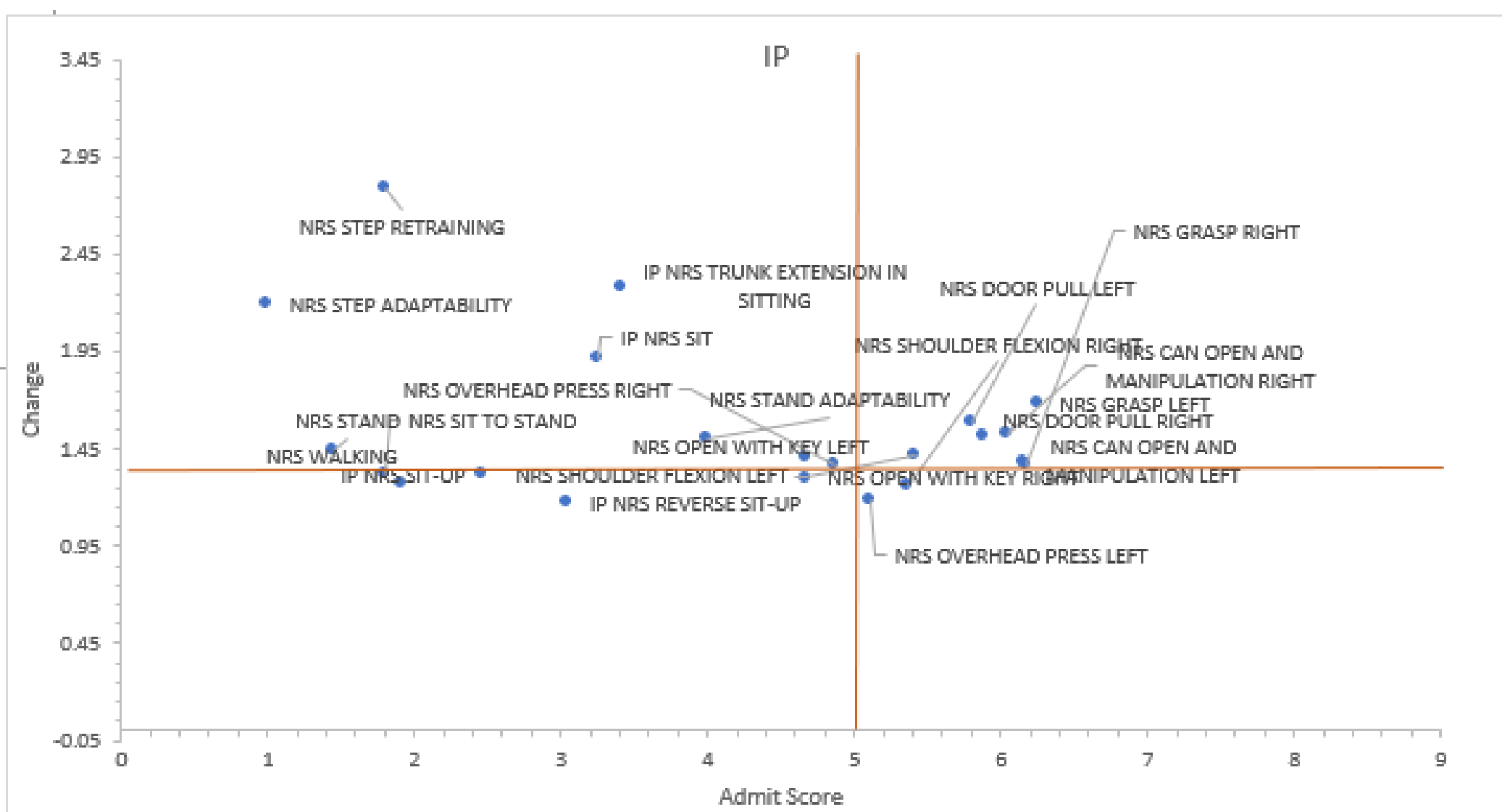


TITLE:
Practice Change using Neuromuscular Recovery Scale (NRS) Outcome Tool to Improve Clinical and Functional Performance in Patients with Spinal Cord Injury

