1. Conservative Management Only (no surgical treatment offered): [ ]  Yes [ ]  No

2. Conservative Management - Duration

Length of period of conservative management (from the time of imaging diagnosis), if applicable:

3. Chiari Decompression - Suboccipital Craniectomy

Size of suboccipital craniectomy (resection of occipital bone, including posterior foramen magnum). Provide a superior-inferior and a left-right choice.

[ ]  Superior to inferior (at midline of foramen magnum) <2 cm
[ ]  Superior to inferior (at midline of foramen magnum) 2.1-3 cm
[ ]  Superior to inferior (at midline of foramen magnum) 3.1-5 cm
[ ]  Superior to inferior (at midline of foramen magnum) >5.1 cm
[ ]  Left to right <2 cm
[ ]  Left to right 2.1-3 cm
[ ]  Left to right 3.1-5 cm
[ ]  Left to right >5.1 cm

4. Chiari Decompression - Cervical Laminectomy

Removal of lamina/ae (and spinous process where appropriate) of cervical vertebra. Check all the applicable levels:

[ ]  C1
[ ]  C2
[ ]  C3
[ ]  C4
[ ]  C5

5. Chiari Decompression - C1 Laminotomy

Laminotomy (= shaving upper edge of C1 lamina, maintaining C1 arch closed)
Enter "no" if a C1 laminectomy, or no manipulation of C1 was performed instead:

[ ]  Yes
[ ]  No

6. Chiari Decompression - Intra-Operative Imaging

Use of intra-operative ultrasound or MRI to inform surgical approach:

[ ]  None
[ ]  Ultrasound - standard (B-scan real time)
[ ]  Ultrasound - color Doppler
[ ]  Intraoperative MRI

7. Chiari Decompression - Dural Technique

Surgical approach to the dura:

[ ]  Extradural only (no dural opening, may include resection of atlanto-occipital membrane)
[ ]  Dural splitting/scoring (= incision of outer layer of dura)
[ ]  Dural opening only (dura stays open at end of surgery)
[ ]  Dural augmentaion with duraplasty
[ ]  Primary durarraphy without duraplasty

8. Chiari Decompression - Operative Arachnoid Maneuver

Surgical treatment of the arachnoid:

[ ]  Arachnoid sparing (left intact)
[ ]  Arachnoid opening
[ ]  Arachnoid opening plus lysis of adhesions
[ ]  Arachnoid resection or retraction

9. Chiari Decompression - Tonsillar Reduction

Surgical manipulation of the cerebellar tonsils:

[ ]  None
[ ]  Tonsillar cauterization
[ ]  Tonsillar resection

10. Chiari Decompression - Parameters for Verification of Decompression

Visualizing obex or choroid plexus of 4th ventricle:

[ ]  Yes
[ ]  No

11. Chiari Decompression - Parameters for Verification of Decompression

Visualize lateral aspect of cervicomedullary junction/cranial or spinal nerve rootlets:

[ ]  Yes
[ ]  No

12. Chiari Decompression – Adding a 4th ventricular Stent

[ ]  Yes
[ ]  No

13. Chiari Decompression - Intra-operative finding of arachnoid veil

[ ]  Found, left closed
[ ]  Found, dissected open
[ ]  Not found

14. Chiari Decompression - Plugging of obex

[ ]  Yes
[ ]  No

15. Chiari Decompression - Dural Closure

When the dura has been opened, describe the technique for dural closure:

[ ]  No Closure (dura left open)
[ ]  Primary closure, without Duraplasty (aka Durarraphy)
[ ]  Dural augmentation with autologous graft (fascia or pericranium)
[ ]  Dural augmentation with allograft (cadaveric graft)
[ ]  Dural augmentation with biological membrane (e.g. bovine, porcine, Alloderm)
[ ]  Dural augmentation with combined graft (e.g. pericranium-GoreTex)
[ ]  Dural augmentation with synthetic graft (e.g. GoreTex)

16. Chiari Decompression - Dural Closure Supplements

After dural closure with or without graft, additional agents used to supplement closure:

[ ]  None (no supplement)
[ ]  Fibrin glue (e.g. Tisseal)
[ ]  Hydrogel (e.g. Duraseal)
[ ]  Gel foam

17. Chiari Decompressioin - Valsalva challenge

After dural closure with or without graft, was a Valsalva challenge performed to assess the integrity of the closure?

