Admission History

A Toolkit for Reducing Documentation Burden

A Product of Nursing Knowledge Big Data Science

Instructions

This toolkit provides step-by-step guidelines for using the results of the Admission History Task Force work to define the minimal necessary data for the admission history interview for an adult patient entering the acute care environment.

The process and tools outlined here can also be used to address documentation burden for other care activities, patient populations and care settings.

There are two ways to use this toolkit:

1. To evaluate and optimize an existing Admission History documentation tool
2. To create an optimal Admission History documentation tool in a new electronic health record system

Components of the toolkit:

- Overview
- Getting Organized
- Getting Started
- Getting to Work
- Getting to Minimum Content
- Tips for Implementation
- Summary
- Acknowledgements
- References
- Appendix: Samples and Tools

Overview

Reducing documentation burden has become a national priority. The American Nurses Informatics Association (ANIA) has identified six domains of added documentation burden for clinicians.

- Reimbursement
- Regulatory
- Quality
- Usability
- Interoperability/Standards
- Self-Imposed

Several workgroups within the Nursing Knowledge Big Data Science group have been working in these domains. A cross-functional task force was created to address documentation burden while preserving discrete data capture necessary for big data applications, such as decision support and research. The group chose a discreet component of nursing documentation to optimize. This toolkit shares both the outcome of that work and the process used by the task force. Both elements can be used by other teams to optimize clinical documentation.

The focus of the task force was the Admission History for an adult patient in the acute care environment. The goals of the task force were to develop a model template for Admission History and to create a repeatable process that could be used for other elements of documentation, for other patient populations in any care setting. This toolkit focuses on the largest domain of opportunity, Self-Imposed, but also provides some guidance for addressing Regulatory and Usability domains.

Getting Organized

Getting organized to tackle documentation burden starts with determining participants in the work effort. There are five critical teams that need to be created: leadership, clinical expert, informatics expert, subject matter expert, and project management.

Leadership Team.
The Chief Nurse of the organization must function as the executive champion for reducing documentation burden. Acceptance of the final product and achievement of the goals is directly tied to the vision articulated by the Chief Nurse. The Chief Nurse chairs the Leadership Team that sets the vision, oversees progress and removes barriers for the other teams. The Leadership Team has final approval authority for all decisions and products and is responsible for delivering results on time and

within budget. The Leadership Team establishes the charter for the work effort, articulates the guiding principles that will guide the other teams, and drives the communication plan.

Clinical Team
The Clinical Team is composed of caregivers who perform admission history interviews. The primary responsibility of this team is to define the content that minimizes documentation burden while meeting the patient care and organizational requirements. The guiding principles, established by the leadership team, and evidenced-based practice resources will inform the development work. The clinical team will also define ideal work flow and the data flow needed to support the ideal workflow.

Informatics Team
The Informatics Team is composed of nurse informaticists and information technologists who understand the electronic health record system (EHR). This team design the data entry screens and engineers data flows and data displays to achieve the ideal workflows for various team members. The Informatics Team will apply usability heuristics to develop a style guide appropriate to the functionality of the EHR. The style guide assures standard presentation, consistent visual cues and navigation. Consistency in the build adds to user satisfaction, decreases training time and simplifies end-user support.

Style Guide Decisions
• *Case sensitivity* • *Use of symbols* • *Abbreviations* • *Use of color* • *Positioning* • *Justification* • *Spacing* • *Navigation aids*

Subject Matter Expert Team
Subject matter expertise from risk management, regulatory compliance, case management, nutrition services and rehabilitation services may be needed to answer specific questions during the development process. These individuals can be organized into an ad hoc structure with key individuals charged with responding to questions and providing feedback as needed. The identified subject matter experts should be oriented to the charter and guiding principles. This team makes recommendations but does not have decision-making authority. Recommendations from this team are approved by the Leadership Team.

Project Management Team
Strong coordination from project management is needed to coordinate the movement of work product among the teams.

Getting Started

Step 1: Getting clear on purpose
The leadership team clearly articulates the purpose and goals for the effort. A project charter describes the Why, What, Who, When and How the work will be done. A sample charter, used by the group that created this toolkit, is included in the Appendix.

WHY: Defining the ultimate goals, the WHY behind the work is critical to achieving and maintaining alignment among the work groups. Goals and the associated success metrics should be defined at the start of the project.

Goals could include:

- Reduce documentation burden (number of clicks)
- Reduce documentation time
- Improve patient perceptions of teamwork
- Improve nurse satisfaction

Some success metrics for these goals could include:

1. Reduce number of clicks by 50%, in pre/post analysis
2. Decrease average time for admission history interview by 50% as reported by caregivers in post-implementation survey
3. Improve patient perceptions of teamwork on patient satisfaction survey
4. Improve nurse satisfaction on employee engagement survey

WHAT:

Defining the Scope of the project is also a responsibility of the Leadership Team.

The purpose of the Admission History in the acute care environment, is to provide the care team with information needed to plan and provide care during the current episode.

The data is gathered through a structured interview with the patient and/or significant other to learn about their current health status, health behaviors, and preferences for care. This data is shared among the interdisciplinary team to inform the plan of care.

Much of the data from the admission history is also shared across episodes of care. Some data elements are used in decision support, such as alerting to fall risk based on a history of a recent fall at home. Data from the admission history can also be aggregated to understand characteristics or needs of patients entering a particular department or facility. For example, if over 50% of the patient population on the cardiac unit are at high risk for falls, environmental and process changes may be warranted.

The admission routine in a typical inpatient setting has multiple components.

- Initial vital signs and weight
- Baseline physical assessment

- Admission history interview
- Risk assessment

For the purposes of this toolkit, the scope was defined as the Admission history interview.

WHO: The Leadership Team should populate each workgroup with willing and able members from a cross section of the organization. Leaders for each work group need to be identified and equipped with clear WHY, WHAT, HOW, and WHEN expectations in the form of a project charter. Workgroup leaders also serve on the Leadership Team to assure clear lines of accountability and communication.

HOW: The Leadership Team establishes a set of ground rules that are used by all of the teams. A sample of the Ground Rules used by the team developing this toolkit is provided in the Appendix (p.x).

The Leadership Team will determine how to consult subject matter experts to assist with defining content, workflow, data flow or evaluate impact of proposed changes. For example, questions regarding regulatory requirements may be submitted to the identified regulatory subject matter expert with a response expected in three days. Alternately, setting a limit of three screening questions from any discipline, may require meetings with physical therapy, nutrition services or case management, to identify the appropriate questions and supporting data needed by those disciplines.

