

Cardiology: Electrophysiology (EP) Supraventricular Tachycardia (SVT) Order Set

Order Set: Conceptual Structure

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Department of Veterans Affairs (VA)



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

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Cardiology: EP Arrhythmias-Supraventricular Tachycardia 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
April 2, 2018	Published
April 2, 2018	Reviewed
February 25, 2018	Reviewed
January 22, 2018	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:rl	5eea1cce-d8bb-5bc7-aafa-fb1904bf5231	B7

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	Adult outpatient needing Cardiology consult for arrhythmia evaluation						
ClinicalVenue	Primary Care Clinic						
TargetUser	Clinical Providers in Primary Care Clinic						
WorkflowSetting	Cardiology Consultation						
WorkflowTask	Ensure a minimum workup is initiated prior to a Cardiology Consultation for adult patients who present to a Primary Care Clinic for evaluation of SVT						

Models

Table 5. Model References

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

Chapter 1. Expression Definitions

Table 1.1. 12LeadElectrocardiogram

Expression: type=elm:Retrieve , dataType=anf:ClinicalStatement, codeProperty=topic, dateProperty=datetime
Annotation:
Codes: elm:element[elm:Code]: [447113005 12 lead electrocardiogram at rest (procedure)]
dateRange[elm:Interval] low: elm:Add(elm:Today() elm:Quantity(-2 Month))
high: elm:Today()

Table 1.2. 12LeadElectrocardiogramPerformance

Expression: type=elm:Query
Annotation: Resting 12-lead electrocardiogram to evaluate for arrhythmia
Codes: elm:operand[elm:Code]: [398166005 Performed (qualifier value)]

Chapter 2. Consults and Referrals

Cardiology consult order

Consider other consult modalities which may be available (e.g., e-consult or other rapidly iterative consult method. A simple consult is included here as the overarching clinical intent.

⊙ Referral to cardiology to evaluate supraventricular tachycardia

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| 183519002 |Referral to cardiology service (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))->[6456007 |Supraventricular tachycardia (disorder)])

⊙ Specific goal of the cardiology consultation (e.g., cardiology to manage patient, cardiology to risk stratify and recommend management, etc.).

⊙ prompt: Goal of cardiology consultation

response: String (Single)

Chapter 3. Imaging and ECG

Consider ordering prior to the cardiology consultation. Resting 12-lead electrocardiogram is required if it has not been obtained within the past 2 months.

Condition:elm:Not (elm:Exists(12LeadElectrocardiogramPerformance))

☐ Resting 12-lead electrocardiogram to evaluate for arrhythmia now

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

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

(Codes: 385644000 |Requested (qualifier value)| 447113005 |12 lead electrocardiogram at rest (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))>[698247007 |Cardiac arrhythmia (disorder)| 49499008 |Stat (qualifier value)|)

☐ Echocardiogram to evaluate for left ventricular function now

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

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

(Codes: 385644000 |Requested (qualifier value)| 40701008 |Echocardiography (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))>[366188009 |Finding of left ventricular function (finding)| 49499008 |Stat (qualifier value)|)

☐ X-ray chest to evaluate for heart failure now

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

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

(Codes: 385644000 |Requested (qualifier value)| 399208008 |Plain chest X-ray (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))>[84114007 |Heart failure (disorder)| 49499008 |Stat (qualifier value)|)

☐ Study for possible ablation

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , purpose:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| 252425004 |Cardiac electrophysiology (procedure)| [386053000 |Evaluation procedure (procedure)] ->(363702006 |Has focus (attribute))>233159005 |Ablation operation for arrhythmia (procedure)|)

Chapter 4. Laboratory Tests

Consider ordering the following tests to be completed prior to the cardiology consultation.