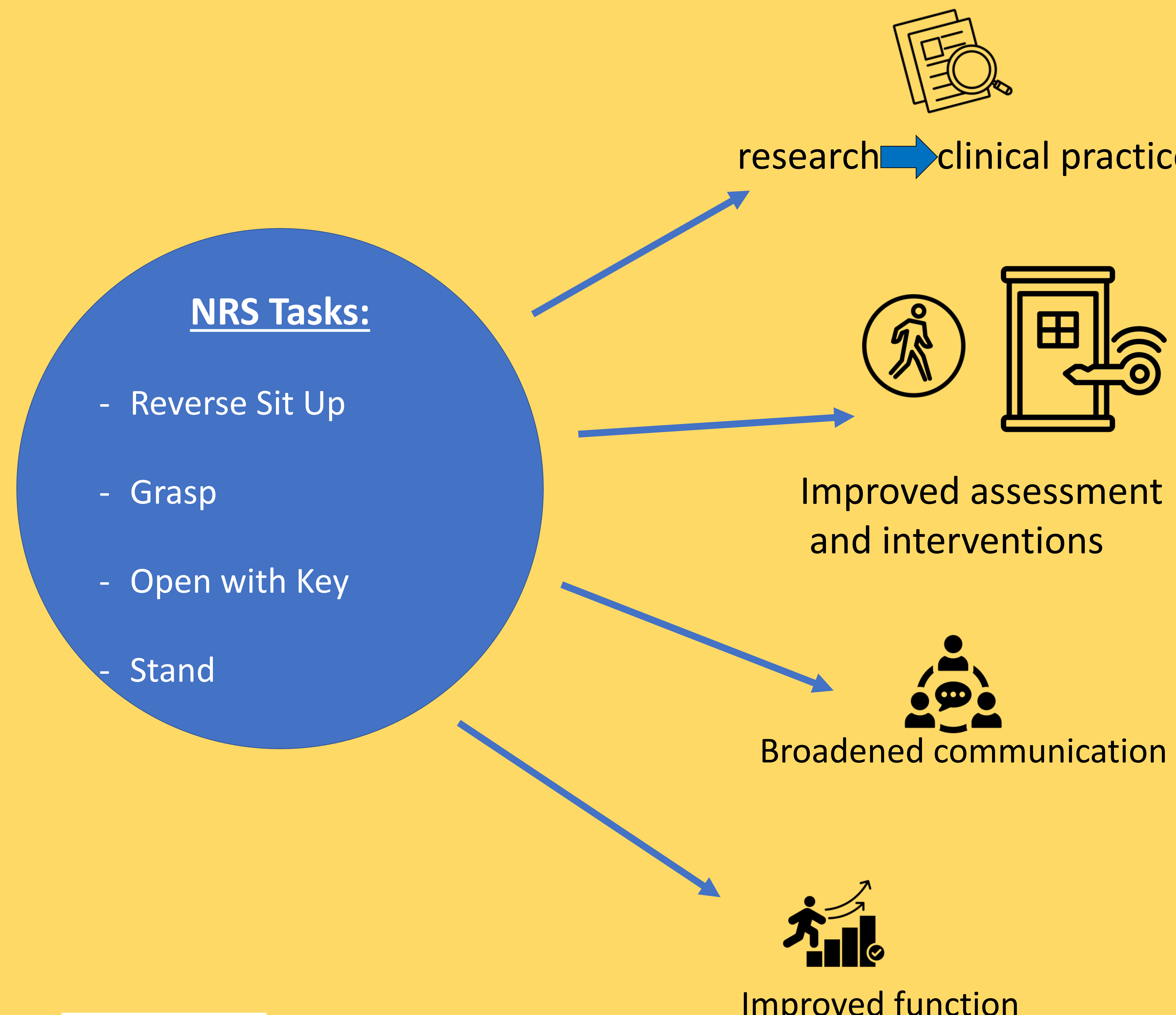
BACKGROUND:
We identified a gap in our clinical assessment and use of interventions to optimize neuroplasticity. CKRI technology guidelines were created to provide evidence-based practice. The guidelines include robotics, FES/NMES, and partial weight supported assisted gait training. Guidelines outline recommended SCI technology parameters (frequency, duration, intensity). NRS is a 16-item scale that objectively measures quality of movement without compensatory movement patterns. NRS score can be used to guide therapist on intervention focus, along with using CKRI technology guidelines to maximize motor recovery for people with spinal cord injuries.