The project management team may add processes and forms to assure consistency and alignment among the workgroups as well as timely escalation of issues to the Leadership Team.

WHEN: The leadership team, in partnership with the workgroup leaders, should establish a timeline for key deliverables. Project management is responsible for managing the workgroups to meet this timeline.

Getting to Work

Step 1: Establish guiding principles
Guiding principles create the foundation for redesigning clinical documentation. The Leadership Team is responsible for establishing the Guiding Principles that will be used by each team. The Guiding Principles used by the Task Force that developed this toolkit are listed in the table below. The Leadership Team should review, modify if necessary and adopt. Each meeting of every workgroup begins with a review of the guiding principles.

Guiding principles are essential, whether you are designing documentation for an initial installation or optimizing current documentation processes and tools. Each data element is evaluated using the guiding principles. Data elements that do not meet at least one guiding principle, should be considered non-essential and a candidate for elimination.

Guiding Principles for Content Used by the Admission History Task Force:

Each content element must meet at least one of the following criteria:
1. Content is essential for patient care decisions with a clear case for use of the data in care
2. Content addresses a regulatory requirement
3. Content is evidence-based, whenever possible
4. Content is not documented elsewhere
5. Content is best documented by a nurse
6. Content is best documented during the admission process, as defined by the organization

The primary purpose of the guiding principles for content is to eliminate non-essential or non-useful content. Eliminating, automating or redistributing content collection is critical to reducing documentation burden. The second goal of this project was to create discrete data that could be used for decision support, quality improvement, and research. A second set of guiding principles focused on data format. The primary purpose of the format principles in the table below is to maximize reuse of the data.

Guiding Principles for Format Used by the Admission History Task Force:

Data is formatted to enable reuse in decision-support, quality improvement and research
1. Each item should address a single, structured concept to facilitate mapping
2. Options within answer sets should be grammatically consistent
3. Options within answer sets should be the minimum necessary with a goal of no more than 12 options
4. Avoid yes/no answers whenever possible
5. Patient friendly or plain language is used, avoiding technical terms
6. Avoid abbreviations, acronyms and brand names to reduce misunderstanding

Guiding Principles will also be used to guide decision-making regarding change requests after implementation. The Guiding Principle document will be a foundational document until the organization changes documentation philosophy or approach. It is important to spend sufficient time on articulating and sharing the guiding principles with the project teams and end-users to insure shared understanding and commitment to abiding by these principles.

Step 2: Define the ideal workflow

The clinical expert team is charged with defining the ideal workflow for the documentation routine. This is more than documenting the current workflow. It entails conceptualizing how the work would ideally be done, ignoring any operational realities, for the moment. For example, the admission history interview is usually conducted after the physical exam. The caregiver performing the interview is usually seated. Family members can be included in the interview, if the patient agrees or is unable to participate. Ideally, this interaction is augmented with information and technology that optimizes the interaction. Preferably, privacy is not a concern, interpreters are readily available, and the patient or family member is able to provide the necessary information at the time of the interview.

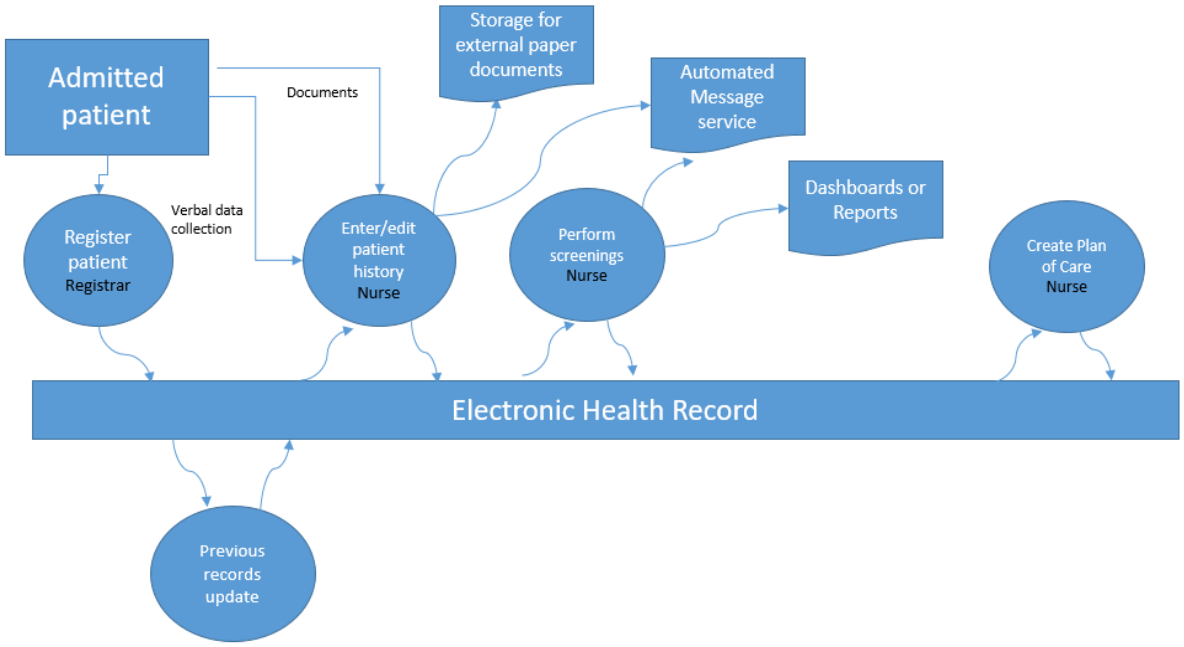
The data is collected primarily by a caregiver asking the patient or patient representative a series of questions. There is a growing presence of patient entered information gathered through portals prior to admission. Ideally, the patient or family member could enter much of this information into a portal prior to the interview, or even prior to admission.

Some elements of the admission history are typically entered into hard-coded modules of the electronic medical record system. This includes allergies, immunizations and home medication list. For that reason, these elements are not included in this model.

Sometimes admission history data collection is combined with other admission routines such as performing vital signs or initial weighing activities. Tasks such as these are repeated throughout the episode of care, so are not included in this toolkit.

The questions in the Admission History are typically asked only one time during the episode of care. Differentiating data elements for history and for on-going assessment/reassessment is a critical task of the clinical experts.

