

Rheumatology: Psoriatic Arthritis Order Set

Order Set: Conceptual Structure

**Contract: VA118-16-D-1008, Task Order
(TO): VA-118-16-F-1008-0007, CLIN0008CA**

Department of Veterans Affairs (VA)



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

Publication date 06/20/2018

Version: 1.0

Rheumatology: Psoriatic Arthritis 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 06/20/2018

Copyright © 2018 B3 Group, Inc.

Copyright © 2018 Cognitive Medical Systems, Inc.

B3 Group, Inc.

NOTICE OF GOVERNMENT COPYRIGHT LICENSE AND UNLIMITED RIGHTS LICENSE

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Portions of this content are derivative works from content produced by Cognitive Medical Systems, Inc. licensed under the Apache License, Version 2.0.

Additional portions of this content are derivative works from content contributed by Motive Medical Intelligence Inc., under Creative Commons Attribution-ShareAlike 4.0.

Contributions from 2013-2018 were performed either by US Government employees, or under US Veterans Health Administration contracts.

US Veterans Health Administration contributions by government employees are work of the U.S. Government and are not subject to copyright protection in the United States. Portions contributed by government employees are USGovWork (17USC §105). Not subject to copyright.

See: <https://www.usa.gov/government-works>

Contribution by contractors to the US Veterans Health Administration during this period are contractually contributed under the Apache License, Version 2.0 and US Government sponsorship is acknowledged under Contract VA118-16-D-1008, Task Order VA11817F10080007.

Cognitive Medical Systems, Inc.

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License.

You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

This and related content produced by Cognitive Medical Systems, Inc. licensed under the Apache License, Version 2.0 is available at: <https://bitbucket.org/cogmedsys/hl7-kas-examples>

Additional portions of this content are derivative works from content contributed by Motive Medical Intelligence Inc., under Creative Commons Attribution-ShareAlike 4.0. <https://bitbucket.org/cogmedsys/kas-source-material>

Contributions from 2013-2018 were performed either by US Government employees, or under US Veterans Health Administration contracts.

US Veterans Health Administration contributions by government employees are work of the U.S. Government and are not subject to copyright protection in the United States. Portions contributed by government employees are USGovWork (17USC §105). Not subject to copyright. See: <https://www.usa.gov/government-works>

Contribution by contractors to the US Veterans Health Administration during this period are contractually contributed under the Apache License, Version 2.0 and US Government sponsorship is acknowledged under Contract VA118-16-D-1008-0007.

Table of Contents

| | |
|--|-----|
| Preface | v |
| Artifact Applicability | vi |
| Models | vii |
| 1. External Data Definitions | 1 |
| Definitions | 1 |
| Triggers | 3 |
| 2. Expression Definitions | 4 |
| 3. Medications | 5 |
| 4. Laboratory Tests | 9 |
| 5. Imaging and Diagnostic Studies | 12 |
| 6. Consult Request | 15 |
| 7. Patient and Caregiver Education | 17 |
| 8. Reference for Provider Use | 18 |
| 9. Tabular List | 19 |
| 10. Behavior Symbols | 24 |
| A. References | 26 |

List of Tables

| | |
|---|-----|
| 1. Revision History | v |
| 2. Clinical White Paper Contributors | v |
| 3. Artifact Identifier | v |
| 4. Applicability Foci, Description and Codes | vi |
| 5. Model References | vii |
| 1.1. cReactiveProteinLab | 1 |
| 1.2. cReactiveProteinLabPerformance | 1 |
| 1.3. erythrocyteSedimentationRateLab | 1 |
| 1.4. erythrocyteSedimentationRateLabPerformance | 1 |
| 1.5. completeBloodCountLab | 1 |
| 1.6. completeBloodCountLabPerformance | 1 |
| 1.7. completeMetabolicPanelLab | 2 |
| 1.8. completeMetabolicPanelLabPerformance | 2 |
| 1.9. rheumatoidFactorLab | 2 |
| 1.10. rheumatoidFactorLabPerformance | 2 |
| 1.11. antiCyclicCitruUinatedPeptideAntibodyLab | 2 |
| 1.12. antiCyclicCitruUinatedPeptideAntibodyLabPerformance | 2 |
| 1.13. humanLeukocyteAntigenB27Lab | 2 |
| 1.14. humanLeukocyteAntigenB27LabPerformance | 3 |
| 1.15. uricAcidLab | 3 |
| 1.16. uricAcidLabPerformance | 3 |
| 9.1. Terminology Versions | 19 |
| 9.2. Terminology References | 19 |
| 10.1. Group Organizational Behavior | 24 |
| 10.2. Group Selection Behavior | 24 |
| 10.3. Required Behavior | 24 |
| 10.4. Precheck Behavior | 25 |
| 10.5. Cardinality Behavior | 25 |
| 10.6. Item Flags | 25 |
| 10.7. Read Only Behavior | 25 |

Preface

Table 1. Revision History

| Date | Life Cycle Event |
|-------------------|------------------|
| June 20, 2018 | Published |
| June 6, 2018 | Published |
| May 1, 2018 | Published |
| May 1, 2018 | Reviewed |
| March 28, 2018 | Reviewed |
| January 5, 2018 | Created |
| December 15, 2017 | Pre-published |

