



**Manhattan Group™**

**Strategic Solutions for Business Intelligence**



**User Guide**

**Version: 2003-05-08**



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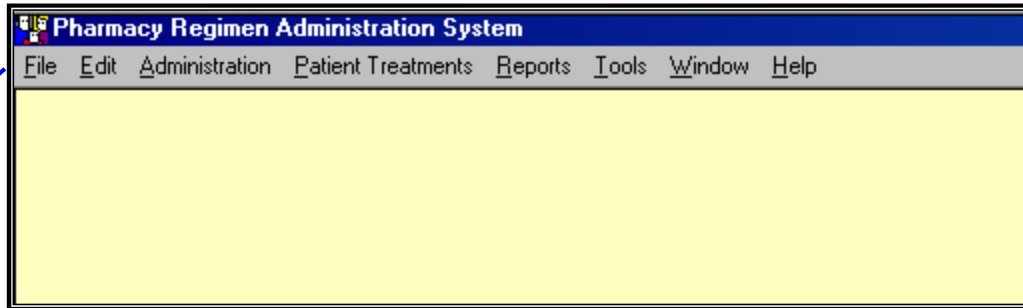
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## Introduction



The *Pharmacy Regimen Administration System* (pRas) provides a structured approach to management, construction and administration of drug regimens for a pharmacy department. To introduce the system the main menu can be used as a guide of the system's capabilities:

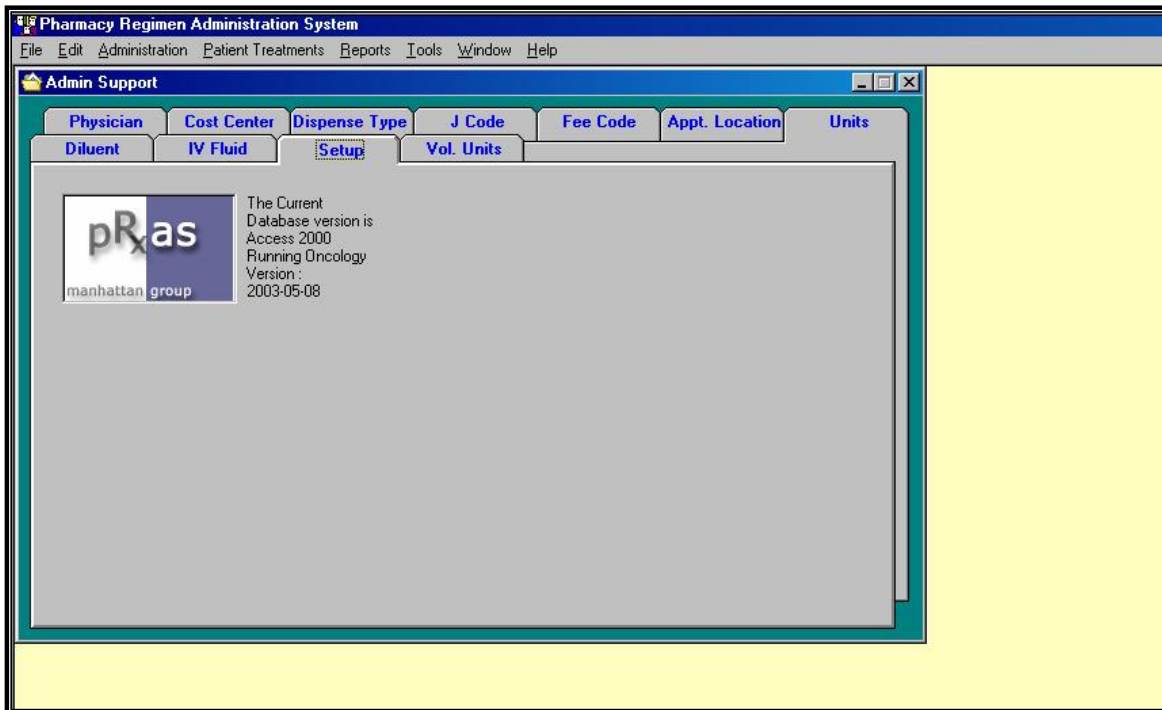
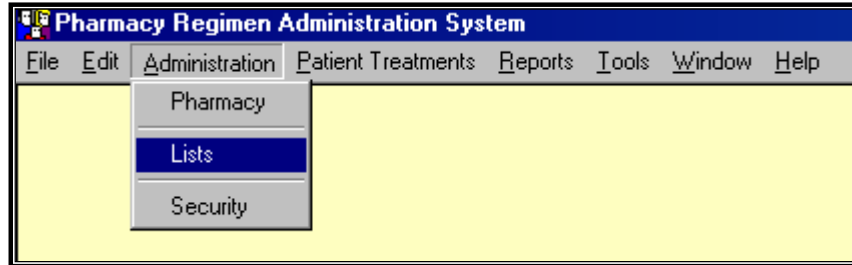
- The *File* menu selection controls the overall system aspects of the product including: printing, page setup, logon/off and exiting system.
- The *Edit* menu selection provides standard edit routines of most Microsoft Windows based applications.
- The *Administration* menu selection provides the facilities that maintain the reference information that is used in the systems drop downs as well as master file information for patients, drugs and a predefined regimen facility.
- The *Patient Treatments* menu selection provides the access point for the regimen administration interface where the regimen work in the system is completed.
- The *Reports* menu selection provides access to a set of reports that are used to manage Patient, Drug Inventory and system maintenance information for the pRas system.
- The *Tools* menu selection provides access to the technical operation control of the system and is discussed in the administration and technical guide that accompany this user guide.



