

## Case Study Answers: Module 9 – Manual Wheelchair

*Instructions: Download the case study on Paolo and then answer the questions below.*

**Paolo did not regain any functional lower limbs activities for functional transfer at the end of his inpatient rehabilitation.**

**1. List the functional task that Paolo performs in his wheelchair. How would these tasks influence on the selection of the wheelchair frame style and seat frame configuration?**

- transfers from wheelchair to bed, commode and car
  - *seat to floor height*
  - *ability to move forward for transfer with seat rake*
- independent in his personal ADL
  - *sufficient wheelchair stability to perform ADL tasks*
- prepare a basic meal
  - *front frame angle and seat to floor height to access kitchen*
- intermittent catheterisations
  - *able to move pelvic forward and open hip angle with seat rake and seat depth*
- wheelchair skill for active wheelchair mobility
  - *rigid frame tends to have a higher performance for active user*

**2. What are the social and environmental factors that will influence on the options of accessories of his wheelchair?**

- large block with a long, moderately sloped, concrete driveway
  - *maximise propulsion efficiency through the provision of light weight wheelchair, axle position adjustment and seating components that enhance postural stability*
- use a taxi and wheelchair accessible bus
  - *assess for headrest and tie down points*
- go to the pub with his mates
  - *consider wheelchair manoeuvrability in tight environment – taper front frame and front frame angle*
- "tinkering" with motorbikes
  - *consider puncture-proof tyres*

**3. What can Paola do about his pain if it reoccurs?**

- review by seating or spinal clinicians for wheelchair setup and wheelchair propulsion pattern
- reduce the wheelchair overall weight. Eg, minimise the weight of the under chair bag, use high pressure pneumatic tyres instead of solid
- reduce roll resistance by using medium size castors
- ensure the rear wheels and castors are in good alignment



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- consider ergonomic push rims to reduce forearm and wrist pain. eg, natural fit hand rims