Table 2. Clinical White Paper Contributors

| Name | Role | Affiliation |
|-------------------|--------|---|
| Amy Joseph, MD | Author | Chief of Rheumatology, St Louis VA Medical Center (VAMC), 915 N. Grand, St. Louis, MO 63106 Professor of Medicine, Washington University School of Medicine |
| John Richards, MD | Author | Chief of Rheumatology, Pittsburgh VAMC, University Drive C, Pittsburgh, PA 15240 Clinical Professor Medicine, University of Pittsburgh |

Table 3. Artifact Identifier

| Domain | Artifact ID | Name |
|----------------------------------|--------------------------------------|------|
| urn:va.gov:kbs:knart:artifact:r1 | d41ea9b1-89ab-55ac-885a-1e399ae4c3e3 | O23 |

Artifact Applicability

Table 4. Applicability Foci, Description and Codes

| Focus | Description | Code System | Code | Value Set | Value Set Version |
|-----------------|----------------------------------|-------------|--|-----------|-------------------|
| PatientAgeGroup | Population 18 years old or older | SNOMED CT | 133936004 Adult (person) | N/A | N/A |
| TargetUser | Primary Care | SNOMED CT | 453231000124104 Primary care provider (occupation) | N/A | N/A |
| ClinicalVenue | Outpatient | SNOMED CT | 33022008 Hospital-based outpatient department (environment) | N/A | N/A |

Models

Table 5. Model References

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

Chapter 1. External Data Definitions

Definitions

Table 1.1. cReactiveProteinLab

| |
|---|
| Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=topic, dateProperty=dateTime |
| Annotation: |
| Codes: elm:element[elm:Code]: [55235003 C-reactive protein measurement (procedure)] |
| dateRange[elm:Interval] low: elm:Add(elm:Today() elm:Quantity(-3 Month)) |
| high: elm:Today() |

Table 1.2. cReactiveProteinLabPerformance

| |
|--|
| Expression: type=elm:Query |
| Annotation: C-reactive protein |
| Codes: elm:operand[elm:Code]: [398166005 Performed (qualifier value)] |

Table 1.3. erythrocyteSedimentationRateLab

| |
|---|
| Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=topic, dateProperty=dateTime |
| Annotation: Erythrocyte sedimentation rate |
| Codes: elm:element[elm:Code]: [416838001 Erythrocyte sedimentation rate measurement (procedure)] |
| dateRange[elm:Interval] low: elm:Add(elm:Today() elm:Quantity(-3 Month)) |
| high: elm:Today() |

Table 1.4. erythrocyteSedimentationRateLabPerformance

| |
|--|
| Expression: type=elm:Query |
| Annotation: |
| Codes: elm:operand[elm:Code]: [398166005 Performed (qualifier value)] |

Table 1.5. completeBloodCountLab

| |
|--|
| Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=code, dateProperty=dateTime |
| Annotation: |
| Codes: elm:element[elm:Code]: [26604007 Complete blood count (procedure)] |
| dateRange[elm:Interval] low: elm:Add(elm:Today() elm:Quantity(-3 Month)) |
| high: elm:Today() |

Table 1.6. completeBloodCountLabPerformance

| |
|----------------------------|
| Expression: type=elm:Query |
|----------------------------|

Annotation:
Codes: elm:operand[elm:Code]: [398166005 |Performed (qualifier value)]

Table 1.7. completeMetabolicPanelLab

Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=code, dateProperty=dateTime
Annotation:
Codes: elm:element[elm:Code]: [85acf077-d744-48bc-b57a-fa3b5ce12d97 |Complete metabolic profile (procedure)]
dateRange[elm:Interval] low: elm:Add(elm:Today() elm:Quantity(-3 Month))
high: elm:Today()

Table 1.8. completeMetabolicPanelLabPerformance

Expression: type=elm:Query
Annotation:
Codes: elm:operand[elm:Code]: [398166005 |Performed (qualifier value)]

Table 1.9. rheumatoidFactorLab

Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=topic
Annotation:
Codes: elm:element[elm:Code]: [54921001 |Rheumatoid factor measurement (procedure)]

Table 1.10. rheumatoidFactorLabPerformance

Expression: type=elm:Query
Annotation:
Codes: elm:operand[elm:Code]: [398166005 |Performed (qualifier value)]

Table 1.11. antiCyclicCitrullinatedPeptideAntibodyLab

Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=topic
Annotation:
Codes: elm:element[elm:Code]: [408200008 |Anti-cyclic citrullinated peptide antibody level (procedure)]

Table 1.12. antiCyclicCitrullinatedPeptideAntibodyLabPerformance

Expression: type=elm:Query
Annotation:
Codes: elm:operand[elm:Code]: [398166005 |Performed (qualifier value)]

Table 1.13. humanLeukocyteAntigenB27Lab

Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=topic

Annotation:

Codes: elm:element[elm:Code]: [314096001 |Human leukocyte antigen B27 screening test (procedure)]

Table 1.14. humanLeukocyteAntigenB27LabPerformance

Expression: type=elm:Query

Annotation:

Codes: elm:operand[elm:Code]: [398166005 |Performed (qualifier value)]

Table 1.15. uricAcidLab

Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=topic

Annotation:

Codes: elm:element[elm:Code]: [86228006 |Uric acid measurement (procedure)]

Table 1.16. uricAcidLabPerformance

Expression: type=elm:Query

Annotation:

Codes: elm:operand[elm:Code]: [398166005 |Performed (qualifier value)]

Triggers

No trigger definitions are present.

Chapter 2. Expression Definitions

No expression definitions are present.