☐ Basic metabolic panel now

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

"topic:Postcoordinated Expression priority:Postcoordinated Expression"

(Codes: bd01faa8-443c-4ad6-9cb6-ea50b4d7a093 |Basic metabolic profile (procedure) 49499008 |Stat (qualifier value))

☐ Complete blood count now

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

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

(Codes: 385644000 |Requested (qualifier value)| 26604007 | Complete blood count (procedure)| 49499008 |Stat (qualifier value))

☐ Lipid panel now

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

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

(Codes: 385644000 |Requested (qualifier value)| 16254007 | Lipid panel (procedure)| 49499008 |Stat (qualifier value))

☐ Thyroid function testing now

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

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

(Codes: 385644000 |Requested (qualifier value)| 35650009 | Thyroid panel (procedure)| 49499008 |Stat (qualifier value))

☐ Troponin now

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

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

(Codes: 385644000 |Requested (qualifier value)| 105000003 | Troponin measurement (procedure)| 49499008 |Stat (qualifier value))

☐ Brain natriuretic peptide now

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

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

(Codes: 385644000 |Requested (qualifier value)| 390917008 | Brain natriuretic peptide measurement (procedure)| 49499008 |Stat (qualifier value))

☐ D-dimer now

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

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

(Codes: 385644000 |Requested (qualifier value)| 70648006 |D-dimer assay (procedure)| 49499008 |Stat (qualifier value)|)

☐ Flecainide level

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| 113086001 |Flecainide measurement (procedure)|)

Chapter 5. Medications

Based upon clinical judgement, consider initiating a new order for one or more of the following medications prior to the cardiology consultation, if not otherwise contraindicated. The clinical provider that orders the medication(s) should provide appropriate follow-up for medication management including titration as applicable and monitoring of adverse effects if any, until and unless the ordering provider establishes that the consultant specialist is going to provide ongoing medication management and surveillance.

Medications to Control Rapid Heart Rate

★ Metoprolol tartrate 50 mg tablet oral daily 2 times 60 tablets 2 refills

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression , repetition.eventFrequency.lowerBound: 2 , repetition.eventFrequency.upperBound: 2 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))>[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))>[Rx;866514 Metoprolol Tartrate 50 MG Oral Tablet] ->(410675002 |Route of administration (attribute))>[260548002 |Oral (qualifier value)] 421026006 |Oral tablet (qualifier value)| 258703001 |day (qualifier value)|)

★ Metoprolol XL (succinate) 25 mg tablet oral daily 1 time 30 tablets 2 refills

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression , repetition.eventFrequency.lowerBound: 1 , repetition.eventFrequency.upperBound: 1 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))>[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))>[Rx;866427 24 HR metoprolol succinate 25 MG Extended Release Oral Tablet] ->(410675002 |Route of administration (attribute))>[260548002 |Oral (qualifier value)] 421026006 |Oral tablet (qualifier value)| 258703001 |day (qualifier value)|)

⚙ Diltiazem 30 mg tablet oral daily 4 times 120 tablets 2 refills

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression , repetition.eventFrequency.lowerBound: 4 , repetition.eventFrequency.upperBound: 4 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))>[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))>[Rx;833217 Diltiazem Hydrochloride 30 MG Oral Tablet] ->(410675002 |Route of administration (attribute))>[260548002 |Oral (qualifier value)] 421026006 |Oral tablet (qualifier value)| 258703001 |day (qualifier value)|)

⚙ Diltiazem ER 120 mg capsule oral daily 1 time 30 capsules 2 refills

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression , repetition.eventFrequency.lowerBound: 1 , repetition.eventFrequency.upperBound: 1 , repetition.eventFrequency.includeLowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))>[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))>[Rx;830861 24 HR Diltiazem Hydrochloride 120 MG Extended Release Oral Capsule] ->(410675002 |Route of administration (attribute))>[260548002 |Oral (qualifier value)] 420692007 |Conventional release oral capsule (dose form)| 258703001 |day (qualifier value)|)

