheral nerve injuries and fractures were excluded. Retrospectively patient documents were searched for medical/surgical or social conditions, which caused delayed referral for rehabilitation. Data was collected/analysed with SPSS Version 19.

**Results.**—Thirty-two lower limb amputees, all male. Ages ranged from 16 to 37 years. Reasons for the delay in starting rehabilitation were leaves 34.4%, redo surgery 18.8%, stump osteomyelitis 18.8%, bed unavailability 12.5%, associated fractures 9.2%, wound infections and others 3.2% each.

**Discussion.**—Early treatment of skin conditions of the stump (infec-
tion/osteomyelitis) is necessary along with initial good surgery and managing associated fractures. Timely interdisciplinary liaison can prevent delay in referral of such cases.

http://dx.doi.org/10.1016/j.rehab.2014.03.441

**P459-e**

**Effect of ankle-foot orthosis with and without wearing shoes on functional mobility in post-stroke hemiplegic subjects: A comparative study**

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**Keywords:** Ankle-foot orthosis; Stroke; Functional mobility; Shoes

**Background.**—Ankle-foot orthoses (AFOs) are widely prescribed to improve functional mobility in stroke subjects. They could be used both with and without shoes. While several studies have shown that AFOs improve gait abilities in hemiplegic patients, it has remained unclear whether they should be used with shoes or without. The purpose of this study was to evaluate the effectiveness of the use of shoes on functional mobility in stroke subjects while utilizing AFO.

**Methods.**—Nine post-stroke hemiplegic patients who had maximum spasticity level of 1–2 according to Ashworth Scale participated in this study. Their functional mobility was assessed by means of the following tests: 10-m Walking test, Timed Up and Go test (TUG), Timed Up Stairs (TUS) and Timed Down Stairs (TDS). All the tests were performed with and without wearing shoes while AFO was being used in all conditions.

**Results.**—No significant differences were found for TUS and TDS, but the differences for TUG and 10-m Walk test were significant.

**Discussion.**—This study could suggest that the use of shoes along with AFO can potentially improve walking ability of subjects suffering from post-stroke hemiplegia much more compared to utilizing AFO only.

http://dx.doi.org/10.1016/j.rehab.2014.03.442

**P460-e**

**Cause of non-acquisition of assistive technologies after recommendation: Cross-sectional survey**

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**Keywords:** Assistive technology; Recommendation; Acquisition rate

**Objective.**—To investigate the causes of non-acquisition of assistive technology (AT) after recommendation in the unit of MPR of the Limoges University Hospital.

**Methods.**—Cross-sectional telephone survey with collection rate acquisition. In case of no acquisition of AT, the reason was collected. For acquired AT, satisfaction was assessed by a Likert scale.

**Results.**—One hundred and twenty-three subjects were supported in 2010. Two hundred and twenty-six AT were recommended. The overall acquisition rate was 48%. The main reason for non-acquisition reported was a recommendation not adapted to the expectations (66%), the second was the lack of funding (17%). However, the most inadequate AT were not reimbursement (94%). Eighty-five percent of patients were satisfied with their AT once acquired.

**Discussion.**—In our study, the rate of acquisition of AT is about 50% good level in the literature [1]. The main cause of non-acquisition reported was inadequate AT user expectations. A better assessment of needs by developing evaluations ecological environment and better information on the funding could improve the rate of acquisition.