RELEASE NOTES
FOR
PATCH# OR*3*231

INSTALLATION REQUIREMENTS

Before you can install OR*3*231, you must install the following patches:

- OR*3*195

PATIENT SAFETY ISSUES

- **PSI-04-044 Problems with Selecting Medication Quick Orders in CPRS (NOIS NJH-0804-20315, BUT-0804-20340, ECH-1104-50318)** – Because of how CPRS auto-selection was working in the medication order dialog, the user could incorrectly select a quick order if the user typed too slowly or if CPRS highlighted the quick order when the user wanted the medication in the list below.

  Resolution: The Medication order dialog was changed to require the user to type a unique entry to explicitly select a quick order or medication from the appropriate list.

- **PSI-05-004 Free-Text Entry Could Cause Incorrect Dose (NOIS PUG-0105-51149)** – This patch resolves PSI-05-004, which corresponds to Issue 7 "Free-Text Entry Could Cause Incorrect Dosage" identified in the OR*3.0*195 Patch Description.

  When a dosage was already entered by the user or by a quick order and the user clicks in the field to edit the dosage rather than selecting a different dosage from the available list, the highlighted dosage is replaced by the first character of the new dosage, but then the cursor incorrectly moves back to the left and types over that character when the user types additional numbers. For example, if a quick order contained a dosage of 75MG and the user attempted to change to 25MG, the user would highlight the dosage if necessary, type the 2, which would appear, but the cursor would then incorrectly move back to the far left and replace the 2 with a 5 when the user typed the 5. This would create a dosage of 5MG instead of the intended 25MG. The cursor movement occurs with the first character only.

  Resolution: Developers changed CPRS cursor behavior so that the characters are no longer deleted when the characters are typed.

- **PSI-05-016 Medication Order Comboboxes Text Insertion Problems (NOIS TAM-0205-31170)** – In the medication order dialogs, when users were typing in the letters of a medication name, CPRS would try to autocomplete the name of the medication. For example, if a users typed "a" and acetaminophen was the first item in the list beginning with letter "a", CPRS would put "acetaminophen" where the user was typing although all the letters after the "a" would be highlighted and could be typed over. This issue was identified as a patient safety issue.

    Resolution: CPRS no longer autocompletes the name of the medication until a unique match is found.

- **PSI-05-032 Displaying All Routes after OR*3.0*231 Installation/Implementation May Lead to Incorrect Selection –** When they changed how users select the medications and dosage to resolve patient safety issues, CPRS developers made the same changes to the Route field on medication ordering dialogs to be consistent. The change required users to select an item from the list. Users were not allowed to type in an entry that was not displayed on the list.

    CPRS displays the default route (if defined at the orderable item level) and the routes associated with a dosage form in the Route drop-down list. Some sites had limited which routes were associated with a dosage form so that the routes applied only to all medications on the form because they knew that providers could enter a different route if they did not see the desired route on the list.

    With this change, some needed routes were not displayed on the list because they were not associated with the dosage form. That meant that providers could not select the appropriate route because it was not displayed and they had to choose a route from the list. However, all routes for a dosage form such as injection (intravenous, intramuscular, subcutaneous, etc.) are not be appropriate for all medications assigned to the dosage form. Sites felt that if they altered the routes associated with a dosage form to include all appropriate routes for all medications to display in the drop-down list, it would be easier for a provider to select the wrong route.

    Developers have therefore changed the Route field to work as follows:

    - **ROUTE** may be selected from the drop-down selection list, but selection will not be required from that list (users can type in a valid route that may not appear in the list)
    - Any **ROUTE** may be entered if it exists in the MEDICATION ROUTES file (51.2)
    - **ROUTE** will follow the current required rules for outpatient, inpatient, non-VA medications, and supply items.

