1. Has concurrent brain MRI been performed? [ ]  Yes [ ]  No
2. Have multiple timepoint spine MRIs been performed? [ ]  Yes [ ]  No, single date spine MRI
	1. If YES, how many have been performed? [ ]  2 [ ]  3 [ ]  4 [ ]  5 [ ]  6 [ ]  >6
	2. If >6 specify:

*Please fill out one form per spinal MRI date*

1. Study analysis: [ ]  Study 1 [ ]  Study 2 [ ]  Study 3 [ ]  Study 4 [ ]  Study 5 [ ]  Study 6
2. Spine segments available for interpretation on MRI (Choose all that apply):

 [ ]  Cervical [ ]  Thoracic [ ]  Lumbar

1. Magnetic field strength of scanner used:

[ ]  1.5 T [ ]  3.0 T [ ]  7.0 T [ ]  Other, specify:

1. Name of the scanner manufacturer:

**[ ]** GE **[ ]** Siemens **[ ]** Philips **[ ]** Canon **[ ]** Other, specify:

1. Sequences used: [ ]  T1-weighted [ ]  T2-weighted [ ]  Post-contrast T1 [ ]  GRE [ ]  Diffusion
2. T1-MRI sequence parameters
	1. Specify type/name of T1 sequence used:
	2. Slice orientation: [ ]  Axial [ ]  Coronal [ ]  Sagittal
	3. Slice thickness: mm
	4. Gap between slices: mm
	5. Repetition time (TR): ms
	6. Echo time (TE): ms
3. T2-MRI sequence parameters
	1. Specify type/name of T2 sequence used:
	2. Slice orientation: [ ]  Axial [ ]  Coronal [ ]  Sagittal
	3. Slice thickness: mm
	4. Gap between slices: mm
	5. Repetition time (TR): ms
	6. Echo time (TE): ms
4. Gradient echo (GE) sequence parameters (copy the following sections if parameters are different for the 2 sequences)
	1. Specify type/name of GE sequence used:
	2. Slice orientation: [ ]  Axial [ ]  Sagittal
	3. Slice thickness: mm
	4. Gap between slices: mm
	5. Repetition time (TR): ms
	6. Echo time (TE): ms
	7. Inversion time (TI): ms
5. DWI sequence parameters
	1. Type of diffusion sequence: [ ]  Single shot EPI [ ]  Multi shot EPI
	2. Slice orientation: [ ]  Axial [ ]  Sagittal
	3. Slice thickness: mm
	4. Gap between slices: mm
	5. b-value: [ ]  B0 [ ]  B1000 [ ]  Other, specify:
6. Post contrast T1WI sequence parameters
	1. Specify type/name of postcontrast T1 sequence used:
	2. Slice orientation: [ ]  Axial [ ]  Sagittal [ ]  Coronal
	3. Slice thickness: mm
	4. Gap between slices: mm
	5. Repetition time (TR): ms
	6. Echo time (TE): ms
7. Overall assessment of MRIs
	1. Reader blinded to clinical data? [ ]  Yes [ ]  No
	2. Quality of images technically satisfactory?[ ]  Yes [ ]  No [ ]  Partially (specify):­
8. Lesions found: [ ]  Cervical [ ]  Thoracic [ ]  Conus Medullaris
9. ***Cervical MRI***
	1. Cervical spine MRI normal: [ ]  Yes [ ]  No [ ]  Unknown
	2. Cord swelling/expansion: [ ]  Yes [ ]  No
	3. Cord atrophy: [ ]  Yes [ ]  No
	4. Cord lesions: [ ]  Yes [ ]  No
	5. Cord lesion levels: [ ]  C1 [ ]  C2 [ ]  C3 [ ]  C4 [ ]  C5 [ ]  C6 [ ]  C7
	6. Enhancement: [ ]  Yes [ ]  No
		1. Levels:
	7. Diffusion restricted: [ ]  Yes [ ]  No [ ]  Equivocal
		1. Levels:
	8. Nerve root enhancement: [ ]  Yes [ ]  No [ ]  Equivocal
		1. If YES, or Equivocal: [ ]  Ventral [ ]  Dorsal
	9. Primary cord lesion pattern: [ ]  Mostly gray [ ]  Mostly white [ ]  Both gray and white [ ]  Entire cross section [ ]  Indeterminate
	10. Cord white matter: [ ]  Lateral column [ ]  Posterior column
	11. Cord grey matter involvement: [ ]  Anterior horn [ ]  Posterior cord [ ]  Central gray [ ]  All gray (H sign)
	12. Presence of bright spots: [ ]  Yes [ ]  No
		1. Levels:
	13. If prior comparison MRI available: [ ]  Unchanged [ ]  Improved [ ]  Worsened [ ]  N/A
	14. Presence of cervicomedullary junction lesion: [ ] Yes[ ]  No
10. ***Thoracic MRI***
	1. Thoracic MRI normal: [ ]  Yes [ ]  No [ ]  Unknown
	2. Cord swelling/expansion: [ ]  Yes [ ]  No
	3. Cord atrophy: [ ]  Yes [ ]  No
	4. Cord lesions: [ ]  Yes [ ]  No
	5. Cord lesion levels: [ ]  T1 [ ]  T2 [ ]  T3 [ ]  T4 [ ]  T5 [ ]  T6 [ ]  T7 [ ]  T8 [ ]  T9 [ ]  T10 [ ]  T11

