

# CHCN EOVS Documentation

Tuesday, January 22, 2013  
4:37 PM

## Installing the templates

- Download and import the EOVS templates
  - CHCN\_end\_of\_visit.xml
  - CHCN\_eov\_alert\_details.xml
  - CHCN\_eov\_config.xml
  - CHCN\_EOVS\_config\_alerts.xml
- Run the sql script 'create\_eov\_bill\_trig\_proc.sql' to generate placeholder billing trigger procedure

## Configuration

- Use CHCN EOVS Config practice template to configure the EOVS process
- URL for SSRS report
  - Enter the URL for the 'orders and meds listing' report
  - This governs what report is launched by the 'Orders and Meds Listing' report on the EOVS template
  - Sample format:  
[http://chcnssrs01/ReportServer/ACH/Pages/ReportViewer.aspx?/EHR\\_Reports/Orders\\_summary\\_for\\_encounter](http://chcnssrs01/ReportServer/ACH/Pages/ReportViewer.aspx?/EHR_Reports/Orders_summary_for_encounter) and Meds
- Service categories for drop downs
  - You can set up drop down boxes at the bottom of the EOVS template to allow users to enter additional procedure codes
  - Up to 4 drop downs can be configured by clicking on the boxes to bring up a list of all service categories - be patient, the pick list can take a couple of seconds!
  - Select a service category and any SIMs in that category will be available in the drop down
  - The name of the service category is used as the title of the drop down list
  - These are optional - you can leave all blank
- Visit specialty codes that should use the alternative template/module/popup
  - Enter a comma delimited list of any specialty codes that should use the alt template
  - This lets you, for example, send OBGYN to a different template than FP
- Individual alerts
  - Use the data grid to configure the specific alerts you want to enable
  - The 'Refresh EOVS alert list' link will add any new alerts that are available
  - Double click on an alert to open the configuration window
    - Procedure name and description are read only and can't be changed
    - Enabled?: set to 'y' to turn on the alert
    - Alert level: leave blank, reserved for possible future enhancement
    - Launch template type and name
      - ◻ Use to set a template to open when the user clicks on the alert message
      - ◻ T/P/M - sets whether the destination is a Template, a Popup, or a Module
      - ◻ Name - template or popup or module name
    - Alt launch template name
      - ◻ Enter alternative template/popup/module - can be the same as the standard
      - ◻ Should not be blank or alert will not take the user anywhere
      - ◻ Must have the same type (TMP) as the standard launch template
- Alert-specific information/config
  - Some alerts need additional configuration
  - Visit Types for Office Visit: enter the list of visit types as selected during intake that indicate an office visit type of encounter
    - Use commas to separate the different visit types
    - Spelling matters! But capitalization doesn't...
    - E.g.: gyn visit, office visit, well child visit

- Alerts that apply to office visits will use this list to determine whether the encounter is an office visit or not
- Visit types for Title X: enter the list of visit types that indicate a Title X encounter
  - Use commas to separate the different visit types
  - Spelling matters! But capitalization doesn't...
- Document list for patient plan: enter the list of document names that your agency uses for documenting the patient plan
  - Use commas to separate the different visit types
  - Spelling matters! But capitalization doesn't...
- Document list for chart note: enter the list of document names that your agency uses as the chart note
  - Use commas to separate the different visit types
  - Spelling matters! But capitalization doesn't...

Note: Alert 02 pulls information from claim edit 117 to identify missing required ICDs. After configuring the claim edit, you can generate the necessary tables for EOVS using the 'Refresh reqd ICDs' button.

