

SNOMED CT[®] and the
Integrated Problem List :
Tips, Tricks and Workflow Implications
for Clinicians, Coders and Health
Information Managers

IHS Office of Information Technology
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Opening Thought

“The secret of change is to focus all of your energy, not on fighting the old, but on building the new.”

— Socrates

Introduction

- The new Integrated Problem List (IPL) changes:
 - ... how clinicians will manage problems and select encounter diagnoses.
 - ... how coders manage encounter coding and manage problem list updates.
 - ... offers opportunities to improve clinical documentation and help to prepare for a smoother transition to ICD-10.

Benefits of 2014 EHR Adoption

- Enables Health Information Exchange
 - Health information exchange infrastructure
 - More structured data using controlled vocabularies (SNOMED CT[®], LOINC, RxNORM, UNII)
- Improves transparency for patients
 - CCDA clinical summaries and PHR include care planning
- Increases data security and auditability

Benefits of 2014 EHR Adoption (cont.)

- Longitudinal problem management
 - Data collection and aggregation with IPL
 - Changes to problem data are viewable over time
 - Care planning documentation available
 - Incorporated into clinical notes
- Transition to ICD-10
 - 2014 EHR introduces a new process for documenting problems and encounter diagnoses that incorporates SNOMED CT® and maps to ICD.
 - Providers will already be accustomed to the new Integrated Problem List making ICD-10 transition relatively transparent.

Why Change to the IPL?

There were several requirements for Meaningful Use and ICD-10 that we needed to incorporate into the EHR:

- Summary Documents for Health Information Exchange
- SNOMED CT[®] for Problems and Family History conditions
- SNOMED CT[®] for Diagnoses (for some Clinical Quality Measures)
- Longitudinal problem documentation that includes goals, care plan and visit instructions for problems
- ICD-10 for encounter diagnoses (1 Oct 2015)

Although the IPL design is intended to reduce the impact of the new MU 2104 and ICD-10 requirements, it still represents a significant workflow change for users.

Documentation Matters

Purpose	2014 EHR Enhancements
Continuity of Care – <i>communication with health care team</i>	Integrated Problem List (IPL) - More clearly documented problems, aggregates care planning and visit activities.
Transitions of Care – <i>communication for referred or transferred services</i>	IPL, CCDA (transition of care document) - More clearly documented problems, aggregates care planning and visit activities. Problems and care planning included in ToC.
Medical Record Transparency – <i>communication with patient</i>	PHR, CCDA (clinical summary document) - Care planning, visit instructions, referrals, pending studies are all available to patients.

Documentation Matters (cont.)

Purpose	2014 EHR Enhancements
<p>Substantiation of care provided for coding/billing <i>– supports reimbursement for services. You can only bill for what you documented.</i></p>	<p>IPL and POV selection dialog tool, SNOMED to ICD maps, Map advice.</p> <ul style="list-style-type: none">- Longitudinal problem documentation, care planning, visit activities and provider text to clarify visit diagnosis narratives.- Map advice to assist coders and clinicians in documenting pertinent info for ICD-10 coding.
<p>Documentation of medical necessity and medical decision making <i>- Legal record. Needs to stand up under legal scrutiny.</i></p>	<p>IPL</p> <ul style="list-style-type: none">- Longitudinal problem documentation, care planning, visit activities and provider text to clarify visit diagnosis narratives.

Documentation Matters (more)

Purpose

Compliance

– internal policies, external requirements (Medicare CoP, accreditation and external audits, such as Recovery Audit Contractor Program (AKA RAC), OIG audits, etc.)

2014 EHR Enhancements

IPL

- New workflow creates a need for increased interdisciplinary collaboration across clinical, quality, compliance, HIM, Revenue Cycle and Technology that can focus on quality, compliant, and transparent documentation for our patients.

Documentation Matters

- Documentation for encounters should be relevant and complete, yet succinct.
 - Satisfy medical and legal requirements
 - This documentation also provides coders with the information needed to review and refine ICD and CPT assignment for encounters.
- *Clinician/Coder/HIM Collaboration through the adoption of SNOMED CT[®] and transition to ICD-10 is one of the keys to successful implementation of both initiatives.*

SNOMED CT[®] Essentials

- **Systematized Nomenclature of Medicine Clinical Terms[®] (SNOMED CT[®])**
 - SNOMED CT[®] is a comprehensive international multilingual clinical terminology that provides clinical content and expressivity for clinical documentation.
 - SNOMED CT[®] is required for 2014 EHR certification and is used to document problems, encounter diagnoses, clinical indications and and family history conditions.
 - SNOMED CT[®] and its mapping tools will help IHS in the ICD-10 transition.

