

# **Neurosurgery: Radiculopathy (Cervical) Order Set**

## **Order Set: Conceptual Structure**

**Contract: VA118-16-D-1008, Task Order (TO): VA-118-16-F-1008-0007, CLIN0004AE**

**Department of Veterans Affairs (VA)**



**Knowledge Based Systems (KBS)  
Office of Informatics and Information Governance (OIIG)  
Clinical Decision Support (CDS)**

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# **Neurosurgery: Radiculopathy (Cervical) Order Set: Order Set: Conceptual Structure**

by Knowledge Based Systems (KBS), Office of Informatics and Information Governance (OIIG), and Clinical Decision Support (CDS)

Publication date 03/28/2018

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# Preface

**Table 1. Revision History**

Date	Life Cycle Event
March 28, 2018	Published
March 28, 2018	Reviewed
July 17, 2017	Created
October 31, 2017	Pre-published

**Table 2. Clinical White Paper Contributors**

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**Table 3. Artifact Identifier**

Domain	Artifact ID	Name
urn:va.gov:kbs:knart:artifact:r1	683f0f1d-fd16-509f-ab27-e2b9ba8a503f	B15

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# Artifact Applicability

**Table 4. Applicability Foci, Description and Codes**

Focus	Description	Code System Name	Code System	Code	Code System Version	Value Set	Value Set Version
PatientAgeGroup	Population 18 years old or older						

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# Models

**Table 5. Model References**

Referenced Model	Description
urn:solor.io:anf-model:1.0	VA Analysis Normal Form Model

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# Chapter 1. Medications

Based upon clinical judgment and if not otherwise contraindicated, consider initiating a new order for one or more of the following medications prior to the neurosurgery consultation.

## ☼ NSAIDs

Based upon clinical judgment and if not otherwise contraindicated, consider initiating a new order for one or more of the following medications prior to the neurosurgery consultation. NSAIDs increase the risk of serious gastrointestinal adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. The prevailing recommendations in consensus-based clinical guidelines recommend that NSAID/Cyclo-oxygenase-2 (COX-2) should be avoided in Chronic Kidney Disease (CKD).

☼ Ibuprofen 400 mg tablet oral every 6 hours as needed for back pain; may increase dose frequency to one tablet every 4 hours 100 tablets 2 refills)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression , unstructured[0]: 100 tablets 2 refills , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 4 , repetition.eventFrequency.upperBound: 6 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))->[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))->[Rx;197805 Ibuprofen 400 MG Oral Tablet] ->(410675002 |Route of administration (attribute))->[260548002 |Oral (qualifier value)] [277132007 |Therapeutic procedure (procedure)] ->(363702006 |Has focus (attribute))->[161891005 |Backache (finding)] 421026006 |Oral tablet (qualifier value)| 258703001 |day (qualifier value))

☼ Naproxen sodium 550 mg tablet oral every 12 hours as needed for back pain 100 tablets 2 refills

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression , unstructured[0]: 100 tablets 2 refills , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 12 , repetition.eventFrequency.upperBound: 12 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:"



(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))->[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))->[Rx;849431 Naproxen sodium 550 MG Oral Tablet] ->(410675002 |Route of administration (attribute))->[260548002 |Oral (qualifier value)] [277132007 |Therapeutic procedure (procedure)] ->(363702006 |Has focus (attribute))->[161891005 |Backache (finding)] 421026006 |Oral tablet (qualifier value)| 258703001 |day (qualifier value))

#### Other Analgesics

★ Acetaminophen 325 mg tablet oral two tablets every 6 hours as needed for back pain; may increase dose frequency to two tablets every 4 hours; do not take more than 10 tablets per day 100 tablets 2 refills

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression , unstructured[0]: 100 tablets 2 refills , requestedResult.lowerBound: 2 , requestedResult.upperBound: 2 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 4 , repetition.eventFrequency.upperBound: 6 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))->[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))->[Rx;313782 Acetaminophen 325 MG Oral Tablet] ->(410675002 |Route of administration (attribute))->[260548002 |Oral (qualifier value)] [277132007 |Therapeutic procedure (procedure)] ->(363702006 |Has focus (attribute))->[161891005 |Backache (finding)] 421026006 |Oral tablet (qualifier value)| 258703001 |day (qualifier value))

#### Glucocorticoids, Oral

★ Methylprednisolone 4 mg tablet oral by taper: take 6 tablets at once on day 1; on day 2 take one tablet before breakfast, one after lunch, one after dinner, and two at bedtime; on day 3 take one tablet before breakfast, one after lunch, one after dinner, and one at bedtime; on day 4 take one tablet before breakfast, one after lunch, and one at bedtime; on day 5 take one tablet before breakfast and one at bedtime; and on day 6 take one tablet before breakfast. 21 tablets 0 refills

