

Session 3: SCI Outcome Tools (Goals and Questions for Discussion):

1. Since recovery near the level of injury (i.e. within the zone of injury) may involve different mechanisms than recovery below the zone of injury, do we need separate motor/sensory and other outcome measures for each possibility?
2. What should be done to maximize the possibility of detecting a different pattern of recovery?
3. What are the outcome goals for different phases of a clinical trial program and which outcome measures are currently most useful?
4. When are SCI-specific measures of biological activity, functional improvement, quality of life, preferable to generic measures?
5. What aspects of quality of life are most salient to clinical trials, population screening, and outcome monitoring?
6. What is our capacity to detect improvement in voluntary control of autonomic functions after SCI?

Selected References

Anderson, K., Aito, S., Atkins, M., Biering-Sørensen, F., Charlifue, S., Curt, A., et al. (2008). From the 2006 NIDRR SCI measures meeting functional recovery measures for spinal cord injury: An evidence-based review for clinical practice and research. *Journal of Spinal Cord Medicine*, 31(2), 133-144.

Read, M. S., Sisto, S. A., & Ditunno, J. F. (2008). Standardized ambulation assessments following spinal cord injury. *Topics in Spinal Cord Injury Rehabilitation*, 14(1), 39-60.

Lam, T., Noonan, V. K., & Eng, J. J. (2008). A systematic review of functional ambulation outcome measures in spinal cord injury. *Spinal Cord*, 46(4), 246-254.

Marino, R. J., & Graves, D. E. (2004). Metric properties of the ASIA motor score: Subscales improve correlation with functional activities. *Archives of Physical Medicine and Rehabilitation*, 85(11), 1804-1810.

Mulcahey MJ, Hutchinson D, Kozin SH (2007). Assessment of upper limb in tetraplegic: considerations in evaluation and outcomes research. *Journal Rehabilitation Research & Development*. 44(1);91-102.

Catz A, Itzkovich M (2007). Spinal Cord Independence Measure: Comprehensive ability rating scale for the spinal cord lesion patient. *Journal Rehabilitation Research & Development* 44(1): 65-68.

Alexander MS, Biering-Sorensen F, Bodner D, Brackett N, Charlifue S, Creasey G, Dietz V, Ditunno J, Elliott S, Estores I, Cardenas D, Graves DE, Green B, Grousse A, Jackson AB, Kennelly M, Karlsson A-K, Krassioukov A, Krogh K, Linsenmeyer T, Marino R, Mathias CJ, Perkash I, Sheel W, Shilero G, Schurch B, Sonksen J, Stiens S, Wecht J, Wuermsler LA, Wyndaele J-J. International standards to document remaining autonomic function after SCI in press *Spinal Cord*

Marino RJ. (2007) Domains of outcomes in spinal cord injury for clinical trials to improve neurological function. *Journal Rehabilitation Research & Development* 44(1) 113-122.

Alexander MS, Anderson K, Biering-Sorensen F, Blight A, Brannon R, Bryce T, Creasey G, Curt A, Ditunno J, Donovan W, Ellaway P, Finnerup N, Graves D, Haynes BA, Heinemann AW, Johnston M, Katz A, Kalpakjian C, Kleitman N, Krassioukov A, Krogh K, Lammertse D, Magasi S, Mulcahey MJ, Schurch B, Sherwood A, Steeves JD, Stiens S, van Hedel H, Whiteneck G. Outcome Measures in Spinal Cord Injury: Recent Assessments and Recommendations for Future Directions In Review *Spinal Cord*

Eng JJ, Teasell RW, issue co-editors. (2007) SCIRE: Spinal Cord Injury Rehabilitation Evidence. *Topics in Spinal Cord Injury Rehabilitation* 13(1) 1-145.