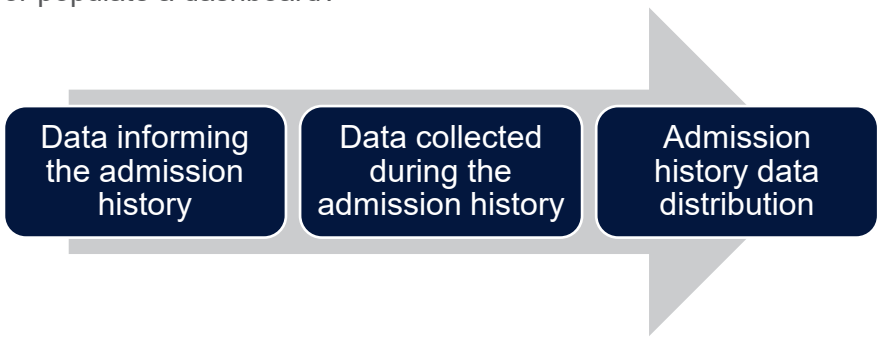
The figure below is an example of an ideal process flow for Admission History. It is important to design data collection tools to support ideal processes and avoid reinforcing suboptimal processes. You can access this data flow, and many others through the Virginia Henderson Library.



Observations of the current processes are also needed. The purpose of these observations are to identify gaps between the ideal and the actual. Gaps will need to be addressed through education, change management, or adjustments to the ideal.

Step 3: Create data flows to support workflow

A lot of data is collected during the admission history interview. However, it is important to consider what data should be present prior to the interview to provide for a more meaningful and efficient interaction. Similarly, it is important to consider how the data from the admission history is going to be used by the team. Will the data update the plan of care, provide a worklist for targeted team members, or populate a dashboard?



3a: Data informing the admission history

The clinical experts should identify the data needed at the time of the admission history. The informatics experts will determine how to provide that data to the caregiver within the ideal workflow.

Data informing the admission history comes from three primary sources: registration, previous episodes of care, and patient provided information.

Data collected during registration includes age, address, and insurance status. Many social determinants of health are included in registration information. The need for care coordination with assisted living facilities, presence of a guardian for informed consents or the need for interpreters can be determined from the registration data. It may be appropriate to pull some of this data forward into the admission history to add to the understanding of the patient's current health status.

Data from previous episodes of care can also augment the process. Admission history information is collected with each episode of care. It is optimal to build the admission history so that it is updated with each encounter. This allows the caregiver to efficiently validate and update for the current episode. This approach gives the patient the assurance that the team knows him/her and is coordinating care effectively. It also reduces documentation burden for the caregiver.

Patient provided information can be obtained through written documents and electronic forms. Patients may present with a list of medications, a birth plan, or advanced care plan documents. Organizations may determine to simply add these documents to the electronic record, others may treat them as source documents but require discrete data entry into the active medical record.

Increasingly patients are presenting with electronic information from pre-admission forms on portals or health applications they are using to manage their care. Organizations may allow this data to be imported directly into the active medical record, others may treat them as reference material.

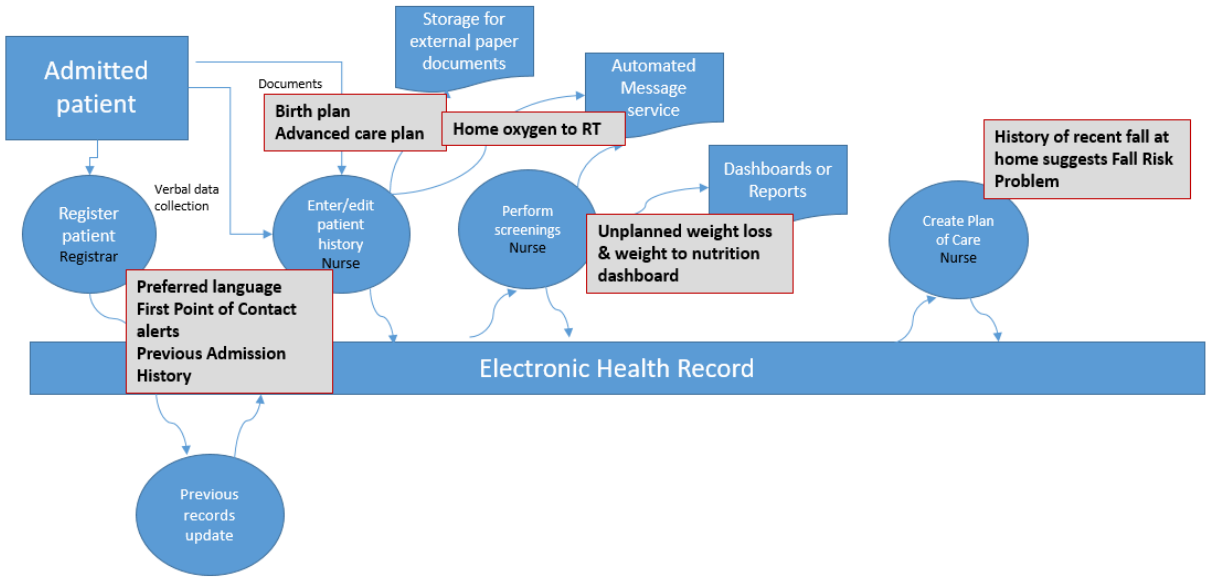
Each organization will need to determine how to treat patient provided documentation based on the needs of the care team and the capabilities of the EHR.

3b: Data collected during the admission history interview is the focus of this toolkit. Before defining the data elements, consider who will be using the information and how those users will access the data. This analysis will be used to evaluate each data element that is proposed for the Admission History Interview tool.

3c: Admission History data distribution occurs after the interview. Data elements are distributed to other team members through messages, dashboards or other mechanisms to inform the next phases of care. Some examples are:

- Nutrition screening queries are sent to dieticians
- Home oxygen use notification sent to respiratory therapist
- Advanced Care Plan notification is sent to physician
- Learning preferences are shared with the entire team in the teaching routine
- Need for an interpreter is prominently denoted in electronic record for everyone interacting with the patient to see

Clearly identifying the users and the mechanisms for distributing admission history data provides a checkpoint for the necessity of the data. If data elements that are not being sent to a user, the workgroup should consider removing those items from the Admission History Interview tool. The figure below illustrates data flow to enhance the ideal workflow.



The Admission History Interview Questions

Defining the content of the Admission History Interview. The recommended data elements for the admission history interview can be accessed in the NKBDS Repository at www.nursingbigdata.org.

The recommended data elements are organized into an Excel Workbook for ease of use. You can review both the recommended elements and the elements that were considered, but ultimately removed. This worksheet can be used as a guide for a new EHR implementation or as a checklist for evaluating a current admission history interview tool.

