

Value Set Harmonization

Value Set Harmonization Committee Meeting

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April 21, 2015



NATIONAL
QUALITY FORUM



Welcome

Meeting Agenda – Tuesday May 21st, 2015

Morning Session

- 8:30 - Welcome and Introductions of Staff and Co-Chairs
- 8:40 – Committee Introductions and Disclosure of Interest
- 9:00 – Setting the Stage
- 9:30 – Committee Discussion – Prevailing Issues in Value Set Harmonization
- 10:45 – Benefits of Value Set Harmonization
- 11:00 – Value Set Selection Analysis
- 11:15 – Developing a Criteria for Value Set Harmonization
- 12:30 - Committee Lunch

Meeting Agenda – Tuesday May 21st, 2015

Afternoon Session

- 1:15 – Developing a Process for Value Set Harmonization
- 2:40 – Testing the Pilot Process for Value Set Harmonization
- 3:40 – Public Comment
- 3:55 - Next Steps
- 4:00 - Adjourn

Welcome

- Restrooms
 - Exit main conference area, past elevators, on right.
- Breaks
 - 10:45 – 15 minutes
 - 12:30 – Lunch provided by NQF
 - 3:30 – 15 minutes
- Laptops and cell phones
 - Wi-Fi network
 - User name “guest”
 - Password “NQFguest”
 - Please mute your cell phone during the meeting



Introductions and Disclosure of Interest

NQF Project Staff

- Jason Goldwater
 - Senior Director
- Sharon Hibay
 - Senior Director
- Kathryn Streeter
 - Senior Project Manager
- Ann Phillips
 - Project Analyst



Committee Member Introductions

Value Set Harmonization Committee

- Zahid Butt, MD, FACG (co-chair)
- Michael Lieberman, MD MS (co-chair)
- Howard Bregman, MD, MS
- Chengjian Che, MD
- Christopher Chute, MD, DrPH
- Cynthia Cullen, MS, MBA, PMP
- Ellen Harper, DNP, RN-BC, MBA, FAAN
- Yan Heras, PhD
- Wendy Hofner, RN
- Stan Huff, MD
- Matt Humphrey
- Rute Martins, MS
- Robert McClure, MD
- Marjorie Rallins, DPM
- Joseph Schneider, MD, MBA, FAAP
- Ann Smith, RN, BSN, MSHA
- James Tcheng, MD, FACC, FSCAI, FESC
- Nancy Walker, MHA, RHIA



Setting the Stage

Ground Rules for Today's Meeting

- Terminology is important, but shouldn't be a barrier to building consensus in the group
- Work toward defined meeting objectives
 - Staff will maintain a list of important but out-of-scope “parking lot” issues to be tackled at future meetings
- Always use your microphone for the benefit of remote participants and the transcript
- Members of the public will have the opportunity to provide comments throughout the meeting; verbal remarks should be brief and any details submitted to the staff



Background on the National Quality Forum

NQF Mission

Board of Directors

Steering Committees

8 Membership Councils

Measures Application
Partnership (MAP)

National Priorities
Partnership (NPP)

CSAC, HITACH

Neutral Convener

Standards Setting
Organization

1 Build
Consensus

2 Endorse National
Consensus Standards

3 Education and
Outreach



Project Overview

Project Scope and Objectives

- NQF defines **value set harmonization** as the process by which unnecessary or unjustifiable variance will be eliminated from common value sets in eCQMs by the reconciliation and integration of competing and/or overlapping value sets.
- Under the guidance of the Value Set Committee, NQF will develop and pilot test a value set harmonization and approval process to promote consistency and accuracy in eCQM value sets.
- Harmonized value sets will provide basis of gap analysis and for examination of face validity of value sets.
- The project will also offer guidance on how approved value set status should be integrated into the eCQM endorsement process

Project Scope and Objectives

The project will address the following issues:

- What are the harmonization criteria for value sets used in eCQM development, and when is value set harmonization applicable?
- Will measure developers be mandated to demonstrate they have actively utilized VSAC harmonized value sets in eCQM development?
- What components of the harmonization process apply to the review and approval of newly submitted value sets, and how should that process be structured?