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## Administration – Lists



Administrative support section of the system allows the user to maintain the support lists that are used in the drop down selection lists of the system. This feature allows central control over drop down lists of values and provides a convenient location to add new items to the system drop downs.



## Standard Admin Support Functions

The administrative support section of the system provides standard methods to maintaining list information. All the tabs of within this selection use the same methodology for additions and modification of list information.

### Add Mode

The screenshot displays the 'Vol. Units' administrative interface. It features a tab labeled 'Vol. Units' and a section titled 'Volume Unit In MLs'. The interface includes an empty input field at the top, a list of values (50, 100, 500) with '100' highlighted, and a set of action buttons: 'Add', 'Update', 'Inactivate', 'Activate', and 'Cancel'. A checkbox labeled 'Show InActivated' is located at the bottom right.

Above the unit volume tab is used as an example to show the add mode, where the primary input field is waiting for a new value and the Add button is available selection.



## Modification Mode

The screenshot shows a window titled "Vol. Units" with a sub-header "Volume Unit In MLs". Below the header is a text input field containing "100". Underneath is a list box containing the values "50", "100", and "500". The "100" value in the list is highlighted with a blue selection bar. To the right of the list is a vertical stack of buttons: "Add" (grayed out), "Update" (active), "Inactivate", "Activate", and "Cancel". At the bottom right is a checkbox labeled "Show InActivated" which is unchecked. A blue box highlights the "Update" button, and blue lines connect this box to the text below.

The modification mode of the form is activated when an item from the list of values is selected and the Add button is grayed out and the modification button is activated.



## Physicians

The screenshot shows a software window titled "Pharmacy Regimen Administration System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there's an "Admin Support" sub-window with tabs for "Physician", "Cost Center", "Dispense Type", "J Code", "Fee Code", "Appt. Location", and "Units". The "Physician" tab is active. It contains input fields for "Last Name", "First Name", "Title", and "Status". Below these are two list boxes: "Available Cost Centers" (with values 1002, 1003, 1004, 1001, 1000, 1005) and "Assigned Cost Centers" (highlighted in green). At the bottom, a list of physician names is shown: DOCTORY, DOCTOR1, M.D.; DOCTOR25, DOCTOR2, D.M.; GREEN, HUBERT, M.D.; GREEN, MICHAEL, M.D.; LEE, JOE, M.D.; LOMBARDI, JOHN, M.D. On the right, there are buttons: "Add", "Update", "Inactivate", "Activate", and "Cancel". A "Show Inactivated" checkbox is also present. A blue line points from the text below to the "Assigned Cost Centers" list box.

The physician form is used to gather pertinent information for the physicians that are associated to the patients in the system. The physician information includes their name and title and the assignment of cost centers. Cost center assignment is important because the cost center can be used to drive certain reporting facilities.

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



## Cost Center

The screenshot shows a software window titled "Pharmacy Regimen Administration System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there's a sub-window "Admin Support" with several tabs: Diluent, IV Fluid, Setup, Vol. Units, Physician, Cost Center (selected), Dispense Type, J Code, Fee Code, Appl. Location, and Units. The "Cost Center" tab is active, showing a form with two input fields: "Cost Center" and "Cost Center Department". Below these is a list of entries: 1000, DEPT 1000; 1001, DEPT 1001Y; 1002, DEPT 1002; 1003, DEPT 1003; 1004, DEPT 1004; 1005, DEPT 1005; 1007, DEPT 1007; and PLEASE ENTER, PLEASE ENTER. To the right of the list are buttons: Add, Update, Inactivate, Activate, and Cancel. Below the buttons is a checkbox labeled "Show Inactivated".

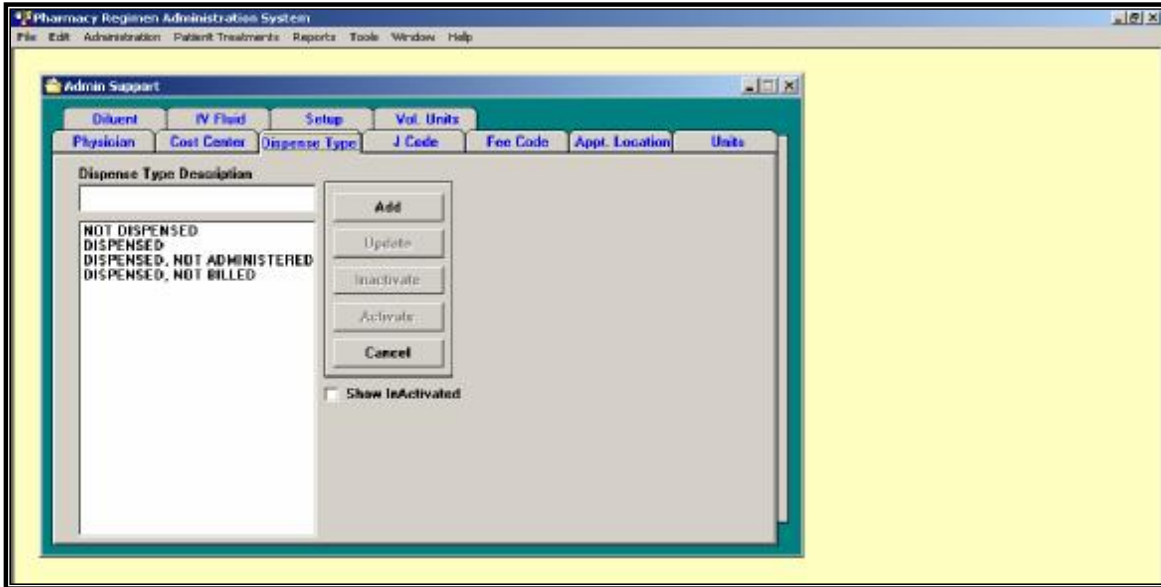
The cost center assignments form allows cost centers to be associated with a cost center department. Cost centers and cost center departments are used in the reporting module of the system.