Each element of the admission history interview must be evaluated using the Guiding Principles. Worksheets 1 and 2 in the Appendix provide checklists for reviewing the recommended content using the model Guiding Principles. You can modify these worksheets to reflect the Guiding Principles for your organization. Usually questions arise about regulatory requirements during this process. Your regulatory expert should provide the link to the precise standard that needs to be addressed. The clinical team can then discuss different ways to meet the standard and maintain adherence to the Guiding Principles.

The defined clinical content is reviewed by the Clinical Team, the Leadership Team and key subject matter experts, particularly regulatory experts, before the Informatics Team begins building. The Checklist for a successful documentation redesign effort can be used to facilitate this review.

The Informatics Team coordinates the build, using the Style Guide along with the outputs from the Leadership and Clinical teams:

- Guiding principles
- Ideal workflows
- Associated data flows
- Content spreadsheet

As content is formatted, the Informatics Team should share the designs with the Clinical Team to assure that the design is optimizing workflow and data flow. Often, the Informatics Team will have design thoughts or knowledge of functionality that the Clinical Team didn't consider when framing requirements. Regular interaction between these teams is needed to iterate toward optimal design.

Tips for Implementation

Implementation may be part of a larger EHR implementation effort, or redesigning the admission history may be a stand-alone effort. The defining characteristic of this work is the focus on reducing documentation burden. The main concern users will have is about the content that has been removed. A comprehensive communication plan is necessary to address these concerns.

The Communication Plan. The Leadership Team is responsible for the communication plan. The Chief Nurse is the primary messenger for explaining the need for change and support for the new

process. Leaders from quality and risk management also need to participate in live or video presentations assuring nurses that regulatory requirements have been met with the new design.

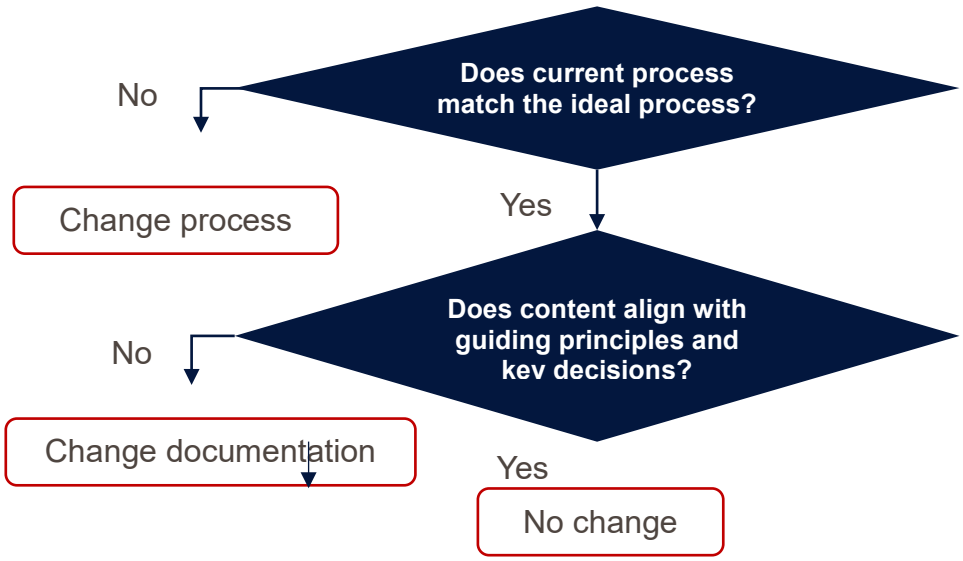
Physician communication is also important. Physicians should be informed of the project, and the goal of reducing documentation burden, as it starts. For the most part, physicians are not impacted by the change, but you may encounter physicians using elements of the nursing documentation. These physicians may need training on where to find the information they need.

Change Requests. The most common change request following an initiative to reduce documentation burden, is a request to add content. Consider performing a mock regulatory survey and chart audits as soon as possible after implementation. Communicate the findings of these activities to reassure clinicians that required elements of documentation are still present.

Hold any non-urgent requests for change for at least 30 days post-implementation. It is common to find omitted elements or misspellings that clearly need to be remedied during the immediate implementation period. Resist the temptation to start redesigning or reverting to previous documentation patterns until the learning and adjustment period is over. At that point, at least 30 days after implementation, you can make a change request process available.

Ongoing Maintenance

Strong governance processes are needed to hold the gains achieved through this project. The governance body receives and evaluates all change requests. The Guiding Principles are used to evaluate all requests. A basic decision tree determines whether the best response lies in content change or process change.



Summary

Reducing documentation is a clear imperative from clinical practice. The process to achieve the desired result requires strong leadership, careful project management, and an inclusive approach. This toolkit outlines a proven approach and a sample of the results that can be achieved.

The final step in the endeavor must be celebration! Clearly celebrating the achievements of the team, the benefits to the clinicians and patients helps to cement the gains. It also sets the stage for the next step in the unending quest for optimizing nursing time and the data coming from nursing practice.

Acknowledgements

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- Jane Englebright, Chair, HCA Healthcare
- Shannon Hulett, Co-chair, Gunderson Health
- David Boyd, Co-chair, Kaiser Permanente
- Sarah Michel, HCA Healthcare
- Bonnie Adrian, University of Colorado
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- Eva Karp, Cerner Corporation
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- Jane Englebright and Sarah Michel, HCA Healthcare
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- Mary Hook, Advocate Aurora Health Care
- Eva Karp, Cerner Corporation

References

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Englebright, J (2019). Ideal nursing workflows to support the development of information technology solutions. Virginia Henderson Global Nursing e-Repository. http://hdl.handle.net/10755/17235.

Englebright J, Aldrich K, Taylor CR. (2014). Defining and incorporating basic nursing care actions into the electronic health record. Journal of Nursing Scholarship, 46(1):50-57.

