Advanced SmarTrack Worklists

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22nd Annual Midas+ User Symposium
Advanced SmarTrack Worklists

Objective

Participants in this hands-on class will learn how to take SmarTrack Worklists to a new level using new Worklist options and complex conditions.

This session will feature defining Worklists using AND, OR, and grouped conditions, Elapsed Time conditions, and Indicator populations.

We will also cover important points in defining useful readmission Rules.
Advanced SmarTrack Worklists

Agenda

• Worklist Overview
  - Worklist
  - Patient Tracking
  - Focus Rules
  - Worklist/Rule Processing

• Complex Conditions

• Specialized Worklist Options

• Future Enhancements

• Questions and Answers
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Worklist Conditions

**Condition Logic**
- Exclusive with AND
- Inclusive with OR
- Custom: Combining AND & OR

**Negation Conditions**
- Is Not Entered
- Does Not have Value
- NOT Checkbox
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Example of Complex Conditions
Advanced SmarTrack Worklists

Example of Complex Conditions with Negation
## Advanced SmarTrack Worklists

### Specialized Worklists

<table>
<thead>
<tr>
<th>Elapsed Time Worklists</th>
<th>Indicator-based Worklists</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Specific Monitor Options</td>
<td>• Processing New/Existing Rules</td>
</tr>
<tr>
<td>• Virtual Date/Time Fields</td>
<td>• Using Distributed Rules</td>
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<td>• Importance of Disqualifying Conditions</td>
<td><strong>Readmission Rules</strong></td>
</tr>
<tr>
<td></td>
<td>• Next and Previous Encounters</td>
</tr>
</tbody>
</table>
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Example of Elapsed Time Worklist Rule
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Example of Indicator-based Worklist Rule
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**Indicator-based Worklist Rules can be processed 2 ways**

**Rules that monitor indicators are not processed nightly. To process this rule later, use Worklist/Rule processing.**
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Future Enhancements

New Readmission Tracking Options:

• Days Since Last by Encounter Type-Type
  – Days Since Previous Inpatient Encounter
  – Days Since Previous Emergency Encounter
  – Etc.

• Days Until Next by Encounter Type-Type
  – Days Until Next Inpatient Encounter
  – Days Until Next Short Stay Encounter
  – Etc.
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Future Enhancements

New Columns in Worklist Display Options:

- **AD-Appeal Due Date** -- from HCM A/D Appeals tab
- **ENC-Complaint** (display first occurring; similar to PR-Type)*
- **ENC-Day of Stay** -- from the Encounter Day of Stay field
- **ENC-Discharge Phy** -- (from Encounter Providers)
- **ENC-Primary Care Phy** (from Encounter Providers)
- **ENC-LOS** -- from the Encounter LOS field
- **ENC-LOS (Current)** -- from Encounter
- **ENC-GMLOS** -- from the Encounter DRG's Geometric Mean Length Of Stay (GMLOS) field
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**Future Enhancements**

- Follow-Up Worklist will allow *Remove When No Longer Qualified*

- New Standard Report to display number of cases on Worklists:
  - By Worklist, display number of Pending and Complete.
  - By Number Range for Pending or Complete, display Worklist(s).
  - Lists all the Worklists assigned to a specific employee

- Utility to Identify Duplicate SmarTrack Indicators and Rules

- Set expiration days for Elapsed Time Worklists**
Thank you for attending.

Questions?

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SmarTrack Complex Conditions - Worklists

Version 2011.2 Enhancements
In Midas+ Care Management version 2011.2, we added a feature to allow Worklist Rules and Indicators to include Complex Conditions in addition to the exclusive condition offered in earlier versions. By definition, exclusive conditions only allow for an “And” relationship between conditions so that each additional condition further narrows the populations by excluding more records. By adding Complex Conditions, users can add qualifying conditions by way of an “Or” relationship, and users can also create Groups of Conditions using “And,” “Or”, and even “Not” to disqualify a Group of Conditions once it has been defined.

Applicable Functions
Complex Conditions can be defined in Worklist Rules, Patient Tracking Files, and Focus Rules. They can also be defined in Indicator Counts, Indicator Sums, and Days At Risk.

Example of Use
A simple example of a Complex Rule might be that which specifies two distinct Groups to each qualify for the same Worklist. Prior to version 2011.2, a single Rule could not place Male Patients over 55 with CHF on the same list as Female Patients over 65 with CHF. As a mathematical formula, the desired conditions may first look like this:

Inpatient Encounters
And
Diagnosis=CHF
And
Male Over 55
And
Female Over 65

Although both groups have CHF, the Age of interest for the Groups differs by gender. Not one record could possibly qualify for ALL the conditions. Thus, you should use Complex Conditions to define the two Groups for whom there is a common interest.
In Worklist/Rule Definition, your conditions should look like this:

**Group 1:**
- Inpatient Encounters
- And
- Diagnosis=CHF
- And
- Male Over 55

Or

**Group 2:**
- Inpatient Encounters
- And
- Diagnosis=CHF
- And
- Female Over 65

If an Encounter is in Group 1... Or... Group 2, it is qualified for this Rule.

**Detailed Use Case Scenarios for Worklists**
The following Use Case Scenarios are intended to illustrate the practical value of Complex Conditions in SmarTrack Worklist Rules and Indicators. If clinical authenticity seems lacking in an example, feel free to use your own more familiar conditions in their place.

**Scenario 1. Define a Worklist to identify patients who may have Encephalitis based on an Encephalopathy diagnosis or a Spinal Tap procedure.**

**Condition 1** – Encounter Procedures:Procedure... Has Value = Spinal Tap
Or

**Condition 2** – Encounter Diagnoses:Diagnosis... Has Value = Encephalopathy

The apparent formula, *Condition 1 or Condition 2* would include Encounters with either the Procedure of the Diagnosis; only one condition need be met. To change the Logical Operator from “And” to “Or” you must click on the “Or” radio button in the Condition Logic.