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



## Dispense Type



Dispensed types are used to distinguish the status of drug dispensed to patients through the dispense function of the system. The list of values above is used by the change status form in the regimen administration section of the system to alter the dispense status of a drug regimen.

These are system codes, are linked to system behavior, and should not be altered without the input of the system administrator and technical support team.

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



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## JCode

The screenshot shows a software window titled "Pharmacy Regimen Administrative System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there is a sub-window titled "Admin Support" with several tabs: Diluent, IV Fluid, Setup, Vol. Units, Physician, Cost Center, Dispense Type, J Code, Fee Code, Appt. Location, and Units. The "J Code" tab is active, displaying a list of J Codes in a scrollable area. The list includes: INV, J0207, J0205, J0206, J0290, J0295, J0460, J0610, J0630, J0640, J0690, J0696, J0697, J0713, J0780, J0825, J0895, J1030, J1080, J1100, and J1160. To the right of the list are buttons for "Add", "Update", "Inactivate", "Activate", and "Cancel". Below these buttons is a checkbox labeled "Show InActivated".

The valid JCodes within the system are maintained from this form and are used within the reporting module of the system.

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



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## Fee Code

The screenshot shows a software window titled "Pharmacy Register Administration System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there's a sub-window "Admin Support" with several tabs: Diluent, IV Fluid, Setup, Vol. Units, Physician, Cost Center, Dispense Type, J Code, Fee Code (selected), Appt. Location, and Units. The "Fee Code" tab is active, displaying a list of 20 fee codes in a scrollable area. To the right of the list are buttons for "Add", "Update", "Inactivate", "Activate", and "Cancel". Below these buttons is a checkbox labeled "Show InActivated".

| Fee Code |
|----------|
| 0000001  |
| 000006   |
| 20400001 |
| 20400019 |
| 20400088 |
| 20400093 |
| 20400141 |
| 20400173 |
| 20400181 |
| 20400199 |
| 20400245 |
| 20400288 |
| 20400315 |
| 20400322 |
| 20400333 |
| 20400353 |
| 20400372 |
| 20400373 |
| 20400374 |
| 20400403 |
| 20400755 |

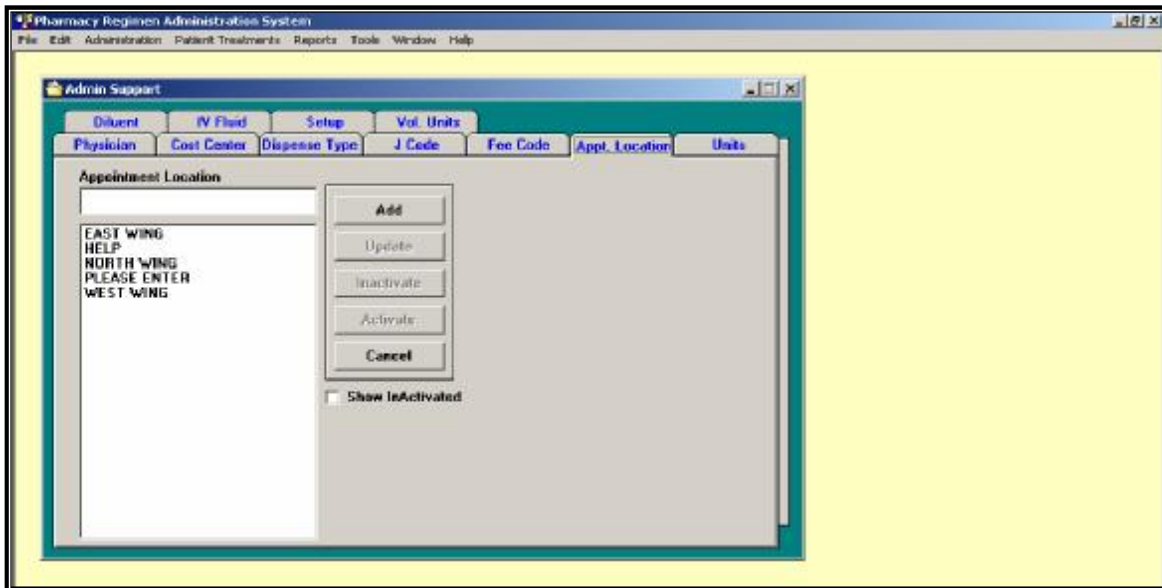
The valid Fee Codes within the system are maintained from this form and are used within the reporting module of the system.