Bug Fixes

Medication Ordering

- **Change to CPRS Combobox Auto-Completion on Medication Order Dialogs** – CPRS now only auto-selects (highlights in blue and places that entry in the field) a medication, dosage, route, or schedule if the user types enough characters to uniquely identify an item in the list. If the user does not enter enough characters to uniquely identify an item, CPRS waits until the user manually selects an item using the mouse or the keyboard.
  - **Non-VA Meds**: Although Non-VA medications require only a medication name for entry, the dialog works the same for those fields—a unique match is required before auto-completion. Non-VA meds do not require a route, schedule, or dosage and they allow free-text entry for each of these fields.
  - **Outpatient Free-Text Dosage:** Also, the outpatient medication dialogs will accept a free-text entry for dosage, but with the new non-standard schedule project, inpatient medication dialogs will not.
  - **Free-Text Route (PSI-05-032):** Users can enter free-text routes or choose a route from the list. A default for the orderable item can be assigned to display in CPRS, or the user can pick from the list of available routes that comes from the dosage form and the orderable item or type in a free-text route, which will then be checked for validity against the MEDICATION ROUTES file (51.2).

- **Mouse Hover Auto-Selection Problem Corrected** – When entering a medication order, an incorrect medication could be selected as follows:

  1. Place the cursor in the field to enter a medication name, and then move the mouse to the medication list.

  2. Type a few characters for a medication, such as "as" for Aspirin.

  3. Press tab to move the focus to the list. CPRS selects the medication under the mouse instead of the one at the top of the list.

     In this version the list item will no longer become automatically selected upon hovering over the medication list.

- **Outpatient Supplies No Longer Require Routes** – In CPRS GUI v.25, developers changed CPRS to require all orders placed through the inpatient and outpatient medication dialogs to have a route—including supply items. In this version, supply item orders for outpatients no longer require the user to enter a route.

- **Space in Schedule Field Entry Causes Error** – When the user enters a space in a schedule for a medication order, CPRS allows them to enter this schedule. However, when the user selects Accept Order, CPRS gave an error and did not save the order. Developers corrected the schedule validation so that CPRS now gives the message that the user did not enter a valid schedule.

- **Renew Action Modified to Prevent Entry of an Inpatient Medication for an Inpatient from an Outpatient Location** – Due to a patient safety consideration identified by San Diego during testing of CPRS GUI v.25, the software was modified to prevent entry of inpatient orders for inpatients from an outpatient location. It was recently discovered that the renew action was overlooked when implementing this modification for new/copy and change. In OR*3*231, an additional modification was made to prevent renew of an inpatient order for an inpatient with an outpatient location. The user will now receive an error message stating that the order cannot be renewed with an outpatient location.

- **Lowercase Schedules Now Expand Correctly to Instructions Field** – With CPRS v.25, CPRS did not convert outpatient medication schedules that users entered in lowercase letters to uppercase letters before passing them to pharmacy. The schedules and synonyms in the Medication Instruction (51) and Administration Schedule (51.1) files are in uppercase letters. Unless the schedule coming from CPRS and the entry in one of the above files were exactly the same including the case, it was not viewed as a match (q8h was not considered the same as Q8H) but was considered a free-text entry and did not expand in the instructions field. CPRS developers changed the code so if a user enters a lowercase schedule, CPRS now converts it to uppercase before passing it to pharmacy. If the schedule matches a file entry exactly, it expands correctly.

- **Dosage Display Problem on Orders Tab for Tablets and Drops** – A problem was discovered where if the user entered a dosage such as "1-2 tablets" that CPRS did not display this correctly in the order dialog, on the Orders tab, or in the order detailed display. The "1-2" was missing and only the word "TABLETS" displayed. The text was displayed correctly on the Meds tab listing, with orders passed to pharmacy, and on the pharmacy label. CPRS developers corrected this display problem. CPRS now expands the numbers it recognizes and treats other entries as free-text and displays them without any changes ("1-2" as "1-2" and "1 - 2" as "ONE - 2" for tablets and drops), which was the way the dosage field worked in CPRS GUI v.24.

- **Complex Outpatient Meds Schedule with PRN Display Problem Corrected** – Previously, if while placing a complex outpatient medication order, the user entered a free-text schedule and then checked PRN, the free-text schedule was deleted from the field at the bottom of the order dialog when CPRS expanded PRN to "AS NEEDED". So, if the user entered a free-text schedule of "EVERY AFTERNOON" and checked PRN, the field should have read "EVERY AFTERNOON AS NEEDED", but it read "AS NEEDED". This was only a display issue on the Order dialog, the listing on the Orders tab, and on the detailed display. The correct text was displayed on the Meds tab listing, passed to pharmacy, and printed on the label. Developers corrected this problem.