Project Scope and Objectives

The project will address the following issues, cont.:

- What is the role of value set authors and stewards in responding to recommendations for changes or additions to value sets?
- How are recommendations for additions or changes in value set content integrated into the existing VSAC catalog?
- How does value set harmonization and approval integrate with or impact the measure endorsement process?

Project Deliverables

- Harmonization processes for resolving missing, duplicate, competing, or otherwise problematic value sets
- Ground rules for measure developers on use of endorsed, harmonized value sets to build measures
- Policies and procedures for coordinating value set harmonization work with the National Library of Medicine's Value Set Authority Center

Project Timeline and Milestones

**Value Set Harmonization Committee and Technical Expert Panel
Selected**



Test Measures Identified



Develop Draft Harmonization/Approval Processes



Iterative Test of Proposed Harmonization/Approval Processes



Committee Charge

Committee Charge

Meeting Goals

- The Committee will provide guidance in the development of a process for resolving missing, duplicate, competing, or otherwise problematic value sets

Meeting Objectives

- The Committee will provide input on identification of:
 - Variance in value sets
 - A criteria for evaluating variance in value sets
 - An iterative pilot process for resolving variance in value sets

Committee Charge

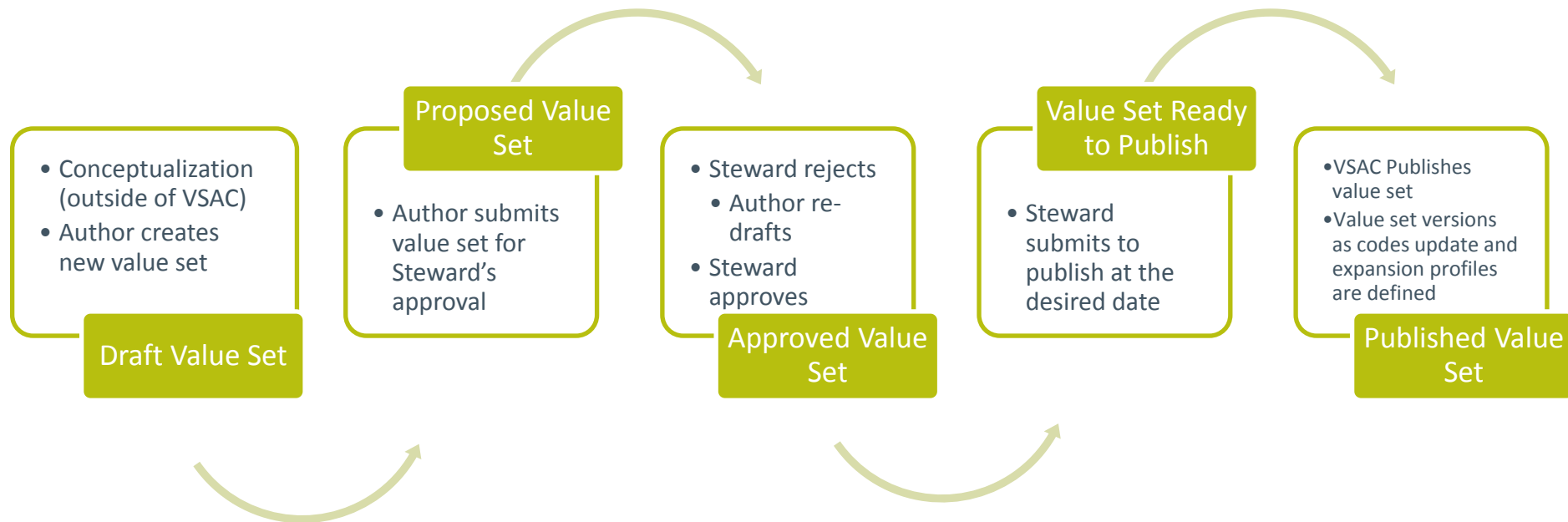
Ground Rules

- To identify the basic issues surrounding value sets and devise methods to potentially correct those problems
- The focus is on a proposed solution which is important to ONC, CMS and NLM.
- By the end of this discussion, it is vital that we construct a proposed methodology.
- The co-chairs are here to facilitate the discussion, identify additional information that may be useful to the Committee and keep the project on track



Committee Discussion

Life Cycle of a Value Set



Prevailing Issues in Value Set Harmonization

Questions for the Committee –

- What are the major issues around value sets?
- What are the causes of these issues?
- What are the thoughts on resolving these issues?