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



## Appointment Location



This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

The appointment location tab is used in conjunction with the appointments (scheduler) section of the pRAS system. This list of values represents the complete selection of locations that can be used as default treatment locations for individual patient. This list of values is utilized in the scheduling process within the patient treatment section of the system.

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



## Units

The screenshot shows a software window titled "Pharmacy Register Administration System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there's a sub-window "Admin Support" with several tabs: Diluent, IV Fluid, Setup, Vol. Units, Physician, Cost Center, Dispense Type, J Code, Fee Code, Appt. Location, and Units. The "Units" tab is active. It contains a form with the following elements:

- A text input field for "Unit".
- A text input field for "Unit Description".
- A dropdown menu for "Unit Type".
- A list box containing the following items: LBS.WEIGHTS, KG.WEIGHTS, IN.LENGTHS, CM.LENGTHS, UNITS.DOSE, MG.DOSE, MCG.DOSE, IU.DOSE, GRAMS.DOSE, MU/ML.DOSAGE, MG/ML.DOSAGE.
- A vertical stack of buttons: Add, Update, Inactivate, Activate, and Cancel.
- A checkbox labeled "Show InActivated".

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

The unit administration form provides control over the unit drop down list of values that appear on a variety of forms within the system. In order to control what appears in different areas/forms within the system the unit drop down list of values is divided into different categories that include weighs, lengths, dose, dosage, concentration etc. This technique allows each of the unit drop downs located in these different sections of the system to be customized.

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



## Diluents

The screenshot shows a software window titled "Pharmacy Regimen Administration System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there's a sub-window "Admin Support" with tabs for "Physician", "Cost Center", "Dispense Type", "J Code", "Fee Code", "Appt. Location", and "Units". The "Diluents" tab is active, showing sub-tabs for "IV Fluid", "Setup", and "Vol. Units". The main area has a "Diluent Name" text box, a "Volume in MLs" text box, and a list of entries: "D5W, 0, ACTIVE", "ETOH+ST H2O, 0, ACTIVE", "NS, 0, ACTIVE", and "ST, H2O, 0, ACTIVE". To the right are buttons for "Add", "Update", "Inactivate", "Activate", and "Cancel". At the bottom right is a checkbox labeled "Show Inactivated".

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

The diluent administration form provides control over the diluent drop down list of values that is used in the drug preparation section of the system.

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



## IV Fluid

The screenshot shows a software window titled "Pharmacy Regimen Administration System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there's a sub-window "Admin Support" with tabs for "Physician", "Cost Center", "Dispense Type", "J Code", "Fee Code", "Appt. Location", and "Units". The "IV Fluid" tab is active, with sub-tabs for "Default", "Setup", and "Vol. Units". The main area has a "Solution Name" text box, a "Volume in MLs" text box, and a list of IV fluid entries. On the right, there are buttons for "Add", "Update", "Inactivate", "Activate", and "Cancel", along with a "Show InActivated" checkbox. A blue line points from the "Volume in MLs" field to the text below.

| Solution Name                     | Volume in MLs |
|-----------------------------------|---------------|
| 32NACL ML, 0, ACTIVE              |               |
| DSW/E.2252NS 1000ML, 1000, ACTIVE |               |
| DSW/E.2252NS ML, 0, ACTIVE        |               |
| DSW/E.452NS 1000ML, 1000, ACTIVE  |               |
| DSW/E.452NS ML, 0, ACTIVE         |               |
| DSW/NS 1000ML, 1000, ACTIVE       |               |
| DW/ 1000ML, 1000, ACTIVE          |               |
| DW/ 100ML, 100, ACTIVE            |               |
| DW/ 250ML, 250, ACTIVE            |               |
| DW/ 500ML, 500, ACTIVE            |               |
| DW/ 50ML, 50, ACTIVE              |               |
| DW/ ML, 0, ACTIVE                 |               |
| NS 1000ML, 1000, ACTIVE           |               |
| NS 100ML, 100, ACTIVE             |               |
| NS 250ML, 250, ACTIVE             |               |

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

The IV Fluid administration form provides control over the common IV Fluids used in the drug preparation process. This list of values allows IV Fluids that are used on the drug work with form and predefined regimen form and are standardized using this list of values. The "volume in ml" field is used to set up defaults for the specific IV Fluids. Note: This setting can be overridden in the IV Fluid assignment process using the volume unit – drop down list of values. The volume unit drop down list of values is also administered in the administration support section of the administration functions.

**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



## Volume Units

The screenshot shows a software window titled "Pharmacy Register Administration System" with a menu bar (File, Edit, Administration, Patient Treatments, Reports, Tools, Window, Help). Inside, there's a sub-window "Admin Support" with tabs for Physician, Cost Center, Dispense Type, J Code, Fee Code, Appt. Location, and Units. The "Units" tab is active, showing a sub-tab "Vol. Units". The main area is titled "Volume Unit In MLs" and contains a list box with the values 50, 100, and 500. To the right of the list are buttons for "Add", "Update", "Inactivate", "Activate", and "Cancel". Below these buttons is a checkbox labeled "Show InActivated".

This form allows the addition of new entries as well as the ability to inactivate unused entries. The buttons located on the right allow these functions to be executed against specifically selected items from the list of values (see Standard Admin Support Functions for details).

The volume unit(s) administration form provides control over the drop down list of values used in the assignment of volume, in milliliters, in the IV Fluids selection process. This drop down list of values provides an override facility to the defaults setup in the IV Fluid administration section of the system.