QUALITY IMPROVEMENT DATA:



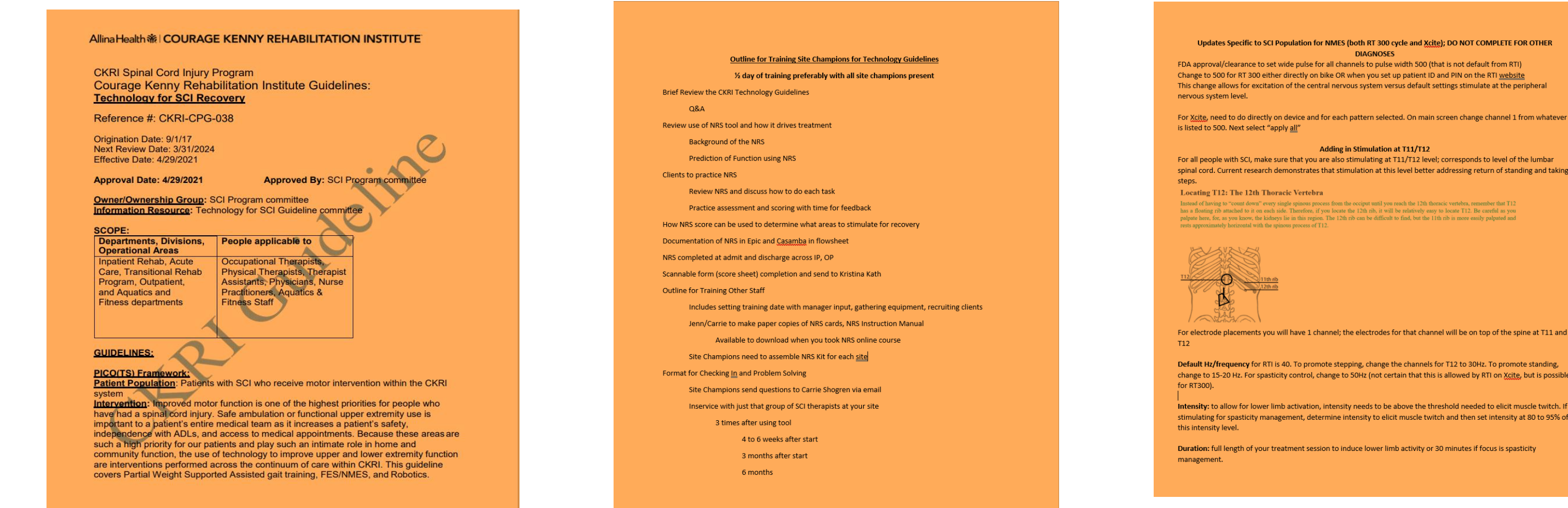
FINAL THOUGHTS:
The NRS coupled with implementing our CKRI technology guidelines has enhanced opportunities for translating research into clinical practice, fine-tuning assessment and interventions, broadening communication, and improved functional, normal patterns of movement.

People with Spinal Cord Injury Move Better when you use technology.