Chapter 3. Medications

Consider one of the following medications for alleviation of pain

★ Ibuprofen 600 mg tablet oral every 6 hours as needed for pain 120 tablets 0 refills routine

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

statementType: Precoordinated Expression 385644000 |
Requested (qualifier value)|

topic: Postcoordinated Expression [416118004 |Administration
(procedure)] ->(260686004 |Method (attribute))->[129445006 |
Administration - action (qualifier value)] ->(363701004 |Direct
substance (attribute))->[Rx;197806 Ibuprofen 600 MG Oral
Tablet] ->(410675002 |Route of administration (attribute))-
>[260548002 |Oral (qualifier value)]

unstructured[0]: 120 tablets 0 refills

purpose[0]: Postcoordinated Expression [277132007 |
Therapeutic procedure (procedure)] ->(363702006 |Has focus
(attribute))->[22253000 |Pain (finding)]

requestedResult.lowerBound: 1

requestedResult.upperBound: 1

requestedResult.includeLowerBound: true

requestedResult.includeUpperBound: true

requestedResult.measureSemantic: Precoordinated Expression
421026006 |Oral tablet (qualifier value)|

priority: Precoordinated Expression 50811001 |Routine
(qualifier value)|

repetition[0].periodDuration.lowerBound: 30

repetition[0].periodDuration.upperBound: 30

repetition[0].periodDuration.includeLowerBound: true

repetition[0].periodDuration.includeUpperBound: true

repetition[0].periodDuration.resolution: 1

repetition[0].periodDuration.measureSemantic: Precoordinated
Expression 258703001 |day (qualifier value)|

repetition[0].eventFrequency.lowerBound: 6

repetition[0].eventFrequency.upperBound: 6

repetition[0].eventFrequency.includeLowerBound: true

repetition[0].eventFrequency.includeUpperBound: true

repetition[0].eventFrequency.measureSemantic:
Precoordinated Expression 258702006 |hour (qualifier value)|

★ Ibuprofen 800 mg tablet oral every 8 hours as needed for pain 90 tablets 0 refills routine

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

statementType: Precoordinated Expression 385644000 |
Requested (qualifier value)|

topic: Postcoordinated Expression [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))->[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))->[Rx;197807 Ibuprofen 800 MG Oral Tablet] ->(410675002 |Route of administration (attribute))->[260548002 |Oral (qualifier value)]

unstructured[0]: 90 tablets 0 refills

purpose[0]: Postcoordinated Expression [277132007 |Therapeutic procedure (procedure)] ->(363702006 |Has focus (attribute))->[22253000 |Pain (finding)]

requestedResult.lowerBound: 1

requestedResult.upperBound: 1

requestedResult.includeLowerBound: true

requestedResult.includeUpperBound: true

requestedResult.measureSemantic: Precoordinated Expression 421026006 |Oral tablet (qualifier value)|

priority: Precoordinated Expression 50811001 |Routine (qualifier value)|

repetition[0].periodDuration.lowerBound: 30

repetition[0].periodDuration.upperBound: 30

repetition[0].periodDuration.includeLowerBound: true

repetition[0].periodDuration.includeUpperBound: true

repetition[0].periodDuration.resolution: 1

repetition[0].periodDuration.measureSemantic: Precoordinated Expression 258703001 |day (qualifier value)|

repetition[0].eventFrequency.lowerBound: 8

repetition[0].eventFrequency.upperBound: 8

repetition[0].eventFrequency.includeLowerBound: true

repetition[0].eventFrequency.includeUpperBound: true

repetition[0].eventFrequency.measureSemantic: Precoordinated Expression 258702006 |hour (qualifier value)|

★ Meloxicam 15 mg tablet oral daily 1 time 30 tablets 0 refills routine

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

statementType: Precoordinated Expression 385644000 |Requested (qualifier value)|

topic: Postcoordinated Expression [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))->[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))->[Rx;152695 meloxicam 15 MG Oral Tablet] ->(410675002 |Route of administration (attribute))->[260548002 |Oral (qualifier value)]

unstructured[0]: 30 tablets 0 refills

requestedResult.lowerBound: 1

requestedResult.upperBound: 1

```

requestedResult.includeLowerBound: true
requestedResult.includeUpperBound: true
requestedResult.measureSemantic: Precoordinated Expression
421026006 |Oral tablet (qualifier value)|
priority: Precoordinated Expression 50811001 |Routine
(qualifier value)|
repetition[0].periodDuration.lowerBound: 30
repetition[0].periodDuration.upperBound: 30
repetition[0].periodDuration.includeLowerBound: true
repetition[0].periodDuration.includeUpperBound: true
repetition[0].periodDuration.resolution: 1
repetition[0].periodDuration.measureSemantic: Precoordinated
Expression 258703001 |day (qualifier value)|
repetition[0].eventFrequency.lowerBound: 1
repetition[0].eventFrequency.upperBound: 1
repetition[0].eventFrequency.includeLowerBound: true
repetition[0].eventFrequency.includeUpperBound: true
repetition[0].eventFrequency.measureSemantic:
Precoordinated Expression 258703001 |day (qualifier value)|
⊛ Naproxen 500 mg tablet oral daily 2 times as needed for pain 60 tablets 0 refills routine
actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]
statementType: Precoordinated Expression 385644000 |
Requested (qualifier value)|
topic: Postcoordinated Expression [416118004 |Administration
(procedure)] ->(260686004 |Method (attribute))->[129445006 |
Administration - action (qualifier value)] ->(363701004 |Direct
substance (attribute))->[Rx;198014 Naproxen 500 MG Oral
Tablet] ->(410675002 |Route of administration (attribute))-
>[260548002 |Oral (qualifier value)]
unstructured[0]: 60 tablets 0 refills
purpose[0]: Postcoordinated Expression [277132007 |
Therapeutic procedure (procedure)] ->(363702006 |Has focus
(attribute))->[22253000 |Pain (finding)]
requestedResult.lowerBound: 1
requestedResult.upperBound: 2
requestedResult.includeLowerBound: true
requestedResult.includeUpperBound: true
requestedResult.measureSemantic: Precoordinated Expression
421026006 |Oral tablet (qualifier value)|
priority: Precoordinated Expression 50811001 |Routine
(qualifier value)|
repetition[0].periodDuration.lowerBound: 30
repetition[0].periodDuration.upperBound: 30
repetition[0].periodDuration.includeLowerBound: true