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: By taper: take 6 tablets at once on day 1; on day 2 take one tablet before breakfast, one after lunch, one after dinner, and two at bedtime; on day 3 take one tablet before breakfast, one after lunch, one after dinner, and one at bedtime; on day 4 take one tablet before breakfast, one after lunch, and one at bedtime; on day 5 take one tablet

before breakfast and one at bedtime; and on day 6 take one tablet before breakfast , unstructured[1]: 21 tablets 0 refills" (Codes: 385644000  Requested (qualifier value)  [416118004  Administration (procedure)] ->(260686004  Method (attribute))->[129445006  Administration - action (qualifier value)] ->(363701004  Direct substance (attribute))->[Rx;259966 methylPREDNISolone 4 MG Oral Tablet] ->(410675002  Route of administration (attribute))->[260548002  Oral (qualifier value)])
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## Chapter 2. Procedures

Consider ordering the following procedures in conjunction with the neurosurgery consult. Typically for pain management, unless contraindicated for any reason, one would order glucocorticoid injection from the list below first, and if indicated, proceed to selective nerve block based on clinical outcome of patient's symptoms following completion of the series of 3 glucocorticoid injections.

- Epidural glucocorticoid injection under fluoroscopic or CT guidance per interventionist (series of three)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: per interventionist , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 3 , repetition.eventFrequency.upperBound: 3 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE"

(Codes: 385644000 |Requested (qualifier value)| [431612008 |Epidural injection using fluoroscopic guidance (procedure)] ->(260686004 |Method (attribute))->[129326001 |Injection - action (qualifier value)] ->(363701004 |Direct substance (attribute))->[116596006 |Glucocorticoid preparation (product)] 421026006 |Oral tablet (qualifier value))

- Selective nerve root block per interventionist to distinguish symptomatic level(s) following identification of compressive lesions at multiple levels on MRI or CT myelography

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: per interventionist; to distinguish symptomatic level(s) following identification of compressive lesions at multiple levels on MRI or CT myelography"

(Codes: 385644000 |Requested (qualifier value)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[1d7d2d75-b431-40d2-a4d1-d4798512c0b4 | Symptomatic compression of cervical nerve root (disorder)])

- Selective nerve root block per interventionist to distinguish symptomatic level(s) in patient with discordance between clinical symptoms and findings on MRI or CT myelography

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: per interventionist; to distinguish symptomatic level(s) in patient with discordance between clinical symptoms and findings on MRI or CT myelography , purpose[0]:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [231043002 |Local anesthetic block on spinal nerve root (procedure)] [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[1d7d2d75-b431-40d2-a4d1-d4798512c0b4 |Symptomatic compression of cervical nerve root (disorder)])

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# Chapter 3. Imaging

Consider ordering one of the following imaging studies in conjunction with the neurosurgery consult.

- ✦ X-ray cervical spine anteroposterior (AP) and lateral neck pain

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| 21613005 |Radiologic examination of cervical spine, anteroposterior and lateral (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[81680005 |Neck pain (finding)])

- ✦ MRI cervical spine without intravenous (IV) contrast (consider for: chronic neck pain, failed conservative management, candidate for surgical intervention)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: consider for: chronic neck pain, failed conservative management, candidate for surgical intervention"

(Codes: 385644000 |Requested (qualifier value)| 571891000119109 |Magnetic resonance imaging of cervical spine without contrast (procedure))

- ✦ CT cervical spine without IV contrast (consider for: chronic neck pain, failed conservative management, candidate for surgical intervention, MRI contraindicated, IV contrast contraindicated)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: consider for: chronic neck pain, failed conservative management, candidate for surgical intervention, MRI contraindicated, IV contrast contraindicated"

(Codes: 385644000 |Requested (qualifier value)| 572061000119104 |Computed tomography of cervical spine without contrast (procedure))

- ✦ CT myelography cervical spine (consider for: chronic neck pain, failed conservative management, candidate for surgical intervention, MRI contraindicated)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: consider for: chronic neck pain, failed conservative management, candidate for surgical intervention, MRI contraindicated"

(Codes: 385644000 |Requested (qualifier value)| 241590005 |Computed tomography myelogram of cervical region (procedure))

- ✦ CT myelography cervical spine (consider for: chronic neck pain, failed conservative management, candidate for surgical intervention, clinical findings discordant with MRI findings)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , unstructured[0]: consider for: chronic neck pain, failed conservative management, candidate for surgical intervention, clinical findings discordant with MRI findings"

(Codes: 385644000 |Requested (qualifier value)| 241590005 |Computed tomography myelogram of cervical region (procedure))

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# Chapter 4. Additional Consults

Consider ordering from the following consults in conjunction with the neurosurgery consult.

