STANDARD NEUROLOGICAL CLASSIFICATION
OF SPINAL CORD INJURY

Patient Name ____________________________________
Examiner Name __________________________________ Date/Time of Exam___________________

STANDARD NEUROLOGICAL CLASSIFICATION
OF SPINAL CORD INJURY

MOTOR
KEY MUSCLES
Elbow flexors
Wrist extensors
Elbow extendors
Finger flexors (dorsal phalanx of middle finger)
Finger abductors (little finger)

R L
C5
C6
C7
C8
T1

FIELD TOTAL
(MAXIMUM) 25 25 50

Sensory
KEY SENSORY POINTS

R L
C2
C3
C4
C5
C6
C7
C8
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
T12
L1
L2
L3
L4
L5
S1
S2
S3

S4-S5

Palm
Dorsum

Any anal sensation (Yes/No)
(max: 112)

PIN PRICK SCORE

LIGHT TOUCH SCORE

Voluntary anal contraction
(Yes/No)

LOWER LIMB
TOTAL
(MAXIMUM) 25 25 50

COMPUTES OR INCOMPLETE?
Incomplete = Any sensory or motor function in S4-S5

ZONE OF PARTIAL
PRESEVATION
Caudal extent of partially innervated segments

ASIA IMPAIRMENT SCALE

REV 03/06

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**MUSCLE GRADING**
0: total paralysis
1: palpable or visible contraction
2: active movement, full range of motion, gravity eliminated
3: active movement, full range of motion, against gravity
4: active movement, full range of motion, against gravity and provides some resistance
5: active movement, full range of motion, against gravity and provides normal resistance
5*: muscle able to exert, in examiner’s judgement, sufficient resistance to be considered normal if identifiable inhibiting factors were not present
NT: not testable. Patient unable to reliably exert effort or muscle unavailable for testing due to factors such as immobilization, pain on effort or contracture.

**ASIA IMPAIRMENT SCALE**

- **A = Complete**: No motor or sensory function is preserved in the sacral segments S4-S5.
- **B = Incomplete**: Sensory but not motor function is preserved below the neurological level and includes the sacral segments S4-S5.
- **C = Incomplete**: Motor function is preserved below the neurological level, and more than half of key muscles below the neurological level have a muscle grade less than 3.
- **D = Incomplete**: Motor function is preserved below the neurological level, and at least half of key muscles below the neurological level have a muscle grade of 3 or more.
- **E = Normal**: Motor and sensory function are normal.

**CLINICAL SYNDROMES (OPTIONAL)**
- Central Cord
- Brown-Sequard
- Anterior Cord
- Conus Medullaris
- Cauda Equina

**STEPS IN CLASSIFICATION**

The following order is recommended in determining the classification of individuals with SCI.

1. Determine sensory levels for right and left sides.
2. Determine motor levels for right and left sides. 
   *Note: in regions where there is no myotome to test, the motor level is presumed to be the same as the sensory level.*
3. Determine the single neurological level. 
   *This is the lowest segment where motor and sensory function is normal on both sides, and is the most cephalad of the sensory and motor levels determined in steps 1 and 2.*
4. Determine whether the injury is Complete or Incomplete (sacral sparing).
   *If voluntary anal contraction = No AND all S4-5 sensory scores = 0 AND any anal sensation = No, then injury is COMPLETE.* 
   *Otherwise injury is incomplete.*
5. Determine ASIA Impairment Scale (AIS) Grade:
   - **Is injury Complete?** If **YES**, AIS=A Record ZPP 
     (For ZPP record lowest dermatome or myotome on each side with some (non-zero score) preservation)
   - **Is injury motor incomplete?** If **NO**, AIS=B 
     (Yes=voluntary anal contraction OR motor function more than three levels below the motor level on a given side.)
   - **Are at least half of the key muscles below the (single) neurological level graded 3 or better?**
     - **NO** AIS=C
     - **YES** AIS=D

If sensation and motor function is normal in all segments, AIS=E
*Note: AIS E is used in follow up testing when an individual with a documented SCI has recovered normal function. If at initial testing no deficits are found, the individual is neurologically intact; the ASIA Impairment Scale does not apply.*