- If you have turned on the fixit process, the information will refresh automatically each night and there is no need to manually refresh

## Billing triggers

- Billing triggers can be added to the EOVS such that charges can be added to the encounter based on certain conditions being true
  - Can be used for tracking codes, to fix broken kbm billing triggers, or to add a billing trigger that is missing from the kbm
  - Using this feature allows you to add the triggers without having to customize additional templates
- The billing triggers feature of EOVS is not configurable via the practice template - each clinic will have their own custom stored procedure to execute the billing triggers for their clinic
  - CHCN can help with this customization
  - Procedure that needs to be maintained: `chcn_eov_bill_trig_data`

## Nightly Refresh

- Alerts are refreshed when the end of visit encounter is opened (or you press the 'refresh alerts' button)
- If a user navigates away to fix an alert and doesn't return to refresh them, the alert will still be listed as open
- To help clear any alerts that have been fixed we have created a stored procedure that will re-run the alerts for encounters that have open alerts - you can set up this procedure as a Sql Agent scheduled job to run each night and it will clear any fixed alerts still in the table
- Stored procedure: `chcn_eov_nightly_alert_refresh`
  - Takes 2 parameters
    - `@days_back` - only refresh encounters in the past N days
    - `@user` - user ID to use when refreshing the alerts
- To implement, set up (or have MTS set up) a Sql Agent scheduled job to run the stored procedure each night after business hours and before the maintenance/replication window

## Specifics on alerts

- 02 Missing ICD codes (claim edit 117)
  - Leverages the configuration of claim edit 117 to identify missing required ICD codes for the CPT code and payer
  - Must run the quality fixit nightly process if you enable this alert so that any updates to claim edit 117 get processed and made available to the alert
- 03 Missing BP on office visit
  - Alert fires if
    - Visit type is in the office visit list from the configuration template

- AND patient is 3 years of age or older
  - AND there is no vital\_signs\_record for the encounter or if diastolic is not between 20-150 or if systolic not between 30-250
  - AND unobtainable not checked (vital\_signs\_.chk\_unobtainable = 0)
  - AND refused not checked (vital\_signs\_.chk\_refused = 0)
- 04 Missing smoking status
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable) and patient is 13 or older are tested
  - Alert fires if
    - No social\_hx\_record found for the encounter OR
    - There is a null value in the smoking status (social\_hx\_.opt\_smoke\_stat) field
- 05 Missing allergy info
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable)
  - Alert fires if no allergies are included in the allergy module (patient\_allergy table) and checkbox for no known allergies (master\_im\_.chk\_noallergies) is not checked (= 0)
- 06 Missing tobacco usage
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable) and patient is 13 or older are tested
  - No record in tobacco\_usage\_table for encounter
- 07 Unsubmitted lab or diag orders
  - Orders in order\_table with actClass of 'LAB', 'DIAGSTUDY' or 'X-Ray'
    - 20131212: made this alert specific to labs, added new alert 25 for diagnostics
  - Not completed, cancelled or deleted
  - Ordered on current encounter
  - actMood = ORD
  - Both the order\_module\_lab\_id and the order\_module\_order\_num are NULL or blank
  - Intended to match the filter criteria on upper data grid for unsubmitted orders on the order\_processing\_module template (8.0.1 version)
- 08 No BMI plan documented
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable) are tested AND
  - Patient is not pregnant (none of the ICDs included in the dx category indicating pregnancy as configured on the EOV Config template are attached to the encounter) [NEW, added 6/17/13) AND
  - No orders with 'BMI' in the actText field that were ordered in the same calendar year as the current encounter AND
  - Current encounter has a BMI value in the vitals [NEW added 10/11/13]
  - One of the following is true:
    - Patient at least 13 yrs and not yet 19 yrs ~~between 13-18 yrs~~
    - Patient at least 19 yrs and not yet 65 yrs ~~between 19 and 64 yrs~~ where BMI is either < 19 or > 26
    - Patients 65 and older where BMI is either < 22 or > 30

Note: To edit the drop down options used for Instructions and Diet Orders orders on the bmi\_actions template to add 'BMI' somewhere in the text, use the Ngkbm Custom Dbpicklists system template - the 2 lists you want to edit are 'bmi diet orders' and 'bmi instructions'. Instructions for how to do this are found on the template.

