

## **POSTER P2**

### **"Thinking outside the Box"**

#### **A Complex Seating Solution Case Study**

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#### **Summary**

We will share our feedback around a complex seating clinical/best practice case study. This service users' needs were met by thinking outside the box and working in close collaboration with Active Design to develop solutions using prescriptive products.

#### **Aims and Objectives**

Appreciate off the shelf equipment may meet the need where norm would be to provide custom made solutions.

Appreciate need to identify support network around service user, and provide relevant training.

Importance of developing close working relationship with manufacturers.

Trial of equipment provision, where possible, may prevent financial loss due to incorrect equipment being initially issued.

Stakeholders to have influence on design specification of desired solution.

#### **Background**

A multi-disciplinary assessment took place at Canterbury Wheelchair Assessment Service with a senior Occupational Therapist Clinical Scientist and Rehabilitation Engineer present. The service user, Katy, presented with carers/family members involved in their on-going care. Information around medical history, current postural management equipment, activities of daily living, social factors and transportation requirements was noted.

Hands-on physical plinth assessment was completed in supine lying and supported sitting. Equipment was trialled to provide a solution to the identified postural needs. Clear dialogue was had with Katy, her family members and care staff to identify optimum seating and mobility solutions.

In this case, a complex solution was identified using Active Design prescriptive products, namely the CAPS-II seating system. A prototype system from Active Design providing a dynamic backrest element was provided and set-up by Active Design for a trial period prior to prescription. This solution had a ground-breaking element, as we pushed the boundaries of design, manufacture and application within this product.

Equipment was delivered to Katy after some trial/adjustment, and has been in place since July 2012. Care staff and other stake holders have fed back to the Wheelchair Service regarding on-going usage and maintenance of the equipment solution.

### *Specifics around Client*

Sex: Female

Age: 16

Diagnosis: Cerebral palsy (spastic diplegic); client is non-verbal, but can use communication aid via head switches, although not effectively due to seating concerns. Client exhibits very high (variable) extensor tone.

Previous Equipment: Otto Bock Discovery wheelbase; Active Design CAPS-II Seating System; Stealth I2I headrest (to facilitate head switching)

Presenting issues: Discomfort in current equipment, does not tolerate sitting for extended periods; finds head switching difficult/unreliable; has tried dynamic static seating previously, concerns about strength.

Family/carers like the level of support that CAPS-II offers.

Postural issues: Level pelvis, can achieve 90° hip flexion, knee flexion and plantargrade ankle position in sitting

Solution: Otto Bock Discovery modified by Active Design to have dynamic backrest. CAPS-II Seating system with separate backrest integrated onto Otto Bock Discovery.

### **Discussion**

A clear multi-disciplinary and service user-centred approach made this highly complex solution possible, as family members and care staff had significant involvement.

A close working relationship with Active Design, developed over a number of years, facilitated expert advice and trial of equipment solutions.

The client had unfortunately experienced a mechanical failure of the gas strut built into the hybrid Discovery with “dynamic” backrest element. This required the backrest to be locked off until spare parts could be delivered, and in this time the client bent the Discovery frame. One conclusion from this could be that when the gas strut was working correctly this appropriately dissipated forces from strong extensor spasms. Care staff kept a diary of observations about the benefits in Katy’s general well-being and mood when using the dynamic backrest.

In summary, thinking outside the box enabled us to meet the complex needs of this client.

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