Source: IHTSDO, www.snomed.org

SNOMED CT[®] is a “Controlled Vocabulary”

- Each SNOMED CT[®] term is carefully defined by an international team of terminologists. The term is placed by the terminologist in a specific hierarchy with specific relationships.
- This is where the power of SNOMED CT[®] lies. Because the content is organized based on its clinical meaning, the information can be utilized more accurately and more thoroughly.
- ICD is also organized hierarchically, but its purpose is billing and resource utilization so the information cannot be extracted and grouped the same way.

PROBLEM ENTRY

Problem Entry (cont.)

- Problems are entered by
 - Selecting a SNOMED CT[®] term (human readable descriptions)
 - Adding optional clarification in the “provider text” field

These are combined to form the “Provider Narrative”
 - Optional qualifiers may add additional detail
 - When stored, the system displays any ICD codes that are auto-mapped or .9999 if not mapped.

Problem Entry (more)

- The IPL shows the computer-assigned ICD code (or .9999 if it was not mapped) for information only.
- This is the code(s) that will pass to the visit diagnosis when problem is set as POV.

Integrated Problem List		<input checked="" type="checkbox"/> Chronic <input checked="" type="checkbox"/> Episodic <input checked="" type="checkbox"/> Sub-acute <input type="checkbox"/> Social/Env <input type="checkbox"/> Inactive <input type="checkbox"/> Current/Most recent Inpatient					
Status	Onset Date	Provider Narrative	Comments	PHx	PIP	IP	ICD
<input type="checkbox"/> Sub-acute		Closed bimalleolar fracture left, fall off fence					824.4
<input type="checkbox"/> Chronic		Dyslipidemia elevated tryglyceriedes					272.8

PROVIDER NARRATIVES

Provider Narratives – New Format

- SNOMED CT terms are combined with optional “provider text” to create the “provider narrative”.
- This Provider Narrative is used for problems, Purpose of Visits (POVs), Clinical Indications.

The screenshot shows a web form titled "Add Problem". At the top, there are fields for "Problem ID" (DB-8), "Priority" (a dropdown menu), and checkboxes for "Pregnancy Related" and "Use as POV". There are "Save" and "Cancel" buttons on the right. Below this is a section for SNOMED CT terms, with a text input containing "Endometriosis" and a dropdown menu showing "endometriosis". A red box highlights a three-dot menu icon next to the dropdown. To the right of the dropdown are "Get SCT" and "Pick list" buttons. Below the SNOMED CT section is a "Status" section with radio buttons for "Chronic", "Sub-acute", "Episodic", "Social/Environmental", "Inactive", and "Personal Hx". The "Chronic" option is selected. Below the status section is a "Provider Text" section with a text input containing "bowel, bladder, peritoneum, ovaries" and a "Chars left: 25" indicator. At the bottom, there is a summary line: "Endometriosis | bowel, bladder, peritoneum, ovaries 617.9".

Provider Narratives (cont.)

Format: SNOMED CT term | provider text
 Standard Term *Clinician Free Text*

Example: Hyperlipidemia | uncontrolled

Status	Onset Date	Provider Narrative
<input type="checkbox"/> Chronic		Hyperlipidemia uncontrolled

Provider Narratives (more)

- Previous provider narrative:
 - *Osteoarthritis right knee
- New Provider narrative:
 - Format: SNOMED term | provider text
 - Example: Osteoarthritis of knee | right

Status	Onset Date	Priority	Provider Narrative
<input type="checkbox"/> Episodic			Decubitus ulcer of sacrum Stage 3
<input type="checkbox"/> Episodic			Osteoarthritis of knee right

