**AUSTRALIAN ASSISTIVE TECHNOLOGY CONFERENCE 2018**

*Experiences, Opportunities and Innovations*

*Human Factors in the Evaluation and Use of Assistive Technology for Spinal Cord Impairment*

*Patients*

**ABSTRACT Aims**

This paper presents an overview of the ergonomic assessment towards Assistive Technology(AT)

for individuals with Spinal Cord Impairment(SCI) or myelopathy. When a severe SCI individual is admitted to a Spinal unit from ICU, everything is done for them leaving almost no opportunity to be independent in tasks or exercising any real control over what happens in a day. This impacts the individual’s ability to perform critical activities of daily living(ADL) causing a negative impact on their quality of life. AT aims to bridge this gap to augment function and increase independence to allow them to begin re-establishing their ability towards independence, four critical criteria are considered: The person, the task/ activity needed, the physical and non-physical environment around them and the technology tailored for their impairment.

**Findings/Results/Outcomes**

From the assessment carried out, precaution limitations to be considered are the patients’ need for visual, cognitive or existing learning support. The depth of impairment largely affects the decision but residual capacities is also needed to be taken into account as a good pairing between the user and the selected modality can highly influence their quality of life. The human/technology interface explored for the individual derives from three factors that takes into consideration the operation of the device: the control interface, the selection set and the selection method. With delivery of the product and services customised to the patient rather than the patient to the product, the success of the human factors assessment are evident in the positive feedback and rehabilitation of the patient. (250 words)