In Worklist/Rule Definition, your conditions should look like this:

**Count:** Encounter
**Reference Date:** Encounter End Date

**Condition 1** – Encounter Procedures:Procedure... Has Value = 03.31 (Spinal Tap)
Or

**Condition 2** – Encounter Diagnoses:Diagnosis... Has Value = 348.3, 348.30, or 348.39 (Encephalopathy)
**Scenario 2. Define a Worklist to identify Expired patients who had Encephalitis based on an Encephalopathy diagnosis or a Spinal Tap procedure.**

**Condition 1** – Encounter Procedures: Procedure... Has Value = Spinal Tap

Or

**Condition 2** – Encounter Diagnoses: Diagnosis... Has Value = Encephalopathy

And

**Condition 3** – Encounter: Disposition... Has Value = Expired (and/or equivalents)

The apparent formula, **Condition 1 OR Condition 2 AND Condition 3**, would not be possible, since we cannot mix “And” and “Or” in the top level of SmarTrack Conditions logic. However, we can now create Groups of conditions. For this, and for all the following examples, you must use the Custom option and edit the Condition Logic.

**In Worklist/Rule Definition, your conditions should look like this:**

**Count:** Encounter

**Reference Date:** Encounter End Date

**Group A**

- **Condition 1** – Encounter Procedures: Procedure = 03.31 (Spinal Tap)
  
  Or

- **Condition 2** – Encounter Diagnoses: Diagnosis = 348.3, 348.30, or 348.39 (Encephalopathy)

And

**Condition 3** – Encounter: Disposition... Has Value = Expired
Scenario 3. Define a Worklist for Heart Failure Encounters.

NOTE: This third example uses a new Condition Variable related to the Procedures (Dict. 43) and Diagnoses (Dict. 44) tables, called Is Like, which allows users to search codes in these dictionaries with the “wild cards” of percent (%) and underscore(_).

Condition 1 - Encounter Type:Type... Has Value = Inpatient
And
Condition 2 – Patient:Sex... Has Value = Male
And
Condition 3 – Encounter:Age At Encounter... Has Value = >55
And
Condition 4 – Patient:Sex... Has Value = Female
And
Condition 5 – Encounter:Age At Encounter... Has Value = >65
And
Condition 6 - Encounter:Diagnoses:Diagnosis:Code Is Like = 428%

The apparent formula, Condition 1 AND Condition 2 AND Condition 3 AND Condition 4 AND Condition 5 AND Condition 6, would actually exclude everyone, since no patient is of both genders.

To define the necessary conditions correctly, you will need to add the common conditions twice, once for each Group. Each Group will also include the distinct conditions for that Group.
In Worklist/Rule Definition, your conditions should look like this:

**Monitor:** Encounter  
**Suggested Reference Date:** Encounter End Date

**Group A**

| Condition 1 | - Encounter Type:Type...Has Value = Inpatient  
And  
**Condition 2** – Patient:Sex...Has Value = Female  
And  
**Condition 3** - Encounter:Age At Encounter...Has Value = > 65  
And  
**Condition 4** - Encounter:Diagnoses:Diagnosis:Code Is Like = 428%  

**Or**

**Group B**

| Condition 1 | - Encounter Type:Type...Has Value = Inpatient  
And  
**Condition 2** – Patient:Sex...Has Value = Male  
And  
**Condition 3** - Encounter:Age At Encounter...Has Value = > 55  
And  
**Condition 4** - Encounter:Diagnoses:Diagnosis:Code Is Like = 428%  

Screenshot from Worklist/Rule Definition:

Condition Logic:
- AND
- OR
- Custom
- Edit...

If:
- **Inp Heart Failure - Males >55**
  - **ENCOUNTER:Encounter Type:Type**
    - Has Value: INPATIENT
  - **PATIENT:Sex**
    - Has Value: MALE
  - **ENCOUNTER:Age At Encounter (Years)**
    - Has Value: >55
  - **ENCOUNTER:DIAGNOSES:Diagnosis:Code Is Like**
    - Has Value: 428%

- **Inp Heart Failure - Females >55**
  - **ENCOUNTER:Encounter Type:Type**
    - Has Value: INPATIENT
  - **PATIENT:Sex**
    - Has Value: FEMALE
  - **ENCOUNTER:Age At Encounter (Years)**
    - Has Value: >65
  - **ENCOUNTER:DIAGNOSES:Diagnosis:Code Is Like**
    - Has Value: 428%

- Or
- <Add New Condition>
SCENARIO 4. Define a Worklist Rule to identify Encounters with a Discharge Disposition of “Home” (or similar) despite apparent post-discharge plans for Skilled, Long-Term, or Acute Care.

The goal is to find cases that were coded for Disposition incorrectly, assuming the Discharge Planning efforts were appropriate. The challenge in this Worklist Rule is that the post-discharge arrangements may have been entered in either HCM Discharge Planning or HCM Support Services.

**Condition 1** - Encounter:Type:Type...Has Value = Inpatient
And
**Condition 2** - Encounter:Disposition...Has Value = Home
And
**Condition 3** - HCM Discharge Planning:Discharge Status...Has Value = Skilled, Long-Term, or Acute Care.
Or
**Condition 4** - HCM Support Services:Assigned Level of Care...Has Value = Skilled, Long-Term, or Acute Care.

The apparent formula, *Condition 1 AND Condition 2 AND Condition 3 OR Condition 4*, is not possible in SmarTrack. The logical operators, “Or” and “And,” cannot be used together in a Rule or indicator to connect Groups.

In Worklist/Rule Definition, your conditions should look like this:

- **Monitor**: Encounter
- **Reference Date**: Encounter End Date
- **Condition 1**: Encounter:Type:Type...Has Value = Inpatient
  And
- **Condition 2**: Encounter:Disposition...Has Value = Home
  And
- **Group A**

  - **Condition 3** = HCM Discharge Planning:Discharge Status...Has Value = Skilled, Long-Term, or Acute Care
  Or
  - **Condition 4** = HCM Support Services:Assigned Level of Care...Has Value = Skilled, Long-Term, or Acute Care
SCENARIO 5. **Define a Worklist to identify Inpatient Encounters with a Diagnosis of “Sepsis” Present On Admission without “Shock” Present On Admission.**

The goal is to identify admissions for Sepsis that did not have evidence of Shock at the time of admission, regardless of whether Shock was present later in the encounter.

**Condition 1** - Encounter:Type:Type...Has Value = Inpatient
And

**Condition 2** - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 038-038.99 or 995.91
And

**Condition 3** - Encounter:Diagnosis:Present On Admission...Has Value = POA
And

**Condition 4** - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 785.52 or 995.92
And

**Condition 5** - Encounter:Diagnosis:Present On Admission...Has Value = NPOA
The apparent formula, \( \text{Condition 1 AND Condition 2 AND Condition 3 AND Condition 4 AND Condition 5} \), is not possible in SmarTrack. Nor is it logical, not because the Code Range condition should not be added twice (it should), but because the Present On Admission fields, also added twice, would qualify the Diagnoses in both Code Ranges for both POA and NPOA, when POA should apply only to Sepsis, and NPOA should apply only to Shock.