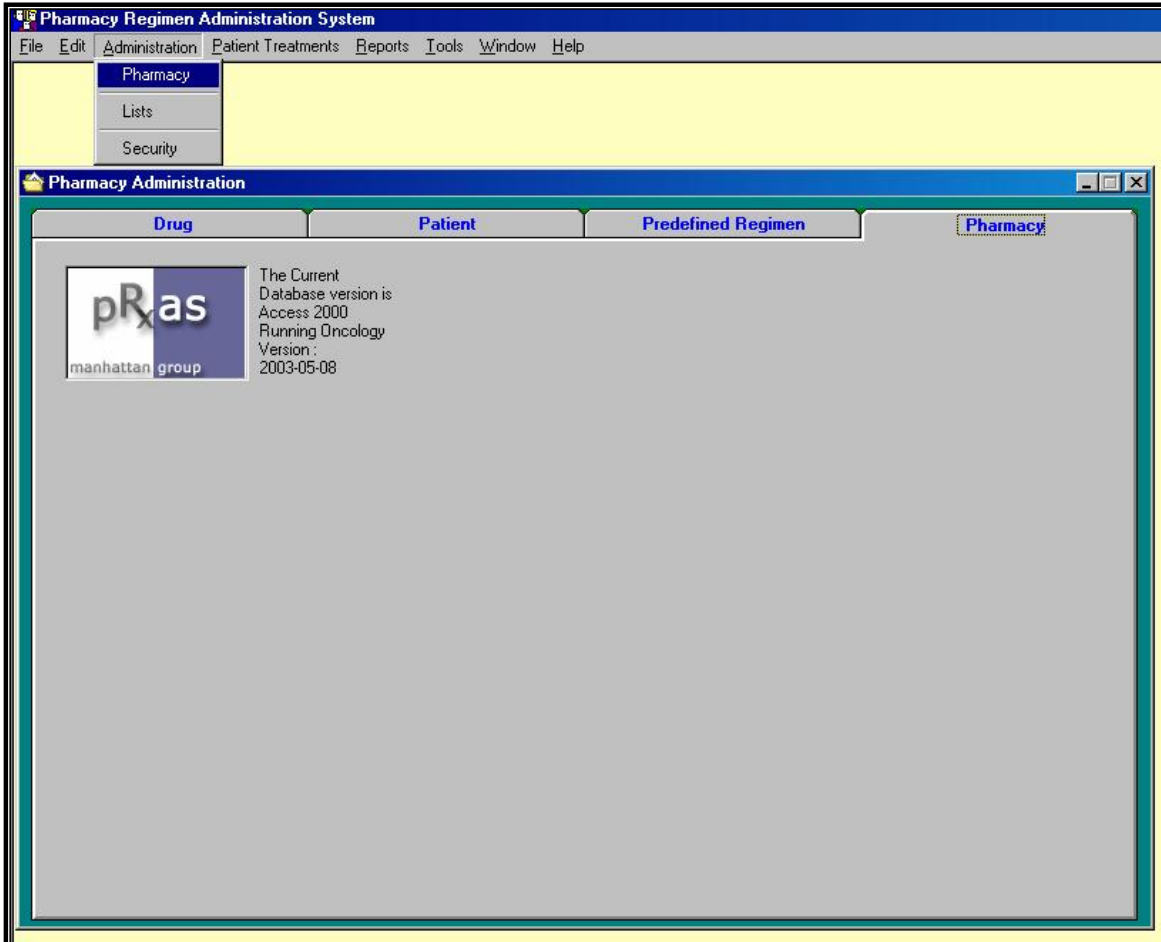
**Note/Warning:** modification of existing entries within the maintenance facility provided by this form is within the capabilities of the system. However, inactivation (inactivate button) should not be used once an item from this list of values is used as a selection in another form within the system i.e. use as a selected item from a drop down. The inactivation feature should only be used to inactivate codes that have not been used within the system.



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## Administration – Pharmacy



The administrative pharmacy section of the product allows for the master file components of the system to be maintained. These core components include a detailed view of the drugs available for regimens, a listing of patients and the ability to combine drugs into predefined regimens for expediting the drug regimen and patient treatment process. The following section discusses the use of these facilities and the components of each of the categories.



## Drugs

The screenshot shows the 'Pharmacy Administration System' window. The 'Drug' tab is selected, displaying a table of drugs. A blue box labeled 'Filter Area' points to the top of the table grid. Below the table, there are buttons for 'Add', 'Update', 'Details...', 'Inactivate', 'Activate', 'Clear Filter', and 'Refresh'.