⚙ Verapamil SR 180 mg tablet oral daily 1 time 30 tablets 2 refills

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression , requestedResult.lowerBound: 1 , requestedResult.upperBound: 1 , requestedResult.includeLowerBound: TRUE , requestedResult.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression , repetition.eventFrequency.lowerBound: 1 , repetition.eventFrequency.upperBound: 1 , repetition.eventFrequency.include-

LowerBound: TRUE , repetition.eventFrequency.includeUpperBound: TRUE , requestedResult.measureSemantic:Precoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [416118004 |Administration (procedure)] ->(260686004 |Method (attribute))->[129445006 |Administration - action (qualifier value)] ->(363701004 |Direct substance (attribute))->[Rx;897640 Verapamil hydrochloride 180 MG Extended Release Oral Tablet] ->(410675002 |Route of administration (attribute))->[260548002 |Oral (qualifier value)] 421026006 |Oral tablet (qualifier value)| 258703001 |day (qualifier value))

Chapter 6. Patient and Caregiver Education

Consider the following patient education order.

☐ Provide vagal maneuver education

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

"statementType:Postcoordinated Expression topic:Postcoordinated Expression"

(Codes: 385644000 |Requested (qualifier value)| [409073007 |Education (procedure)] ->(363702006 |Has focus (attribute))->[261039008 |Valsalva maneuver (qualifier value)])

([CCWP])

Cardiology: Electrophysiology (EP) Arrhythmias Clinical Content White Paper

Chapter 7. Tabular List

Terminology Service Request (TSR) Mappings

Table 7.1. Terminology References

System	Code	Display Text	References
SNOMED CT	105000003 Troponin measurement (procedure)	Postcoordinated Expression	1
SNOMED CT	113086001 Flecainide measurement (procedure)	Postcoordinated Expression	1
SNOMED CT	16254007 Lipid panel (procedure)	Postcoordinated Expression	1
SNOMED CT	183519002 Referral to cardiology service (procedure)	Postcoordinated Expression	1
SNOMED CT	252425004 Cardiac electrophysiology (procedure)	Postcoordinated Expression	1
SNOMED CT	258703001 day (qualifier value)	Precoordinated Expression	5
SNOMED CT	26604007 Complete blood count (procedure)	Postcoordinated Expression	1
SNOMED CT	35650009 Thyroid panel (procedure)	Postcoordinated Expression	1
SNOMED CT	385644000 Requested (qualifier value)	Postcoordinated Expression	18
SNOMED CT	390917008 Brain natriuretic peptide measurement (procedure)	Postcoordinated Expression	1
SNOMED CT	398166005 Performed (qualifier value)	Precoordinated Expression	1
SNOMED CT	399208008 Plain chest X-ray (procedure)	Postcoordinated Expression	1
SNOMED CT	40701008 Echocardiography (procedure)	Postcoordinated Expression	1
SNOMED CT	420692007 Conventional release oral capsule (dose form)	Precoordinated Expression	1
SNOMED CT	421026006 Oral tablet (qualifier value)	Precoordinated Expression	4
SNOMED CT	447113005 12 lead electrocardiogram at rest (procedure)	Postcoordinated Expression	2
SNOMED CT	49499008 Stat (qualifier value)	Postcoordinated Expression	10

System	Code	Display Text	References
SNOMED CT	70648006 D-dimer assay (procedure)	Postcoordinated Expression	1
SNOMED CT	[386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))>[233159005 Ablation operation for arrhythmia (procedure)]	Postcoordinated Expression	1
SNOMED CT	[386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))>[366188009 Finding of left ventricular function (finding)]	Postcoordinated Expression	1
SNOMED CT	[386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))>[6456007 Supraventricular tachycardia (disorder)]	Postcoordinated Expression	1
SNOMED CT	[386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))>[698247007 Cardiac arrhythmia (disorder)]	Postcoordinated Expression	1
SNOMED CT	[386053000 Evaluation procedure (procedure)] ->(363702006 Has focus (attribute))>[84114007 Heart failure (disorder)]	Postcoordinated Expression	1
SNOMED CT	[409073007 Education (procedure)] ->(363702006 Has focus (attribute))>[261039008 Valsalva maneuver (qualifier value)]	Postcoordinated Expression	1
SNOMED CT	[416118004 Administration (procedure)] ->(260686004 Method (attribute))>[129445006 Administration - action (qualifier value)] ->(363701004 Direct substance (attribute))>[Rx;830861 24 HR Diltiazem Hydrochloride 120 MG Extended Release Oral Cap-	Postcoordinated Expression	1