**In Worklist/Rule Definition, your conditions should look like this:**

**Monitor:** Encounter  
**Suggested Reference Date:** Encounter End Date  
**Condition 1** - Encounter:Type:Type...Has Value = Inpatient  
And  
**Group A**  
**Condition 2** - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 038-038.99 or 995.91  
**AND**  
**Condition 3** - Encounter:Diagnosis:Present On Admission...Has Value = POA

And  
**NOT Group B**  
**Condition 4** - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 785.52 or 995.92  
And  
**Condition 5** - Encounter:Diagnosis:Present On Admission...Has Value = NPOA

The ability to negate a Group is also new in version 2011. Using the **Not** checkbox in the Edit Condition Logic window, you can select a Group or condition and then negate it entirely.

**Screenshot from Worklist/Rule Definition:**
**Scenario 6. Define a Worklist to identify Non-Diabetic Inpatient Encounters Discharged Alive with a Diagnosis of “CHF” Not Present On Admission.**

The goal is to identify Encounters Discharged Alive with a Diagnosis of CHF that was **Not** Present On Admission but without Diabetes that **was** Present On Admission.

**Monitor:** Encounter  
**Suggested Reference Date:** Encounter End Date  
**Condition 1** – Encounter:Disposition... Does Not Have Value = Expired 
And  
**Condition 2** - Encounter:Diagnosis:Diagnosis Code Is Like = 428%  
And  
**Condition 3** - Encounter:Diagnosis:Present On Admission= NPOA  
And  
**Condition 4** - Encounter:Diagnosis:Diagnosis Code Is Not Like = 250%  
And  
**Condition 5** - Encounter:Diagnosis:Present On Admission...Does Not Have Value = POA
As in Scenario 3, the apparent formula, *Condition 1 AND Condition 2 AND Condition 3 AND Condition 4 AND Condition 5*, is not possible in SmarTrack. Nor is it logical, not because the Code Range condition should not be added twice, but because the Present On Admission fields, also added twice, would qualify any Diagnoses with codes that begin with 428 or 250 for both POA and NPOA, when POA should apply only to Diabetes, and NPOA should apply only to CHF.

**In Worklist/Rule Definition, your conditions should look like this:**

**Condition 1** – Encounter:Disposition... Does Not Have Value = Expired  
And  
**Group A**

- **Condition 2** Encounter:Diagnosis:Diagnosis Code Range = 428%  
  AND  
- **Condition 3** - Encounter:Diagnosis:Present On Admission...Has Value = NPOA  

And  

**NOT Group B**

- **Condition 4** - Encounter:Diagnosis:Diagnosis Code Range = 250%  
  AND  
- **Condition 5** - Encounter:Diagnosis:Present On Admission...Has Value = POA

With the stand-alone condition of Encounter:Disposition, use **Does Not Have Value** to disqualify Expired (and equivalent Dispositions). Use the **Not** checkbox in the Edit Condition Logic window to negate the **Group** for Diabetes POA.

**Screenshot from Worklist/Rule Definition:**

![Edit Condition Logic - C-ENC-Non-Diabetic CHF NPOA Discharged Alive](image)
SmarTrack Elapsed Time Worklists

**Version 2011.2 Enhancement**

In Midas+ Care Management version 2011.2, we added a feature to Worklist Rules to include a new Monitor for Elapsed Time, which allows users to create notifications for when the duration of an occurrence or status exceeds an acceptable period. We also added new “virtual date/time” fields based on the combination of relevant Date and Time fields. These new virtual fields are used as starting points for the passage of time that is monitored by Elapsed Time rules.

**Monitor – Elapsed Time**

Elapsed Time Worklists can be defined for a select set of modules, specifically those which have a logically-related Date field and Time field. The list below includes all of the virtual Date/Time fields that can be added as starting points for calculating the passage of time.

<table>
<thead>
<tr>
<th>Module</th>
<th>Date/Time Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMERGENCY ROOM EPISODES</td>
<td>EMERGENCY ROOM:End Date/Time</td>
</tr>
<tr>
<td>EMERGENCY ROOM EPISODES</td>
<td>EMERGENCY ROOM:End Date/Time</td>
</tr>
<tr>
<td>ENCOUNTERS</td>
<td>ENCOUNTER:End Date/Time</td>
</tr>
<tr>
<td>ENCOUNTERS</td>
<td>ENCOUNTER:Start Date/Time</td>
</tr>
<tr>
<td>MEMBER RELATIONS EPISODES</td>
<td>MEMBER RELATIONS:Date/Time of Event</td>
</tr>
<tr>
<td>NEONATAL EPISODES</td>
<td>NEONATAL:Date/Time of Birth</td>
</tr>
<tr>
<td>OBSERVATION EPISODES</td>
<td>OBSERVATION:End Date/Time</td>
</tr>
<tr>
<td>OBSERVATION EPISODES</td>
<td>OBSERVATION:Start Date/Time</td>
</tr>
<tr>
<td>PATIENT RELATIONS EPISODES</td>
<td>PATIENT RELATIONS:Date/Time of Event</td>
</tr>
<tr>
<td>RISK MANAGEMENT EPISODES</td>
<td>RISK MANAGEMENT:Date/Time of Event</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Anesthesia Start Date/Time</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Anesthesia Stop Date/Time</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Patient Date/Time In</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Patient Date/Time Out</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Surgery Start Date/Time</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Surgery Stop Date/Time</td>
</tr>
</tbody>
</table>

**Both Date AND Time are Necessary**

For an Elapsed Time to be calculated, both a Date and Time must be present in the record. However, many of these fields are not mandatory in their related module. For example, in Risk Event Entry, every episode must have an Event Date, but Event time is not mandatory. If you intend to be notified after a specified amount of time passes following a Risk Event, the user who entered the data must include an Event Time.
**Caution for Late-Night Surgery**

If you define a Rule to notify you after a specified number of hours have passed following a Surgery Procedure, you may get unintended results if the Surgery Start Time is very late in the evening. That is because each of the virtual Date/Time fields for Surgery Episodes depends on the same Date of Surgery, a single field in the Surgery module. For example, although we know that a Surgery that starts on June 2 at 11:30 PM and ends on June 3 at 12:25 AM would have lasted 55 minutes, it would appear to have ended 23 hours before it started, which is impossible. Thus, a Rule that tracks to hours following a time that begins after a late-night surgery procedure, such as the Elapsed Time following Anesthesia Start Date/Time, may deliver misleading results if the Anesthesia Start was after midnight and the Surgery episode began before midnight.