- Consult physical therapy to evaluate for conservative therapy for cervical radiculopathy (e.g., cervical halter traction, electrical stimulation, acupuncture, exercise instruction)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| 71318009 |Physical medicine consultation and report (procedure)| [410158009 |Physical therapy assessment (procedure)] ->(363702006 |Has focus (attribute))->[54404000 |Cervical radiculopathy (disorder)])

- Consult psychiatry to evaluate for depression and other psychological factors that may affect patient's perception of pain and ability to manage pain

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression , purpose[1]:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| bc33b934-5dd3-4742-a09d-ef2d2187bb11 |Psychiatric consultation and report (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[365396002 |Finding related to ability to cope with pain (finding)] [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[35489007 |Depressive disorder (disorder)])

- Consult social services to evaluate social factors (e.g., joblessness, homelessness, financial concerns) that may affect patient's ability to adhere to conservative treatment

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| f6368012-f67e-4dfa-af9d-2348ff364b7d |Social services consultation and report (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[fdde869a-4e82-4ea8-8de0-12d85fe9b8e8 |Finding related to ability to adhere to conservative treatment (finding)])

- Consult pain management to address modalities for treating chronic pain

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| c02723c7-8001-41b9-a41d-839a9c2034bb |Consultation for pain management and report (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[408954001 |Chronic pain control (procedure)])

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# Chapter 5. Patient Education

Consider ordering patient education in conjunction with the neurosurgery consult.

☐ Cervical radiculopathy education (level-appropriate materials on natural progression, conservative management, and procedural management)

actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

"statementType:Postcoordinated Expression topic:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [409073007 |Education (procedure)] -  
>(363702006 |Has focus (attribute)|)->[54404000 |Cervical radiculopathy (disorder)])

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# Chapter 6. Tabular List

## *Terminology Service Request (TSR) Mappings*

**Table 6.1. Terminology References**

System	Code	Display Text	References
SNOMED CT	21613005  Radiologic examination of cervical spine, anteroposterior and lateral (procedure)	Postcoordinated Expression	1
SNOMED CT	241590005  Computed tomography myelogram of cervical region (procedure)	Postcoordinated Expression	2
SNOMED CT	258703001  day (qualifier value)		3
SNOMED CT	385644000  Requested (qualifier value)	Postcoordinated Expression	17
SNOMED CT	421026006  Oral tablet (qualifier value)		4
SNOMED CT	571891000119109  Magnetic resonance imaging of cervical spine without contrast (procedure)	Postcoordinated Expression	1
SNOMED CT	572061000119104  Computed tomography of cervical spine without contrast (procedure)	Postcoordinated Expression	1
SNOMED CT	71318009  Physical medicine consultation and report (procedure)	Postcoordinated Expression	1
SNOMED CT	[231043002  Local anesthetic block on spinal nerve root (procedure)]	Postcoordinated Expression	1
SNOMED CT	[277132007  Therapeutic procedure (procedure)] ->(363702006  Has focus (attribute))->[161891005  Backache (finding)]	Postcoordinated Expression	3
SNOMED CT	[386053000  Evaluation procedure (procedure)] ->(363702006  Has focus (attribute))->[1d7d2d75-b431-40d2-a4d1-d4798512c0b4  Symptomatic compression of cervical nerve root (disorder)]	Postcoordinated Expression	2

System	Code	Display Text	References
SNOMED CT	[386053000  Evaluation procedure (procedure)] ->(363702006  Has focus (attribute))->[35489007  Depressive disorder (disorder)]	Postcoordinated Expression	1
SNOMED CT	[386053000  Evaluation procedure (procedure)] ->(363702006  Has focus (attribute))->[365396002  Finding related to ability to cope with pain (finding)]	Postcoordinated Expression	1
SNOMED CT	[386053000  Evaluation procedure (procedure)] ->(363702006  Has focus (attribute))->[408954001  Chronic pain control (procedure)]	Postcoordinated Expression	1
SNOMED CT	[386053000  Evaluation procedure (procedure)] ->(363702006  Has focus (attribute))->[81680005  Neck pain (finding)]	Postcoordinated Expression	1
SNOMED CT	[386053000  Evaluation procedure (procedure)] ->(363702006  Has focus (attribute))->[fdd-c869a-4e82-4ea8-8de0-12d85fe9b8e8  Finding related to ability to adhere to conservative treatment (finding)]	Postcoordinated Expression	1
SNOMED CT	[409073007  Education (procedure)] ->(363702006  Has focus (attribute))->[54404000  Cervical radiculopathy (disorder)]	Postcoordinated Expression	1
SNOMED CT	[410158009  Physical therapy assessment (procedure)] ->(363702006  Has focus (attribute))->[54404000  Cervical radiculopathy (disorder)]	Postcoordinated Expression	1
SNOMED CT	[416118004  Administration (procedure)] ->(260686004  Method (attribute))->[129445006  Administration - ac-	Postcoordinated Expression	1



