

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)**

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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)

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Preface

Table 1. Revision History

Date	Life Cycle Event
March 28, 2018	Reviewed
January 5, 2018	Created
December 15, 2017	Pre-published

Table 2. Clinical White Paper Contributors

Name	Role	Affiliation
Joeseeph Amy, 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
Richards John, 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:rl	d41ea9b1-89ab-55ac-885a-1e392a4c3e3	Open

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						
TargetUser	Primary Care						
ClinicalVenue	Outpatient						

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. antiCyclicCitruUinatedPeptideAntibodyLab

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. antiCyclicCitruUinatedPeptideAntibodyLabPerformance

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)]

Chapter 2. 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:Postcoordinated Expression topic:Postcoordinated Expression , unstructured: 120 tablets 0 refills , purpose[0]: , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , priority: , repetition.periodDuration.lowerBound: 30 , repetition.periodDuration.upperBound: 30 , repetition.periodDuration.includeLowerBound: TRUE , repetition.periodDuration.includeUpperBound: TRUE , repetition.periodDuration.resolution: 1 , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 6 , 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;197806 Ibuprofen 600 MG Oral Tablet] ->(410675002 |Route of administration (attribute))->[260548002 |Oral (qualifier value)] [277132007 |Therapeutic procedure (procedure)] ->(363702006 |Has focus (attribute))->[22253000 |Pain (finding)] 421026006 |Oral tablet (qualifier value)| 50811001 |Routine (qualifier value)| 258703001 |day (qualifier value)| 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:Postcoordinated Expression topic:Postcoordinated Expression , unstructured: 90 tablets 0 refills , purpose[0]: , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , priority: , repetition.periodDuration.lowerBound: 30 , repetition.periodDuration.upperBound: 30 , repetition.periodDuration.includeLowerBound: TRUE , repetition.periodDuration.includeUpperBound: TRUE , repetition.periodDuration.resolution: 1 , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 8 , repetition.eventFrequency.upperBound: 8 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (at-

tribute))>[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)] [277132007 |Therapeutic procedure (procedure)] ->(363702006 |Has focus (attribute))>[22253000 |Pain (finding)] 421026006 |Oral tablet (qualifier value)| 50811001 |Routine (qualifier value)| 258703001 |day (qualifier value)| 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:Postcoordinated Expression topic:Postcoordinated Expression , unstructured: 30 tablets 0 refills , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , priority: , repetition.periodDuration.lowerBound: 30 , repetition.periodDuration.upperBound: 30 , repetition.periodDuration.includeLowerBound: TRUE , repetition.periodDuration.includeUpperBound: TRUE , repetition.periodDuration.resolution: 1 , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 1 , repetition.eventFrequency.upperBound: 1 , 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;152695 meloxicam 15 MG Oral Tablet] ->(410675002 |Route of administration (attribute))>[260548002 |Oral (qualifier value)] 421026006 |Oral tablet (qualifier value)| 50811001 |Routine (qualifier value)| 258703001 |day (qualifier value)| 258702006 |hour (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:Postcoordinated Expression topic:Postcoordinated Expression , unstructured: 60 tablets 0 refills , purpose[0]: , requestedResult.lowerBound: 1 , requestedResult.upperBound: 2 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic: , priority: , repetition.periodDuration.lowerBound: 30 , repetition.periodDuration.upperBound: 30 , repetition.periodDuration.includeLowerBound: TRUE , repetition.periodDuration.includeUpperBound: TRUE , repetition.periodDuration.resolution: 1 , requestedResult.measureSemantic: , repetition.eventFrequency.lowerBound: 2 , repetition.eventFrequency.upperBound: 2 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.in-

cludeUpperBound: TRUE , requestedResult.measureSemantic:"

(Codes: 385644000 |Requested (qualifier value)| [416118004
|Administration (procedure)] ->(260686004 |Method (at-
tribute))->[129445006 |Administration - action (qualifier val-
ue)] ->(363701004 |Direct substance (attribute))->[Rx;198014
Naproxen 500 MG Oral Tablet] ->(410675002 |Route of
administration (attribute))->[260548002 |Oral (qualifier
value)] [277132007 |Therapeutic procedure (procedure)] -
>(363702006 |Has focus (attribute))->[22253000 |Pain (find-
ing)] 421026006 |Oral tablet (qualifier value)| 50811001 |
Routine (qualifier value)| 258703001 |day (qualifier value)|
258702006 |hour (qualifier value))

Chapter 3. 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><input type="checkbox"/> Complete blood count 1 time routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">"statementType:Postcoordinated Expression topic:Postcoordinated Expression , priority:" (Codes: 385644000 Requested (qualifier value) 26604007 Complete blood count (procedure) 50811001 Routine (qualifier value))</p> <hr/> <p>Condition:elm:Not (elm:Exists(completeMetabolicPanelLabPerformance))</p> <p><input type="checkbox"/> Complete metabolic panel 1 time routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">"statementType:Postcoordinated Expression topic:Postcoordinated Expression , priority:" (Codes: 385644000 Requested (qualifier value) 85acf077-d744-48bc-b57a-fa3b5ce12d97 Complete metabolic profile (procedure) 50811001 Routine (qualifier value))</p> <hr/> <p>Condition:elm:Not (elm:Exists(cReactiveProteinLabPerformance))</p> <p><input type="checkbox"/> C-reactive protein 1 time routine</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">"statementType:Postcoordinated Expression topic:Postcoordinated Expression , priority:" (Codes: 385644000 Requested (qualifier value) 55235003 C-reactive protein measurement (procedure) 50811001 Routine (qualifier value))</p> <hr/> <p>Condition:elm:Not (elm:Exists(erythrocyteSedimentationRateLabPerformance))</p> <p><input type="checkbox"/> Erythrocyte Sedimentation Rate</p> <p>actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">"statementType:Postcoordinated Expression topic:Postcoordinated Expression , priority:" (Codes: 385644000 Requested (qualifier value) 416838001 Erythrocyte sedimentation rate</p>
--	---

measurement (procedure)| 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:Postcoordinated Expression
topic:Postcoordinated Expression , priority:"

(Codes: 385644000 |Requested (qualifier value)| 408200008 |Anti-cyclic citrullinated peptide antibody level (procedure)| 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:Postcoordinated Expression
topic:Postcoordinated Expression , priority:"

(Codes: 385644000 |Requested (qualifier value)| 314096001 |Human leukocyte antigen B27 screening test (procedure)| 50811001 |Routine (qualifier value)|)

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

☐ Rheumatoid factor 1 time routine

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

"statementType:Postcoordinated Expression
topic:Postcoordinated Expression , priority:"

(Codes: 385644000 |Requested (qualifier value)| 54921001 |Rheumatoid factor measurement (procedure)| 50811001 |Routine (qualifier value)|)

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

☐ Uric acid 1 time routine

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

"statementType:Postcoordinated Expression
topic:Postcoordinated Expression , priority:"

(Codes: 385644000 |Requested (qualifier value)| 86228006 |Uric acid measurement (procedure)| 50811001 |Routine (qualifier value)|)

Chapter 4. Imaging and Diagnostic Studies

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

	<p>X-ray symptomatic joints to evaluate for possible psoriatic arthritis, routine</p> <hr/> <p><input type="checkbox"/> X-ray Hand-Left to evaluate for possible psoriatic arthritis, routine actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]: , priority:"</p> <p style="padding-left: 40px;">(Codes: 385644000 Requested (qualifier value) [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)]; [386053000 Evaluation procedure (procedure)] -(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)] 50811001 Routine (qualifier value))</p> <hr/> <p><input type="checkbox"/> X-ray Hand-Right to evaluate for possible psoriatic arthritis, routine actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]: , priority:"</p> <p style="padding-left: 40px;">(Codes: 385644000 Requested (qualifier value) [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)]; [386053000 Evaluation procedure (procedure)] -(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)] 50811001 Routine (qualifier value))</p> <hr/> <p><input type="checkbox"/> X-ray Foot-Left to evaluate for possible psoriatic arthritis, routine actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]</p> <p style="padding-left: 40px;">"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose[0]: , priority:"</p>
--	---

(Codes: 385644000 |Requested (qualifier value)| [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)]; 50811001 |Routine (qualifier value)| 50811001 |Routine (qualifier value))

□ X-ray Foot-Right to evaluate for possible psoriatic arthritis, routine
actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

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

(Codes: 385644000 |Requested (qualifier value)| [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)]; [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[156370009 |Psoriatic arthritis (disorder)] 50811001 |Routine (qualifier value))

□ X-ray Knee-Left to evaluate for possible psoriatic arthritis, routine
actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

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

(Codes: 385644000 |Requested (qualifier value)| [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)]; [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[156370009 |Psoriatic arthritis (disorder)] 50811001 |Routine (qualifier value))

□ X-ray Knee-right to evaluate for possible psoriatic arthritis, routine
actionSentence[type=elm:Instance, classType=anf:ClinicalStatement]

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

(Codes: 385644000 |Requested (qualifier value)| [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)]; [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[156370009 |Psoriatic arthritis (disorder)] 50811001 |Routine (qualifier value))

☐ X-ray Other to evaluate for possible psoriatic arthritis, routine

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

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

(Codes: 385644000 |Requested (qualifier value)| TSR-NoCode [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[156370009 |Psoriatic arthritis (disorder)] 50811001 |Routine (qualifier value))

The following should be ordered for patients with complaint of low back pain.

☐ X-ray sacroiliac joint to evaluate for possible psoriatic arthritis, routine

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

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

(Codes: 385644000 |Requested (qualifier value)| 6238009 |Diagnostic radiography of sacroiliac joints (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[156370009 |Psoriatic arthritis (disorder)] 50811001 |Routine (qualifier value))

Chapter 5. Consult Request

Referral to rheumatology evaluate for possible psoriatic arthritis

prompt: Referral to rheumatology evaluate for possible psoriatic arthritis

re- Boolean (Single)

sponse:

responseBinding: Property ("referToRheumatologyEvaluation")

Condition:elm:Equal (elm:Property("referToRheumatologyEvaluation" from: elm:ParameterRef (Responses)) elm:Literal())

Reason for Consult:

prompt: Reason for Consult:

response: String (Single)

initialValue: elm:Literal (String) Suspected Psoriatic Arthritis

Goal of Consult: Would you please provide your recommendations and:

prompt: Goal of Consult: Would you please provide your recommendations and:

response: String (Multiple)

response range: EnumerationConstraint (List)

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

(Codes: 385644000 |Requested (qualifier value)| 306127007 |Referral to rheumatology service (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[156370009 |Psoriatic arthritis (disorder)] 50811001 |Routine (qualifier value)|)

Chapter 6. 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 7. 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/Clinical-Support/Clinical-Practice-Guidelines/Psoriatic-Arthritis>]

prompt: Acknowledge?

response: Boolean (Single)

Chapter 8. Tabular List

Terminology Service Request (TSR) Mappings

Table 8.1. Terminology References

System	Code	Display Text	References
SNOMED CT	258702006 hour (qualifier value)		4
SNOMED CT	258703001 day (qualifier value)		4
SNOMED CT	26604007 Complete blood count (procedure)	Postcoordinated Expression	2
SNOMED CT	306127007 Referral to rheumatology service (procedure)	Postcoordinated Expression	1
SNOMED CT	314096001 Human leukocyte antigen B27 screening test (procedure)	Postcoordinated Expression	2
SNOMED CT	385644000 Requested (qualifier value)	Postcoordinated Expression	21
SNOMED CT	398166005 Performed (qualifier value)		8
SNOMED CT	408200008 Anti-cyclic citrullinated peptide antibody level (procedure)	Postcoordinated Expression	2
SNOMED CT	416838001 Erythrocyte sedimentation rate measurement (procedure)	Postcoordinated Expression	2
SNOMED CT	421026006 Oral tablet (qualifier value)		4
SNOMED CT	50811001 Routine (qualifier value)		22
SNOMED CT	54921001 Rheumatoid factor measurement (procedure)	Rheumatoid factor	2
SNOMED CT	55235003 C-reactive protein measurement (procedure)	Postcoordinated Expression	2
SNOMED CT	6238009 Diagnostic radiography of sacroiliac joints (procedure)	Postcoordinated Expression	1
SNOMED CT	85acf077-d744-48bc-b57a-fa3b5ce12d97 Complete metabolic profile (procedure)	Postcoordinated Expression	2

System	Code	Display Text	References
SNOMED CT	86228006 Uric acid measurement (procedure)	Postcoordinated Expression	2
SNOMED CT	TSR-NoCode	Postcoordinated Expression	1
SNOMED CT	[277132007 Therapeutic procedure (procedure)] - >(363702006 Has focus (attribute))->[22253000 Pain (finding)]		3
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))->[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))->[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)]- -	Postcoordinated Expression	1

System	Code	Display Text	References
	>(272741003 Laterality (attribute))->[7771000 Left (qualifier value)];		
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	[386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))->[156370009		7

System	Code	Display Text	References
	[Psoriatic arthritis (disorder)]		
SNOMED CT	[386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))->[156370009 Psoriatic arthritis (disorder)]		1
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 800 MG Oral Tablet] ->(410675002 Route of administration (attribute))->[260548002 Oral (qualifier value)]	Postcoordinated Expression	1

System	Code	Display Text	References
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

Chapter 9. Behavior Symbols

Table 9.1. 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 9.2. 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 9.3. 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 9.4. 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 9.5. 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 9.6. 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] *Rheumatology: Psoriatic Arthritis Clinical Content White Paper*

[CSD] *Psoriatic Arthritis Conceptual Structure Document*

[KVRpt] *Psoriatic Arthritis Clinical 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/>])*

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[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

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