**Include a Disqualifying Condition**

For any Elapsed Time Worklist rule, you may want to include a condition that will disqualify cases from appearing once that condition is no longer met. Since the value of most Elapsed Time rules will be your prompt response to an existing issue, there is no point in being notified if the situation has been resolved before you load your Worklist, even if the case would have been present earlier. For the potentially-disqualifying condition to be considered, you must check the **Remove Worklist Entries That No Longer Qualify** box on the Assignment tab in Worklist Definition.
Detailed Use Case Scenarios

Scenario 1. Define a Worklist to identify patients who have been in Observation for nearly 24 hours.

In Worklist/Rule Definition, your conditions should look like this:

Monitor: Elapsed Time
Module: Observation Episodes
Potential Disqualifying Condition: OBSERVATION:End Date... Does Not Have Value
Elapsed Based On...
Date/Time: OBSERVATION:Start Date/Time
Follow-Up After: 23.5 Hours
Remove Worklist Entries That No Longer Qualify: Y

Screenshot from Worklist/Rule Definition:
**Scenario 2. Define a Worklist to identify Risk Events that have no Referral data after a day-and-a-half.**

In Worklist/Rule Definition, your conditions should look like this:

- **Monitor**: Elapsed Time
- **Module**: Risk Management Episodes
- **Potential Disqualifying Condition**: RISK MANAGEMENT:REFERRALS:Referred Date...Does Not Have Value
- **Elapsed Based On**...
- **Date/Time**: RISK MANAGEMENT:Date/Time of Event
- **Follow-Up After**: 36 Hours
- **Remove Worklist Entries That No Longer Qualify**: Y

_Screenshot from Worklist/Rule Definition:_

![Screenshot of Worklist/Rule Definition](image)
SmarTrack Indicator-based Worklists

Version 2011.2 Enhancement
In Midas+ Care Management version 2011.2, we added a feature to Worklist Rules to include a new Monitor for Indicators, which allows users to create list of patients who are qualified for a selected Indicator for a processed period. Newly-qualified patients (or non-patients, as applicable) are not automatically added to Indicator-based Worklists. Only the cases already on the list after the Worklist has been processed will appear unless marked Complete.

Monitor – Indicator
Indicator-based Worklists can be defined from any SmarTrack indicator, or from any CPMS or DataVision Indicator, if your Facility is using those products. Such Worklist rules are especially helpful for abstractors who only need a percentage of a qualified population. See example below.

Screenshot from Worklist/Rule Definition:

When you define or modify a Rule, you will be prompted at Save to enter a range of months for processing your Rule. The indicator-based Worklist Rule will include cases that have already been identified when the indicator was last processed for that period.
To add new cases to an existing indicator-based Worklist, you must use SmarTrack Processing or open the Worklist Rule in Worklist/Rule Definition.

**Screenshot from Worklist/Rule Definition:**

![Screenshot from Worklist/Rule Definition](image)

**Screenshot from Worklist/Rule Processing:**

![Screenshot from Worklist/Rule Processing](image)
SmarTrack Worklists and Indicators – Readmissions

Previous and Next Encounter Qualifying Conditions
With v.8.1 Care Management SmarTrack Rules and Indicators, qualifying conditions were added for looking at the previous or next encounter top-level fields. This new feature allows the user to look at a series of encounters. The user can either choose the previous encounter or next encounter where a particular condition occurred. Conditions from both the previous and next encounter should not be used together in a Worklist rule.

The new fields within the Encounter file that link to next and previous encounters are named below.

- Next Encounter (any type)
- Next ER Encounter
- Next Inpatient Encounter
- Next Outpatient Encounter
- Next Short Stay Encounter
- Previous Encounter (any type)
- Previous ER Encounter
- Previous Inpatient Encounter
- Previous Outpatient Encounter
- Previous Short Stay Encounter

The following data fields can be used as qualifying condition in SmarTrack Rules and Indicators for the Previous and Next Encounter parameters:

- Admit Source
- Admitting Physician
- Admitting Service
- Admitting Specialty
- APR DRG
- Attending Physician
- Discharge Disposition
- Discharge Physician
- DRG (Federal)
- Elapsed Time (Hours)
- Encouter Type
- Facility
- Location
- LOS
- Principal Diagnosis
- Principal Payer
- Principal Procedure
- Principal Procedure Physician
- Referral Source
- State DRG
**Previous Encounter Qualifying Conditions**

The previous encounter qualifying conditions are used more often, as they provide real time alerts. Readmission Worklist Rules are the most common use for this qualifying condition. When using the previous encounter qualifying conditions, the user also has the ability to look at how many days since the last/previous encounter.

For example, you can create a Worklist Rule that notifies the user when an inpatient with a certain diagnosis is readmitted within 30 days. As shown in Figure 7, the Worklist looked at the most recent Inpatient Encounter, on April 10th, 2012, and then found the target encounter, which was the most recent inpatient encounter with a diagnosis of CHF NOS, on March 29, 2012. It overlooked the Emergency Encounter for April 7th, 2012. If you had instead been looking for the previous inpatient encounter with a diagnosis of initial subendocardial infarction, it would not have chosen the March 1, 2012 encounter because it is not the most recent inpatient encounter.

![Figure 7: Previous Encounter Condition](image)

**Next Encounter Qualifying Conditions**

The next encounter qualifying condition is used less frequently. It allows the user to look at a certain encounter and then choose the next encounter where a particular condition occurred. Typically, with such conditions the Worklist Rule must be processed unless the monitored encounter is updated after the newer encounter has met the qualifying conditions of the Rule. If it is unlikely that the prior encounter will be updated, you can use the SmarTrack Worklist/Rule Processing function to identify qualifying cases.

