

Codonics SLS Administration Tool Software

Release Notes

Version 1.8.0 SLS Administration Tool Release Notes

Summary

Version 1.8.0 is a software release for Codonics Safe Label System™ (SLS) Administration Tool (AT). The software is compatible with SLS 500i™ Point of Care Stations (PCS) installed with 1.8.0 software.

This document provides information about new product features, improvements and defects corrected in 1.8.0 SLS AT software. The SLS AT User's Manual version 1.3.0 provides further information about the AT.

Recommended PC requirements for AT:

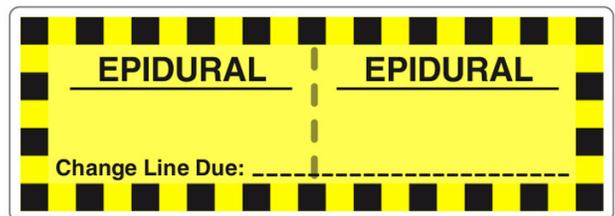
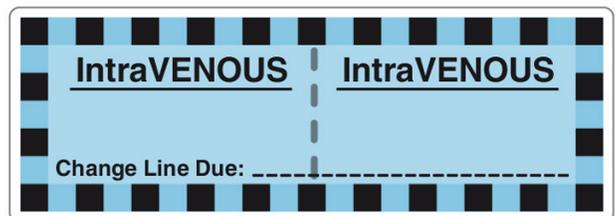
Intel Core™ 2 Duo Processor 2.66 GHz (or faster)
4 GB RAM
Windows® XP or newer (not Windows 8)
Internet Explorer (IE8 or newer)
Excel 2003 or greater to open reports

New Features

- ◆ The AT Device Manager (AT-DM) now receives communication of **Drug Not Found (DNF) events from SLS PCS**. With this DNF information, the AT user can update the existing formulary and distribute a new formulary package to all SLSs so that other SLS users do not also experience a DNF issue for the same drug. See Technical Brief 901-270-001 for further information.
- ◆ The AT-DM now receives communication of **Verification events from SLS PCS**. With this verification information, the AT user can update the existing formulary and distribute a new formulary package to all SLS PCSs so that other SLS users do not also have to verify the same drug that had been verified on a different SLS PCS. See Technical Brief 901-270-001 for further information.

- ◆ The AT Formulary manager now identifies those drugs added to the SLS Formulary that have not been edited. New filters (i.e., All and Unedited) were added to the SLS Formulary tab to assist with identifying those drugs which had been added but not yet edited. To also aid in editing drugs that have been added to or are already in the formulary, a new workflow improvement, Smart Copy, has been added. See Technical Brief 901-270-001 for further information.
- ◆ The AT now supports the Australian standard for line labels in the standard (ME-1) and large (ME-L1) template packs. A sample of the labels is provided below. These are set in the Custom Labels tab of the Configuration manager.

NOTE: The labels specified in the standard (e.g., Intrathecal, Intravenous, Regional, etc.) need to be manually entered in the Lines label of the Custom Labels tab, with the exception of Epidural.



1. In the AT, click on Configure Locale. Set the Active Label Template Pack to either ME-1 (standard labels) or ME-L1 (large labels) and select Save.
2. Click on Configuration manager tab and select the Custom Labels tab.
3. Select the Lines Section.
4. Click on Add Label.

5. A Create Custom Label dialog will be displayed. The default position for the first additional label is position six (6) (after the first five (5) standard Line labels). If you don't want the five standard Line labels, delete them by clicking on the X in the Actions column.

6. To add a new Australian Line label, click on SVG Template and select custom-iv-template.svg.

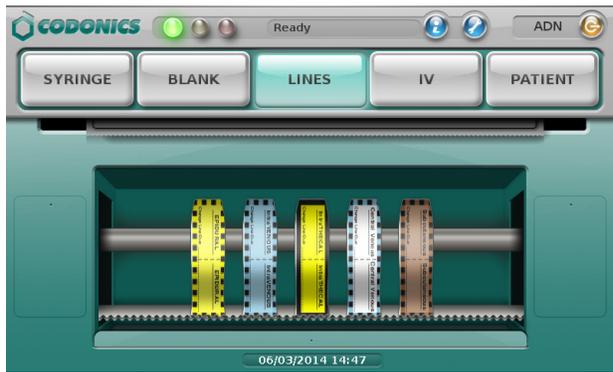
7. Enter the Title Text (e.g., IntraVENOUS), the Pattern (e.g., striped for checkerboard pattern), the Primary Stripe color, the Text Color, and the Expire Hours (0 if you want a blank line to write-in) ,and then click on Add.

