Background
Spina Bifida (SB)
• Congenital failure of neural tube closure during embryonic development
• Can manifest with motor and sensory impairments of the lower limbs +/- orthopedic changes, especially of lower extremities and feet
• Ambulation and ability to transfer between surfaces are key to quality of life for persons with SB

Objectives
• Assess PITT Scale prediction of ambulation as compared to existing mobility prediction scales
• Assess PITT Scale prediction of transfer as compared to existing tools
• Existing scales: Broughton, ASIA, NSBPR scales, existing prediction scales

Methods
Chart review: 409 adults with SB, UPMC Adult Spina Bifida Clinic.

Conclusions
• PITT Scale correlates strongly with established scales to predict ambulation and transfer
• Anatomic lesion level is less accurate in predicting both motor impairment and ambulatory ability
• None of the predictive scales were able to predict Hoffer Level 2 & 3 ambulation

Significance & Next Steps
• Existing mobility assessment scales are lengthy to administer and have varying reliability across clinical conditions
• A scale that is easy to administer is needed for research and clinical care to evaluate outcomes from interventions
• PITT scale has fewer elements than existing scales and is simple to administer
• Further studies are required to evaluate content and construct validity, and ensure generalizability

References

This study was supported by the National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, Atlanta, Georgia (Grant Number DD001078)