Integrated Problem List Display

Integrated Problem List								
<input type="button" value="Expand All"/>		<input checked="" type="checkbox"/> Chronic	<input checked="" type="checkbox"/> Episodic	<input checked="" type="checkbox"/> Sub-acute				
		<input checked="" type="checkbox"/> Social/Env	<input type="checkbox"/> Inactive	<input type="checkbox"/> Current/Most recent Inpatient				
Status	Onset Date	Provider Narrative	Comments	PHx	PIP	IP	ICD	
<input type="checkbox"/> Chronic		Hyperlipidemia					272.4	
<input type="checkbox"/> Chronic		Hypertension					401.9	
<input type="checkbox"/> Chronic		Diabetes mellitus type 2					250.00	
<input type="checkbox"/> Sub-acute		Bimalleolar fracture of ankle left, fall off bike					824.4	

Visit Diagnosis Display

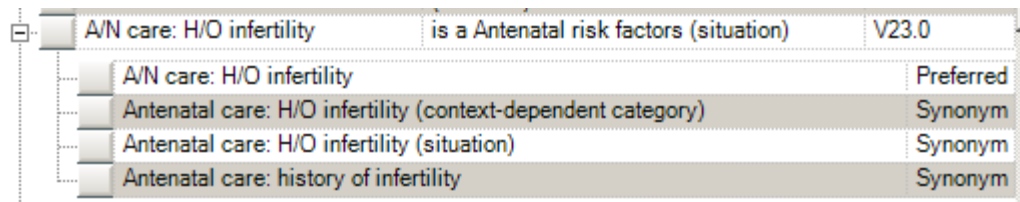
Provider Narrative
Hyperlipidemia controlled on simvastatin and diet
Hypertension controlled on lisinopril
Bimalleolar fracture of ankle left, fall off bike - delayed healing
Diabetes mellitus type 2 uncontrolled but improving after starting insulin

IPL Documentation Tips

1. Convert problems whenever possible, do not just add new SNOMED and leave the old ICD.
2. Edit problems and update SNOMED when appropriate instead of inactivating and adding new problem.
3. Assign statuses appropriately (default in pick lists).
4. When adding clinical indications:
 - Select from the selection list (existing problems) for existing diagnoses.
 - Search for a clinical indication for a symptom or working diagnosis rather than adding a new problem.

IPL Documentation Tips (cont.)

5. Use Provider Text to clarify term selected or to add laterality:
 - Dyslipidemia | low HDL
 - Bimalleolar fracture | left, fall off bike
6. Avoid selecting SNOMED CT[®] descriptions that contain abbreviations. IHTSDO is removing abbreviations in SNOMED CT[®] in early 2015.



The screenshot shows a hierarchical view of SNOMED CT concepts. The top level is 'A/N care: H/O infertility' (situation), which is a sub-concept of 'Antenatal risk factors (situation)'. Below it, four sub-concepts are listed, each with a status:

Concept	Status
A/N care: H/O infertility	Preferred
Antenatal care: H/O infertility (context-dependent category)	Synonym
Antenatal care: H/O infertility (situation)	Synonym
Antenatal care: history of infertility	Synonym

Can I Edit IPL Entries in the EHR?

Problems

- SNOMED CT[®] description (text to left of “|” in provider narrative) ***is not editable.***
- Provider text (text displayed to the right of the “|”) ***is editable*** by the EHR clinician.

Can I Edit Problem List Entries in PCC?

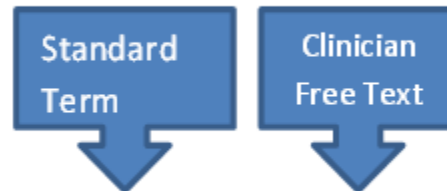
- For Problems entered from the IPL:
- Provider narrative ***is not editable*** (neither SNOMED CT® description or provider text).
- Problem ICD field ***is not editable.***

This may represent a significant change in functionality for coders.

Why can't coders edit Provider Narratives?

- SNOMED CT is a controlled vocabulary.
- The provider narrative is stored as the SNOMED description ID (which is numeric) and any text in the **Provider Text** field.
- The system translates it to view in RPMS applications.
- Because part of the narrative is a standard term (and actually numeric that is translated for display) it is not editable by data entry or coding.

Format: SNOMED CT® term | provider text



Example: Hyperlipidemia | uncontrolled

Why do coders no longer fix the uncoded (.9999) problems?