NOTE: Specifying the Primary Stripe color will set the color of the tile. If black is selected, a thick border, like the one found on Intrathecal, will be rendered. By default, the interior of the box color will match the primary stripe color, unless specified by the Text Background. For example, Regional, and Central Venous have white as their interior box area, so Primary Stripe AND Text Background must be set for the desired results.

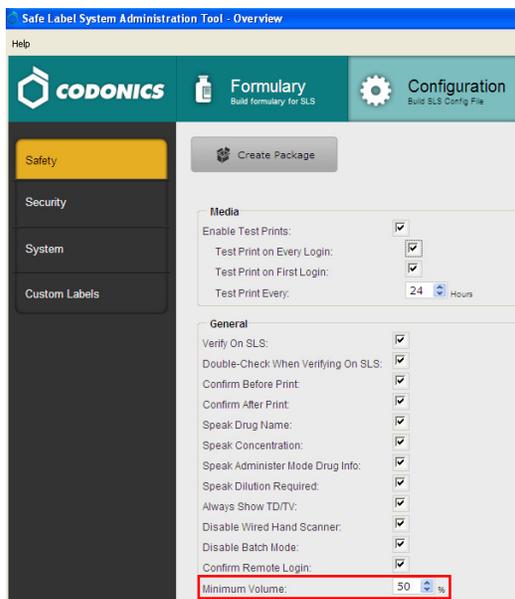
8. The new Lines label is added.

Title Text	Pattern	Color	Primary Stripe	Secondary Stripe	Text Color
Arterial	Solid	#F54029			
CVP	Solid	#87D5DF			
PA	Solid	#FFD000			
JCP	Solid	#FFFFFF			
EPIDURAL	Striped		#FFD000		
IntraVENOUS	Striped		#005788		#191919

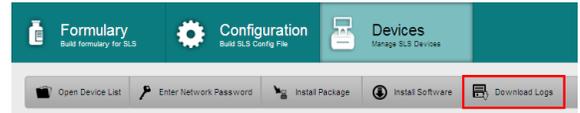
9. Repeat steps 4-7 to add additional Lines labels. When all the Lines labels are added, create a Configuration package and deploy to SLS PCS.



◆ The AT provides the capability to prevent muting of audible announcements on SLS PCS. Minimum volume settings are set in the Safety tab of the Configuration manager. When all the Configuration settings are complete, create a Configuration Package and deploy to SLS PCS.



◆ Network-wide collection of SLS PCS logs can now be done from the AT-DM. A Download Logs button was added to the AT-DM which when clicked will download logs files from all the selected SLS units in the AT-DM. A ZIP file is created of all logs from selected SLS PCSs. If any unit cannot be reached over the network during download, the logs from the unit will not be added to the archive, and a warning will be displayed.

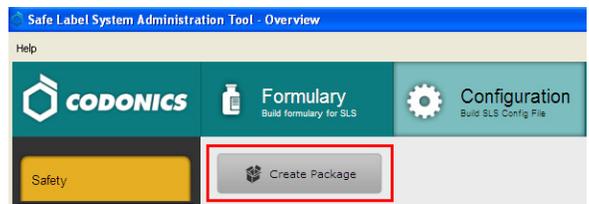


◆ A strong AT Login Password is now required. When changing a password (i.e., Login, Read-Write, Read-Only), a minimum length of 8 characters is required. The following characters % + \ / ' ! # \$ ^ ? : . , () { } [] ~ ` - _ are supported. Default and existing passwords are not required to meet the new requirements.

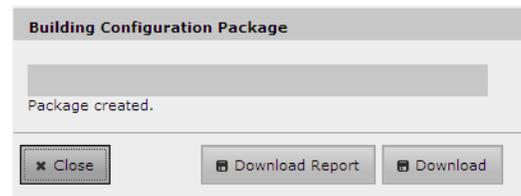
Product Improvements

◆ There is now a Configuration Report available. When creating a Configuration Package, a new option is available to create a Configuration Report.

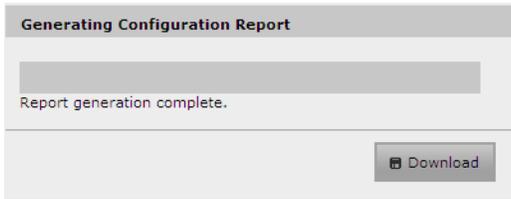
1. After selecting all your configuration settings, from the Configuration manager select Create Package.