```

| |
|---|
| repetition[0].periodDuration.includeUpperBound: true repetition[0].periodDuration.resolution: 1 repetition[0].periodDuration.measureSemantic: Precoordinated Expression 258703001 day (qualifier value) repetition[0].eventFrequency.lowerBound: 2 repetition[0].eventFrequency.upperBound: 2 repetition[0].eventFrequency.includeLowerBound: true repetition[0].eventFrequency.includeUpperBound: true repetition[0].eventFrequency.measureSemantic: Precoordinated Expression 258703001 day (qualifier value) |
|---|

Chapter 4. Laboratory Tests

| | |
|--|---|
| | <p>Laboratory Studies</p> <p>The following laboratory studies will display below for you to order only if the patient has not had the study done in the last 3 months: Complete Blood Count, Complete Metabolic Panel, C-reactive protein, Erythrocyte Sedimentation Rate.</p> <hr/> <p>Condition:elm:Not (elm:Exists(completeBloodCountLabPerformance))</p> <p># Complete blood count 1 time routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p style="padding-left: 40px;">topic: Precoordinated Expression 26604007 Complete blood count (procedure) </p> <p style="padding-left: 40px;">priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p>Condition:elm:Not (elm:Exists(completeMetabolicPanelLabPerformance))</p> <p># Complete metabolic panel 1 time routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p style="padding-left: 40px;">topic: Precoordinated Expression 85acf077- d744-48bc-b57a-fa3b5ce12d97 Complete metabolic profile (procedure) </p> <p style="padding-left: 40px;">priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p>Condition:elm:Not (elm:Exists(cReactiveProteinLabPerformance))</p> <p># C-reactive protein 1 time routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p style="padding-left: 40px;">topic: Precoordinated Expression 55235003 C- reactive protein measurement (procedure) </p> <p style="padding-left: 40px;">priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p>Condition:elm:Not (elm:Exists(erythrocyteSedimentationRateLabPerformance))</p> <p># Erythrocyte Sedimentation Rate</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> |
|--|---|

topic: Precoordinated Expression 416838001
|Erythrocyte sedimentation rate measurement
(procedure)|
priority: Precoordinated Expression 50811001 |
Routine (qualifier value)|

One-Time Laboratory Studies

The following laboratory studies will display below for you to order only if the patient has never had this study done at any time in the past: Anti-cyclic citrullinated peptide, Human Leukocyte antigen B27, Rheumatoid factor, Serum Uric Acid.

Condition:elm:Not
(elm:Exists(antiCyclicCitrullinatedPeptideAntibodyLabPerformance))

Anti-cyclic citrullinated peptide 1 time routine

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

statementType: Precoordinated Expression
385644000 |Requested (qualifier value)|
topic: Precoordinated Expression 408200008 |
Anti-cyclic citrullinated peptide antibody level
(procedure)|
priority: Precoordinated Expression 50811001 |
Routine (qualifier value)|

Condition:elm:Not
(elm:Exists(humanLeukocyteAntigenB27LabPerformance))

Human leukocyte antigen B27 1 time routine

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

statementType: Precoordinated Expression
385644000 |Requested (qualifier value)|
topic: Precoordinated Expression 314096001
|Human leukocyte antigen B27 screening test
(procedure)|
priority: Precoordinated Expression 50811001 |
Routine (qualifier value)|

Condition:elm:Not (elm:Exists(rheumatoidFactorLabPerformance))

Rheumatoid factor 1 time routine

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

statementType: Precoordinated Expression
385644000 |Requested (qualifier value)|
topic: Precoordinated Expression 54921001 |
Rheumatoid factor measurement (procedure)|
priority: Precoordinated Expression 50811001 |
Routine (qualifier value)|

Condition:elm:Not (elm:Exists(uricAcidLabPerformance))

Uric acid 1 time routine

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

| | | |
|--|--|--|
| | | <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) topic: Precoordinated Expression 86228006 Uric acid measurement (procedure) priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> |
|--|--|--|

Chapter 5. Imaging and Diagnostic Studies

To avoid unnecessary imaging, please order imaging for only the most severely affected joints based upon history and clinical examination.