Begin defining a Worklist Rule containing qualifying conditions for previous encounter or next encounter by following the instructions below:
To select the Previous or Next Encounter Qualifying Conditions

1. In the monitor field, select Encounter.

![Figure 1: Monitor drop-down menu with Encounter](image)

Under If, in the Module:Field field, select the anchor encounter and the previous or next conditions that apply. For Example, if you were looking at the previous encounter, you will at least need to choose the:

<table>
<thead>
<tr>
<th>Desired Result</th>
<th>Worklist Module:Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of days between the previous encounter and the</td>
<td>ENCOUNTER: ENCOUNTER TYPES: Days Since Last Encounter</td>
</tr>
<tr>
<td>most recent encounter</td>
<td></td>
</tr>
<tr>
<td>Previous Encounter Type:Type</td>
<td>ENCOUNTER: Type: Type (Days Since Last)</td>
</tr>
</tbody>
</table>

Then you may also want to choose fields from the readmission encounter. A common condition that may often apply is:

<table>
<thead>
<tr>
<th>Desired Result</th>
<th>Worklist Module:Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose the readmission Encounter Type: Type</td>
<td>ENCOUNTER: Encounter Type: Type</td>
</tr>
</tbody>
</table>
**Previous Encounter Example**

Build a Worklist Rule that notifies the user when an Emergency Room patient had a discharge disposition that was not transferred, expired, or left against medical advice followed by a readmission within 4 days to the Emergency Room. The rule will look at only the most recent Emergency Encounter (anchor Encounter) and then find within that previous Emergency Encounter (target Encounter), which is the previous emergency encounter with a disposition that is not AMA, expired, or transferred. It will overlook any encounters that are between the target encounter and the most recent Emergency encounter.

![Diagram](image)

*Figure 1: Previous ER Readmit Inpatient <4D*
Screenshot from SmarTrack Definition:

A screenshot of the Worklist/Rule Definition interface is shown. It includes a form with fields for Description, Code, Title, Monitor, Condition Logic, and Module Field. The form contains conditions for ENCOUNTER types, encounter dispositions, and reference dates. The screenshot illustrates a rule for identifying previous ER readmit inpatients with specific criteria.
SmarTrack Complex Conditions - Worklists

Version 2011.2 Enhancements
In Midas+ Care Management version 2011.2, we added a feature to allow Worklist Rules and Indicators to include Complex Conditions in addition to the exclusive condition offered in earlier versions. By definition, exclusive conditions only allow for an “And” relationship between conditions so that each additional condition further narrows the populations by excluding more records. By adding Complex Conditions, users can add qualifying conditions by way of an “Or” relationship, and users can also create Groups of Conditions using “And,” “Or”, and even “Not” to disqualify a Group of Conditions once it has been defined.

Applicable Functions
Complex Conditions can be defined in Worklist Rules, Patient Tracking Files, and Focus Rules. They can also be defined in Indicator Counts, Indicator Sums, and Days At Risk.

Example of Use
A simple example of a Complex Rule might be that which specifies two distinct Groups to each qualify for the same Worklist. Prior to version 2011.2, a single Rule could not place Male Patients over 55 with CHF on the same list as Female Patients over 65 with CHF. As a mathematical formula, the desired conditions may first look like this:

Inpatient Encounters
And
Diagnosis=CHF
And
Male Over 55
And
Female Over 65

Although both groups have CHF, the Age of interest for the Groups differs by gender. Not one record could possibly qualify for ALL the conditions. Thus, you should use Complex Conditions to define the two Groups for whom there is a common interest.
In Worklist/Rule Definition, your conditions should look like this:

Group 1:
   Inpatient Encounters
   And
   Diagnosis=CHF
   And
   Male Over 55
Or

Group 2:
   Inpatient Encounters
   And
   Diagnosis=CHF
   And
   Female Over 65

If an Encounter is in Group 1...Or...Group 2, it is qualified for this Rule.

Detailed Use Case Scenarios for Worklists
The following Use Case Scenarios are intended to illustrate the practical value of Complex Conditions in SmarTrack Worklist Rules and Indicators. If clinical authenticity seems lacking in an example, feel free to use your own more familiar conditions in their place.

Scenario 1. Define a Worklist to identify patients who may have Encephalitis based on an Encephalopathy diagnosis or a Spinal Tap procedure.
Condition 1 – Encounter Procedures:Procedure... Has Value = Spinal Tap
Or
Condition 2 – Encounter Diagnoses:Diagnosis... Has Value = Encephalopathy

The apparent formula, Condition 1 or Condition 2 would include Encounters with either the Procedure of the Diagnosis; only one condition need be met. To change the Logical Operator from “And” to “Or” you must click on the “Or” radio button in the Condition Logic.

In Worklist/Rule Definition, your conditions should look like this:

Count: Encounter
Reference Date: Encounter End Date
Condition 1 – Encounter Procedures:Procedure... Has Value = 03.31 (Spinal Tap)
Or
Condition 2 – Encounter Diagnoses:Diagnosis... Has Value = 348.3, 348.30, or 348.39 (Encephalopathy)
**Scenario 2. Define a Worklist to identify Expired patients who had Encephalitis based on an Encephalopathy diagnosis or a Spinal Tap procedure.**

**Condition 1** – Encounter Procedures:Procedure...Has Value = Spinal Tap

Or

**Condition 2** – Encounter Diagnoses:Diagnosis...Has Value = Encephalopathy

And

**Condition 3** – Encounter:Disposition...Has Value = Expired (and/or equivalents)

The apparent formula, **Condition 1 OR Condition 2 AND Condition 3**, would not be possible, since we cannot mix “And” and “Or” in the top level of SmarTrack Conditions logic. However, we can now create Groups of conditions. For this, and for all the following examples, you must use the Custom option and edit the Condition Logic.

**In Worklist/Rule Definition, your conditions should look like this:**

**Count**: Encounter

**Reference Date**: Encounter End Date

**Group A**

   - **Condition 1** – Encounter Procedures:Procedure = 03.31 (Spinal Tap)

      Or

   - **Condition 2** – Encounter Diagnoses:Diagnosis = 348.3, 348.30, or 348.39 (Encephalopathy)

And

**Condition 3** – Encounter:Disposition... Has Value = Expired
SCENARIO 3. Define a Worklist for Heart Failure Encounters.
NOTE: This third example uses a new Condition Variable related to the Procedures (Dict. 43) and Diagnoses (Dict. 44) tables, called Is Like, which allows users to search codes in these dictionaries with the “wild cards” of percent (%) and underscore(_).