- 09 Pending lab in order module
  - Any lab in lab\_nor table for current encounter with test\_status = 'Pending' and ngn\_status = 'Ordered' and delete\_ind = 'N'
- 10 Missing Title X template
  - Encounter has a visit type from the list in the configuration template
  - The Title X template has not been saved on the encounter
  - If there is an active alias for the Title x template (titlex) we look for the alias - so if you've customized the template so it points to your custom version, we check that the custom version is on the encounter

- 11 Missing allergy review info
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable)
  - Alert fires if neither 'reviewed no changes' nor 'allergies added today' were checked
  - Allergy\_table\_.opt\_allergies\_today value must be either '1' or '2'
- 12 Missing tobacco cessation discussed
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable) and patient is 13 or older are tested
  - Patient is documented as a current smoker (most recently edited record in tobacco\_usage\_.txt\_tobacco\_use\_status = 'current')
  - Patient's smoker status for MU is documented (social\_hx\_.opt\_smoke\_stat is between 2 and 4 - 2 = 2 current everyday smoker, 3 = current sometimes smoker, 4 = smoker current status unknown)
  - Smoking cessation discussed is not checked on Histories - OV template ; if no Histories - OV template, then look in social\_hx\_.chk\_tobacco\_cessation
    - Ng\_ov\_histories\_.chk\_clin\_assess7
    - Note: This alert may have to be modified for clinics using new 8.1 templates...
    - Note: The Social History Adult template (social\_hx) also has a checkbox for tobacco cessation discussed - that field is social\_hx\_.chk\_tobacco\_cessation
- 13 FPACT encounter with no S code diagnosis
  - Any encounter where the primary payer is flagged as an FPACT payer (on the CHCN Payer Meta Info practice template)
  - Alert fires if a diagnosis code that starts with S is not on either the encounter or any of the procedures
    - Enc: IMAssessment\_.assess\_code1/assess\_code2/assess\_code3/assess\_code4
    - Proc: patient\_procedure.diagnosis\_code\_id\_1/diagnosis\_code\_id\_2/diagnosis\_code\_id\_3/diagnosis\_code\_id\_4
- 14 Missing patient education (for MU)
  - Visit type is in the office visit list from the configuration template
  - Patient is 13 years of age or older
  - There are no completed orders on the encounter with actClass of INSTRUCT or EDU
- 15 Missing patient plan document on office visit
  - Visit type is in the office visit list from the configuration template
  - None of the patient plan documents (from the patient plan field on the config template) are on the encounter
- 16 Missing visit note document on office visit
  - Visit type is in the office visit list from the configuration template
  - None of the visit note documents (from the patient plan field on the config template) are on the encounter
- 17 Referral order missing diagnosis code
  - Encounter has a referral order - actClass = 'REF' or 'REFR', not deleted, completed or cancelled, recommendedReason not 'Protocols'
  - Referral order has a blank or null diagnosis code
- 18 PAP specimen obtained but no PAP order in order\_table
  - Specimen obtained: pe\_gu\_female\_.pap\_done = 1
  - No order with actClass = PAP excluding cancelled and deleted orders and protocol orders (actMood = RMD)
- 19 PAP order in order\_table with missing actCode or actMood
  - Can happen if you indicate a pap was done on the female GU exam template without completing the pap detail popup
  - Order with actClass = PAP excluding cancelled and deleted orders and protocol orders (actMood = RMD) with null or blank actCode or actText fields
- 20 No medication info
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable)
  - Trigger fires if there are no active medications listed for the patient AND the 'no medications' checkbox on the intake template (master\_im\_.chk\_nomed) is not checked (= 1)
- 21 Missing medications reviewed indicator
  - Only encounters where valid blood pressure or weight have been entered (or vitals were refused or unobtainable)

