



## Neu Living Case Study

*(Please note: the client's name has been changed to ensure anonymity)*

### Introduction

Sarah is a 39-year-old woman with a complex personal and medical background.

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### Case Presentation

#### **Social:**

Sarah previously lived independently in her own flat. She reports a complex family, social, and medical history.

#### **Medical:**

Sarah was transferred to Neu Living for ongoing assessment and rehabilitation following a prolonged hospital admission due to toxic encephalopathy.

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### Objective Assessment

- Cognitive impairment; however, she is able to follow commands and engages well with therapy
- Generalised weakness with bilateral foot drop – referred to NHS Orthotics while at Neu Living
- Choreiform (involuntary) movements affecting all four limbs
- Ambulates with a frame and assistance
- Wide-based gait with short, shuffling steps

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## Rehabilitation Goals

- Walk independently on level surfaces (with or without a walking aid)
- Walk independently outdoors (with or without a walking aid)
- Climb and descend steps/stairs independently
- Regain functional use of upper limbs for daily tasks including washing, dressing, grooming, and meal preparation

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## Management and Treatment

### Mobility-Based Rehabilitation:

- Sarah has engaged in 1:1 physiotherapy sessions focusing on walking practice with and without walking aids
- She has practised gait training with and without external cues to address her wide base of support and short stride length
  - Activities include mini hurdles, targeted stepping using coloured dots/lines, and treadmill walking with visual prompts to increase step height
- Cardiovascular training using the treadmill and static bike—initially challenging but improved significantly with practice
- Strength training using step-ups, squats, side-stepping, resistance bands, and free weights
- Balance training with varying base of support and upper limb activity beyond her base
- Step and stair practice using handrails and therapist assistance

### Upper Limb Rehabilitation:

- Functional kitchen-based tasks including cooking and baking for dexterity and stability
  - Strength training with weights and therabands
  - Dexterity-focused tasks such as reaching, stacking, carrying, and folding
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## Clinical Outcomes

Assessment	Baseline	4-Week Review
SARA Ataxia Score	23.5	21
10-Meter Walk	21 seconds	13 seconds
5 Rep Sit-to-Stand	28 seconds	14 seconds
4-Stage Balance Test	Stage 2	Stage 2
Berg Balance Scale	30/56	29/56

## Progress to Date

Sarah has made good progress with her mobility during her time at Neu Living. She is now showing measurable improvement towards her goal of independent walking on level surfaces. This is supported by improvements in her timed 10-meter walk, reduced sit-to-stand times, and improved ability to climb and descend stairs with assistance.

The SARA Ataxia Score has been used to help monitor coordination deficits secondary to chorea. However, this may not have been the most accurate outcome measure for Sarah's presentation, which may explain the limited changes seen in this measure. Similarly, her Berg Balance Score has remained largely unchanged despite observable improvements in other areas.

Given Sarah's medical history, her functional gains are most likely explained by adaptive and compensatory improvements, rather than direct central nervous system recovery. Nevertheless, with ongoing practice and structured activity, she is expected to continue progressing.

## Next Steps

Going forward, Sarah will continue to work towards her goals through graded functional activities. This includes assisted walking to the therapy kitchen to engage in baking and cooking tasks. It may also be appropriate to explore options for supported outdoor mobility and accessing the wider community, which could involve trialling different mobility aids or ankle orthotics for additional support.

## Conclusion

Overall, Sarah has responded well to a varied rehabilitation programme and functional exercises at Neu Living. She has engaged positively with all therapy opportunities, including regular use of the gym and therapy kitchen, as well as participating in supported community visits. Sarah is pleased with the progress she has made and remains motivated to continue working towards her rehabilitation goals. Ultimately we hope to support Sarah's longer term goals to returning to semi-independent living.