Appendix

1. Sample Project Charter
2. Sample Ground Rules
3. Sample Guiding Principles
4. Sample Checklist for a Successful Documentation Redesign Effort
5. Sample Communication Plan
6. Worksheet for Assessing Content
   editable worksheet available for download at https://bigdata.dreamhosters.com/node/88
7. Worksheet for Optimizing Format of Content
   editable worksheet available for download at https://bigdata.dreamhosters.com/node/87
8. Position Paper from the American Nursing Informatics Association Board of Directors, “The Six Domains of Burden: A Conceptual Framework to Address the Burden of Documentation in the Electronic Health Record”

Project Charter

Admission History & Task Force

NKBD Cross-Workgroup Task Force

NURSING KNOWLEDGE:
BIG DATA SCIENCE

Document Control

Title:	Admission History & NKBD Cross-Workgroup Task Force
Project Manager:	Jane Englebright, PhD, RN, CENP, FAAN
File Name/Path:	WG DROPBOX: https://www.dropbox.com/sh/duu5rrxzgk2efu7/AAAhf2W37McD-KG_DoiDuV_Ca?dl=0 For DropBox access contact Dr. Lisiane Pruinelli – pruin001@umn.edu

Charter Approvals

Name	Role	Date
Cross-Workgroup Task Force Jane Englebright, Chair	Business Owner	12/7/18
NKBD Steering Committee Connie Delaney, Chair	Project Sponsor	12/18/18

Purpose of Document

The purpose of this charter is to establish authorization for the Admission History & Current State Screening: NKBD Cross-Workgroup Task Force assignment. This document delineates roles and responsibilities, outlines the scope and objectives, identifies the main stakeholders, and provides high level details of critical items (i.e. risks, dependencies, etc.). Upon approval, the charter allows the task force to proceed with the assignment as stated in this document.

Revision History

Version	Date	Revised By	Explanation
1.0	11/15/18	Jane Englebright	First Draft
2.0	11/28/18	Jane Englebright	Post Task Force Review
FINAL	1/16/19	Jane Englebright	Steering committee review

Executive Summary

The Admission History & NKBD Cross-Workgroup Task Force is charged with defining a model for Nursing Admission History for the adult patient admitted to an acute care facility. The outputs of the task force will be presented at the 2019 NKBD conference. The scope of work for the task force is deliberately confined to facilitate rapid progression of the work. The outputs will provide the foundation for continued work in defining Nursing Admission History for other patient populations and care settings.

The Task Force is composed of volunteers and representatives from five NKBD Work Groups: Transforming Documentation, Care Coordination, Social Determinants of Health, Clinical Data Analytics and Encoding/Modeling

The Task Force is accountable to the NKBD Steering Committee.

Introduction and Overview

Current State	The ideal content for Nursing Admission History is not clearly defined within the nursing profession. There is wide variation in the approach to the admission history across hospitals and health systems and within the model content provided by EHR vendors. This variability creates confusion in role responsibilities within the care team and inhibits reuse of data for decision support and research.
Opportunity Statement	An opportunity exists to define the ideal Nursing Admission History content that provides important data and information for providing and coordinating patient care, patient population management and research while minimizing documentation burden for the nurse.

Overall Objectives	1. Define the ideal Nursing Admission History 2. Provide a template for future Task Forces to use in further defining nursing content within the EHR
Specific Objectives	**Specific Objectives**
	1. Approval of Task Force Charter by Task Force and NKBD Steering Committee
	2. Approval of Ground Rules for Task Force processes by Task Force
	3. Approval of Guiding Principles for ideal Nursing Admission History by Task Force and NKBD Steering Committee
	4. Define Sections/categories of ideal Nursing Admission History
	5. Define Content of ideal Nursing Admission History
	6. Present outputs to NKBD Pre-Conference workgroup for input and reaction
	7. Present content to Encoding/Modeling workgroup for mapping to appropriate reference terminology
	8. Publish content and mapping
Approach	The Task Force members designated on December 1, 2018 will serve through June 2019 (NKBD Conference). To maximize the consistency and speed of the work, membership changes will not be made until this phase of development is complete in June 2019. The attendees at the NKBD Pre-Conference session will participate in a workshop to pressure test the final outputs prior to dissemination.

Scope

High Level Scope Statement	The Task Force will define the ideal content for Nursing Admission History for adult patients admitted to an acute care facility. Nursing Admission History & Current State Screening refers to the initial patient/family interview that provides a background for the current episode of care and transition to next phase of care.
Scope Inclusions	Define the categories of the comprehensive Admission History that are the responsibility of nursing. Define the ideal content for the Nursing Admission History Provide mapping of content to the appropriate terminology
Scope Exclusions	Other patient populations Other sites of care Content in categories that are not identified as a nursing responsibility Content collected during a physical examination
Additional Considerations	The outputs will be developed and presented in a manner that is EHR vendor agnostic. Exemplars from previous standardization efforts will be collected to inform this work.

Assumptions

Assumption	Assumption Description
Ownership	The outputs from this Task Force are attributed to the NKBD Conference. Authorship of any publications will be decided prior to starting work on a manuscript. The Task Force will be acknowledged in any publications or presentations.

Dependencies / Risks

Issue	Impacts	Impacted By
Task Force meetings	Frequency and length of meetings will vary at different stages of this work	Consistent participation
Regulatory compliance	Regulatory expertise for national regulations needed to advise Task Force	

Deliverables

Deliverable Name	Responsible Owner(s)	Approver(s) (optional – if known)
Charter	Jane Englebright	Task Force & NKBD Steering
Ground Rules for Task Force Processes	Shannon Hulett	Task Force
Guiding Principles for ideal Nursing Admission History	Jane Englebright	Task Force & NKBD Steering
Categories within the comprehensive Admission History that are the responsibility of nursing	Shannon Hulett & Sarah Michel	Task Force
Content of the ideal Nursing Admission History	Shannon Hulett & Sarah Michel	Task Force & NKBD Steering
Publication	David Boyd	Task Force & NKBD Steering

Timeline and Milestones

December 2018	Charter & Ground Rules Approved	12/18/18
January 2019	Guiding Principles Approved	October 2019 FINAL
February 2019	Categories Defined	
May 2019	Admission History Content Approved -DRAFT	
June 2019	NKBD Pre-Conference Work Session	
July 2019	Admission History Content Approved - FINAL	
November 2019	Dissemination Plan executed	

Roles & Responsibilities

Role	Name	Company	Responsibilities
Task Force Chair	Jane Englebright	HCA Healthcare	Organize meetings and drive to completion of outputs Report progress to NKBD Steering Committee

Task Force Co-Chairs	David Boyd	Kaiser Permanente	Manage Drop Box communication Oversee Collaborative Work Group review process
	Shannon Hulett	Gundersen Health	Draft Ground Rules for Task Force Processes