2. A Configuration Package and Configuration Report will be created. A dialog will be displayed. To view the Configuration Report, select Download Report.



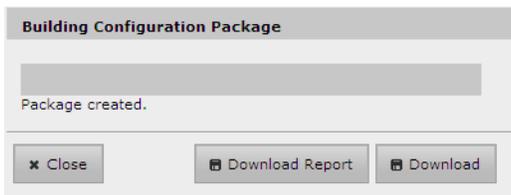
- The report will be downloaded. A Configuration Report will be generated.



- Select Download. A dialog will be displayed to Open or Save the report.



- When you Open the report, there will be an Excel workbook with four individual worksheets. They are (1) a Summary worksheet for approvals, (2) a Configuration worksheet with all settings from the Safety, Security, System tabs identified, (3) a Custom Labels worksheet with all Custom Labels' settings, and (4) a Safety worksheet that identifies all configuration settings that are not set to their default value.
- After downloading the report, you can Download the Configuration Package and deploy to SLS PCS.



- ◆ **Changes to tallman now unverify a drug entry in all instances.** Since tallman is what is printed on the label, a drug entry will be unverified if the tallman field is changed in the AT. The tallman field is now part of the information displayed when performing verification in the AT. The other fields that are displayed are CID, Drug Name, and Concentration.

- ◆ **The AT and SLS PCS support new drug names.** The new drug names included are Bupivacaine Liposome, Dimethyl Sulfoxide, Ephedrine Sulfate, Fosaprepitant, Insulin Isophane, Insulin Lispro Protamine, Lidocaine Topical, Olanzapine, Oxymetazoline, Polymyxin B, Nalbuphine Hydrochloride, and Sodium Chloride Bacteriostatic.
- ◆ **The AT and SLS PCS support new concentration numbers.** The new numbers included are 0.045, 0.067, 320, 325, and 666.

Defects Corrected

- ◆ **A Drug Dilution Status of Not Allowed no longer allows dilutions (e.g., 5 mg/mL, 1 mg/mL, Other) to be defined.** Previously, the AT would allow you to assign dilutions including Other for a drug set to Not Allowed. However, when trying to create a formulary package on the AT, the package would not be created and an error message would be displayed. Now you are warned up-front and cannot save a drug entry that is set to Not Allowed and has dilutions defined.
- ◆ **A Drug Dilution Status of Required or Allowed does not allow a drug entry to be saved unless there is a dilution defined.** Previously, the AT would allow you to save a drug entry set to Required or Allowed even if dilutions were not defined. However, when trying to create a formulary package on the AT, the package would not be created and an error message would be displayed. Now you are warned up-front and cannot save a drug entry that is set to Required or Allowed and has no dilutions defined.
- ◆ **New warnings were added for Normal Dilutions.** When a drug entry is set to Normal Dilution and you either Add Dilutions or Edit Formulary Drug, if the same concentration unit is used for both the original concentration and the diluted concentration (for example, mg/mL for both) and any of the diluted concentrations are greater than the original concentration, a warning is now displayed in the AT to verify the concentration values.
- ◆ **The Highlighted checkbox is now able to be translated for TDTV.**
- ◆ **The AT backup speed to a network drive was improved.**
- ◆ **A Dilution Allowed warning in the AT is now shown in all cases including when Other - Diluted or Other - Not Diluted are present.** When a drug is assigned a TDTV with the dilution status of Allowed, the AT now shows a warning when the assigned TDTVs for a drug are all diluted and includes Other-Diluted or all non-diluted and includes Other - Not Diluted. A warning appears both when editing the drug and in the Formulary Report.

- ◆ **An Error Contacting Server does not occur when group editing drugs.** Previously, you could get an Error Contacting Server message while group editing drugs with different expiration times.
- ◆ **Error Changing Pages message does not occur when logging into the AT.** Previously when logging into the AT, if the PC running the AT was under usage (for example, due to downloading email in the background), an Error Changing Pages message might appear.
- ◆ **Dilutions are no longer inadvertently added when group editing in the formulary.** Previously when group editing two drugs, (i.e., one with dilution Required and having a dilution defined, and one with dilution Not Allowed and no dilutions), when adding a message (for example Preservative Free), the dilution value from the drug with the dilution Required was added to the dilution value of the drug that was set to dilution Not Allowed.

Known Common Issues

This section details common issues with 1.8.0 AT software that are likely to be experienced by most users.