| Category | Drug Name                            | Drug Strength | Units | Dosage Form | Drug Desc                 |
|----------|--------------------------------------|---------------|-------|-------------|---------------------------|
| C        | ACETAMINOPHEN                        | 325           | MG    | TAB         | ACETAMINOPHEN TAB         |
| C        | ACETAMINOPHEN                        | 325           | MG    | TAB         | ACETAMINOPHEN TAB         |
| C        | ACETAMINOPHEN                        | 650           | MG    | TAB         | ACETAMINOPHEN SOLN 650M   |
| C        | ACYCLOVIR                            | 500           | MG    | INJ         | ACYCLOVIR                 |
| C        | ACYCLOVIR                            | 500           | MG    | INJ         | ACYCLOVIR                 |
| C        | ALBUMIN                              | 50            | ML    | INJ         | ALBUMIN 25%               |
| C        | ALBUTEROL                            | 3             | ML    | INHALANT    | ALBUTEROL INHALANT 3ML    |
| C        | ALBUTEROL                            | 20            | ML    | INHALANT    | ALBUTEROL SULFATE (PROVI  |
| C        | ALBUTEROL                            | 8.8           | GM    | INHALANT    | ALBUTEROL INHALANT 8.8GM  |
| C        | ALBUTEROL                            | 17            | GM    | INHALANT    | ALBUTEROL INHAL 17GM      |
| C        | ALDESLEUKIN                          | 22            | UNITS | INJ         | ALDESLEUKIN               |
| C        | ALTEPLASE                            | 2             | MG    | INJ         | ALTEPLASE INJ 2MG         |
| C        | AMIFOSTINE                           | 500           | MG    | INJ         | AMIFOSTINE                |
| C        | AMPHOTERICIN B                       | 50            | MG    | IBR         | AMPHOTERICIN B            |
| C        | AMPHOTERICIN B LIP COMPLEX (ABELCET) | 100           | MG    | INJ         | AMPHOTERICIN B LIP. COMPL |
| C        | AMPHOTERICIN B LIPOSOMAL (ABELCET)   | 50            | MG    | INJ         | AMPHOTERICIN B LIPOD (AMB |
| C        | AMPICILLIN                           | 2000          | MG    | INJ         | AMPICILLIN INJ 2GM        |
| C        | AMPICILLIN                           | 1000          | MG    | INJ         | AMPICILLIN INJ 1GM        |
| C        | AMPICILLIN                           | 500           | MG    | INJ         | AMPICILLIN INJ 500MG      |
| C        | ANTITHYMOCYTE GLOBULIN               | 250           | MG    | INJ         | ANTITHYMOCYTE GLOBULIN I  |
| C        | ASPARAGINASE ECOLI                   | 10000         | UNITS | INJ         | ASPARAGINASE              |

The drug Tab allows quick access to the inventory of drugs that are available for patient regimens. The form allows the adding, updating, viewing and deactivating of individual drug. The filter area, shown above, allows for the quick location of drugs within the display grid. Double clicking on an individual drug or clicking the Update/Details button allows the individual drugs to be modified.



## Drug Form

**Drug Administration**

|                 |                   |            |                          |               |                    |
|-----------------|-------------------|------------|--------------------------|---------------|--------------------|
| Drug Full Name  | ACETAMINOPHEN TAB | Status     | INACTIVE                 | Modified Date | 11/20/2001 11:08:0 |
| Drug Class Name | ACETAMINOPHEN     | Category   | C                        | Modified By   | ADMIN              |
| Drug Strength   | 325               | Units      | MG                       | Created Date  | 9/24/1999          |
| Concentration   | 0                 | Units      | MG/ML                    | Created By    |                    |
| JCode           | INV               | Bill Qty   | 325                      | Order Qty     | 325                |
| Multiplier      | 1                 | Multi-Dose | <input type="checkbox"/> | Notes         |                    |
| Fee Code        | 20400001          | Fee        | 0                        | Adj. Fee      | 0                  |
| Avg. WS Price   | 0                 | Cost       | 0                        | Item No.      | 00001              |
| Lawson No.      | 16964009          |            |                          |               |                    |

Close Save

The above form shows the drug Administration form. It is important to note that each of the individual field should be visited in the drug creation process. Each of the fields has a default value or should be set to zero.

### Operation Notes:

- It is important to note that once a drug from the drug table is used within the system it should not be inactivated from the list. The inactivation feature should only be used to inactivate drugs that have not been used within the system.



## Patient

The screenshot shows the 'Pharmacy Administration System' interface. The 'Patient' tab is selected, displaying a table of patient records. A blue callout box labeled 'Filter Area' points to the top-left corner of the table grid. Below the table are buttons for 'Add', 'Update', 'Details...', 'Inactivate', 'Activate', 'Clear Filter', and 'Refresh'.

| MRUN     | Last Name | First Name | Age | Weight | Unit | Dosing Weight | Unit | Height | Unit | BSA (m <sup>2</sup> ) | Attending | Status |
|----------|-----------|------------|-----|--------|------|---------------|------|--------|------|-----------------------|-----------|--------|
| 54654    | TEST      | TEST       | 71  | 70     | KG   | 70            | KG   | 120    | CM   | 1.53                  | 10        | ACTIVE |
| 4444     | TEST10A   | TEST10A    | 22  | 77     | KG   | 77            | KG   | 77     | CM   | 1.28                  | 6         | ACTIVE |
| 3434     | TEST11    | TEST11     | 33  | 66     | KG   | 66            | KG   | 33     | CM   | 0.78                  | 2         | ACTIVE |
| 333      | TEST11/21 | TEST11/21  | 44  | 45     | KG   | 45            | KG   | 33     | CM   | 0.64                  | 3         | ACTIVE |
| 2223     | TEST3A    | TEST3      | 23  | 23     | KG   | 23            | KG   | 23     | CM   | 0.38                  | 5         | ACTIVE |
| 3333     | TEST5A    | TEST5A     | 55  | 55     | KG   | 55            | KG   | 55     | CM   | 0.92                  | 5         | ACTIVE |
| 333      | TEST6A    | TEST7A     | 88  | 88     | KG   | 88            | KG   | 77     | CM   | 1.37                  | 5         | ACTIVE |
| 555      | TEST7A    | TEST7A     | 77  | 88     | KG   | 88            | KG   | 77     | CM   | 1.37                  |           | ACTIVE |
| 44602994 | TESTA     | MARIA T    |     |        | KG   |               | KG   |        | CM   |                       | 3         | ACTIVE |
| 3453     | TESTAB    | TESTAB     | 22  | 77     | KG   | 77            | KG   | 89     | CM   | 1.38                  | 7         | ACTIVE |
| 222      | TESTA9    | TESTA10    | 33  | 667    | KG   | 667           | KG   | 33     | CM   | 2.47                  | 6         | ACTIVE |