Break



Why Harmonization?

Benefits of Value Set Harmonization

- To develop better, more efficient and accurate quality measures
- Improving the quality of content in the VSAC
- To have same/closely related clinical concepts represented by a single value set
- Establish a process to fix errors in value sets on a timely basis after annual updates.
- Simplifying reporting of eCQMs via EHRs



Value Set Selection Analysis

Unit of Analysis – Pre-work

- **Winnenburg/Bodenreider Analysis**

- Assessment for completeness and correctness in value sets
- Opportunities for harmonization by eliminating redundancies in groups of like value sets

- **Measures Reporting**

- Review codes in sub value sets in same topic measures that are frequently reported to CMS

- **Manual Comparison**

- Compare codes and content in same topic measures

- **Jaccard Index**

- Statistical analysis for comparing the similarity and diversity of two sub value sets

Summary of Findings:

Eligible Professional measures utilizing the Jaccard Index

Jaccard Score	Value Set 1	Measures	Value Set 2	Measures
0.49	Depression diagnosis	CMS2v4	Major Depression Including Remission	CMS159v3 CMS160v3
0.53	Depression Screening Denominator Encounter Codes New	CMS2v4	Medications Encounter Code Set	CMS68v4
0.56	Depression diagnosis	CMS2v4	BH Condition Involving Unipolar Depression	CMS169v3
0.58	Depression diagnosis	CMS2v4	Major Depressive Disorder-Active	CMS161v3 CMS177v3
0.58	Depression Screening Denominator Encounter Codes New	CMS2v4	BMI Encounter Code Set	CMS69v3
0.69	Depression Screening Denominator Encounter Codes New	CMS2v4	BMI Encounter Code Set	CMS69v3
0.74	Major Depression Including Remission	CMS159v3 CMS160v3	BH Condition Involving Unipolar Depression	CMS169v3
0.78	Bipolar Diagnosis	CMS2v4	BH Condition Involving Bipolar Disorder	CMS169v3
0.78	Major Depressive Disorder-Active	CMS161v3 CMS177v3	Major Depression Including Remission	CMS159v3 CMS160v3
0.78	Major Depressive Disorder-Active	CMS161v3 CMS177v3	BH Condition Involving Unipolar Depression	CMS169v3
0.79	Bipolar Disorder	CMS160v3 CMS159v3	BH Condition Involving Bipolar Disorder	CMS169v3
0.95	Bipolar Disorder	CMS160v3 CMS159v3	Bipolar Diagnosis	CMS2v4

Summary of Findings:

Eligible Professional measures utilizing the Jaccard Index

SNOMED-CT Code	Subvalue Set 1	SNOMED-CT Code	Subvalue Set 2
191616006	Recurrent Depression (disorder)	66344007	Recurrent Major Depression (disorder)
192080009	Chronic depression (disorder)	2618002	Chronic recurrent major depressive disorder (disorder)
320751009	Major depression, melancholic type (disorder)	319768000	Recurrent major depressive disorder with melancholic features (disorder)
30605009	Major depression in partial remission (disorder)	33135002	Recurrent major depression in partial remission (disorder)
191610000	Recurrent major depressive episodes, mild (disorder)	87512008	Mild major depression (disorder)
18818009	Recurrent major depressive episodes, moderate (disorder)	832007	Moderate major depression (disorder)
8411005	Interactive individual medical psychotherapy (regime/therapy)	18512000	Individual psychotherapy (regime/therapy)
46662001	Examination of breast (procedure)	13607009	Manual examination of breast (procedure)
91573000	Tympanometry testing (procedure)	277404009	High frequency tympanometry (procedure)
370143000	Major depressive disorder (disorder)	663344007	Recurrent major depression (disorder)
31976800	Recurrent major depressive disorder with melancholic features (disorder)	320751009	Major depression, melancholic type
79298009	Mild major depression, single episode (disorder)	87512008	Mild major depression (disorder)