[ ]  T12

* 1. Enhancement: [ ]  Yes [ ]  No
		1. Levels:
	2. Diffusion restricted: [ ]  Yes [ ]  No [ ]  Equivocal
		1. Levels:
	3. Nerve root enhancement: [ ]  Yes [ ]  No [ ]  Equivocal
		1. If YES or Equivocal: [ ]  Ventral [ ]  Dorsal
	4. Primary cord lesion pattern: [ ]  Mostly gray [ ]  Mostly white [ ]  Both gray and white [ ]  Entire cross section [ ]  Indeterminate
	5. Cord white matter: [ ]  Lateral column [ ]  Posterior column
	6. Cord grey matter involvement: [ ]  Anterior horn [ ]  Posterior cord [ ]  Central gray [ ]  All gray (H sign)
	7. Presence of bright spots: [ ]  Yes [ ]  No
		1. Levels:
	8. If prior comparison MRI available: [ ]  Unchanged [ ]  Improved [ ]  Worsened [ ]  N/A
1. ***Lumbosacral MRI***
	1. Lumbosacral MRI normal: [ ]  Yes [ ]  No [ ]  Unknown
	2. Cord atrophy: [ ]  Yes [ ]  No
	3. Conus medullaris lesion: [ ]  Yes [ ]  No
	4. Conus medullaris enhancement: [ ]  Yes [ ]  No
	5. Conus medullaris diffusion restricted: [ ]  Yes [ ]  No [ ]  Equivocal
	6. Cauda equina root enhancement: [ ]  Yes [ ]  No [ ]  Equivocal
		1. If YES or Equivocal [ ]  Ventral [ ]  Dorsal
	7. If prior comparison MRI available: [ ]  Unchanged [ ]  Improved [ ]  Worsened [ ]  N/A
2. **Other incidental findings** **[ ]** Yes[ ]  No
	1. If YES, indicate type(s):

**[ ]**  Low lying conus

**[ ]** Spinal/vertebral malformation

**[ ]** Open or closeddysraphism

**[ ]** Chiari I

[ ]  Tumor, specify:

Recorder Signature: Date:

## General Instructions

This form contains data elements that are collected for spine magnetic resonance imaging. Responses to categories are obtained from health professionals performing the procedure.

Important note: All of the data elements included on this CRF Module are classified as Core (i.e., strongly recommended for all mitochondrial disease clinical studies to collect).

Please see the Data Dictionary for element classifications.

## Specific Instructions

Please see the Data Dictionary for definitions for each of the data elements included in this CRF Module.