- Alert fires if
  - Medications reviewed checkbox on intake is not checked (i.e. master\_im\_.chk\_medreviewed != 1)
  - [7/14/14 add] AND the 'no medications' box is not checked (master\_id\_.c hk\_nomed != 1)
- 22 No LMP documented
  - Any office visit encounter where patient is female, between 8-60 yrs of age, not pregnant and not postmenopausal should have a LMP or be documented as either pre-, peri-, or post-menopausal
  - OV = encounter has a visit type from the OV list in the configuration template
  - Female = person.sex = 'F'
  - Pregnant = encounter has a ICD code attached from the 'Diagnosis category indicating pregnancy' dx category configured on the EOv Config template
  - Menopausal status - if histories\_.opt\_menopausal\_stage is either NULL or equal to 'premenopausal' or 'perimenopausal'
  - LMP: pulled from ros\_gyn\_.lmp field
- 23 Sent failed orders in order module
  - Any order in the order module (lab\_nor table) where the status = 'Sent Failed' and the ngn\_status = 'Ordered' and delete\_ind = 'N'
- 24 Missing menopause status
  - Any office visit encounter where patient is female, between 8-60 yrs of age and not pregnant should be documented as either pre-, peri-, or post-menopausal
  - OV = encounter has a visit type from the OV list in the configuration template
  - Female = person.sex = 'F'
  - Pregnant = encounter has a ICD code attached from the 'Diagnosis category indicating pregnancy' dx category configured on the EOv Config template
  - Menopausal status - if histories\_.opt\_menopausal\_stage is either NULL or blank
- 25 Unsubmitted diagnostic orders
  - Orders in order\_table with actClass of 'DIAGSTUDY' or 'X-Ray'
    - Note: same logic as 07, just filtering on different actClass values
  - Not completed, cancelled or deleted
  - Ordered on current encounter
  - actMood = ORD
  - Both the order\_module\_lab\_id and the order\_module\_order\_num are NULL or blank
  - Intended to match the filter criteria on upper data grid for unsubmitted orders on the order\_processing\_module template (8.0.1 version)
- 26 Chronic problems not included as procedure diagnoses
  - Identifies active (problem date is on or before the encounter date and the problem is not flagged as resolved) chronic problems from the problem list that are not included on any existing patient procedure
    - Only if there are unused non-primary ICD slots on any existing procedure
  - Clicking on the alert executes a stored procedure that will add the chronic problems into the unused non-primary ICD slots
    - You should not configure a launch template (type/name/alt name) for this rule - leave them blank
  - Unused ICD slots: from patient\_procedure records for the encounter, look at blank diagnosis\_code\_id\_2-8
  - Uses the slots from the highest \$ value charge first
  - Active chronic problems pulled from problem\_list\_data\_where
    - ProblemDate is on or before enc date
    - Resolved = 0
- 27 EHR procedures for VFC vaccines that are missing the SL or SK modifier
  - Identifies any patient procedures (i.e. EHR equivalent of an EPM charge) that are linked to VFC vaccine orders where the procedure does not have a modifier of SL or SK
    - Procedure in patient\_procedure table with same encounter ID and CPT code as an order\_record
      - Patient\_procedure.enc\_id = order\_.encounterID
      - Patient\_procedure.cpt4\_code\_id = order\_.actCode
    - VFC indicator: order\_.opt\_imm\_vfc = 'VFC'
- 28 Physical exam documented but no EM or related SIM on the encounter
  - Encounter has a physical exam documented on SOAP but no charge has been entered for the E&M (or related)
  - Use physical exam instead of vitals to indicate that the provider actually saw the patient - some cases of vitals

being taken but patient then leaving before the provider sees them...

- Should work out a more standard approach to charting for an incomplete visit
- Physical exam: encounter has at least 1 record in PhysExamExtPop\_ table with a non-blank ExamFindings field
- List of SIMs to use for E&M or related is built via service categories in File Maintenance and configured in EOV Configuration practice template
- See # 31 for alternative
- 29 Nurse provider with an EM code other than 99211
  - Last name of the rendering provider on the encounter = Nurse
  - A procedure/charge with a 99201-99215 code except for 99211 is attached - uses the left 5 chars of the SIM code
  - Note that both the last name and the SIMs are hard coded
- 30 Medication started on the encounter but with no dispense history
  - Start date of the med = enc date and stopped date is either blank or after the encounter
  - Prescribed elsewhere = 'N'
  - Dispense history - medication has a record in the prescription\_audit table...
- 31 Encounter has a diagnosis but no charges from the face-to-face service category attached
  - Alternative to alert # 28
  - Use the patient\_diagnosis table to test for a diagnosis
  - Face-to-face service category is configured on the chcn\_eov\_config practice template
  - Use File Maintenance --> Master Files --> Service Categories to define and edit service categories
- 32 VFC vaccine given to patient over 18 yrs
  - VFC vaccines can only be given to patients 18 or under
  - VFC indicator: order\_opt\_imm\_vfc = 'VFC'