- Problem = SNOMED CT®:
 - ICD display on the IPL is for information and is dynamic.
 - It reflects what the mappings are today, not when they were entered and is based on the map from the SNOMED CT® description only.
- POV = ICD:
 - Visit diagnoses, provider text, provider notes, labs, etc., are reviewed in order to assign ICD codes. Final ICD codes for the POVs are based on the entirety of the encounter documentation.
 - Coders DO confirm, edit and/or assign ICD to POVs.

VISIT DIAGNOSIS (POV) SELECTION

How are ICD Codes Assigned in EHR?

1. Clinician selects a SNOMED CT Problem and sets as POV (encounter diagnosis).
2. Clinician enters provider text for visit from POV dialog:
 - Optional but recommended particularly for follow up visits for existing problem.
3. Clinician may enter optional care planning and education from POV dialog.
4. Any auto-mapped ICD codes are passed to Visit Diagnosis for coders to review.

Can I Edit the POV in EHR?

POVs

- Provider text (text displayed to the right of the “|”) **is editable** by the EHR clinician to provide information specific to the encounter (this may be different from the problem narrative).

Can I Edit the POV in PCC?

For POVs entered from the IPL:

- Provider narrative ***is not editable*** (neither SNOMED CT[®] description or provider text):
 - Coders should not change provider documentation.
- ICD field ***is editable*** for POV.

Process for Coding Visits

- Much of the process is unchanged.
- Coder reviews provider narrative, qualifiers, encounter notes and accepts or changes mapped codes, assigns code(s) to uncoded entries and adds any additional codes based on the documentation provided.
 - After the conversion to ICD-10, additional “map advice” is passed to the coding staff through PCC to assist with the transition to ICD-10.

Documentation Tips

1. Select POVs from existing problems when possible.
 - This is particularly important for nursing and pharmacy visits.
2. Leverage POV selection tool:
 - Select one or more problems at once.
 - Enter provider text specific to encounter, particularly for follow up visits and chronic problems.

POV Selection Tool 1

- If user enters “Provider Text” from POV selection tool, this stores only to the POV file as part of the Provider Narrative for this encounter:
 - Paints a clinical picture for continuity of care.
 - Provides coders with required documentation.

POV Selection Tool 2

Problem entry - injury:

- Closed bimalleolar fracture | left, fall off fence, with edema

POV for fracture follow up

- Closed bimalleolar fracture | left, edema resolved, normal healing

Problem entry – chronic problem:

- Diabetes Mellitus Type 2 |

POV for chronic problem follow up:

- Diabetes Mellitus Type 2 | controlled on oral agents and insulin therapy

POV Selection Tool 3

- The POV selection tool brings up the problems highlighted.
- The provider text will default to the existing text in the Problem.
- If the user wishes to change the text for the current encounter, right click over the Prov. Text field and click **Replace...** (or add if it is blank).

The screenshot displays the 'POV Selection Tool' interface. It features a table with columns for ID, Status, Prov. Narrativ, POV, Episodicity, Prov. Text, and Goal Notes. Two rows are visible: one for ID 1378 with Status 'Sub-acute' and Prov. Text 'left, fall off fence', and another for ID 1378 with Status 'Chronic' and Prov. Text 'left, edema resolved, normal healing'. A context menu is open over the 'left, fall off fence' text, with 'Replace...' selected. A yellow arrow points from this menu to a 'Provider Text' dialog box. The dialog box has two text input fields: 'Text' containing 'left, fall off fence' and 'Replacing Text' containing 'left, edema resolved, normal healing'. 'OK' and 'Cancel' buttons are at the bottom.


ID	Status	Prov. Narrativ	POV	Episodicity	Prov. Text	Goal Notes
1378	Sub-acute	Closed bimalleol. fracture left, fall off fence, with edema	<input checked="" type="checkbox"/>	<input type="radio"/> First episode <input type="radio"/> New episode <input type="radio"/> Old episode <input type="radio"/> Ongoing episode <input type="radio"/> Undefined episodicity	left, fall off fence	
1378	Chronic	Dyslipidemia elevated tryglyceriedes	<input checked="" type="checkbox"/>	<input type="radio"/> First episode <input type="radio"/> New episode <input type="radio"/> Old episode <input type="radio"/> Ongoing episode <input type="radio"/> Undefined episodicity	left, edema resolved, normal healing	




Primary POV
Dyslipidemia | elevated tryglyceriedes


POV Selection Tool 4

- Once you save this, your provider text will be specific to the encounter.

