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Preparing for Electronic Clinical Documentation

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Looking Back . . .

It's every nurse's nightmare: you're just about to finish your shift and you get a new admission. You know what this means: Orders need to be checked and carried out, assessments performed, a family oriented, and IVs started. And once the patient has been made comfortable and seems reasonably stable, the documentation must begin. You also know you're not going home anytime soon.

The documentation standards called for the completion of a general assessment and in some cases an additional assessment for the specialty unit. The findings were written in a narrative on the nursing notes. Intravenous infusions that were running were documented on an IV Flowsheet. Vital signs, height and weight, and intake and output values were entered on a graphic sheet so each could be trended. After the initial assessment and care plan were completed, ongoing observations, safety precautions, and nursing interventions were documented in checklist format. Another form called a Kardex made contact numbers activity level, diet, scheduled lab and X-ray orders, and significant events readily available. The Kardex was the tool used to communicate the patient's status to next shift and was continuously updated as the patient's condition changed.

Care providers would have numerous forms to review to piece together what was going on with the patient.

When a clinical system was proposed, nurses were hopeful that their documentation would be automated but what happened was that the new system was customized to accommodate their existing practices and nurses often found themselves having one more place to chart; the computer.

EHR Future Goals and Promises

The concept of a total Electronic Health Record (EHR) has been a goal among many healthcare facilities for some time; providing physicians and nurses and ancillary care providers with the hope of having a totally integrated record with easy access to the information they need to deliver care. Patients would not have to explain their story repeatedly, or have to rely on their memory to provide details of their past medical or family history. Information could be written once and populate the same fields on all other forms requesting the same data entry. All the information gathered is easy to find, view, and compare during the course of the patient's stay, and the data collected can be analyzed to improve patient outcomes – but are healthcare organizations taking

the right steps to get there? Are they taking this opportunity to refine their processes or are they preparing to retrofit existing practices and inefficiencies into their new system?

It Begins with Process Review

Ideally, even before selecting an EHR system, nursing should select a practice model that is in line with their philosophy and review their standards of practice. The standards of practice formulate the policies that provide direction to nurses on how they document the care they provide. This includes the process for decision making, the frequency of assessment, the process for late entry recording, acceptable abbreviations, HIPPA and other regulatory requirements, what constitutes the legal record, and how to handle the transmittal of client information. All of which could be impacted by computerization.

Why Standardize?

Decisions must also be made as to whether or not to incorporate a standardized nursing language into the new system. Without standardized terminology, nursing observations, interventions, treatments, and evaluations are not captured and submitted to government and health care agencies for use in healthcare planning. In essence, the practice of nursing is omitted from research and aggregate data. Since evidence-based practice starts with clinical documentation, it is pivotal to decide what constitutes nursing data, and what terminology will be used to represent that data so that data can be validated and used to improve patient outcomes and manage cost.

Another reason may be to prepare for the Health Information Technology for Economic and Clinical Health (HITECH) Act. The HITECH Act described in the **American Recovery and Reinvestment Act** provides a monetary incentive to hospitals and physicians that implement an EHR and are using the data extrapolated from the system to improve patient care. ⁴

The table below lists the existing terminologies recognized and sanctioned by the American Nurse Association (ANA) as of March, 2008 to promote standardization of nursing documentation and evidence-based practice.

Table 1.1 – Standardized Nursing Languages and Minimum Data Sets

Standardized Term	Description
NANDA - North American Nursing Diagnosis Association, Inc.	Standardized nursing terminologies that supports documentation of the Nursing Process and the plan of care. Designed to be used in conjunction with NIC and NOC.
NIC - Nursing Interventions Classification System	Standardized nursing terminologies that supports documentation of the Nursing Process and the plan of care. Designed to be used in conjunction with NANDA and NOC.
NOC - Nursing Outcomes Classification System	Standardized nursing terminologies that supports documentation of the Nursing Process and the plan of care. Designed to be used in conjunction with NANDA and NIC.
Omaha System	A nursing terminology recognized by the ANA that focuses on nursing concepts of the client as an individual, family, or group and the interactive nature of nurse-client relationship. And serves all ages, populations socio-economical status, education, spiritual beliefs and ethnicity. ¹

PNDS - PeriOperative Nursing Dataset	Standardized nursing terminologies designed specifically for peri-operative nursing
CCC – Clinical Care Classification (formerly HHCC) Home Health Care Classifications	
SNOMED (formerly SNOMED RT)	Systemized nomenclature of medicine that contains clinical terms that can be used for mapping to the nursing problems (diagnosis) for NANDA, the Omaha system, CCC formerly HHCC, and the PNDS.
ICNP International Classification for Nursing Practice (2000)	
LOINC – Logical Observation Identifiers Names and Codes (2002)	
Alternative Link (2002)	Supports electronic and paper claims processing and fee structures for providers, health care payers, managed care organizations, and affiliate organizations. Although recognized by the ANA, it serves a different purpose than the other terminologies
NMDS - Nursing Minimum Data Set	Data elements organized for a specific purpose. US Nursing Minimum Data Set provides the vocabulary for NANDA to collect Nursing Diagnosis.