| | |
|--|---|
| | X-ray symptomatic joints to evaluate for possible psoriatic arthritis, routine |
| | <p># X-ray Hand-Left to evaluate for possible psoriatic arthritis, routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Postcoordinated Expression [363680008 Radiographic imaging procedure (procedure)]- ->(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))->[85562004 Hand structure (body structure)]- ->(272741003 Laterality (attribute))->[7771000 Left (qualifier value)];</p> <p>purpose[0]: Postcoordinated Expression [386053000 Evaluation procedure (procedure)]- ->(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)]</p> <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p># X-ray Hand-Right to evaluate for possible psoriatic arthritis, routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Postcoordinated Expression [363680008 Radiographic imaging procedure (procedure)]- ->(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))->[85562004 Hand structure (body structure)]- ->(272741003 Laterality (attribute))->[24028007 Right (qualifier value)];</p> <p>purpose[0]: Postcoordinated Expression [386053000 Evaluation procedure (procedure)]- ->(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)]</p> <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p># X-ray Foot-Left to evaluate for possible psoriatic arthritis, routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> |

| | |
|--|--|
| | <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Postcoordinated Expression [363680008 Radiographic imaging procedure (procedure)]- - >(260686004 Method (attribute))>[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))>[56459004 Foot structure (body structure)]- ->(272741003 Laterality (attribute))>[7771000 Left (qualifier value)];</p> <p>purpose[0]: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> |
| # X-ray Foot-Right to evaluate for possible psoriatic arthritis, routine | |
| actionSentence[type=elm:Instance, classType=anf:ClinicalStatement] | <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Postcoordinated Expression [363680008 Radiographic imaging procedure (procedure)]- - >(260686004 Method (attribute))>[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))>[56459004 Foot structure (body structure)]- ->(272741003 Laterality (attribute))>[24028007 Right (qualifier value)];</p> <p>purpose[0]: Postcoordinated Expression [386053000 Evaluation procedure (procedure)]- ->(363702006 Has focus (attribute))- >[156370009 Psoriatic arthritis (disorder)]</p> <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> |
| # X-ray Knee-Left to evaluate for possible psoriatic arthritis, routine | |
| actionSentence[type=elm:Instance, classType=anf:ClinicalStatement] | <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Postcoordinated Expression [363680008 Radiographic imaging procedure (procedure)]- - >(260686004 Method (attribute))>[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))>[49076000 Knee joint structure (body structure)]- ->(272741003 Laterality (attribute))>[7771000 Left (qualifier value)];</p> <p>purpose[0]: Postcoordinated Expression [386053000 Evaluation procedure (procedure)]- ->(363702006 Has focus (attribute))- >[156370009 Psoriatic arthritis (disorder)]</p> |

| | |
|--|--|
| | <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p># X-ray Knee-right to evaluate for possible psoriatic arthritis, routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Postcoordinated Expression [363680008 Radiographic imaging procedure (procedure)]- ->(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))->[49076000 Knee joint structure (body structure)]- ->(272741003 Laterality (attribute))->[24028007 Right (qualifier value)];</p> <p>purpose[0]: Postcoordinated Expression [386053000 Evaluation procedure (procedure)]- ->(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)]</p> <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p># X-ray Other to evaluate for possible psoriatic arthritis, routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Precoordinated Expression TSR-NoCode</p> <p>purpose[0]: Postcoordinated Expression [386053000 Evaluation procedure (procedure)]- ->(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)]</p> <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> <p>The following should be ordered for patients with complaint of low back pain.</p> <hr/> <p># X-ray sacroiliac joint to evaluate for possible psoriatic arthritis, routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p>statementType: Precoordinated Expression 385644000 Requested (qualifier value) </p> <p>topic: Precoordinated Expression 6238009 Diagnostic radiography of sacroiliac joints (procedure) </p> <p>purpose[0]: Postcoordinated Expression [386053000 Evaluation procedure (procedure)]- ->(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)]</p> <p>priority: Precoordinated Expression 50811001 Routine (qualifier value) </p> |
|--|--|

Chapter 6. Consult Request

Referral to rheumatology evaluate for possible psoriatic arthritis

prompt: Referral to rheumatology evaluate for possible psoriatic arthritis

response: Boolean (Single)

responseBinding: Property ("referToRheumatologyEvaluation")

| | |
|---|---|
| # | Condition: elm:Equal (elm:Property("referToRheumatologyEvaluation" from: elm:ParameterRef(Responses)) elm:Literal()) In order to initiate a rheumatology consult, please provide the following information. |
| # | Reason for Consult: prompt: Reason for Consult: response: String (Single) initialValue: elm:Literal (String) Suspected Psoriatic Arthritis # prompt: Goal of Consult: Would you please provide your recommendations and: response: String (Multiple) response range: EnumerationConstraint (List) ☞ item: Recommendations item: Return to PCP for therapy item: Start treatment and return to PCP for follow up and maintenance item: Start treatment, monitor for effect and when on stable therapy return to PCP item: Treat as long as necessary (or indefinitely) |
| # | Consult Specialty: Rheumatology prompt: Consult Specialty: response: String (Single) initialValue: elm:Literal (String) Rheumatology |
| # | Priority: Routine prompt: Priority: response: String (Single) initialValue: elm:Literal (String) Routine |
| # | Relevant Details: prompt: Relevant Details: response: String (Multiple) response range: EnumerationConstraint (List) item: Morning Stiffness > 1 hour ☞ item: Number of affected joints Fill in the number of affected joints item: Diagnosis of Psoriasis confirmed item: Presence of back pain that improves with use |

```

        item: Presence of joint swelling
# Obtain Referring Physician
    prompt: Obtain Referring Physician
    response: String (Single)
    response range: EnumerationConstraint (List)
        ➡ item: Obtain Referring Physician
# Obtain Referring Physician Contact Information
    prompt: Obtain Referring Physician Contact Information
    response: String (Single)
    response range: EnumerationConstraint (List)
        ➡ item: Obtain Referring Physician Contact Information
# ♦ Referral to rheumatology evaluate for possible psoriatic arthritis
actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]
    statementType: Precoordinated Expression 385644000 |Requested
    (qualifier value)|
    topic: Precoordinated Expression 306127007 |Referral to rheumatology
    service (procedure)|
    purpose[0]: Postcoordinated Expression [386053000 |Evaluation
    procedure (procedure)] ->(363702006 |Has focus (attribute))-
    >[156370009 |Psoriatic arthritis (disorder)]
    priority: Precoordinated Expression 50811001 |Routine (qualifier value)|