Integrated Problem List Expand All Chronic Episodic Sub-acute
 Social/Env Inactive Current/Most recent

Status	Onset Date	Provider Narrative
 Sub-acute		Closed bimalleolar fracture left, fall off fence, with edema

 **Visit Diagnosis**  

SNOMED CT 	Provider Narrative
Closed bimalleolar fracture	Closed bimalleolar fracture left, edema resolved, normal healing

Clinician-Coder Collaboration

- The 2014 EHR introduces a new process for documenting problems and encounter diagnoses that incorporates SNOMED CT[®] and maps to ICD.
 - Providers will already be accustomed to the new Integrated Problem List, and ICD-10 transition will be relatively transparent.
- Documentation improvement will reduce queries from coding for clarification.
- Collaboration between clinicians and coding staff cannot be overstated.

DEPLOYMENT PREPARATION

Deployment Preparation - General

- Engage clinical staff, coding and HIM in planning and subsequent 2014 EHR preparation meetings.
- Use Health Information Management, Improving Patient Care, EHR and/or Quality Improvement committees to address planning and subsequent issues.
- Include coding staff in EHR trainings, including hands-on training, so they can familiarize themselves with coding queue/process changes.

Deployment Preparation :

Problem List Clean Up

Providers: Clean up problem lists before installation

- Remove/consolidate redundant problem entries.
- Remove inappropriate problems.
- Inactivate resolved problems.
- Move information from highly descriptive narratives to the problem “notes” field. Often providers have added significant data in the provider narrative:
 - Example: ischemic heart disease dx by cath on 7/1/14 by Dr Heart

Coders: Code uncoded problems:

- Use the Uncoded Problem report.

Deployment Preparation: Pick List Development

OIT is delivering over 60 pick lists with the 2014 EHR software.

- Coders and clinicians should collaborate in reviewing pick list content and adapting pick lists for site use:
 - OIT will provide Excel spreadsheets with content preview.
- Pick List modifications available:
 - Removing and adding terms.
 - Setting default Status for pick list items.
 - Grouping related items together for display on pick list.

Deployment Preparation: Training and Hands-On

- Area Offices are setting up training databases
- Opportunity for collaborative learning:
 - Clinicians can gain exposure to converting, adding, editing problems and selecting POVs.
 - Coders can gain exposure to new narrative displays, change in workflow in coding queue.
 - Clinical Applications Coordinator can make adjustments to EHR layout and develop pick lists on the Area test system, importing after site installs patches.

Deployment Preparation: TIU Templates

- New Data Objects (that pull RPMS data into encounter notes) are being delivered.
- Opportunity to review existing TIU note templates:
 - HIM, Coding and Clinician should participate.
 - Standardize templates – place key information in same location across templates.

Deployment Preparation:

Review/Update Policies and Procedures

- OIT has provided training and materials to Areas to facilitate evaluation of impact of the software on processes and encourage P&P updates:
 - Problem List conversion
 - Problem List maintenance processes
 - Nursing workflow – triage, nurse only, standing orders
 - Pharmacy workflow – refill, clinical pharmacy visits, standing orders
 - Lab and Radiology workflow – orders from outside providers
 - Coding
 - Error reports
 - HIE/Direct

Lessons Learned from Beta Sites

- Clean up Problem Lists in advance of 2014 EHR software.
- Involvement from all areas of clinic from the planning stages and throughout implementation to ensure success – Clinicians, coders, HIM, IT, Clinical Applications, Business Office.
- Review workflows and update Policies and Procedures as needed.

QUESTIONS?

Resources

SNOMED CT® issues – select “SNOMED (DTS)” for application

<http://www.ihs.gov/rpms/index.cfm?module=Feedback>

Enhancement requests – select “Electronic Health Record (EHR)” for application

<http://www.ihs.gov/rpms/index.cfm?module=Feedback>

ICD 10 Documentation examples

<http://www.crozerkeystone.org/healthcare-professionals/icd-10-update/icd-10-documentation/>