

EDITOR'S PAGE

Improve efficiency of spinal cord rehabilitation by reducing length of stay while maintaining or improving patient outcomes



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Dear *Spinal Cord* Reader,

I am pleased to present once more a *Spinal Cord* Journal issue with very interesting research data.

Bray *et al.*, in an evidenced based review, found indication that transanal irrigation can be an effective treatment for children and young people with constipation or fecal incontinence as a result of neurogenic bowel (16 studies; $n = 346$). Transanal irrigation is improving quality of life and family's satisfaction with the bowel management, but the procedure is invasive, time consuming and can impact negatively on child, parent and family life.

Burns *et al.* made a length of stay (LOS) benchmarking using national comparator data from the Canadian Institute for Health Information. Clinical decision-making tools were developed to support implementation and sustainability. A standardized 'tentative discharge date' calculator was created to LOS targets. Defined discharge criteria and an accompanying clinical decision tree were developed to support team decision making and improve transparency. After implementation in March 2010, this resulted in improved rehabilitation efficiency while increasing standardization in practice and transparency in LOS determination.

Lidal *et al.* found a prevalence of fatigue of 25% among persons who had lived with SCI for more than 20 years, similar to that in the general population. Their results point to medications and mental health aspects as possible contributors to physical fatigue severity in SCI individuals.

Gore *et al.* found high comorbidities, pain-related pharmacotherapy; healthcare resource use and costs burden among patients with SCI newly prescribed pregabalin.

Two animal experiments in this issue. Wang *et al.* found in mice that spinal cord neurons respond to ischemic stress by activation of SUMO2/3 (small ubiquitin-like modifier) conjugation. They conclude that this conjugation may define the fate of neurons exposed to a transient interruption of blood supply, and that this pathway could be a therapeutic target to increase the resistance of spinal cord neurons to transient ischemia. Ji *et al.* found, in a dog experiment, that shortening of half of a vertebral segment height will not induce SCI, while that between half and two-thirds of a vertebral segment may lead to incomplete SCI.

Mateo *et al.* found 2 main kinematic parameters characterizing tenodesis grasp movements in C6-quadruplegics: wrist flexion during reaching and wrist extension during the grasping phase, and increased movement time reflecting the time required to adjust the wrist's position in order to achieve the tenodesis grasp.

Koury *et al.* demonstrated in a comparison study between physical active and non physical active that exercise was able to reduce fat mass and increase insulin sensitivity, decreasing the cardiovascular risk in cervical SCI subjects.

Franke *et al.* showed in a follow up study in cervical SCI individuals that arm hand skilled performance improved during inpatient rehabilitation. It was then stable during the next 5 years after discharge. Persons with an incomplete lesion, high motor scores of upper extremity and no pain in the tested arm performed best.

Barry *et al.* made a retrospective review on hypertension in a large cohort of SCI Veterans and found interesting data of prevalence and of treatment. Wolfe *et al.* studied ureteroscopy with laser lithotripsy for urolithiasis in the SCI population; Awad *et al.* assessed fasting and postprandial perception of rectal distension and its correlation with symptoms in patients with spinal cord injury and neurogenic bowel dysfunction. Interesting contribution of Mathew *et al.* on engagement in occupational activities and a case report by Engel and Ferrara on obstetric outcomes.

Enjoy reading.