System	Code	Display Text	References
	tion (qualifier value)] ->(363701004   Direct substance (attribute))->[Rx;197805 Ibuprofen 400 MG Oral Tablet] ->(410675002   Route of administration (attribute))->[260548002   Oral (qualifier value)]		
SNOMED CT	[416118004  Administration (procedure)] ->(260686004  Method (attribute))->[129445006  Administration - action (qualifier value)] ->(363701004   Direct substance (attribute))->[Rx;259966 methylPREDNISolone 4 MG Oral Tablet] ->(410675002  Route of administration (attribute))->[260548002   Oral (qualifier value)]	Postcoordinated Expression	1
SNOMED CT	[416118004  Administration (procedure)] ->(260686004  Method (attribute))->[129445006  Administration - action (qualifier value)] ->(363701004   Direct substance (attribute))->[Rx;313782 Acetaminophen 325 MG Oral Tablet] ->(410675002   Route of administration (attribute))->[260548002   Oral (qualifier value)]	Postcoordinated Expression	1
SNOMED CT	[416118004  Administration (procedure)] ->(260686004  Method (attribute))->[129445006  Administration - action (qualifier value)] ->(363701004   Direct substance (attribute))->[Rx;849431 Naproxen sodium 550 MG Oral Tablet] ->(410675002  Route of administration	Postcoordinated Expression	1

System	Code	Display Text	References
	(attribute))->[260548002   Oral (qualifier value)]		
SNOMED CT	[431612008  Epidural injection using fluoroscopic guidance (procedure)] ->(260686004  Method (attribute))->[129326001   Injection - action (qualifier value)] ->(363701004  Direct substance (attribute))->[116596006   Glucocorticoid preparation (product)]	Postcoordinated Expression	1
SNOMED CT	bc33b934-5d-d3-4742-a09d-ef2d2187b-b11  Psychiatric consultation and report (procedure)	Postcoordinated Expression	1
SNOMED CT	c02723c7-8001-41b9-a41d-839a9c2034bb  Consultation for pain management and report (procedure)	Postcoordinated Expression	1
SNOMED CT	f6368012-f67e-4d-fa-af9d-2348ff364b7d  Social services consultation and report (procedure)	Postcoordinated Expression	1

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# Chapter 7. Behavior Symbols

**Table 7.1. Group Organizational Behavior**

Sym- bol	Name	Definition
▶	Sentence Group	A group of related alternative actions is a sentence group if the item referenced by the action is the same in all the actions, and each action simply constitutes a different variation on how to specify the details for that item. For example, two actions that could be in a SentenceGroup are "aspirin, 500 mg, 2 times per day" and "aspirin, 300 mg, 3 times per day". In both cases, aspirin is the item referenced by the action, and the two actions represent two different options for how aspirin might be ordered for the patient. Note that a SentenceGroup would almost always have an associated selection behavior of "AtMostOne", unless it's a required action, in which case, it would be "ExactlyOne".
▷	Logical Group	A group with this behavior logically groups its sub-elements, and may be shown as a visual group to the end user, but it is not required to do so.
➤	Visual Group	Any group marked with this behavior should be displayed as a visual group to the end user.

**Table 7.2. Group Selection Behavior**

Sym- bol	Name	Definition
□	Any	Any number of the items in the group may be chosen, from zero to all.
⦿	All	All the items in the group must be selected as a single unit.
⊙	AllOrNone	All the items in the group are meant to be chosen as a single unit: either all must be selected by the end user, or none may be selected.
○	ExactlyOne	The end user must choose one and only one of the selectable items in the group. The user may not choose none of the items in the group.
⊛	AtMostOne	The end user may choose zero or at most one of the items in the group.
⦿	OneOrMore	The end user must choose a minimum of one, and as many additional as desired.

**Table 7.3. Required Behavior**

Sym- bol	Name	Definition
◆	Must	An action with this behavior must be included in the actions processed by the end user; the end user may not choose not to include this action.