Task Force Members

Name	Role	Work Group
Bonnie Adrian	University of Colorado	
Avaretta Davis	Director of Clinical Transformation, Office of Nursing Informatics, Veterans Health Administration (VHA)	Transforming Nursing Documentation
Eva Karp	Senior vice President, Chief clinical & Patient Safety Officer, Cerner Corporation	
Stephanie Hartleben, RN-C, MSN, MHA	Clinical Informatics Manager, Elsevier Clinical Solutions	Encoding and Modeling (co-chair), Clinical Data Analytics, Transforming Documentation
Kay Lytle	CNIO, Duke University Health System	Clinical Data Analytics and Information Modeling
Peggy White	Program Director, Canadian Health Outcomes for Better Information and Care Initiative	Transforming Nursing Documentation

Mary Hook, PhD, RN-BC	Research Scientist/Informatics Specialist, Advocate Aurora Health Care	Care Coordination Co-Chair NKBD
Joni Padden	Texas Health Resources	
Becky Fox	CNIO, Atrium Health	
Nancy Beale	NYU Langone Health	
Crystal Heath	VA Health Systems	
Sheila Ochylski	CNIO, Veteran's Administration	

Ground Rules:

1. Task force will make decisions by evidence and consensus
    a. Voting and polling may be used when clear consensus is not achieved
    b. Decisions which cannot be determined will be brought to NKBD Steering

2. Decisions will be stated clearly in the minutes.

3. We will use direct, honest and productive communication – minimize interruptions and side conversations; everyone's voice is heard and all members have equal influence.

4. We will begin and end meetings in a timely fashion.

5. Meeting minutes and attachments will be sent electronically via e-mail within 2 weeks of the meeting being held. Final copy housed in Drop Box.

6. All members will monitor the work plan and fully participate in output development.

7. Members will participate in scheduled meetings and respond with feedback on task force working deliverables as a result of meetings by agreed upon milestone dates unless unforeseen circumstances arise and connection with project manager is attempted/occurs.

If member is unable to attend meeting or meet milestones s/he will access Dropbox and email documents and network with other members to catch up on content.

Guiding Principles

The guiding principles present a set of criteria for evaluating the content and format of a Nursing Admission History. The content is collected through patient and/or family interview and addresses physiological, psychosocial, sociocultural, spiritual, economic, and lifestyle (ANA) needs and preferences. The data collected is used by the interdisciplinary team.

Guiding Principles for Content	Example
1. Content is essential for patient care decisions with a clear case for use of the data in care	Data elements are displayed to the care team in other workflows or documentation routines to inform care or trigger additional actions - Patient is a heavy smoker: message triggered to physician to consider nicotine withdrawal prophylaxis - Patient oriented to the room: data not used in clinical care ELIMINATE
2. Content addresses a regulatory requirement	Educational preferences
3. Content is evidence-based, whenever possible	Risk assessment factors
4. Content is not documented elsewhere	Registration collects religious affiliation but nursing may ask when the information is missing
5. Content is best documented by a nurse	Family history is better documented by MD as part of differential diagnosis
6. Content is best documented during the admission process, as defined by the organization	Are there stairs inside the home is better asked later in the episode when post-discharge mobility status is known

Guiding Principles for Format	Example
1. Each item should address a single, structured concept to facilitate mapping and reuse of the data	How do you prefer to learn and communicate with the care team? Should be: How do you prefer to learn? How do you prefer to communicate with the care team?
2. Options within answer sets should be grammatically consistent	
3. Options within answer sets should be the minimum necessary with a maximum goal of 12 items	
4. Avoid yes/no responses whenever possible to facilitate reuse of the data	Tobacco Use: Yes/No Should be: Do you regularly use any of the following: - Cigarettes - Smokeless tobacco - Alcohol - Illegal drugs
5. Patient friendly or plain language is used, avoiding technical terms	Gravida/Para Should be: Number of pregnancies: Number of living children:
6. Avoid abbreviations, acronyms and brand names to reduce misunderstanding	

Checklist for a successful documentation redesign effort

Key questions	Yes/No
Project Scope	
1. Is the scope constrained to a single problem?	
2. Does the scope clearly indicate the population and workflow of interest?	
3. Are goals clearly defined?	
4. Is a timeline defined?	
5. Are success criteria defined?	
6. Are deliverables defined?	
Ground Rules	
7. Are guidelines for decision making established?	
8. Are team member expectations explicit?	
9. Are meeting processes defined?	
Guiding Principles	
10. Are guiding principles established to guide development of content?	
11. Can guiding principles be used to evaluate final product?	

Content Development	
12. Do you have examples of content? Could be existing documentation content from paper forms or EHR. Could be model content from a vendor or other source.	
13. Do you have the right expertise on the team to review the content? End user expertise is the most valuable.	
14. Do you have a mechanism for review of regulatory requirements?	
15. Is each element of the final product consistent with the scope?	
16. Is each element of the final product consistent with the guiding principles?	
17. Did you achieve the defined goals?	

NKBDS Admission History Task Force

Communication Planning

	Stakeholder / Stakeholder Group	Objectives	Stakeholder Persona (Demographics/Psychographics)	Key Messages by Stakeholder	Delivery Method/Venue	Frequency	Measurement & Metrics	Status	Notes
1	Nurse Informaticists	Nis will use toolkit	Nis in facilities and industry	Process	Article	Once	Published		CIN
2				Content	Article	Once	Published		CIN
				Toolkit	Article & Presentations	Once & multiple	Published		Epic, Cerner, MT user group meetings, HIMSS - March 2021, AMIA
3	Nurse Leaders	NLs will sponsor documentation	NLs in facilities and industry	Process	Article	Once	Published		Nurse Leader/JONA, AONL March 2021
4		reduction projects		Content			Published		
				Toolkit	Article & Presentations	Once & Multiple	Published		
5	Clinical Nurses	CNs will embrace documentation	CNs in facilities	Content	Article & Presentations	Once & Multiple	Published		AMSN, ACCN, CNL
6		reduction efforts		Benefits	Article & Presentations	Once & Multiple	Published		
7	Quality/Risk Managers	QRMs will see value in documentation	QRMs in facilities and regulatory	Content	article & Presentations	Once & Multiple	Published		IHI, present with QRM
8		reduction efforts	bodies	Benefits	Article & Presentations	Once & Multiple	Published		
9	Nurse Educators	NEs will incorporate documentation	NEs in facilities and schools of	Content	Article & Presentations	Once & Multiple	Published		ANPD
10		reduction in education programs	nursing	Benefits	Article & Presentations	Once & Multiple	Published		
11									
12	Policy makers?	Encourage national efforts aimed	NAM documentation burden	Toolkit	Direct communication/submission	Once	Accepted, asked to present		
13		at reducing documentation burden	AAN ITEP						

NURSING KNOWLEDGE:
BIG DATA SCIENCE

Optimizing the Nursing Admission History

Please note: The image below is a snapshot of a customizable tool to assist with optimizing nursing admission history. To download the editable file, please visit https://bigdata.dreamhosters.com/node/87.

