

# Comparison of data from conventional gait analysis vs use of Tyrostation



Care and Rehabilitation Centre

## Diagnosis:

- L ACA territory infarcts

Transferred to Haywards Heath Sussex Rehabilitation Centre on 25/05/23

SH:

- Lived alone in Brighton in a flat.
- Working for a specialist domestic goods company
- Enjoyed participating in theatre and acting

Date of admission to QEF CRC: 11/07/23

Discharge Date: 18/12/23

## On admission

### Impairments:

- R UL 3/5 power, learnt non-use
- R LL 3/5 power R hip, spontaneous activity in quads and hams with WB, however very difficult to access this on command
- R LL co-contraction into posture of flexion, external rotation, ankle plantarflexion and inversion
- Reduced range in R LL: - 15 degrees off neutral at right hip and knee and - 15 degrees off plantargrade.

- Increased tone in quadriceps MAS 2 and clonus
- Reduced sensation by 20% in R LL
- Absent proprioception in his R LL
- Altered midline awareness, overly reliant on vision
- Doubly incontinent

### Activities:

- Reliant on A01 for all aspects of care
- Molift and A01 for all transfers

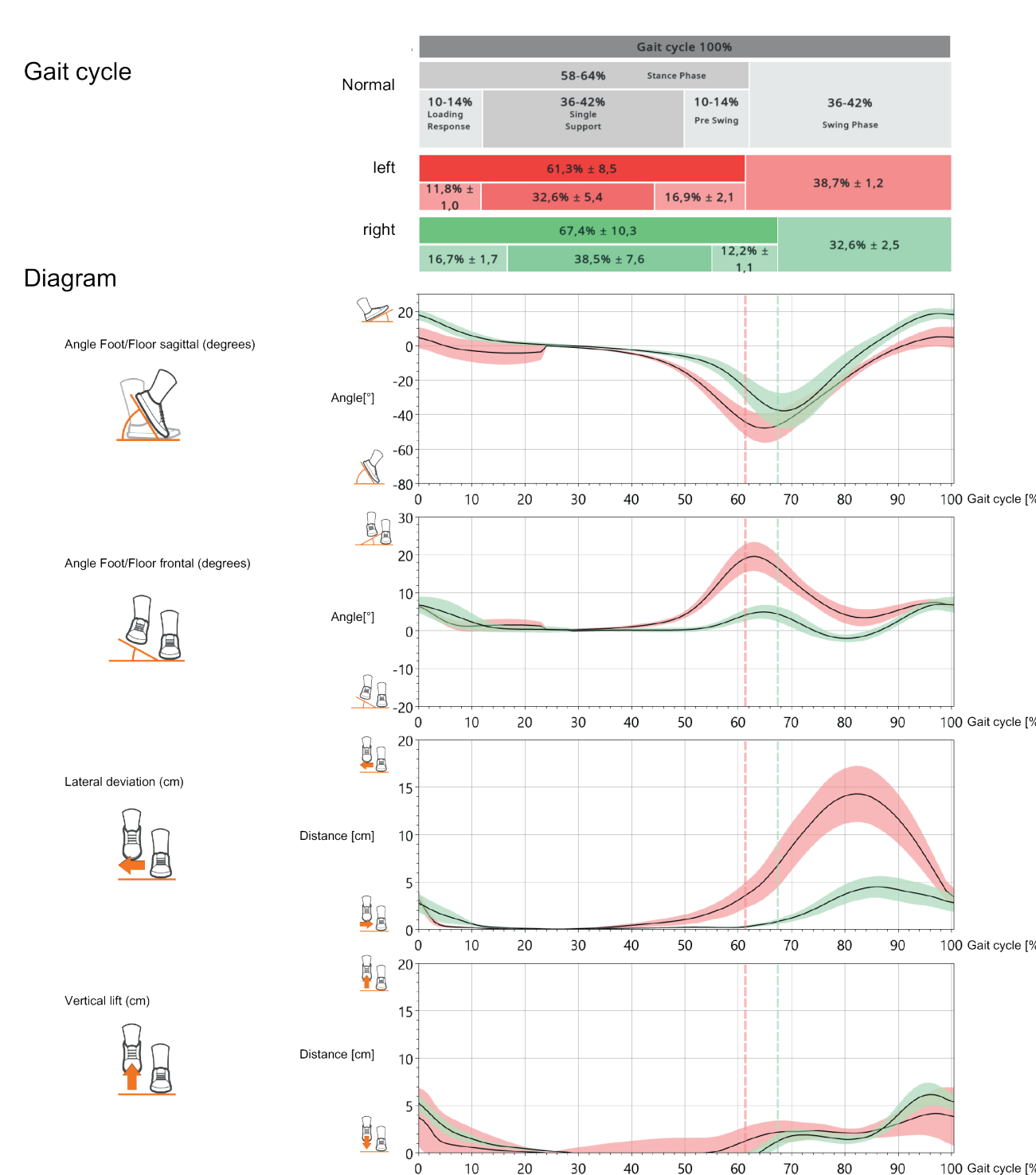
## Goals:

- To be complete step transfer on and off toilet independently with 4WW in 12/52 - **ACHIEVED**
- To mobilise with a 4WW short distances indoors independently in 12/52 - **ACHIEVED**
- To mobilise with 2 x high poles indoors indoors and with supervision outdoors in 5/12 - **ACHIEVED**
- To mobilise up and down 1 x flight of stairs with bilateral handrails with supervision in 5/12 - **ACHIEVED**

## Treatment intervention:

- 24 hour positioning programme
- Prolonged standing and weight bearing to stretch right lower limb in both Oswestry and Quest standing frame
- Passive stretches +/- assistance for hip flexors, glutes, ITB and hamstrings
- Soft tissue release and mobilisations to both his hind and mid foot.
- Practice of pivot transfers
- Static and dynamic standing activities
- Gait re-education with mobility aids offering reducing support WZF > 4WW > 2 high poles
- Botulinum toxin to the right tibialis posterior and soleus
- Stairs practice
- Outdoor mobility practice
- Practice on/off the floor
- Tyromotion - Pablo used with upper limb games to increase use of right upper limb with gamification

PABLO GAIT ASSESSMENT tyromotion



## Traditional gait analysis with video



## Results/ Outcomes

### Timed 10 metre walk test

Date	Mobility aid	Time
9/8/2023	WZF and A01	1m 25s
6/11/2023	4WW	25.93s
6/11/2023	2high poles	36.58s
15/12/2023	2 high poles	14.39s

- 15/12/23 Berg Balance Scale = 41/56.
- FIM FAM 115/214
- RCS 15/7

## Conclusion

Traditional gait analysis with video remains a useful tool and can be especially useful when demonstrating progress to clients, the Pablo enables quick but detailed analysis of the gait cycle including a comparison of left to right leg. It is likely at CRC we will use both concurrently to maximise our clients rehabilitation potential.

Rehab Outcome Measures