Sym- bol	Name	Definition
◇	Could	An action with this behavior may be included in the set of actions processed by the end user.
➤	MustUnlessDocumented	An action with this behavior must be included in the set of actions processed by the end user, unless the end user provides documentation as to why the action was not included.

**Table 7.4. Precheck Behavior**

Sym- bol	Name	Definition
▲	Yes	An action with this behavior is one of the most frequent actions that is, or should be, included by an end user, for the particular context in which the action occurs. The system displaying the action to the end user should consider "pre-checking" such an action as a convenience for the user.
▽	No	An action with this behavior is one of the less frequent actions included by the end user, for the particular context in which the action occurs. The system displaying the actions to the end user would typically not "pre-check" such an action.

**Table 7.5. Cardinality Behavior**

Sym- bol	Name	Definition
◆	Single	An action with this behavior may only be completed once.
❖	Multiple	An action with this behavior may be repeated multiple times.

**Table 7.6. Item Flags**

Sym- bol	Name	Definition
☞	fillIn	This item, in a list entry, allows the user to enter a fill in value that is not present in the set of presented choices.

---

# Appendix A. References

This appendix contains the list of related resources and supporting documents used in creating this KNART.

## List of References

## Related Resources

[CCWP] *Neurosurgery: Radiculopathy (Cervical) Clinical Content White Paper*

[CSD] *Radiculopathy (Cervical) Conceptual Structure Document*

[KVRpt] *Neurosurgery: Radiculopathy (Cervical) KNART Validation Report*

## Supporting Evidence

[Bono 2011] Bono, Christopher M, Gary Ghiselli, Thomas J Gilbert, D. Scott Kreiner, Charles Reitman, Jeffrey T Summers, Jamie L Baisden, et al. 2011. "An Evidence-Based Clinical Guideline for the Diagnosis and Treatment of Cervical Radiculopathy from Degenerative Disorders." *The Spine Journal: Official Journal of the North American Spine Society* 11 (1): 64–72. doi:10.1016/j.spinee.2010.10.023. (link [<https://www.ncbi.nlm.nih.gov/pubmed/21168100>])

[Matz 2009] Matz, Paul G., Paul A. Anderson, Michael G. Kaiser, Langston T. Holly, Michael W. Groff, Robert F. Heary, Praveen V. Mummaneni, et al. 2009. "Introduction and Methodology: Guidelines for the Surgical Management of Cervical Degenerative Disease." *Journal of Neurosurgery. Spine* 11 (2): 101–3. doi:10.3171/2009.1.SPINE08712. (link [<https://www.ncbi.nlm.nih.gov/pubmed/19769488>])

[Kuijper 2009] Kuijper Barbara, Tans Jos Th J, Beelen Anita, Nollet Frans, Visser Marianne de. *Cervical collar or physiotherapy versus wait and see policy for recent onset cervical radiculopathy: randomised trial* *BMJ* 2009; 339 :b388 (link [<http://www.bmj.com/content/339/bmj.b3883>])

[Newman 2013] Newman, Joel S, Barbara N Weissman, Peter D Angevine, Marc Appel, Erin Arnold, Jenny T Bencardino, Ian Blair Fries, et al. 2012. *Expert Panel on Musculoskeletal Imaging. "American College of Radiology Appropriateness Criteria®: Chronic Neck Pain."* *American College of Radiology*. <https://acsearch.acr.org/docs/69426/Narrative/> (link [<https://acsearch.acr.org/docs/69426/Narrative/>])

[NLM 2017a] *IBU- ibuprofen tablet [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=24731405-219c-79b4-ecf0-7d5fbfda94ba>* (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=24731405-219c-79b4-ecf0-7d5fbfda94ba>])

[NLM 2017b] *MEDROL- methylprednisolone tablet [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=39d5270b-d957-4821-93d6-501b7b9f02d4>* (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=39d5270b-d957-4821-93d6-501b7b9f02d4>])

[NLM 2017c] *NAPROSYN- naproxen tablet; EC-NAPROSYN- naproxen tablet delayed release; NAPROSYN- naproxen suspension; ANAPROX- naproxen sodium tablet; ANAPROX DS- naproxen sodium tablet [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=68848217-03c9-4377-9be6-6f567e629129>* (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=68848217-03c9-4377-9be6-6f567e629129>])

[NLM 2017d] *Tylenol Regular Strength-acetaminophen tablet [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=68848217-03c9-4377-9be6-6f567e629129>*

*fo.cfm?setid=68848217-03c9-4377-9be6-6f567e629129* (link [https://dailymed.nlm.nih.gov/daily-med/drugInfo.cfm?setid=1622f694-4d63-4c56-8737-fae31f0ecfb7])