**Condition 1** - Encounter Type:Type... Has Value = Inpatient
And
**Condition 2** – Patient:Sex... Has Value = Male
And
**Condition 3** – Encounter:Age At Encounter... Has Value = >55
And
**Condition 4** – Patient:Sex... Has Value = Female
And
**Condition 5** – Encounter:Age At Encounter... Has Value = >65
And
**Condition 6** - Encounter:Diagnoses:Diagnosis:Code Is Like = 428%

The apparent formula, *Condition 1 AND Condition 2 AND Condition 3 AND Condition 4 AND Condition 5 AND Condition 6*, would actually exclude everyone, since no patient is of both genders.

To define the necessary conditions correctly, you will need to add the common conditions twice, once for each Group. Each Group will also include the distinct conditions for that Group.
In Worklist/Rule Definition, your conditions should look like this:

**Monitor:** Encounter  
**Suggested Reference Date:** Encounter End Date  

**Group A**

| Condition 1 | Encounter Type:Type...Has Value = Inpatient And  
| Condition 2 | Patient:Sex...Has Value = Female And  
| Condition 3 | Encounter:Age At Encounter...Has Value = > 65 And  
| Condition 4 | Encounter:Diagnoses:Diagnosis:Code Is Like = 428%  

Or

**Group B**

| Condition 1 | Encounter Type:Type...Has Value = Inpatient And  
| Condition 2 | Patient:Sex...Has Value = Male And  
| Condition 3 | Encounter:Age At Encounter...Has Value = > 55 And  
| Condition 4 | Encounter:Diagnoses:Diagnosis:Code Is Like = 428%  

Screenshot from Worklist/Rule Definition:

Condition Logic:

- AND
- OR
- Custom

If:

- Inpatient Heart Failure - Males >55
  - ENCOUNTER:Encounter Type:Type
    - Has Value: INPATIENT
  - And
  - PATIENT:Sex
    - Has Value: MALE
  - And
  - ENCOUNTER:Age At Encounter (Years)
    - Has Value: >55
  - And
  - ENCOUNTER:DIAGNOSES:Diagnosis:Code Is Like
    - Has Value: 428%
  - Or

- Inpatient Heart Failure - Females >65
  - ENCOUNTER:Encounter Type:Type
    - Has Value: INPATIENT
  - And
  - PATIENT:Sex
    - Has Value: FEMALE
  - And
  - ENCOUNTER:Age At Encounter (Years)
    - Has Value: >65
  - And
  - ENCOUNTER:DIAGNOSES:Diagnosis:Code Is Like
    - Has Value: 428%
  - Or

- <Add New Condition>
SCENARIO 4. Define a Worklist Rule to identify Encounters with a Discharge Disposition of “Home” (or similar) despite apparent post-discharge plans for Skilled, Long-Term, or Acute Care.

The goal is to find cases that were coded for Disposition incorrectly, assuming the Discharge Planning efforts were appropriate. The challenge in this Worklist Rule is that the post-discharge arrangements may have been entered in either HCM Discharge Planning or HCM Support Services.

**Condition 1** - Encounter:Type:Type...Has Value = Inpatient
And
**Condition 2** - Encounter:Disposition...Has Value = Home
And
**Condition 3** - HCM Discharge Planning:Discharge Status...Has Value = Skilled, Long-Term, or Acute Care.
Or
**Condition 4** - HCM Support Services:Assigned Level of Care...Has Value = Skilled, Long-Term, or Acute Care.

The apparent formula, **Condition 1 AND Condition 2 AND Condition 3 OR Condition 4**, is not possible in SmarTrack. The logical operators, “Or” and “And,” cannot be used together in a Rule or indicator to connect Groups.

**In Worklist/Rule Definition, your conditions should look like this:**

- **Monitor:** Encounter
- **Reference Date:** Encounter End Date
- **Condition 1:** Encounter:Type:Type...Has Value = Inpatient
  And
- **Condition 2:** Encounter:Disposition...Has Value = Home
  And
- **Group A**
  - **Condition 3** = HCM Discharge Planning:Discharge Status...Has Value = Skilled, Long-Term, or Acute Care
  Or
  - **Condition 4** = HCM Support Services:Assigned Level of Care...Has Value = Skilled, Long-Term, or Acute Care

The goal is to identify admissions for Sepsis that did not have evidence of Shock at the time of admission, regardless of whether Shock was present later in the encounter.

**Condition 1** - Encounter:Type:Type...Has Value = Inpatient
And

**Condition 2** - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 038-038.99 or 995.91
And

**Condition 3** - Encounter:Diagnosis:Present On Admission...Has Value = POA
And

**Condition 4** - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 785.52 or 995.92
And

**Condition 5** - Encounter:Diagnosis:Present On Admission...Has Value = NPOA
The apparent formula, \textit{Condition 1 AND Condition 2 AND Condition 3 AND Condition 4 AND Condition 5}, is not possible in SmarTrack. Nor is it logical, not because the Code Range condition should not be added twice (it should), but because the Present On Admission fields, also added twice, would qualify the Diagnoses in both Code Ranges for both POA and NPOA, when POA should apply only to Sepsis, and NPOA should apply only to Shock.

\textbf{In Worklist/Rule Definition, your conditions should look like this:}

\textbf{Monitor:} Encounter  
\textbf{Suggested Reference Date:} Encounter End Date  
\textbf{Condition 1} - Encounter:Type:Type...Has Value = Inpatient  
\textbf{And}  
\textbf{Group A}  
\textbf{Condition 2} - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 038-038.99 or 995.91  
\textbf{AND}  
\textbf{Condition 3} - Encounter:Diagnosis:Present On Admission...Has Value = POA  
\textbf{And}  
\textbf{NOT Group B}  
\textbf{Condition 4} - Encounter:Diagnosis:Diagnosis Code Range...Has Value = 785.52 or 995.92  
\textbf{And}  
\textbf{Condition 5} - Encounter:Diagnosis:Present On Admission...Has Value = NPOA

The ability to negate a Group is also new in version 2011. Using the \textbf{Not} checkbox in the Edit Condition Logic window, you can select a Group or condition and then negate it entirely.

\textit{Screenshot from Worklist/Rule Definition:}
**Scenario 6. Define a Worklist to identify Non-Diabetic Inpatient Encounters Discharged Alive with a Diagnosis of “CHF” Not Present On Admission.**

The goal is to identify Encounters Discharged Alive with a Diagnosis of CHF that was **Not** Present On Admission but without Diabetes that was **Present** On Admission.