```

Chapter 7. Patient and Caregiver Education

Consider the following links as examples of patient educational material:

Provide "Patient/Caregiver" link to patient

([AF Arthritis Foundation link [<http://www.arthritis.org/living-with-arthritis>]
2018a])

Provide "Living with Arthritis" link to patient

([ACR American College of Rheumatology link [<https://www.rheumatology.org/I-Am-A/Patient-Caregiver>]
2018a])

Chapter 8. Reference for Provider Use

The following links contain clinical practice guidelines for education for the clinical provider.

([AF Arthritis Foundation link [<http://www.arthritis.org/>]
2018b])

([ACR American College of Rheumatology link [[https://www.rheumatology.org/Practice-Quality/
2018b\]\) Clinical-Support/Clinical-Practice-Guidelines/Psoriatic-Arthritis](https://www.rheumatology.org/Practice-Quality/Clinical-Support/Clinical-Practice-Guidelines/Psoriatic-Arthritis)]

prompt: Acknowledge?

response: Boolean (Single)

Chapter 9. Tabular List

Terminology Service Request (TSR) Mappings

Table 9.1. Terminology Versions

| Name | Identifier | Version |
|-----------|------------------------|--------------------------------|
| SNOMED CT | 2.16.840.1.113883.6.96 | United States Edition 20180301 |

Table 9.2. Terminology References

| System | Code | Display Text ^a | References ^b |
|-----------|---|----------------------------------|-------------------------|
| SNOMED CT | 133936004 Adult (person) | Population 18 years old or older | 1 |
| SNOMED CT | 258702006 hour (qualifier value) | Precoordinated Expression | 2 |
| SNOMED CT | 258703001 day (qualifier value) | Precoordinated Expression | 6 |
| SNOMED CT | 26604007 Complete blood count (procedure) | Precoordinated Expression | 2 |
| SNOMED CT | 306127007 Referral to rheumatology service (procedure) | Precoordinated Expression | 1 |
| SNOMED CT | 314096001 Human leukocyte antigen B27 screening test (procedure) | Precoordinated Expression | 2 |
| SNOMED CT | 33022008 Hospital-based outpatient department (environment) | Outpatient | 1 |
| SNOMED CT | 385644000 Requested (qualifier value) | Precoordinated Expression | 21 |
| SNOMED CT | 398166005 Performed (qualifier value) | Precoordinated Expression | 8 |
| SNOMED CT | 408200008 Anti-cyclic citrullinated peptide antibody level (procedure) | Precoordinated Expression | 2 |
| SNOMED CT | 416838001 Erythrocyte sedimentation rate measurement (procedure) | Precoordinated Expression | 2 |
| SNOMED CT | 421026006 Oral tablet (qualifier value) | Precoordinated Expression | 4 |
| SNOMED CT | 453231000124104 Primary care provider (occupation) | Primary Care | 1 |
| SNOMED CT | 50811001 Routine (qualifier value) | Precoordinated Expression | 22 |

| System | Code | Display Text ^a | References ^b |
|-----------|---|----------------------------|-------------------------|
| SNOMED CT | 54921001 Rheumatoid factor measurement (procedure) | Rheumatoid factor | 2 |
| SNOMED CT | 55235003 C-reactive protein measurement (procedure) | Precoordinated Expression | 2 |
| SNOMED CT | 6238009 Diagnostic radiography of sacroiliac joints (procedure) | Precoordinated Expression | 1 |
| SNOMED CT | 85acf077-d744-48bc-b57a-fa3b5ce12d97 Complete metabolic profile (procedure) | Precoordinated Expression | 2 |
| SNOMED CT | 86228006 Uric acid measurement (procedure) | Precoordinated Expression | 2 |
| SNOMED CT | TSR-NoCode ^c | Precoordinated Expression | 1 |
| SNOMED CT | [277132007 Therapeutic procedure (procedure)] - >(363702006 Has focus (attribute))->[22253000 Pain (finding)] | Postcoordinated Expression | 3 |
| SNOMED CT | [363680008 Radiographic imaging procedure (procedure)]- - >(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] - >(405813007 Procedure site - Direct (attribute))- >[49076000 Knee joint structure (body structure)]- ->(272741003 Laterality (attribute))->[24028007 Right (qualifier value)]; | Postcoordinated Expression | 1 |
| SNOMED CT | [363680008 Radiographic imaging procedure (procedure)]- - >(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] - >(405813007 Procedure site - Direct (attribute))- >[49076000 Knee joint structure (body structure)]- ->(272741003 Laterality (attribute))->[7771000 Left (qualifier value)]; | Postcoordinated Expression | 1 |