System	Code	Display Text	References
	sule] ->(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;833217 Diltiazem Hydrochloride 30 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;866427 24 HR metoprolol succinate 25 MG Extended Release 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;866514 Metoprolol Tartrate 50 MG Oral Tablet] ->(410675002 Route of administration (attribute))->[260548002 Oral (qualifier value)]	Postcoordinated Expression	1
SNOMED CT	[416118004 Administration (procedure)] -	Postcoordinated Expression	1

System	Code	Display Text	References
	>(260686004 Method (attribute))->[129445006 Administration - action (qualifier value)] ->(363701004 Direct substance (attribute))->[Rx;897640 Verapamil hydrochloride 180 MG Extended Release Oral Tablet] ->(410675002 Route of administration (attribute))->[260548002 Oral (qualifier value)]		
SNOMED CT	bd01faa8-443c-4ad6-9cb6-ea50b4d7a093 Basic metabolic profile (procedure)	Postcoordinated Expression	1

Chapter 8. Behavior Symbols

Table 8.1. 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 8.2. 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 8.3. 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 8.4. 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 8.5. 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 8.6. 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] *Cardiology: Electrophysiology (EP) Arrhythmias Clinical Content White Paper*

[CSD] *Cardiology: Electrophysiology (EP) Arrhythmias Conceptual Structure Document*

[KVRpt] *Cardiology: Electrophysiology (EP) Arrhythmias KNART Validation Report*

[Wolters Kluwer 2017] *Wolters Kluwer. (2017). Vagal maneuvers and their responses | patient handouts | 5Minute-Consult Retrieved Feb 13, 2018, from <http://5minuteconsult.com/collectioncontent/3-197921/patient-handouts/vagal-maneuvers-and-their-responses> (link [<http://5minuteconsult.com/collectioncontent/3-197921/patient-handouts/vagal-maneuvers-and-their-responses>])*

Supporting Evidence

[Heidenreich 2016] *Heidenreich, P., Solis, P., Estes, M., Fonarow, G., Jurgens, C., Marine, J., McManus, D., McNamara, R. 2016 ACC/AHA Clinical Performance and Quality Measures for Adults With Atrial Fibrillation or Atrial Flutter. A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures (link [<https://doi.org/10.1161/HCQ.0000000000000018>])*

[Holbrook 2012] *Holbrook, A., Schulman, S., Witt, D., Vandvik, P., Fish, J., Kovacs, M., Svensson, P., Veenstra, D., Crowther, M., Guyatt, G., et al. Evidence-Based Management of Anticoagulant Therapy. Official Publication of the American College of Chest Physicians. 2012 February 12;141(2):e152S-e184S (link [<http://dx.doi.org/10.1378/chest.11-2295>])*

[January 2014] *January, C. T., Wann, L. S., Alpert, J. S., Calkins, H., Cigarroa, J. E., Cleveland, J. C., ... Yancy, C. W. (2014). 2014 AHA/ACC/HRS guideline for the management of patients with atrial fibrillation: Executive summary: A report of the American College of cardiology/American heart association task force on practice guidelines and the heart rhythm society. Circulation, 130(23), 2071-2104 (link [<https://doi.org/10.1161/CIR.0000000000000040>])*

[Kearon 2016] *Kearon, C., Aki, E., Ornelas, J., Blaivas, A., Jimenez, D., Bounameaux, H., et al. Antithrombotic therapy for VTE disease: CHEST guideline and expert panel report. CHEST Journal, Official Publication of the College of Chest Physicians 2016 February 149(2) 315–352 (link [<http://dx.doi.org/10.1016/j.chest.2015.11.026>])*