**Monitor:** Encounter

**Suggested Reference Date:** Encounter End Date

**Condition 1** – Encounter:Disposition... Does Not Have Value = Expired

And

**Condition 2** - Encounter:Diagnosis:Diagnosis Code Is Like = 428%

And

**Condition 3** - Encounter:Diagnosis:Present On Admission= NPOA

And

**Condition 4** - Encounter:Diagnosis:Diagnosis Code Is Not Like = 250%

And

**Condition 5** - Encounter:Diagnosis:Present On Admission...Does Not Have Value = POA
As in Scenario 3, the apparent formula, \( \text{Condition 1 AND Condition 2 AND Condition 3 AND Condition 4 AND Condition 5} \), is not possible in SmarTrack. Nor is it logical, not because the Code Range condition should not be added twice, but because the Present On Admission fields, also added twice, would qualify any Diagnoses with codes that begin with 428 or 250 for both POA and NPOA, when POA should apply only to Diabetes, and NPOA should apply only to CHF.

**In Worklist/Rule Definition, your conditions should look like this:**

**Condition 1** – Encounter:Disposition... Does Not Have Value = Expired 
And 
**Group A** 

| Condition 2 | Encounter:Diagnosis:Diagnosis Code Range = 428%  
| AND | 
| Condition 3 | Encounter:Diagnosis:Present On Admission...Has Value = NPOA  

And 

**NOT Group B** 

| Condition 4 | Encounter:Diagnosis:Diagnosis Code Range = 250%  
| And | 
| Condition 5 | Encounter:Diagnosis:Present On Admission...Has Value = POA  

With the stand-alone condition of Encounter:Disposition, use **Does Not Have Value** to disqualify Expired (and equivalent Dispositions). Use the **Not** checkbox in the Edit Condition Logic window to negate the **Group** for Diabetes POA.

**Screenshot from Worklist/Rule Definition:**
SmarTrack Elapsed Time Worklists

Version 2011.2 Enhancement
In Midas+ Care Management version 2011.2, we added a feature to Worklist Rules to include a new Monitor for Elapsed Time, which allows users to create notifications for when the duration of an occurrence or status exceeds an acceptable period. We also added new “virtual date/time” fields based on the combination of relevant Date and Time fields. These new virtual fields are used as starting points for the passage of time that is monitored by Elapsed Time rules.

Monitor – Elapsed Time
Elapsed Time Worklists can be defined for a select set of modules, specifically those which have a logically-related Date field and Time field. The list below includes all of the virtual Date/Time fields that can be added as starting points for calculating the passage of time.

<table>
<thead>
<tr>
<th>Module</th>
<th>Date/Time Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMERGENCY ROOM EPISODES</td>
<td>EMERGENCY ROOM:End Date/Time</td>
</tr>
<tr>
<td>EMERGENCY ROOM EPISODES</td>
<td>EMERGENCY ROOM:End Date/Time</td>
</tr>
<tr>
<td>ENCOUNTERS</td>
<td>ENCOUNTER:End Date/Time</td>
</tr>
<tr>
<td>ENCOUNTERS</td>
<td>ENCOUNTER:Start Date/Time</td>
</tr>
<tr>
<td>MEMBER RELATIONS EPISODES</td>
<td>MEMBER RELATIONS:Date/Time of Event</td>
</tr>
<tr>
<td>NEONATAL EPISODES</td>
<td>NEONATAL:Date/Time of Birth</td>
</tr>
<tr>
<td>OBSERVATION EPISODES</td>
<td>OBSERVATION:End Date/Time</td>
</tr>
<tr>
<td>OBSERVATION EPISODES</td>
<td>OBSERVATION:Start Date/Time</td>
</tr>
<tr>
<td>PATIENT RELATIONS EPISODES</td>
<td>PATIENT RELATIONS:Date/Time of Event</td>
</tr>
<tr>
<td>RISK MANAGEMENT EPISODES</td>
<td>RISK MANAGEMENT:Date/Time of Event</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Anesthesia Start Date/Time</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Anesthesia Stop Date/Time</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Patient Date/Time In</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Patient Date/Time Out</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Surgery Start Date/Time</td>
</tr>
<tr>
<td>SURGERY EPISODES</td>
<td>SURGERY:Surgery Stop Date/Time</td>
</tr>
</tbody>
</table>

Both Date AND Time are Necessary
For an Elapsed Time to be calculated, both a Date and Time must be present in the record. However, many of these fields are not mandatory in their related module. For example, in Risk Event Entry, every episode must have an Event Date, but Event time is not mandatory. If you intend to be notified after a specified amount of time passes following a Risk Event, the user who entered the data must include an Event Time.
**Caution for Late-Night Surgery**  
If you define a Rule to notify you after a specified number of hours have passed following a Surgery Procedure, you may get unintended results if the Surgery Start Time is very late in the evening. That is because each of the virtual Date/Time fields for Surgery Episodes depends on the same Date of Surgery, a single field in the Surgery module. For example, although we know that a Surgery that starts on June 2 at 11:30 PM and ends on June 3 at 12:25 AM would have lasted 55 minutes, it would appear to have ended 23 hours before it started, which is impossible. Thus, a Rule that tracks to hours following a time that begins after a late-night surgery procedure, such as the Elapsed Time following Anesthesia Start Date/Time, may deliver misleading results if the Anesthesia Start was after midnight and the Surgery episode began before midnight.

**Include a Disqualifying Condition**  
For any Elapsed Time Worklist rule, you may want to include a condition that will disqualify cases from appearing once that condition is no longer met. Since the value of most Elapsed Time rules will be your prompt response to an existing issue, there is no point in being notified if the situation has been resolved before you load your Worklist, even if the case would have been present earlier. For the potentially-disqualifying condition to be considered, you must check the **Remove Worklist Entries That No Longer Qualify** box on the Assignment tab in Worklist Definition.
Detailed Use Case Scenarios

Scenario 1. Define a Worklist to identify patients who have been in Observation for nearly 24 hours.

In Worklist/Rule Definition, your conditions should look like this:

- **Monitor:** Elapsed Time
- **Module:** Observation Episodes
- **Potential Disqualifying Condition:** OBSERVATION:End Date... Does Not Have Value
- **Elapsed Based On...**
- **Date/Time:** OBSERVATION:Start Date/Time
- **Follow-Up After:** 23.5 Hours
- **Remove Worklist Entries That No Longer Qualify:** Y

*Screenshot from Worklist/Rule Definition:*
Scenario 2. Define a Worklist to identify Risk Events that have no Referral data after a day-and-a-half.