| System | Code | Display Text ^a | References ^b |
|-----------|--|----------------------------|-------------------------|
| SNOMED CT | [363680008 Radiographic imaging procedure (procedure)]- ->(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))->[56459004 Foot structure (body structure)]- ->(272741003 Laterality (attribute))->[24028007 Right (qualifier value)]; | Postcoordinated Expression | 1 |
| SNOMED CT | [363680008 Radiographic imaging procedure (procedure)]- ->(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))->[56459004 Foot structure (body structure)]- ->(272741003 Laterality (attribute))->[7771000 Left (qualifier value)]; | Postcoordinated Expression | 1 |
| SNOMED CT | [363680008 Radiographic imaging procedure (procedure)]- ->(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))->[85562004 Hand structure (body structure)]- ->(272741003 Laterality (attribute))->[24028007 Right (qualifier value)]; | Postcoordinated Expression | 1 |
| SNOMED CT | [363680008 Radiographic imaging procedure (procedure)]- ->(260686004 Method (attribute))->[278110001 Radiographic imaging - action (qualifier value)] ->(405813007 Procedure site - Direct (attribute))- | Postcoordinated Expression | 1 |

| System | Code | Display Text ^a | References ^b |
|-----------|---|----------------------------|-------------------------|
| | >[85562004 Hand structure (body structure)]->(272741003 Laterality (attribute))->[7771000 Left (qualifier value)]; | | |
| SNOMED CT | [386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)] | Postcoordinated Expression | 8 |
| SNOMED CT | [416118004 Administration (procedure)] ->(260686004 Method (attribute))->[129445006 Administration - action (qualifier value)] ->(363701004 Direct substance (attribute))->[Rx;152695 meloxicam 15 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;197806 Ibuprofen 600 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;197807 Ibuprofen | Postcoordinated Expression | 1 |

| System | Code | Display Text ^a | References ^b |
|-----------|---|----------------------------|-------------------------|
| | 800 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;198014 Naproxen 500 MG Oral Tablet] - >(410675002 Route of administration (attribute))- >[260548002 Oral (qualifier value)] | Postcoordinated Expression | 1 |

^aIf a code is used multiple times in the KNART, only the display text of the first instance is shown.

^bCount of the number of times the given code system and code pair is used in the KNART.

^cTSR-NoCode is a placeholder indicating a code was requested, but was not provided.

Chapter 10. Behavior Symbols

Table 10.1. Group Organizational Behavior

| Symbol | 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 10.2. Group Selection Behavior

| Symbol | 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 10.3. Required Behavior

| Symbol | 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. |
| ◇ | Could | An action with this behavior may be included in the set of actions processed by the end user. |

| Symbol | Name | Definition |
|--------|----------------------|--|
| ➤ | 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 10.4. Precheck Behavior

| Symbol | 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 10.5. Cardinality Behavior

| Symbol | 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 10.6. Item Flags

| Symbol | 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. |

Table 10.7. Read Only Behavior

| Symbol | Name | Definition |
|--------|------|--|
| # | true | For a particular action or action group, specifies whether the elements are read only. |

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] *Rheumatology: Psoriatic Arthritis Clinical Content White Paper*

[CSD] *Rheumatology: Psoriatic Arthritis Order Set Conceptual Structure Document*

[KVRpt] *Rheumatology: Psoriatic Arthritis Order Set KNART Validation Report*

[AF 2018a] Arthritis Foundation. *Living With Arthritis* / Arthritis.org [Internet]. 2018 [cited 2018 Jan 8]. Available from: <http://www.arthritis.org/living-with-arthritis/> (link [http://www.arthritis.org/living-with-arthritis])

[ACR 2018a] American College of Rheumatology. “Patient / Caregiver,” 08-Jan-2018. [Online]. Available: <https://www.rheumatology.org/I-Am-A/Patient-Caregiver>. [Accessed: 08-Jan-2018] (link [https://www.rheumatology.org/I-Am-A/Patient-Caregiver])

[AF 2018b] Arthritis Foundation. *Arthritis Foundation / Symptoms Treatments / Prevention Tips / Pain Relief Advice* [Internet]. 2018 [cited 2018 Jan 8]. Available from: <http://www.arthritis.org/> (link [http://www.arthritis.org/])

[ACR 2018b] American College of Rheumatology. *Clinical Practice Guidelines Psoriatic Arthritis* [Internet]. 2018 [cited 2018 Jan 8]. Available from: <https://www.rheumatology.org/Practice-Quality/Clinical-Support/Clinical-Practice-Guidelines/Psoriatic-Arthritis> (link [https://www.rheumatology.org/Practice-Quality/Clinical-Support/Clinical-Practice-Guidelines/Psoriatic-Arthritis])

Supporting Evidence

[Coates 2016] Coates, L. C., Kavanaugh, A., Mease, P. J., Soriano, E. R., Laura Acosta-Felquer, M., Armstrong, A. W., et al. (2016). Group for Research and Assessment of Psoriasis and Psoriatic Arthritis 2015 Treatment Recommendations for Psoriatic Arthritis. *Arthritis & Rheumatology* (Hoboken, N.J.), 68(5), 1060–1071. <https://doi.org/10.1002/art.39573> (link [https://doi.org/10.1002/art.39573])