Summary of Findings:

Manual comparison of Eligible Hospital measures

CMS #	Measure Title
CMS71v4	Stroke-3 Ischemic stroke – Anticoagulation Therapy for Atrial Fibrillation/Flutter
CMS72v3	Stroke-5 Ischemic stroke – Antithrombotic therapy by end of hospital day two
CMS91v4	Stroke-4 Ischemic stroke – Thrombolytic Therapy
CMS102v3	Stroke-10 Ischemic or hemorrhagic stroke – Assessed for Rehabilitation
CMS104v3	Stroke-2 Ischemic stroke – Discharged on anti- thrombotic therapy
CMS105v3	Stroke-6 Ischemic stroke – Discharged on Statin Medication
CMS107v3	Stroke-8 Ischemic or hemorrhagic stroke – Stroke education
CMS73v3	VTE-3 VTE Patients with Anticoagulation Overlap Therapy
CMS108v3	Venous Thromboembolism (VTE)-1 VTE prophylaxis
CMS109v3	VTE-4 VTE Patients Receiving Unfractionated Heparin (UFH) with Dosages/Platelet Count Monitoring by Protocol (or Nomogram)
CMS110v3	VTE-5 VTE discharge instructions
CMS114v3	VTE-6 Incidence of potentially preventable VTE
CMS190v3	VTE-2 Intensive Care Unit (ICU) VTE prophylaxis

Summary of Findings:

Manual comparison of Eligible Hospital measures

The project team examined all the value sets associated with these measures

OID 1: 105v3, 91v4, 71v4, 104v3, 72v3, 190v3, 73v3, 108v3

OID2: 114v3

Member OID – Value Set Name		Steward
1	2.16.840.1.113883.3.117.1.7.1.473 Medical Reason	The Joint Commission
2	2.16.840.1.113883.3.117.1.7.1.412 Medical Contraindication	The Joint Commission

These value sets are entirely identical – no unique codes.

Summary of Findings:

Manual comparison of Eligible Hospital Measures

OID1: CMS71v4

OID2: CMS104v3, CMS72v3

OID3: CMS73v3

OID4: CMS100v3 (AMI Measure)

OID5: CMS190v3, CMS108v3, CMS114v3

Member OID – Value Set Name		Steward
1	2.16.840.1.113883.3.117.1.7.1.200 anticoagulant therapy extensional	The Joint Commission
2	2.16.840.1.113883.3.117.1.7.1.201 antithrombotic therapy extensional	The Joint Commission
3	2.16.840.1.113883.3.117.1.7.1.266 Parenteral Anticoagulant extensional	The Joint Commission
4	2.16.840.1.113883.3.666.5.626 Aspirin extensional	Lantana
5	2.16.840.1.113883.3.117.1.7.1.211 Injectable Factor Xa Inhibitor for VTE Prophylaxis extensional	The Joint Commission

Is “anticoagulant therapy” complete and can it be harmonized with “Parenteral Anticoagulant?”

“Antithrombotic therapy” is missing many aspirin products found in “Aspirin”

“Injectable Factor Xa Inhibitor for VTE Prophylaxis” is missing some same type drugs found in “Parenteral Anticoagulant”

Summary of Findings:

Manual comparison of Eligible Hospital Measures

Code	2.16.840.1.113883.3.117.1.7.1.201 Antithrombotic Therapy	2.16.840.1.113883.3.666.5.626 Aspirin
103863		Aspirin 150 MG Rectal Suppository
197429		Tablet
197447		Oral Tablet
197930		Oral Tablet
197945		Oral Tablet
198461		Aspirin 120 MG Rectal Suppository
198463		Aspirin 200 MG Rectal Suppository
198464		Aspirin 300 MG Rectal Suppository
198466	Aspirin 325 MG Oral Capsule	Aspirin 325 MG Oral Capsule
198467	Aspirin 325 MG Enteric Coated Tablet	Aspirin 325 MG Enteric Coated Tablet
198471	Aspirin 500 MG Oral Tablet	Aspirin 500 MG Oral Tablet
198473		Aspirin 600 MG Rectal Suppository
198475	Aspirin 650 MG Oral Tablet	Aspirin 650 MG Oral Tablet
198477	Aspirin 162 MG Enteric Coated Tablet	Aspirin 162 MG Enteric Coated Tablet
198479	Aspirin 400 MG / Caffeine 32 MG Oral	Tablet
198480	Aspirin 500 MG / Caffeine 32 MG Oral	Tablet
199274	Aspirin 300 MG Oral Capsule	Aspirin 300 MG Oral Capsule
200322	lepirudin 50 MG/ML Injectable Solution	
204711		0.0338 MG/ML / Dextromethorphan 0.169
204724	Aspirin 5.5 MG/ML / Chlorpheniramine	Aspirin 5.5 MG/ML / Chlorpheniramine
204750		Acetaminophen 162 MG / Aspirin 162 MG
205185		Aspirin 5.5 MG/ML / Chlorpheniramine
205251	Acetaminophen 160 MG / Aspirin 230	/ Caffeine 33 MG Oral Tablet

Summary of Findings:

Manual comparison of Eligible Hospital Measures

OID1: CMS30v4 (AMI), CMS105v3

OID2: CMS72v3, CMS104v3

OID3: CMS71v4

OID4: CMS190v3, CMS108v3

OID5: CMS108v3, CMS190v3

Member OID – Value Set Name		Steward
1	2.16.840.1.113762.1.4.1021.7 statin specific	The Joint Commission
2	2.16.840.1.113762.1.4.1021.8 antithrombotic specific	The Joint Commission
3	2.16.840.1.113762.1.4.1021.9 anticoagulant specific	The Joint Commission
4	2.16.840.1.113762.1.4.1021.10 warfarin only	The Joint Commission
5	2.16.840.1.113762.1.4.1021.12 Low Molecular Weight Heparin for VTE prophylaxis ingredient specific	The Joint Commission

“Statin specific” lists medication names, but no dosages.

“Antithrombotic specific” is duplicative with “Antithrombotic therapy” but dosage information is not included in “Antithrombotic specific”


“Antithrombotic specific” and “Anticoagulant specific” are almost entirely duplicative

“Warfarin only” includes no dosage information

“Low Molecular Weight Heparin for VTE prophylaxis ingredient specific” is missing same ingredient drugs



Lunch



The Pilot for Value Set Harmonization

Criteria

Process

Testing

Developing a Criteria for the Value Set Harmonization Pilot

- **Determining components of a technical evaluation**
 - Diagnosis and Condition
 - Variance between terminologies
 - Ensuring completeness and accuracy
- **How to choose between competing value sets**
- **How to combine overlapping value sets**

Developing a Process for the Value Set Harmonization Pilot

- **Identifying the problem**
- **Selecting a resolution**
 - Issues that need resolution from CMS/ONC/NLM
 - Issues recommended to the TEP
 - What information is needed?
- **What does the TEP analysis entail?**



Break

Testing the Pilot Process for Value Set Harmonization

- When is harmonization “successful?”
- The iterative process
- Extrapolating the results from the pilot test into a repeatable process for value set harmonization

Project Contact Information

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Public Comment

Next Steps

- **Post Meeting Call**
 - May 19, 2015 1:00 pm – 3:00 pm ET
- **Evaluation of Value Set Harmonization Testing**
 - May 27, 2015 1:00 pm – 3:00 pm ET
 - June 24, 2015 1:00 pm – 3:00 pm ET
 - July 28, 2015 1:00 pm – 3:00 pm ET
 - October 19, 2015 1:00 pm – 3:00 pm ET
- **In Person Meeting**
 - November 10, 2015



THANK YOU!