The Patient Tab allows quick access to the current list of patients in the system. The form allows the adding, updating, viewing details and deactivating of individual patients. The filter area, shown above, allows for the quick location of patient within the display grid. Double clicking on an individual patient or clicking the Update/Details button allows the patient information to be modified.



## Patient Form

The screenshot shows a 'Patient Administration' window with the following data:

| MRUN  | Last Name | First Name | Status | Inpatient/Outpatient | Attending Physician | Location  | Age | Height | Units | Weight | Units | BSA (m <sup>2</sup> ) | Dosing Weight | Units | Modified Date      | Modified By | Created Date       | Created By |
|-------|-----------|------------|--------|----------------------|---------------------|-----------|-----|--------|-------|--------|-------|-----------------------|---------------|-------|--------------------|-------------|--------------------|------------|
| 54654 | TEST      | TEST       | ACTIVE | OUTPATIENT           | LEE, JOE, M.D.      | EAST WING | 71  | 120    | CM    | 70     | KG    | 1.53                  | 70            | KG    | 11/13/2002 7:12:19 | JOHNL       | 11/13/2002 7:12:19 | JOHNL      |

The above form shows the Patient Administration form. It is important to note that each of the individual field should be visited in the patient creation process. Each of the fields has a default value or should be set to zero.

### Operation Notes:

- Units on the Patient Form are coordinated and applied by synchronizing standard measures. For example, if centimeters were selected for the height unit kilograms would be required for the weight units. Conversely, if inches were selected for the height unit pounds would be required as the weight unit.
- When a user changes height or weight values the calculate (Calc) BSA button is highlighted with red and should be selected for BSA recalculation.
- Note: all drop down list of values i.e. attending, units etc. are controlled in the list administration section of the system.



## Predefined Regimen

| Regimen Name | Notes | Status | Date Created          | Date Modified        | Created |
|--------------|-------|--------|-----------------------|----------------------|---------|
| CHOP         |       |        |                       |                      |         |
| CHOP         | TEST  | ACTIVE | 1/25/2002 10:01:19 AM | 3/27/2003 4:54:50 AM | ADMIN   |

| Label ID | Drug Name       | Dosage | Dosage Unit | Status |
|----------|-----------------|--------|-------------|--------|
| 1        | CLADRIBINE      | 750    | MG/M2       | ACTIVE |
| 2        | DIPHENHYDRAMINE | 50     | MG/M2       | ACTIVE |
| 3        | VINCRIStINE     | 1.4    | MG/M2       | ACTIVE |

In order to provide efficiency when recording patient regimens the predefined regimen facility is provided. This facility allows standard regimens to be constructed and to be selected in the patient treatment section of the product.

The Add button located at the top of the form in the predefined regimen section allows a predefined regimen to be named and additional information noted for the regimen. The update facility also allows modification of the predefined regimens name. Other facilities to activate and inactivate regimens are also provided.

Drugs are assigned to the predefined regimens by using the Add button located at the drug section of the form. Dosage(s) that are associated with each of the drugs in the predefined regimen will be used to automatically calculate dose based on the Patient characteristics when the regimen is assigned. Also included in the drug section is the ability to associate IV Fluids with the drug or group of drugs. The grouping and ungrouping facility allows drugs to be grouped and/or associated with IV Fluids and dispensed as a single unit.



### Predefined Regimen – IV Fluid and Drug Selection List

PreDefined IV Fluid Administration

Label ID: 1  Show InActivated

| Solution | Quantity | Vol In MLs | Status | Comment |
|----------|----------|------------|--------|---------|
|----------|----------|------------|--------|---------|

Buttons: Add, Activate, Inactivate, Refresh, Save, Close

Predefined IV Fluid form associates IV Fluids with specific drug in the Predefined Regimen or a group of drugs. An additional functionality available on the Predefined IV Fluid administration form includes the ability to inactivate and activate specific IV Fluids associated with a Drug. The IV Fluid defined will be automatically introduced when the predefined regimen is used.