In Worklist/Rule Definition, your conditions should look like this:

Monitor: Elapsed Time
Module: Risk Management Episodes
Potential Disqualifying Condition: RISK MANAGEMENT:REFERRALS:Referred Date...Does Not Have Value
Elapsed Based On...
Date/Time: RISK MANAGEMENT:Date/Time of Event
Follow-Up After: 36 Hours
Remove Worklist Entries That No Longer Qualify: Y

Screenshot from Worklist/Rule Definition:
**SmarTrack Indicator-based Worklists**

**Version 2011.2 Enhancement**
In Midas+ Care Management version 2011.2, we added a feature to Worklist Rules to include a new Monitor for Indicators, which allows users to create list of patients who are qualified for a selected Indicator for a processed period. Newly-qualified patients (or non-patients, as applicable) are not automatically added to Indicator-based Worklists. Only the cases already on the list after the Worklist has been processed will appear unless marked Complete.

**Monitor – Indicator**
Indicator-based Worklists can be defined from any SmarTrack indicator, or from any CPMS or DataVision Indicator, if your Facility is using those products. Such Worklist rules are especially helpful for abstractors who only need a percentage of a qualified population. See example below.

*Screenshot from Worklist/Rule Definition:*

When you define or modify a Rule, you will be prompted at Save to enter a range of months for processing your Rule. The indicator-based Worklist Rule will include cases that have already been identified when the indicator was last processed for that period.
To add new cases to an existing indicator-based Worklist, you must use SmarTrack Processing or open the Worklist Rule in Worklist/Rule Definition.

Screenshot from Worklist/Rule Definition:

![Screenshot from Worklist/Rule Definition](image1)

**Rules that monitor indicators are not processed nightly. To process this rule later, use Worklist/Rule processing.**

Screenshot from Worklist/Rule Processing:

![Screenshot from Worklist/Rule Processing](image2)
SmarTrack Worklists and Indicators –
Readmissions

Previous and Next Encounter Qualifying Conditions
With v.8.1 Care Management SmarTrack Rules and Indicators, qualifying conditions were added for looking at the previous or next encounter top-level fields. This new feature allows the user to look at a series of encounters. The user can either choose the previous encounter or next encounter where a particular condition occurred. Conditions from both the previous and next encounter should not be used together in a Worklist rule.

The new fields within the Encounter file that link to next and previous encounters are named below.

- Next Encounter (any type)
- Next ER Encounter
- Next Inpatient Encounter
- Next Outpatient Encounter
- Next Short Stay Encounter
- Previous Encounter (any type)
- Previous ER Encounter
- Previous Inpatient Encounter
- Previous Outpatient Encounter
- Previous Short Stay Encounter

The following data fields can be used as qualifying condition in SmarTrack Rules and Indicators for the Previous and Next Encounter parameters:

- Admit Source
- Admitting Physician
- Admitting Service
- Admitting Specialty
- APR DRG
- Attending Physician
- Discharge Disposition
- Discharge Physician
- DRG (Federal)
- Elapsed Time (Hours)
- Encounter Type
- Facility
- Location
- LOS
- Principal Diagnosis
- Principal Payer
- Principal Procedure
- Principal Procedure Physician
- Referral Source
- State DRG
Previous Encounter Qualifying Conditions
The previous encounter qualifying conditions are used more often, as they provide real time alerts. Readmission Worklist Rules are the most common use for this qualifying condition. When using the previous encounter qualifying conditions, the user also has the ability to look at how many days since the last/previous encounter.

For example, you can create a Worklist Rule that notifies the user when an inpatient with a certain diagnosis is readmitted within 30 days. As shown in Figure 7, the Worklist looked at the most recent Inpatient Encounter, on April 10th, 2012, and then found the target encounter, which was the most recent inpatient encounter with a diagnosis of CHF NOS, on March 29, 2012. It overlooked the Emergency Encounter for April 7th, 2012. If you had instead been looking for the previous inpatient encounter with a diagnosis of initial subendocardial infarction, it would not have chosen the March 1, 2012 encounter because it is not the most recent inpatient encounter.

![Figure 7: Previous Encounter Condition](image)

Next Encounter Qualifying Conditions
The next encounter qualifying condition is used less frequently. It allows the user to look at a certain encounter and then choose the next encounter where a particular condition occurred. Typically, with such conditions the Worklist Rule must be processed unless the monitored encounter is updated after the newer encounter has met the qualifying conditions of the Rule. If it is unlikely that the prior encounter will be updated, you can use the SmarTrack Worklist/Rule Processing function to identify qualifying cases.

Begin defining a Worklist Rule containing qualifying conditions for previous encounter or next encounter by following the instructions below:
To select the Previous or Next Encounter Qualifying Conditions

1. In the monitor field, select Encounter.

![Figure 1: Monitor drop-down menu with Encounter](image)

Under If, in the Module:Field field, select the anchor encounter and the previous or next conditions that apply. For Example, if you were looking at the previous encounter, you will at least need to choose the:

<table>
<thead>
<tr>
<th>Desired Result</th>
<th>Worklist Module:Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of days between the previous encounter and the most recent encounter</td>
<td>ENCOUNTER: ENCOUNTERTYPES: Days Since Last Encounter</td>
</tr>
<tr>
<td>Previous Encounter Type:Type</td>
<td>ENCOUNTER: Type: Type (Days Since Last)</td>
</tr>
</tbody>
</table>

Then you may also want to choose fields from the readmission encounter. A common condition that may often apply is:

<table>
<thead>
<tr>
<th>Desired Result</th>
<th>Worklist Module:Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose the readmission Encounter Type: Type</td>
<td>ENCOUNTER: Encounter Type: Type</td>
</tr>
</tbody>
</table>
**Previous Encounter Example**

Build a Worklist Rule that notifies the user when an Emergency Room patient had a discharge disposition that was not transferred, expired, or left against medical advice followed by a readmission within 4 days to the Emergency Room. The rule will look at only the most recent Emergency Encounter (anchor Encounter) and then find within that previous Emergency Encounter (target Encounter), which is the previous emergency encounter with a disposition that is not AMA, expired, or transferred. It will overlook any encounters that are between the target encounter and the most recent Emergency encounter.

*Figure 1: Previous ER Readmit Inpatient <4D*
Screenshot from SmarTrack Definition: