

Primary Care: Failed or Delayed Consults Rule

Rule: Conceptual Structure

**Contract: VA118-16-D-1008, Task Order
(TO): VA-118-16-F-1008-0007, CLIN0007BA**

Department of Veterans Affairs (VA)



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

Publication date 06/12/2018

Version: 1.0

Primary Care: Failed or Delayed Consults Rule: Rule: Conceptual Structure

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

Publication date 06/12/2018

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Preface

Table 1. Revision History

Date	Life Cycle Event
June 12, 2018	Published
April 19, 2018	Published
April 16, 2018	Reviewed
January 5, 2018	Pre-published
September 18, 2017	Created

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	fdfedf99-f760-5d18-a1d3-a4878297b972	O7

Artifact Applicability

Table 4. Applicability Foci, Description and Codes

Focus	Description	Code System	Code	Value Set	Value Set Version
PatientAgeGroup	All patients			N/A	N/A
TargetUser	Outpatient Scheduling Staff			N/A	N/A
ClinicalVenue	Outpatient			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

No externalData expression definitions are present.

Triggers

Table 1.1. appointmentCalendarAccessEvent

Trigger: type=DataEventTrigger, DataElementAccessed
Expression: type=elm:Query
Annotation: Any access to consult tracking application.
Codes: elm:value[elm:Code]: [385644000 Requested (qualifier value)]elm:value[elm:Code]: [TSR-NoCode]

Chapter 2. Expression Definitions

Table 2.1. referralRequest

Expression: type=elm:Query Annotation: A referral request exists; Codes: elm:value[elm:Code]: [398166005 Performed (qualifier value)]elm:value[elm:Code]: [416151008 Scheduled - procedure status (qualifier value)]
--

Table 2.2. consultRequest

Expression: type=elm:Query Annotation: A consult request exists; Codes: elm:value[elm:Code]: [398166005 Performed (qualifier value)]elm:value[elm:Code]: [416151008 Scheduled - procedure status (qualifier value)]

Table 2.3. referralOrder

Expression: type=elm:Query Annotation: A referral order exists; Codes: elm:value[elm:Code]: [385644000 Requested (qualifier value)]elm:value[elm:Code]: [TSR-NoCode]

Table 2.4. consultOrder

Expression: type=elm:Query Annotation: A consult order exists; Codes: elm:value[elm:Code]: [385644000 Requested (qualifier value)]elm:value[elm:Code]: [TSR-NoCode]
--

Table 2.5. encounterForReferralOrConsult

Expression: type=elm:Query Annotation: An encounter with the designated referral or consult provider Codes: elm:value[elm:Code]: [385644000 Requested (qualifier value)]elm:value[elm:Code]: [TSR-NoCode]
--

Table 2.6. encounterForReferralOrConsultNotCompleted

Expression: type=elm:Query Annotation: An encounter with the designated referral or consult provider has not been completed Codes: elm:operand[elm:Code]: [385658003 Done (qualifier value)]

Table 2.7. appointmentForReferralOrConsult

Expression: type=elm:Query Annotation: An appointment with the designated referral or consult provider

Codes: elm:value[elm:Code]: [385644000 |Requested (qualifier value)]elm:value[elm:Code]: [TSR-NoCode]

Table 2.8. appointmentForReferralOrConsultQuery

Expression: type=elm:Query
 Annotation: An appointment with the designated referral or consult provider has not been scheduled for the patient for a future date and time;
 Codes:

Table 2.9. referralOrConsultProviderHasPreferredDate

Expression: type=elm:Query
 Annotation: If the requesting provider specified a preferred date (PD) for completing the referral or consult, and the date and time of any scheduled appointment with the designated referral or consult provider exceeds the PD
 Codes:

Chapter 3. Actions

Event Condition Action (ECA) Rule: Failed or Delayed Consults

◆ The patient has been referred or a consult has been requested; A referral request exists; or A consult request exists; or A referral order exists; or A consult order exists; AND An encounter with the designated referral or consult provider has not been completed; AND EITHER An appointment with the designated referral or consult provider has not been scheduled for the patient for a future date and time; OR If the requesting provider specified a preferred date (PD) for completing the referral or consult, and the date and time of any scheduled appointment with the designated referral or consult provider exceeds the PD. Action: Notify the scheduler that the patient should be contacted and the appointment should be scheduled or rescheduled.

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

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

topic: Precoordinated Expression TSR-NoCode

Chapter 4. Tabular List

Terminology Service Request (TSR) Mappings

Table 4.1. Terminology Versions

Name	Identifier	Version
SNOMED CT	2.16.840.1.113883.6.96	United States Edition 20180301
RXNorm	2.16.840.1.113883.6.88	5-Mar-18

Table 4.2. Terminology References

System	Code	Display Text ^a	References ^b
SNOMED CT	385644000 Requested (qualifier value)	Precoordinated Expression	6
SNOMED CT	385658003 Done (qualifier value)	Precoordinated Expression	1
SNOMED CT	398166005 Performed (qualifier value)	Precoordinated Expression	2
SNOMED CT	416151008 Scheduled - procedure status (qualifier value)	Precoordinated Expression	2
SNOMED CT	TSR-NoCode ^c	Precoordinated Expression	6

^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 5. Behavior Symbols

Table 5.1. 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 5.2. 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 5.3. 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 5.4. 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 5.5. 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 5.6. 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 5.7. 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] *Primary Care: Failed or Delayed Consults Clinical Content White Paper*

[CSD] *Primary Care: Failed or Delayed Consults Rule Conceptual Structure Document*

[KVRpt] *Primary Care: Failed or Delayed Consults Rule KNART Validation Report*

Supporting Evidence

[Kaplan-Lewis, 2013] Kaplan-Lewis E, Percac-Lima S. No-show to primary care appointments: why patients do not come. *J Prim Care Community Health*. 2013;4:251-255

[Rose, 2011] Rose KD, Ross JS, Horowitz LI. Advanced access scheduling outcomes: a systematic review. *Arch Intern Med*. 2011;171(13):1150-1159

[VHA 1232(1)] U.S. Department of Veterans Affairs, Veterans Health Administration (VHA). Consult Processes and Procedures, VHA Directive 1232(1). VHA Publications website. Published August 24, 2016 Accessed from: https://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=3230, October 12, 2017 (link [https://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=3230])

[VHA 1230] U.S. Department of Veterans Affairs, Veterans Health Administration (VHA). Outpatient Scheduling Processes and Procedures, VHA Directive 1230. Published July 15, 2016 Accessed from: https://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=3218 October 12, 2017 (link [https://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=3218])

[VAIQ 7798804] U.S. Department of Veterans Affairs. Memorandum: Scheduling and consult policy updates (VAIQ# 7798804), June 5, 2017 (link [https://www.va.gov/VHApublishations/ViewPublication.asp?pub_ID=5922])