Armed with a clear direction on the standards of care and how the standards should be documented, you are ready to begin identifying the specifications for the electronic document design.

In order to identify specifications, the team needs to understand the capabilities and limitations of the selected system. Decisions need to be made early in the design process so as to minimize changes later on.

Note: The table below provides examples of the type of decisions that need to be made for free text notes, structured notes, and Flowsheets that is specifically for the Allscripts™ Sunrise Acute Care and Sunrise Ambulatory systems but may be appropriate to documenting via other clinical systems as well.

Table 1.2 Decisions for General Flowsheet Design

General Flowsheet	Issue	Considerations
The General Flowsheet format is intended for documenting observations that repeat on a regular basis, need to display in a grid format and allow for summarization and graphing.	Should the parameters on the Flowsheet be visible when the Flowsheet opens, or collapsed?	Expanded parameters increase the size of the Flowsheet and the need for scrolling. When a parameter is collapsed, the user must open the observation before they can chart against it.
	Should the columns auto generate and if so how far in advance?	This can be individualized for each Flowsheet version. The setting in the Critical Care is Q 1H and looks back the previous 24 hours.
	Will future charting be allowed? If so, how much time in minutes will the user be allowed to document data. The maximum is 4 hours.	The default setting is 60 minutes. A warning will display to the user if attempting to document farther into the future that the number of minutes/hours allowed.
	Will the user be allowed to document after the patient is	This issue may not be as applicable to Critical Care but does have purpose for

	discharged? And if so, how long after discharge in weeks. The options are 1-250 weeks.	Series Outpatient's or other outpatient visit types. The default in the Critical Care module is set to 1 week.
	Should a field within a parameter be mandatory?	Mandatory fields must have an entry or the user cannot save their work. Configuring mandatory fields can promote compliance but should be used judiciously for those times when the data is not applicable or available.
	Can a parameter be added more than once?	Examples of when parameters may need to be added more than once are wounds, pressure areas, or IVs.
	Should the data charted in one Flowsheet be configured to populate to another Flowsheet with the same parameter such as a temperature observation?	This is termed "fan out" and can be turned off for the entire Flowsheet or allowed for a single observation. It can be bidirectional.
	Should the Flowsheet build include all parameters needed by a critical care unit or specialty unit and then pared down for other units?	This format may be easier to maintain and the continuity of patient care is supported. The user would have to add the parameters needed the first time the Flowsheet is added to the patient's chart. This is the recommended practice so that the data follows the patient when they are transferred to a step-down unit.
	Do you want Range icons indicating whether an observation is normal or abnormal to display?	Range icons by default will display in Sunrise Critical Care but may be disabled.
	Do you want the user to be able to document that a task was done in the Worklist Manager and have it complete the observation within the Flowsheet cell or document the observation in the Flowsheet and have it complete the task in Worklist Manager?	In some cases, this could prevent duplicate charting and minimize errors.
	Do you want the weight to be mapped to the Patient Characteristic calculation weight?	Observations for drip weight may be left blank on the Flowsheet as the weight is mapped to the Patient Characteristic weight.
	Should the user be allowed to use the "auto enter" feature which means the value from one column is copied to another. And if so, which data cell should allow for this feature? The look back time is 0-250 hours.	Standards of practice may circumvent using this feature but if allowed, it can save the clinician time when documenting data such as IVs that are consistently infusing at a set rate each hour. However, the Auto Enter function will not prevent a user from entering data they do not have the rights to enter. Also if data is being imported from a device interface, the action of the device interface takes precedence over the Copy Forward feature if both are implemented. The Critical Care Module does not utilize Copy Forward.
	Do you want to add Relevant Data such as a WBC when the temp is elevated to an observation?	In Sunrise Critical Care™, you can configure results from an Ancillary system to display as Show Related Data. Once configured, the user selects the Show Related Data from the Right-click menu. No Related Data is configured in the content of Sunrise Critical Care.

	Will Flowsheets display in the Documents tab?	Since entries are made in flowsheets multiple times per day, many organizations elect to not have them file in the Documents tab. You can set it up so the user can view Flowsheet data as a filter.
	Should observations display as a group? And be deleted as a group?	This design mimics the format that is accepted by care providers for certain observations such as BP measurement.
	Should observations have number indexing?	Placing a number in front of the observation allows the user to perform data entry more easily by using the keyboard or keypad.
	Will evaluation and management (E&M) coding values be assigned to the observations and lists?	E&M values added to observations within a structured note can assist with reporting purposes and the suggested diagnosis from the Assessment/Plan section of the note. They should be added when the observation is created to save time adding it later.
	Will CPT 4 or ICD-9 or soon to be ICD-10 coding schemes be utilized? Will Vocabulary Manager be loaded?	Coded values can be added manually or via the Vocabulary Manager component of the Sunrise Acute Care Documentation module.