- ◆ **WARNING: The formulary report does not sort duplicates.** Duplicate Container IDs in the formulary are reported but are displayed in a way that may not put the duplicates together. You can sort the Excel spreadsheet on Container ID.
- ◆ **WARNING: Replacing drug names with non-Latin characters (e.g., Kanji, Hebrew) causes duplicate drug entries in the MDD.** When the MDD screen is sorted by drug name, changing a drug name to start with a non-Latin character causes the drug to display twice. When the issue occurs, editing either duplicate drug entry on the MDD changes the other entry properly. Re-sorting the MDD list or refreshing the MDD by switching to another page in the AT and then back causes the drug name to only display once, sorted after the names that start with Latin characters. If the drug is already in the SLS PCS formulary, then the drug name will display with the changed characters in the formulary and will be listed only once.
- ◆ **WARNING: The pre-import report does not identify duplicate drug IDs when importing via a CSV.** You are required to run a formulary report before generating an approved formulary and should review the Duplicate reports in the Safety worksheet to make sure all duplicates or potential duplicates in the MDD and formulary are identified.
- ◆ **ATs with larger formularies (e.g., 7500+ drug entries) can behave slowly.** For example, removing a single drug from a formulary, demoting the formulary from Test/Review to Under Development, or immediately editing a drug after demoting a formulary need additional time to occur.
- ◆ **Scanning a barcode on a label can be difficult or not possible if the barcode on the label doesn't have sufficient white space around the barcode.** For example, Heparin 5,000 units NDC 25021-402-10, Heparin 1,000 units NDC 25021-400-30, Heparin 1,000 units NDC 25021-400-10, and Penicillin 0781-6153-94 are vials which have difficulty scanning on SLS PCS.
- ◆ **An exception dialogue for allowing Java through the firewall may be displayed when first installing the 1.8.0 AT.** You should click Allow.
- ◆ **Using medium and large font sizes in Windows 7 distorts AT startup dialogs.** Parts of the dialog boxes will be cut off. You should use the small font sizes when using Windows 7.
- ◆ **The AT Device Manager system information window does not refresh while open.** In order to have the information screen update, close and reopen the window.
- ◆ **Saving and downloading a report will default to the location from previous versions of the AT.** When running a formulary report for the first time in a new version of the AT software and then clicking Download to save the file to disk, the AT will open the previous folder where reports were saved. You should clearly locate and name your reports for easy identification.
- ◆ **If a package transfer fails (e.g., Wi-Fi connection disconnects or Ethernet cable becomes unplugged during transfer), the AT Device Manager that sent the package will indicate Failed while any other AT Device Managers that are opened will indicate Transferring.** You can resend the same named package from the same AT Device Manager which originally sent the package only if the same AT session is running. If you have logged out of the AT that sent the package, refreshed the AT Device Manager, or opened the Device List again, you will need to cycle the power on SLS PCS to transfer a package.
- ◆ **The AT will stop working if the AT Device Manager is left open for greater than six hours when using Windows 7 with Internet Explorer 9 (IE9).** Do not leave the AT-DM open for extended periods of time (e.g., overnight) or when not in use. If the AT stops working, close the AT and then restart it.