[Coates 2013] Coates, L. C., Tillett, W., Chandler, D., Helliwell, P. S., Korendowych, E., Kyle, S., et al. BSR Clinical Affairs Committee & Standards, Audit and Guidelines Working Group and the BHPR. (2013). The 2012 BSR and BHPR guideline for the treatment of psoriatic arthritis with biologics. *Rheumatology* (Oxford, England), 52(10), 1754–1757. <https://doi.org/10.1093/rheumatology/ket187> (link [https://doi.org/10.1093/rheumatology/ket187])

[Smolen 2017] Smolen, J. S., Landewé, R., Bijlsma, J., Burmester, G., Chatzidionysiou, K., Dougados, M., ... van der Heijde, D. (2017). EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update. *Annals of the Rheumatic Diseases*, 76(6), 960–977. <https://doi.org/10.1136/annrheumdis-2016-210715> (link [https://doi.org/10.1136/annrheumdis-2016-210715])

[Mandi, 2015] Mandl, P., Navarro-Compán, V., Terslev, L., Aegerter, P., van der Heijde, D., D’Agostino, M. A., ... European League Against Rheumatism (EULAR). (2015). *EULAR recommendations for the use*

- of imaging in the diagnosis and management of spondyloarthritis in clinical practice. Annals of the Rheumatic Diseases*, 74(7), 1327–1339. <https://doi.org/10.1136/annrheumdis-2014-206971> (link [<https://doi.org/10.1136/annrheumdis-2014-206971>])
- [NLM 2017a] *National Library of Medicine. DailyMed - CELECOXIB - celecoxib capsule [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=27d813ea-7798-09cb-734b-b970d7248f1f> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=27d813ea-7798-09cb-734b-b970d7248f1f>])*
- [NLM 2017b] *National Library of Medicine. DailyMed - DICLOFENAC POTASSIUM- diclofenac potassium tablet, film coated [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=fac1f8e7-f2b4-4de3-bd5c-d798d12273c1> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=fac1f8e7-f2b4-4de3-bd5c-d798d12273c1>])*
- [NLM 2017c] *National Library of Medicine. DailyMed - ETODOLAC- etodolac capsule ETODOLAC- etodolac tablet, film coated [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=ec82b108-6a6f-4d1b-82cb-831d4ed36c80> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=ec82b108-6a6f-4d1b-82cb-831d4ed36c80>])*
- [NLM 2017d] *National Library of Medicine. DailyMed - FELDENE- piroxicam capsule [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=9d3e528b-a748-4bc5-b604-e7e9c5ab9183> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=9d3e528b-a748-4bc5-b604-e7e9c5ab9183>])*
- [NLM 2017e] *National Library of Medicine. DailyMed - FLURBIPROFEN- flurbiprofen tablet [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=f56be63c-88e4-4b78-b12d-d80e3e8b3893> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=f56be63c-88e4-4b78-b12d-d80e3e8b3893>])*
- [NLM 2017f] *National Library of Medicine. DailyMed - IBU- ibuprofen tablet [Internet]. 2018 [cited 2018 Jan 5]. 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 2017g] *National Library of Medicine. DailyMed - INDOMETHACIN - indomethacin capsule [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1e65948c-489c-4a32-65ce-60441fb23dd9> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1e65948c-489c-4a32-65ce-60441fb23dd9>])*
- [NLM 2017h] *National Library of Medicine. DailyMed - KETOPROFEN- ketoprofen capsule [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=c2c99853-1268-4998-a44b-2bf0c0b70fd2> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=c2c99853-1268-4998-a44b-2bf0c0b70fd2>])*
- [NLM 2017i] *National Library of Medicine. DailyMed - MELOXICAM- meloxicam tablet [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6513e46b-3229-685b-c83b-2209454fae71> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6513e46b-3229-685b-c83b-2209454fae71>])*
- [NLM 2017j] *National Library of Medicine. DailyMed - NABUMETONE- nabumentone tablet [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=e21f89cf-ec07-4b07-9c9b-796b0111df39> (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=e21f89cf-ec07-4b07-9c9b-796b0111df39>])*
- [NLM 2017k] *National Library of Medicine. DailyMed - NAPROSYN- naproxen tablet EC-NAPROSYN- naproxen tablet, delayed release NAPROSYN- naproxen suspension ANAPROX- naproxen sodium*

- tablet ANAPROX DS- naproxen sodium tablet [Internet]. 2018 [cited 2018 Jan 5]. 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 2017l] *National Library of Medicine. DailyMed - OXAPROZIN- oxaprozin tablet [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=d9b0ca6c-4c53-4f6e-918b-02a8c472a194> (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1622f694-4d63-4c56-8737-fae31f0ecfb7])*
- [NLM 2017m] *National Library of Medicine. DailyMed - REDICARE IBUPROFEN- ibuprofen 200mg tablet, film coated [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=45eb33f0-71e2-11d5-e054-00144ff88e88> (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=45eb33f0-71e2-11d5-e054-00144ff88e88])*
- [NLM 2017n] *National Library of Medicine. DailyMed - SULINDAC- sulindac tablet [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=d8b9d517-5dd4-4c6b-8aa0-736bce87e7b4> (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=d8b9d517-5dd4-4c6b-8aa0-736bce87e7b4])*
- [NLM 2017o] *National Library of Medicine. DailyMed - TYLENOL REGULAR STRENGTH- acetaminophen tablet [Internet]. 2018 [cited 2018 Jan 5]. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1622f694-4d63-4c56-8737-fae31f0ecfb7> (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=1622f694-4d63-4c56-8737-fae31f0ecfb7])*