Table 1.3 Decisions for Intake/Output Flowsheet Design

Intake/Output Flowsheet	Issue	Considerations
	Do you want blood transfusions to be included and calculated separately from other intake components?	Easier to track number of units transfused.
	Naming conventions for outputs.	Deciding this upfront supports standardization and minimizes user confusion.
	Will you be using orders to Flowsheet capability?	Medications given in IV infusions would be automatically updated on the Intake/Output Flowsheet. Otherwise, the row label must be modified to reflect the current order which can be labor intensive for the nurse and create more potential for error.
	Will nursing be allowed to modify the parameters?	This capability allows the nurse to change the drug concentration and rate.
	When should the Flowsheet perform a 24 hour total? What constitutes a shift?	
	What values should be included in the Grand Totals column?	This is an opportunity to exclude fluids discarded from diasolate and/or irrigations.

Structured Note Design	Issue	Considerations
<p>Structured notes can be configured to include:</p> <ol style="list-style-type: none"> 1. Free text fields 2. Question and answer statements 3. Discriminate lists and Prose writer so input displays in paragraph format 4. Allow for pulling data into the note 5. Allow for pushing data out to other sections of the chart 6. Showing reference data or Initiating an order 7. Referencing a standard 8. Allowing observations to display in groups 9. Display an icon for charted data so the user knows what is still left to be addressed 10. Allow for spell check in free-text fields 11. Allow the SN to have a description after the name. 	<p>Decide the format to include in the note depending upon the type of data that needs to be documented and the means of viewing.</p>	<p>The SN has a lot of functionality. You can have it auto populate from data entered previously from a specific flowsheet or note. You can define a specific document and a specific look back time. You can make documentation required or only required if a certain condition exists.</p>
	<p>What department will own the document?</p>	<p>This decision effects how documents are filed and retrieved in order, result, and browse.</p>
	<p>If data such as results and orders are pulled into a note by Pullsets what time frame should be set for retrieval of that data? The options vary depending upon the type of Pullset utilized but all Pullsets allow for some configuration.</p>	<p>Results, orders, care providers, observations, and health issues are examples of Pullsets that can bring data into note.</p>
	<p>Will the note allow data to be Copied forward to a new note? And if so, what data will be allowed? For the same visit or an earlier visit?</p>	<p>The “Copy Forward” feature copies “like” data from one note to another according to how it is configured. A decision needs to be as to the time frame and/or visit this feature is available.</p>
	<p>Will fan out be desired from a SN to a FS cell? Note: A SN cannot receive info from a FS cell.</p>	<p>An observation parameter can automatically populate a cell in a FS from a SN for the same visit. For the same observation. If data already appears and is updated, the system marks it with a correction icon.</p>
	<p>Will data be transferred from a monitor device? If so what interface issues must be considered? What hardware is currently in use? What interface will be used?</p>	<p>Will this be to SN only, or SN and Flowsheets? If Data Captor is used and compatible with the monitor, all data captured by the monitor can conceivable be interfaced into observations.</p>
	<p>Will complex calculations be needed to accommodate complex orders?</p>	

	<p>Will a field be mandatory or significant?</p> <p>Significant differs from Mandatory in the respect it allows the user to save their documentation in a SN with a status of Incomplete.</p>	<p>Both are delineated to the user as a required entry. Significant or “if mandatory” are dependent upon entries made in another field with a specific result using an If when logic.</p>
	<p>Do you want the user to be able to edit a document after it has been saved as complete? And if so, how long after in minutes will this be available?</p>	
	<p>Can the users modify the template once configured?</p>	<p>A structured note can be designed for a physician and modified so it only contains items that are typically documented by the nurse or ancillary care providers. Can it be modified for all instances or for a selected patient?</p>
	<p>Do you want the ability for the user to access a hyperlink from the document?</p>	
	<p>Exchange document allows for the sharing of data to other applications.</p>	
	<p>Assessment and Plan – this feature allows for an association of outpatient meds, health issues and orders. It allows you to associate orders and prescriptions with a Health Issue.</p>	

Ready for Workflow Analysis

With some familiarity with the features and functionality of the tools available from the selected system, the next step is to perform a thorough analysis of the existing workflow for **all** care providers who will be interacting with the system.

In summary, evidence-based practice must include elements from the nursing assessment. The data elements must be standardized to ensure the quality and reliability of the information. The planning phase for implementing electronic documentation begins with a systematic review of existing practices before defining the specifications for redesign. This phase, if conducted properly can be is a critical step to the success of the project.

For more information about preparing your organization for clinical documentation or other services and solutions offered by VCS, please contact us at 610.444.1233, vcs@getvitalized.com, or visit our website at www.getvitalized.com.