Take a picture to download the full paper

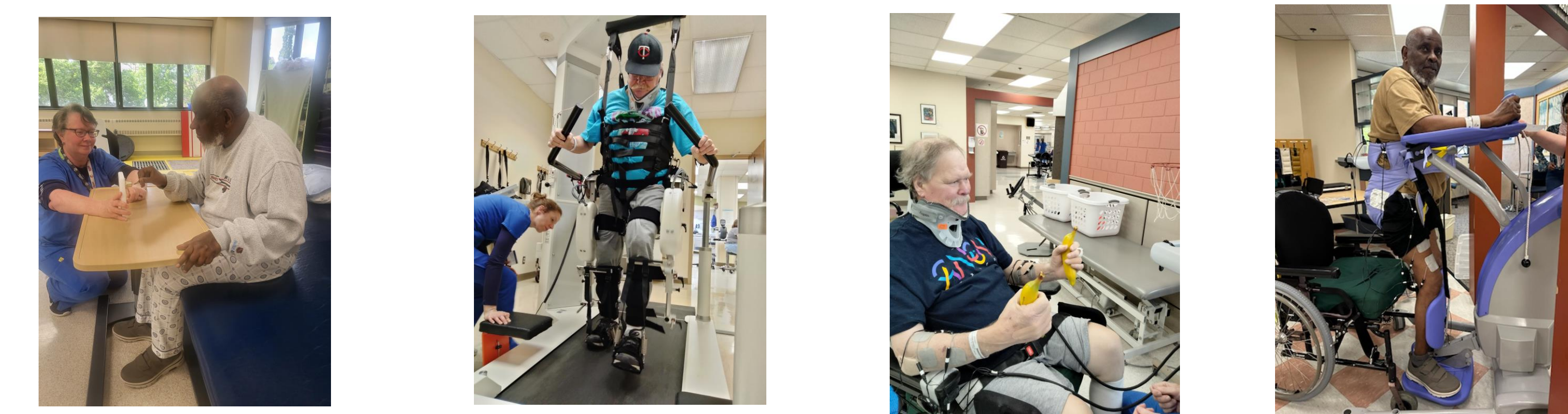
Creating and implementing guidelines



Documentation

Task	Score
Reverse Sit-Up	1A
Sit-Up	1C
Trunk Extension In Sitting	1C
Overhead Press Left	1C
Overhead Press Right	1C
Shoulder Flexion Left	1B
Shoulder Flexion Right	2B
Grasp Left	1C
Grasp Right	1C
Door Pull Left	2A
Door Pull Right	2A
Open With Key Left	1B
Open With Key Right	1B
Can Open and Manipulation Left	1C
Can Open and Manipulation Right	2A
Sit to Stand	1B
Walking	NT
Stand	NT
Stand Adaptability	NT
Step Retraining	NT
Step Adaptability	NT

Assessment and Interventions



Benefits and Challenges of Experience

“Using the NRS has been helpful to determine areas of functional impairment not easily assessed on a basic examination. Use of technologies has helped see progress more quickly in otherwise very impaired patients.”
Meagan F. (inpatient PT)

“...At...outpatient we rarely use the test because of the limited number of patients who fall in the parameters for use and how time consuming it is— [e.g. 2 full sessions for pre and post, need for additional staff to complete]....How [does] this pathway jive with the [National APTA] HIGT recommendations...—that research suggests focus on compensation and function over recovery of normalized movement (including those with incomplete SCI).”
Kim N. (outpatient PT)

“[The NRS] Provides functional assessment of most areas related to SCI (head to toe). Use of technology has provided therapy that focuses on high intensity and repetitions to maximize recovery. Challenge is finding the balance between ADLs and focus on technology.”
Sharon G-W. (inpatient OT)

“[The lokomat’s] friendly and gentle to the patient. I have decreased sensation in my left leg. It helps with strengthening, coordination. I feel like I’ve had a good workout. I think this was the most useful thing I did the first time around.”
D.B. (inpatient with cervical spinal cord injury)