- ◆ **If the AT is used on a PC with Internet Explorer 7 (IE7), the AT may exhibit slow performance if the AT is left open for multiple hours.** To correct the issue, close the AT application and restart it. No data should be lost because the AT updates as data is entered. For better performance results, install IE8 on the PC.
- ◆ **When using IE8, leaving the AT open and idle with the Pre-Import Results window displayed for more than 15 hours can cause the AT to lock up.** Leaving the AT open and idle for more than 15 hours in this case can lead to a blank Import Results window. The only way to exit is to click Discard and Confirm the discard.
- ◆ **Both the post-import user interface notification and the report shows the incorrect Total # of drugs with no changes that were skipped.** The number reported is actually the number of import operations being skipped. To confirm what was actually imported, you should look at the post-import report which shows exactly what was imported.
- ◆ **Importing 万単位 (i.e., man-tani) in the default (en-US) locale and then changing to the Japanese (ja-JP) locale causes the units to remain custom units.** There will be two man-tani units, the new one that is added by default and the custom unit that show up in the drop down. To prevent this from occurring, a user should first change to the Japanese locale and then import.
- ◆ **Performing a search for custom concentration units using exact match (i.e., `is`) does not return any results.** Either search using `contains` or search on a different field.
- ◆ **Searching for either the value (e.g., 0.2) or the units (mg/mL) of the concentration works as expected, but searching for both in the Formulary Manager does not return any results.**
- ◆ **Searching for the string 万単位 (i.e., man-tani) does not return any values, but a subset of man-tani (i.e., 万単) does search correctly.** You can also select a different identifier (e.g., drug name) to search.
- ◆ **Searching for PE or Unspecified will return all drugs in the MDD or formulary.** You should select a different identifier (e.g., drug name) to search.
- ◆ **Not all MDD fields are searchable.** Searching in the MDD on drug name (e.g., Propofol), Master IDs, Container IDs, Concentration values, or Tallman works as expected, but searching on Status (e.g., Active), Verification (e.g., verified) and Route (e.g., Intravenous) terms do not return any results.
- ◆ **Not all formulary fields are searchable.** Searching in the formulary on Master ID, Container ID, Drug Name (e.g., Propofol), Concentration values, Tallman, Template Name, Warnings, Dilutions, Audio or Audio2 values work as expected, but searching on Dilutions (e.g., Other), Expire Time (e.g., 24), Route (e.g., Intravenous), Verification level (e.g., verified), Dilution Status (e.g., Allowed), and Status (e.g., Active) values do not return any results. You should select a different search parameter or sort the column first to find the information.
- ◆ **Saving and downloading a report will default to the location from previous versions of the AT.** When running a formulary report the first time in a new version of the AT software and clicking Download to save the file to disk causes the AT to open the previous folder where reports were saved. You should clearly locate and name your reports for easy identification.
- ◆ **As dilutions are created in the Edit Formulary Drug user interface, they are saved to the group of available dilutions for all drugs.** All dilutions (e.g., 5 mg/mL, 1 mcg/mL, 1000 units) created in Edit Formulary Drug in the formulary remain as options to be selected for the next drug edited. You should scroll through the existing dilution options and check an existing box before creating new dilution entries.
- ◆ **Deleting a drug from MDD and then undoing the deletion clears TD/TV values to defaults in the formulary.** For example, if a drug is configured with TD/TV settings in the formulary, then deleted from the MDD, and then the undo button is selected, the drug is added back to the MDD and the formulary. However, the formulary will be set to the defaults (i.e., Dilution Status: Not Allowed, Preparation Method: Normal Dilutions, Dilutions: none, Total Dose /Total Volume: none).

Known Uncommon Issues

This section details uncommon issues with 1.8.0 AT software that are unlikely to be experienced by most users.

- ◆ **WARNING: If a drug record is modified in the MDD after it has been added to the formulary, the AT does not automatically update the audio file association.** If the drug name is changed in the MDD, the associated audio file will not change, resulting in a possible incorrect association. As a work around, you can either remove and then add the drug to the formulary to trigger a new audio file association, or manually select the correct audio file from the formulary edit dialog box.