A Two-Step Process

Step 1: Using Table 1, enter the components of current Nursing Admission History in the first column. Critically examine the content using the question in each column. Enter Yes or No for each question. Components with at least one YES response are the essential components for the Nursing Admission Assessment.

Step 2: Using Table 2, enter the essential components identified in Step 1 in the first column.

Table 1. Assessing the Content of the Nursing Admission History

Component	Used in patient care decisions?	Regulatory Requirement?*	Evidence-Based?	Not documented elsewhere?	Best collected by a nurse?	Best collected at admission?
Text here…						

* If YES to Regulatory Requirement, cite specific TJC standard or CMS condition of participation

Table 2. Optimizing the Format of Nursing Admission History Content

Component	Single Concept	Answer sets			Plain language			Revised component
		Grammatically consistent	12 or less options	Not YES/NO	No jargon	No abbreviations	No brand names	
Text here…								

Worksheet for Assessing Content

The image below is a snapshot of a robust worksheet to assist with assessing content for admission history. To download the full editable and customizable worksheet, please click here or visit https://bigdata.dreamhosters.com/node/88.

NURSING KNOWLEDGE:
BIG DATA SCIENCE

Content for Admission History

Category	Concept	Component/ Question	Response/Answer
Patient Preference	Values & beliefs	Spiritual, religious, or cultural details	None No blood products Dietary considerations
		Request to see clergy/spiritual leader	No Yes Personal clergy/spiritual On call clergy Facility clergy
		How can we support your spiritual or cultural needs?	Nothing at this time Contacting faith group leader Emotional support/listening ear Dietary (Kosher/Halal) Prayer/Meditation Communion Anointing Other (see comments)
	Learning	Does the patient/guardian have any barriers to learning?	No barriers Reading Language Visual Hearing Physical Emotional Cognitive Financial Cultural Spiritual/Religion Mental Readiness/Desire Age Other
		Will there be a co-learner?	Yes No
		Does the co-learner have any barriers to learning?	No barriers Reading Language Visual Hearing Physical Emotional Cognitive Financial Cultural Spiritual/Religion Mental Readiness/Desire Age Other

The Six Domains of Burden: A Conceptual Framework to Address the Burden of Documentation in the Electronic Health Record

Position Paper of the American Nursing Informatics Association Board of Directors

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The Six Domains of Burden: A Conceptual Framework to Address the Burden of Documentation in the Electronic Health Record

As the nation works to address the issues surrounding the burden of clinical documentation in the electronic health record (EHR), a framework to conceptualize "burden" in its many forms is needed. When referring to burden as a single entity, we lose the fact that problems with the EHR stem from multiple causes that need attention from varied groups of stakeholders. A framework can provide structure for improvement efforts as work is conducted, evaluated, categorized and reported. This framework has been developed with input from stakeholders across the nation who serve in leadership roles in the development, design and use of clinical systems. It is a working model that will evolve over time as new issues arise or previously unidentified areas of burden are added. This framework offers six domains of burden, each with varying levels of overlap with the other domains and transcends all care settings. Each domain represents an area in need of further evaluation, research and innovative approaches to assist in the transition from the current state of EHR documentation to one where it is perceived as a valued partner in care delivery and a true patient centered system. The six domains of burden are:

1. **Reimbursement** – Documentation, coding and other administrative data entry tasks required for payment
2. **Regulatory** – Accreditation agency documentation requirements
3. **Quality** – Documentation required to demonstrate that quality patient care has been provided. This includes documentation requirements by the healthcare organization itself, as well as by governmental and regulatory agencies
4. **Usability** – Limited and insufficient use of human factors engineering and human-computer interface principles resulting in extra time spent entering data, scrolling, clicking and searching for pertinent information in the record
5. **Interoperability/Standards** – Insufficient configuration standards resulting in duplication and re-entry of data even though it resides elsewhere, either internal to the organization or in an external system.
6. **Self-Imposed** - (by the healthcare organization) aka - "We've Done it To Ourselves" - Organizational culture's influence on what should be documented can exceed what is needed for patient care, including fear of litigation, "we've always done it this way", inadequate education, and misinterpretation of regulatory standards.

Each of these domains of burden are provided in Table 1 with illustrative examples to highlight the issue. Included at the bottom of the table are the stakeholders who own the issues and have the primary responsibility to address the burden. Most of the six domains of burden will require multiple stakeholders working in partnership with one another to ensure a collective and comprehensive strategy to drive burden reduction.

Domain Relationships

The relationship between each of the domains includes some overlap. Note that all domains rest within the domain of usability. The concept of usability based on the principles of human factors engineering is essential to all aspects of configuration in the EHR. Each of the remaining five domains must have improvements in how they are presented to the clinician (or patient) and be intuitive, support workflow and reduce cognitive workload. Ideally, coding for the purposes of billing should occur behind the scenes without providers needing to choose from long drop-down lists, duplicate notes or unnecessarily co-sign documents. Until EHRs become sophisticated enough to do this, any documentation required for billing should be evaluated to ensure its ease of use. Additionally, improvements to interoperability of patient data across care settings will continue to be burdensome if not accessible in an easy to access and use format. Bringing external data into an EHR from another provider is optimal, but if it increases foraging time because it's on a separate tab in a non-integratable format, it may never be reviewed. This universal thread of usability will be the key element to realizing an EHR that is a value-added tool.

Overlapping can also be seen between the domains of Self-Imposed, Regulatory, and Quality – with Self-Imposed residing in the center. Healthcare organizations are full of well-intended professionals who request added documentation components that are either duplicative, needed for reasons other than patient care, or result in no meaningful value. Clinical professionals are passionate about the work they do and often insist on documenting detailed information that may not be needed or helpful in the overall care of the patient. An organization's culture can contribute to the self-imposed burden by supporting and allowing additions to the documentation. The absence of a strong informatics governance with processes to critically appraise the value of potential additions can contribute to more time at the computer. Organizations need to increase their tolerance and ability to say "no" to documentation additions.

To add to the burden, many organizations continue to support the adage, "if it's not documented it's not done". This mindset sustains our litigious society where there is fear that if an action is not represented in the chart, there could be legal consequences. More research is needed on important and key aspects of documentation from a legal perspective. In the mean time we often have over-zealous risk managers continuing to add more fields to be filled out, more checkboxes to complete, more alerts that fire, and less time to care for our patients. A similar situation can occur with the regulatory and quality domains. The Centers for Medicare and Medicaid Services (CMS) and The Joint Commission (TJC) have multiple regulations that require documentation, but organizations can misinterpret them thinking that every standard requires a note or documentation element. While work is underway within both CMS and TJC to reduce the burden, organizations need to understand what truly needs to be captured in the EHR and what does not. Healthcare organizations should review their own policies and procedures to see where they state documentation is required and evaluate closely the need to

continue. Simplifying and paring down what is truly needed to provide quality care will be a challenge.

Moving Forward

Many initiatives are underway to improve the clinician experience with the EHR, some at the level of the healthcare organization and some at the national level. Each report that they are addressing "the burden" yet they typically are addressing only a portion of the burden when viewed holistically. CMS, for example, has dedicated resources to the Patients Over Paperwork initiative as part of the 21st Century Cures Act (CMS, 2018; 21st Century Cures Act, 2015). This work primarily addresses the reimbursement aspects of burden and has already resulted in simplification of provider documentation requirements for a number of previously burdensome rules. The healthcare accrediting body, The Joint Commission (2018) has eliminated over 300 of their elements of performance in their Project Refresh initiative addressing the Regulatory domain. The American Nurses Association in partnership with the Office of the National Coordinator for Health IT (ONC) began an effort last year to reduce documentation from a nursing perspective to address some of the self-imposed areas of EHR burden (Cochran et al, 2018). The national standard setting organization, Health Level 7 (HL7), convened a work group called the "Reducing Clinician Burden" Project Team and has been conducting an environmental scan to better understand and address the burden by sharing successes across the nation (HL7 Electronic Health Record Work Group Burden Workgroup, 2020). And lastly, the Office of the National Coordinator (2020) published their final report on the "Strategy on Reducing Regulatory and Administrative Burden Relating to the Use of Health IT and EHRs". As our federal government, payors, vendors, health IT standard setting bodies, professional organizations and healthcare organizations address this work, it would be helpful, going forward, if they recognized which aspect or domain of burden they are working to improve.

Healthcare is complex as will be efforts in improving the use of the EHR for clinicians and patients. Improving clinical systems to help reduce errors, and reduce the time spent entering and foraging for data will be key to achieving the outcomes we all hoped to gain in an electronic world. Horvath et al. (2018) in The National Academy of Medicine's publication presents a vision for this future EHR using technologies available today. This vision includes a system that would not only provide an intuitive and easy to use interface, but would help to address clinician stress and burnout associated with EHR use.

Ensuring clinicians maximize their time with the patient and not with the computer is a goal worthy of achieving as we work toward burden reduction. There currently does not appear to be a holistic or comprehensive approach to this national effort that includes a common framework including all aspects of burden from which to work. As an initial step, the use of a burden framework such as this gives entities a common language and an understanding that there are multiple components to the burden problem.

Table 1: The Six Domains of Burden

Reimbursement	Regulatory	Quality	Usability	Interoperability	Self-Imposed: "We've done it to ourselves"
Definitions					
Documentation, coding and administrative charting required for reimbursement. by payors including: • CMS • Blue Cross / Blue Shield • United Healthcare • Aetna • Anthem • Cigna • Humana • Others…	Accreditation agency documentation requirements, including: • TJC • Healthcare Facilities Accreditation Program • Det Norske Healthcare, Inc • State Regulatory Agencies	Documentation required to demonstrate that quality patient care has been provided. This includes documentation requirements by the healthcare organization itself, as well as by governmental and regulatory agencies.	Insufficient use of human factors engineering and human-computer interface principles. EHRs are not following evidence-based usability/human factors design principles.	Insufficient standards requiring duplication and re-entry of data even though it resides elsewhere, either internal to the organization or in an external system.	Organizational culture's influence on what should be documented can exceed what is needed for patient care, including fear of litigation, "we've always done it this way", and misinterpretation of regulatory standards. This domain also includes insufficient education on system use.
Examples of Documentation Burden					
Evaluation and Management (E & M) Documentation required for CMS	Standards that require written documentation are numerous to the point that there is confusion as to what does **not** need to be documented. Organizations err on the conservative side and add additional documentation.	• The Hospital Inpatient Quality Reporting (IQR) Program, • The Hospital Outpatient Quality Reporting (OQR) Program, • The Physician Quality Reporting System (PQRS) • National Database of Nursing Quality Indicators (NDNQI)	EHR design based on historical paper records with formatting that does not take advantage of electronic efficiencies	Duplication of documentation that's already in an organization's electronic system – somewhere	"Squeaky wheel" or powerful special interest groups want added documentation by clinicians to meet their needs.
Documentation required for Prior Authorization	Documentation required by regulatory agencies	Quality documentation requirements for Merit-	Documentation tools and templates that are	Duplication of documentation due to	Excessive documentation on

	may not be value added – need more evidence that documentation results in improved outcomes	based Incentive Payment System (MIPS) and Advanced Alternative Payment Models (APMs)	"one size fits all" and do not support unique work flow of clinicians	inability to integrate external patient data into workflow of clinician	admission to the hospital or an initial visit to a clinic
Recovery Audit Contractor (RAC Audits) Medicare Fee for Service (FFS) Recovery Audit Program documentation	Sentinel events reported to TJC often lead to increased documentation without comprehensive analysis of root cause (that may not involve technology or documentation)	Quality documentation required for Accountable Care Organizations (ACOs) that are participating in the Medicare Shared Savings Program (Shared Savings Program)	Workarounds requiring navigation through multiple screens	Excessive time spent searching for information imported into an EHR from an external source	Fear of litigation Extra "CYA" charting.
Stakeholders to Address the Burden Problem					
CMS and other healthcare insurers that have established documentation requirements for payment	Regulatory agencies whose standards require documentation in order for healthcare organizations to be accredited (and therefore reimbursed for service by CMS and other payors)	• CMS and other healthcare insurers • Regulatory agencies who require quality data documented and reported • Healthcare organization's Quality departments	• EHR Vendors • Organizational Health IT departments • Clinicians and other system users	• EHR Vendors • Interoperability standards setting agencies • Healthcare organizations including clinicians • CMS and other healthcare insurers • Other agencies responsible for barriers to sharing essential patient data in a usable and standard format	• Healthcare organizations including clinicians • EHR Vendors

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