[Page 2016] *Page, R., Joglar, J., Caldwell, M., Calkins, H., Conti, J., Deal, B., Estes, M., Field, M., Goldberger, Z., Hammill, S., Indik, J., Lindsay, B., et al. 2015 ACC/AHA/HRS Guideline for the Management of Adult Patients With Supraventricular Tachycardia. Journal of the American College of Cardiology Volume 67, Issue 13, April 2016 (link [http://www.onlinejacc.org/content/67/13/e27?_ga=1.87330320.984974867.1480494374])*

[Shen 2017] *Shen, W.K., Sheldon, R., Benditt, D., Cohen, M., Forman, D., Goldberger, Z., Grubb, B., Field, M., Goldberger, Z., Hamdan, M., Krahn, A., Link, M., Olshansky, B., et al. 2017 ACC/AHA/HRS Guideline for the Evaluation and Management of Patients With Syncope: A Report of the American College of Cardiology*

- gy/American Heart Association Task Force on Clinical Practice Guidelines, and the Heart Rhythm Society. August 2017 Volume 14, Issue 8, Pages e155–e21 (link [http://dx.doi.org/10.1016/j.hrthm.2017.03.004])
- [NLM 2017a] LABEL: AMIODARONE HCL- amiodarone hydrochloride tablet [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=08641e51-abca-4c1c-ba19-d24435332018>. (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=08641e51-abca-4c1c-ba19-d24435332018])
- [NLM 2017b] LABEL: ASPIRIN 81 MG- aspirin tablet, coated [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=b4064039-2345-4227-b83d-54d-c13a838d3>. (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=b4064039-2345-4227-b83d-54d-c13a838d3])
- [NLM 2016a] LABEL: CARDIZEM- diltiazem hydrochloride tablet, coated [Internet].: National Library of Medicine; 2016. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=f3e7ecef-f360-4987-a4f5-933214130ab2>. (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=f3e7ecef-f360-4987-a4f5-933214130ab2])
- [NLM 2017c] LABEL: CLOPIDOGREL- clopidogrel bisulfate tablet, film coated, [Internet].: National Library of Medicine; 2016. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=edae8df1-caf9-ff72-1304-5ae8b355f8e7>. (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=edae8df1-caf9-ff72-1304-5ae8b355f8e7])
- [NLM 2017d] LABEL: COUMADIN- warfarin sodium tablet, [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/lookup.cfm?setid=d91934a0-902e-c26c-23ca-d5acc4151b6>. (link [https://dailymed.nlm.nih.gov/dailymed/lookup.cfm?setid=d91934a0-902e-c26c-23ca-d5acc4151b6])
- [NLM 2016b] LABEL: DIGOXIN- digoxin tablet, [Internet].: National Library of Medicine; 2016. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=dfac7f13-28be-423d-9389-9089da29da17>. (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=dfac7f13-28be-423d-9389-9089da29da17])
- [NLM 2016c] LABEL: DILTIAZEM HCL CD- diltiazem hydrochloride capsule, coated, extended release, [Internet].: National Library of Medicine; 2016. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5e39be50-ea17-4077-a2dc-668267049f6a>. (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5e39be50-ea17-4077-a2dc-668267049f6a])
- [NLM 2017e] LABEL: ELIQUIS- apixaban tablet, film coated ELIQUIS 30-DAY STARTER PACK- apixaban, [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=e9481622-7cc6-418a-acb6-c5450daae9b0>. (link [https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=e9481622-7cc6-418a-acb6-c5450daae9b0])
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- [NLM 2017j] LABEL: XARELTO- rivaroxaban tablet, film coated XARELTO- rivaroxaban, [Internet].: National Library of Medicine; 2017. Available from: <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=10db92f9-2300-4a80-836b-673e1ae91610>. (link [<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=10db92f9-2300-4a80-836b-673e1ae91610>])