[ ]  Yes
[ ]  No

18. Chiari Decompression - Cranioplasty/Cerebelloplasty

Cranioplasty/cerebelloplasty performed during initial Chiari decompression.
Choose one or more items:

[ ]  None
[ ]  Autologous material
[ ]  Mesh (e.g. titanium)
[ ]  Bone cement (e.g. methylmethacrylate)

19. Chiari Decompression - Estimated Blood Loss

Estimated intra-operative blood loss during Chiari decompression.

Quantify the blood loss in cc:

20. Chiari Decompression - Length of Hospital Stay Post-Operatively

Number of inpatient days after Chiari decompression

Enter the number of days of the postoperative hospitalization:

21. Ventral Decompression

Ventral approach for decompression of anterior cranivertebral junction, including partial or full removal of inferior clivus, dens, anterior C1:

[ ]  Not performed
[ ]  Open Transoral approach
[ ]  Endoscopic transnasal approach

22. Operative Syrinx Treatment

Direct surgical treatment of syrinx:

[ ]  Not performed
[ ]  Syrinx drainage (e.g. needle aspiration)
[ ]  Syrinx fenestration
[ ]  Syrinx shunt – syringosubarachnoid shunt
[ ]  Syrinx shunt – syringopleural shunt
[ ]  Syrinx shunt – syringoperitoneal shunt

23. Complication, Early - Requirement for Surgical Wound Revision

Surgical wound revision required <6 months after surgery for infection, CSF leak, pseudomeningocele:

[ ]  Yes
[ ]  No

24. Complication, Early - Requirement for Revision Chiari Decompression

Suboptimal response to index Chiari decompression observed for <6 months and requiring revision Chiari Decompression:

[ ]  Yes
[ ]  No

25. Complication, Early - Requirement for Cranioplasty/Cerebelloplasty

Cranioplasty/cerebelloplasty performed for cerebellar ptosis or "slump" occurring <6 months after Chiari decompression. Choose one or more items:

[ ]  None
[ ]  Autologous material
[ ]  Mesh (e.g. titanium)
[ ]  Bone cement (e.g. methylmethacrylate)

26. Complication, Early, - Hydrocephalus and Pseudotumor-like syndrome

Diagnosed <6 months after Chiari decompression and requiring surgical intervention:

[ ]  Complication not encountered
[ ]  External ventricular drain placed temporarily, but no permanent CSF diversionary procedure was required
[ ]  CSF shunt placed (ventricular)
[ ]  CSF shunt placed (lumbar)
[ ]  Endoscopic third ventriculostomy performed

27. Complication, Late - Requirement for Revision Decompression

Surgical wound revision required ≥6 months after surgery for infection, CSF leak, pseudomeningocele, cerebellar ptosis, patulous grafts/dural ectasia:

[ ]  Yes
[ ]  No

28. Complication, Late - Requirement for Cranioplasty/Cerebelloplasty

Cranioplasty/cerebelloplasty performed for cerebellar ptosis or "slump" occurring ≥6 months after Chiari decompression. Choose one or more items:

[ ]  None
[ ]  Autologous material
[ ]  Mesh (e.g. titanium)
[ ]  Bone cement (e.g. methylmethacrylate)

29. Complication, Late - Spinal Deformity

New diagnosis of spinal deformity or progression of know spinal deformity (it requires Cobb’s angle ≥11 degrees on X-Ray):

[ ]  Yes
[ ]  No

30. Cervical or Craniocervical Fusion

Fusion of the high cervical or craniocervical region due to craniocervical instability:

[ ]  No
[ ]  Yes, occiput to C2
[ ]  Yes, occiput to C3
[ ]  Yes, occiput to C4
[ ]  Yes, occiput to C5
[ ]  Yes, occiput to below C5

31. Spinal Deformity - Thoracolumbar brace

Implementation of bracing to halt progression of spinal deformity:

[ ]  No
[ ]  Yes

If yes, indicate the number of months:

32. Spinal Deformity - Deformity Correction

Surgical stabilization or correction of spinal deformity:

[ ]  Not performed
[ ]  Yes, posterior stabilization only
[ ]  Yes, anterior stabilization only
[ ]  Yes, anterior and posterior stabilization

 If yes, indicate the highest level of the surgical stabilization:
 If yes, indicate the lowest level of the surgical stabilization:

## Instructions

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

Important note: None of the data elements included on this CRF are considered Core (i.e., strongly recommended for all studies to collect). These data elements are supplemental and should be collected on clinical trials and only if the research team considers them appropriate for their study.