

# **Women's Health: Breast Cancer Screening Order Set**

## **Order Set: Conceptual Structure**

**Contract: VA118-16-D-1008, Task Order (TO): VA-118-16-F-1008-0007, CLIN0004AD**

**Department of Veterans Affairs (VA)**



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

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## **Women's Health: Breast Cancer Screening 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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## Table of Contents

Preface .....	v
Artifact Applicability .....	vi
Models .....	vii
1. Breast Cancer Screening .....	1
2. Tabular List .....	3
3. Behavior Symbols .....	4
A. References .....	6

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## 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
2.1. Terminology References .....	3
3.1. Group Organizational Behavior .....	4
3.2. Group Selection Behavior .....	4
3.3. Required Behavior .....	4
3.4. Precheck Behavior .....	5
3.5. Cardinality Behavior .....	5
3.6. Item Flags .....	5

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# Preface

**Table 1. Revision History**

Date	Life Cycle Event
March 27, 2018	Published
March 27, 2018	Reviewed
January 19, 2018	Created

**Table 2. Clinical White Paper Contributors**

Name	Role	Affiliation
C. Yvette Williams-Harris, MD, MPH	Author	Physician, 1670 Clairmont Rd Atlanta, GA 30033
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**Table 3. Artifact Identifier**

Domain	Artifact ID	Name
urn:va.gov:kbs:knart:artifact:r1	a9d27bc2-1096-5258-9198-f9ad4ae2430a	B31

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# Artifact Applicability

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

Focus	Description	Code System Name	Code System	Code	Code System Version	Value Set	Value Set Version
PatientAgeGroup	Female outpatients over the age of 18						
ClinicalVenue	Primary Care						
ClinicalVenue	Obstetrics/Gynecology						
ClinicalVenue	Women's Health						

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# Models

**Table 5. Model References**

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

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# Chapter 1. Breast Cancer Screening

Based upon the patient's history, provide the appropriate detail for the screening mammography order.

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☐ Perform screening mammography

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| 24623002 |Screening mammography (procedure)|)

---

☐ prompt: Brief clinical history

response: String (Single)

☐ prompt: Ordering Physician/Provider Name

response: String (Single)

☐ prompt: Ordering Physician/Provider Service/Section

response: String (Single)

☐ prompt: Ordering Physician/Provider Telephone Number

response: String (Single)

☐ prompt: Ordering Physician/Provider Pager

response: String (Single)

☐ prompt: Other Physician/Provider Name Who Should Also Receive Results

response: String (Single)

☐ prompt: Other Physician/Provider Service/Section

response: String (Single)

☐ prompt: Other Physician/Provider Telephone Number

response: String (Single)

☐ prompt: Other Physician/Provider Pager

response: String (Single)

☐ prompt: Desired date

response: Timestamp (Single)

☐ ❖ Additional views

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⊙ prompt: View

response: Code (Single)

response range: EnumerationConstraint (List)

☞ item: Additional view

⊙ Perform Additional Mamography Screening View (Specify)

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression"

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		(Codes: 385644000  Requested (qualifier value)  TSR-NoCode)
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# Chapter 2. Tabular List

## *Terminology Service Request (TSR) Mappings*

**Table 2.1. Terminology References**

System	Code	Display Text	References
SNOMED CT	24623002  Screening mammography (procedure)	Postcoordinated Expression	1
SNOMED CT	385644000  Requested (qualifier value)	Postcoordinated Expression	2
SNOMED CT	TSR-NoCode	Postcoordinated Expression	1

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# Chapter 3. Behavior Symbols

**Table 3.1. 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 3.2. 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 3.3. 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 3.4. 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 3.5. 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 3.6. 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.

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# 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] *Women's Health: Breast Cancer Screening Clinical Content White Paper*

[CSD] *Breast Cancer Screening Conceptual Structure Document*

[KVRpt] *Breast Cancer Screening KNART Validation Report*

### Supporting Evidence

[Nelson 2009] H. D. Nelson et al., "Screening for Breast Cancer A Systematic Review to Update the 2009 U.S. Preventive Services Task Force Recommendation," *Agency for Healthcare Research and Quality, USA, Jan. 2016.* (link [<https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/breast-cancer-screening>])

[Oeffinger 2015] Oeffinger, 2015. Oeffinger KC, Fontham ETH, Etzioni R, et al. *Breast Cancer Screening for Women at Average Risk: 2015 Guideline Update From the American Cancer Society. JAMA.* 2015;314(15):1599-1614 (link [<https://doi.org/10.1001/jama.2015.12783>])

[Pearlman 2017] Pearlman, 2017. Pearlman M, Jeudy M, Chelmow D. *Breast Cancer Risk Assessment and Screening in Average-Risk Women. OBSTETRICS AND GYNECOLOGY.* 2017 Jul 1;130(1):E1-6 (link [<https://doi.org/10.1097/AOG.0000000000002158>])

[ACS 2017] American Cancer Society. *American Cancer Society Breast Cancer Screening Guidelines [Internet]. 2018 [cited 2018 Jan 24].* (link [<https://www.cancer.org/health-care-professionals/american-cancer-society-prevention-early-detection-guidelines/breast-cancer-screening-guidelines.html>])