- ◆ **WARNING: A concentration length of greater than 15 characters is converted to an incorrect value in the MDD when imported.** For example, a number such as 12345678901234567890 is converted to 92,233,720,368,547.77.
- ◆ **WARNING: Combination drugs with long drug names do not display the second drug name.** Combination drugs with very long drug names only display the first drug name as truncated. There is no indication as to what the second drug name is. Users should look to modify the entry of the drug name (e.g. Calcium can be entered as Ca). Another option is to enter the drug name in the Tallman field of the AT which will reduce the font size.
- ◆ **A warning isn't displayed unless a Custom Drug Classification template is created.** When adding a message that is too long, the warning WARNING: The label preview is approximate and may not exactly match the printed label on the SLS is not displayed in the Edit Formulary Drug dialog unless a Custom Drug Classification template is created.
- ◆ **Drug Copy does not work with custom concentrations.** If a user attempts to copy a drug that has a custom concentration number and/or unit (e.g., the drug was imported into the AT and has a concentration that is not available in the dropdown list in the AT) the custom concentration will not be copied. Instead the Copy Master Drug dialog will display the concentration as Select Units and the user will have to select a concentration from the dropdown list. If you want to make an exact copy of the original drug, you need to import the drug with the custom concentration.
- ◆ **The EAN-13 symbology is hidden from US NDC custom preset default view of the Configure Barcode Parsing window.** If you slide the grid line to the right, EAN-13 will appear.
- ◆ **If the computer that the AT is running on has its Windows temporary folder fill up, the AT will not start.** An error will occur when starting the AT. You should contact your system administrator and have them open the temp folder to determine which, if any, files can be deleted.
- ◆ **Test Print Every in the Configuration tab cannot be set to zero (i.e. 0).** If you want to disable Test Prints, uncheck Enable Test Prints in the Configuration tab, create a configuration package, and deploy it to SLS PCS's that require no test prints.
- ◆ **Entering a Master ID without any zero is accepted in the MDD.** When the database mode is US NDC, an 11-digit Master ID without any zero is accepted but cannot be mapped to a scanned 10-digit Container ID on SLS PCS (or the AT). Thus, you can define an invalid drug that will never be used and still successfully generate a formulary.
- ◆ **A valid Formulary Report will not be created if you don't select Open, Save or Cancel within three minutes after selecting Download.** If a corrupt Excel file is generated (indicated by an Excel error message), create a new formulary report in a timely manner.
- ◆ **The AT may experience errors or stop functioning if you perform consecutive imports without restarting the AT.** If a file or filter is between 10,000 and 50,000 entries, you need to restart the AT before importing the file or filter the second time. Contact Codonics Technical Support if there are questions.
- ◆ **The AT doesn't support consecutive imports of large files (i.e. > 50,000 entries) even when restarting the AT.** If you try consecutive imports of files or filters > 50,000 entries, the AT will not work the second time you try to import a file even if you restart the AT. It will display an error. Do not use a file this large. Contact Codonics Technical Support for support importing Oral drugs or for further questions.
- ◆ **An invalid barcode scan in Learn Mode does not provide information.** Occasionally, when an invalid barcode is scanned (e.g. one without an AIM code) in Learn mode, the window is simply dismissed and the focus is on the main screen again. There is no indication that the barcode is invalid or that the scanner needs to be configured properly.
- ◆ **Undo re-sorts MDD and formulary entries when the drugs are filtered or sorted on drug name.** For example, filtering on a list of fentanyl, deleting one of the entries, then undoing it does not place the drug in the same location in the list as it was prior to being deleted.
- ◆ **In Japanese, group editing drugs in the Formulary Manager has some fields in English.** After selecting multiple drugs, the fields that are different will show on the label template as "{CONCENTRATION}" and "{NAME}" instead of a translated version of these fields.

- ◆ **Deleting drugs one at a time can cause an error contacting server message.** This occurs with large (35K +) MDDs and a message Confirm: Delete this drug from the Master Drug Database "undefined (undefined)" is also present. If you want to delete multiple drugs from the MDD, select all the drugs and then group delete them.
- ◆ **Group editing large numbers (e.g., 35K+) of drugs at once causes Error Contacting Server error.** Clear the error by clicking the X and then select a smaller number of drugs to group edit.
- ◆ **Unable to edit drugs in a formulary if there are > 100K drugs in a formulary.** If you try to edit a drug, an Error Contacting Server message appears.
- ◆ **Unable to create a formulary report in a formulary if there are > 64K drugs in formulary.** Excel 2003 does not support greater than 65,536 entries. The formulary report creation status bar will complete. However, the download button will be grayed out and a message Writing report data will appear in red in the formulary report creation dialog.
- ◆ **Not all drugs appear selected even though you selected a large group of drug entries and then scrolled through them.** After a large number of drugs in the AT are checked and highlighted, sometimes drugs load in a manner where every other drug is highlighted and a group of contiguous drugs is not checked if you scroll through the list. Scrolling up or down so that the list loads again resolves the issue.
- ◆ **Custom labels in the BLANK tab of the configuration manager can be deleted.** Deleting any of the default Custom labels is not recommended. If you accidentally delete all the Custom Blank Labels, contact Codonics Technical Support.
- ◆ **After shift clicking large amounts of drug entries (e.g., 25,000) in the MDD, some may look like they are unchecked when scrolling through the list.** If you select the first drug in the MDD and then scroll down and shift click at the bottom selecting 25,000 drugs in total, when scrolling up through the list, you may find some that appear not to be selected. Although it appears that they are not selected if you chose to Add to Formulary, all of the drugs would then be added to the formulary (e.g., 25,000).
- ◆ **Search for Other will not find drugs with Other as a valid dilution.** You should select a different search parameter or sort the dilutions column and scroll to find Other.
- ◆ **An error message can be caused by moving a custom label from one section (e.g., Lines) to another section (e.g., IV).** Close the error by selecting the X in the banner and then retry.
- ◆ **The AT will not accept csv files if the specified path contains an extension that is capitalized (e.g., CSV).** If this occurs, rename the file with the extension in lower case (e.g., csv).

Technical Support

If problems occur during software installation or operation, contact Codonics Technical Support at any time.

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