HELLENIC REPUBLIC
MINISTRY OF HEALTH
NATIONAL REHABILITATION CENTER
1ST DEPARTMENT OF PHYSICAL AND
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During the last three years (since January the 1st 2019), we have applied the Step-On AFO family of products orthoses in our department to one hundred and fifty-four (154) patients. In details, we have applied the orthoses in two different teams of patients.

<u>Team A</u> consisting of eighty (80) patients with drop foot and coexisting varus, or valgus deformities of the ankle foot due to spasticity, using the Step-On AFO 200 DH (Dual Hinge).

The ages of the patients = 18 up to 75 years old.

Males = 46, Females = 34.

- 31 with right hemiplegia
- 27 with left hemiplegia
- 19 with multiple sclerosis
- 3 with incomplete paraplegia due to spinal co injury.

Observations using the Step-On AFO 200 DH (Dual Hinge):

- -Improved the stability and gait pattern in less than one week of the physiotherapy sessions.
- Decreased the danger of falling.
- Provided good toe clearance with less effort and less hip-hike.
- Increased velocity and distance covered by patients.
- Correct conspicuously of the varus, or valgus deformities of the ankle foot due to spasticity.
- Stopped, or reduced the synergy of the muscles of the ankle foot, which aggravate the varus-valgus deformities and the drop foot.

<u>Team B</u> consisting of seventy-four (74) patients with drop foot and coexisting with low varus, or valgus deformities of the ankle foot without spasticity, using the Step-On AFO 100 LH (Lateral Hinge) and Step-On AFO 100 MH (Medial Hinge).

The ages of the patients = 18 up to 72 years old.

Males = 39, Females = 35.

- 16 with right hemiplegia
- 14 with left hemiplegia
- 23 with multiple sclerosis
- 2 with motor neuron disease (MND)
- 11 with polyneuropathy due to post Covid-19 syndrome
- 8 with peripheral nerve injuries

Observations using the Step-On AFO 100 LH (Lateral Hinge) / Step-On AFO 100 MH (Medial Hinge):

- -Improved the stability and gait pattern almost immediately. Especially improve for the patients, that are facing a movement problem during the last 1-2 years and had not install a pathological gait pattern (e.g. peripheral nerve injuries, MS on the early stages of the disease and thrombotic stroke, which had as consequence of hemiplegia).
- Eliminated the danger of falling.
- More than 50% of the patients, that use an assistive device, started to walk independently, in less than three (3) physiotherapy sessions.
- Correct of the varus (Step-On AFO 100 LH), or the valgus deformity (Step-On AFO 100 MH).

Conclusions:

- -We did not notice any significant adverse skin reaction effect with any of the orthotic devices (Step-On AFO 200 DH, Step-On AFO 100 LH, Step-On AFO 100 MH).
- -From psychological point of view, all the patients, from both teams, declared that felt satisfied, more independent and safe. The majority of them use the orthosis easily in their daily activities.