Get PreDefined Regimen Drugs

Drugs

Buttons: Show Selected, Pick, Reset, Clear Filter

| Selected                            | Drug Name     | STD Qty | STD Units |
|-------------------------------------|---------------|---------|-----------|
| <input checked="" type="checkbox"/> | ACETAMINOPHEN | 650     | MG        |
| <input type="checkbox"/>            | ACETAMINOPHEN | 325     | MG        |
| <input type="checkbox"/>            | ACYCLOVIR     | 500     | MG        |
| <input type="checkbox"/>            | ACYCLOVIR     | 500     | MG        |
| <input type="checkbox"/>            | ALBUMIN       | 50      | ML        |
| <input type="checkbox"/>            | ALBUTEROL     | 17      | GM        |
| <input type="checkbox"/>            | ALBUTEROL     | 3       | ML        |

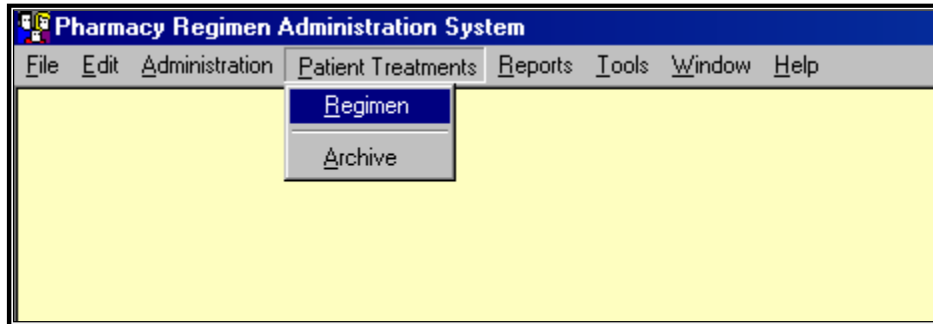
The Predefined regimen construction process involves the selection of drugs using a check box methodology. The checked drugs from a drug inventory list are transferred to the selected drugs portion of the form by clicking the Pick button.



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## Patient Treatment



The patient treatment section of the system is the central area where regimen administration is conducted. The Archive facility is currently unavailable and is scheduled for subsequent releases.



## Regimen

| Patient ID | MRN   | Last Name | First Name | Inpatient/Outpatient | Status |
|------------|-------|-----------|------------|----------------------|--------|
| 3672       | 54654 | TEST      | TEST       | OUTPATIENT           | ACTIVE |
| 3678       | 4444  | TEST16A   | TEST16A    | OUTPATIENT           | ACTIVE |
| 3671       | 3434  | TEST11    | TEST11     | INPATIENT            | ACTIVE |
| 3673       | 333   | TEST11/21 | TEST11/21  | OUTPATIENT           | ACTIVE |

| Regimen | Cycle Date | Cycle Time | Drug Name       | Dispense Status | Label ID |
|---------|------------|------------|-----------------|-----------------|----------|
| CHOP    | 04/15/2003 | 08:15:00   | CLADRIBINE      | NOT DISPENSED   | 251      |
|         |            |            | DIPHENHYDRAMINE | NOT DISPENSED   | 252      |
|         |            |            | VINCRIStINE     | NOT DISPENSED   | 253      |
| CHOP    | 04/15/2003 | 11:15:00   | CLADRIBINE      | NOT DISPENSED   | 254      |
|         |            |            | DIPHENHYDRAMINE | NOT DISPENSED   | 255      |
|         |            |            | VINCRIStINE     | NOT DISPENSED   | 256      |
| CHOP    | 04/15/2003 | 14:15:00   | CLADRIBINE      | NOT DISPENSED   | 257      |
|         |            |            | DIPHENHYDRAMINE | NOT DISPENSED   | 258      |
|         |            |            | VINCRIStINE     | NOT DISPENSED   | 259      |
| CHOP    | 04/15/2003 | 05:14:00   | CLADRIBINE      | NOT DISPENSED   | 248      |
|         |            |            | DIPHENHYDRAMINE | NOT DISPENSED   | 249      |
|         |            |            | VINCRIStINE     | NOT DISPENSED   | 250      |
| CHOP    | 03/15/2003 | 21:00:00   | CLADRIBINE      | NOT DISPENSED   | 196      |
|         |            |            | DIPHENHYDRAMINE | NOT DISPENSED   | 197      |

The regimen form is the central drug and patient association mechanism within the system. The workflow of the form starts from the left button group and works to the right of the form divided by these sets of buttons. These buttons are associated with regimen processing, treatment cycle setup and drug processing/dispensing.

Once the patient is selected in the patient selection grid the regimen grid is populated with the active regimens for that patient – if they exist.



### Patient Details (Patient Information Access)

| Patient_ID | MRUN  | Last_Name | First_Name | Inpatient_Outpatient | Status |
|------------|-------|-----------|------------|----------------------|--------|
|            |       | test      |            |                      |        |
| 3672       | 54654 | TEST      | TEST       | OUTPATIENT           | ACTIVE |
| 3670       | 4444  | TEST10A   | TEST10A    | OUTPATIENT           | ACTIVE |
| 3671       | 3434  | TEST11    | TEST11     | INPATIENT            | ACTIVE |
| 3673       | 333   | TEST11/21 | TEST11/21  | OUTPATIENT           | ACTIVE |

An important feature of the patient treatment form is its ability to work with patient details directly. If a user has the authorization to modify patient details, this information can be altered from the treatment regimen form.

Note: Changes that are applied during this process will affect the regimens that are dispensed from the point in time of the change onward.

**Pharmacy Regimen Administration System**

Patient Administration

MRUN: 54654, Last Name: TEST, First Name: TEST

Status: ACTIVE, Inpatient/Outpatient: OUTPATIENT, Attending Physician: DOCTOR25, DOCTOR2, D...

Location: EAST WING, Age: 71, Height: 120 CM, Weight: 70 KG

BSA (m<sup>2</sup>): 1.53, Dosing Weight: 70 KG

Modified Date: 11/13/2002 7:12:19, Modified By: JOHNL

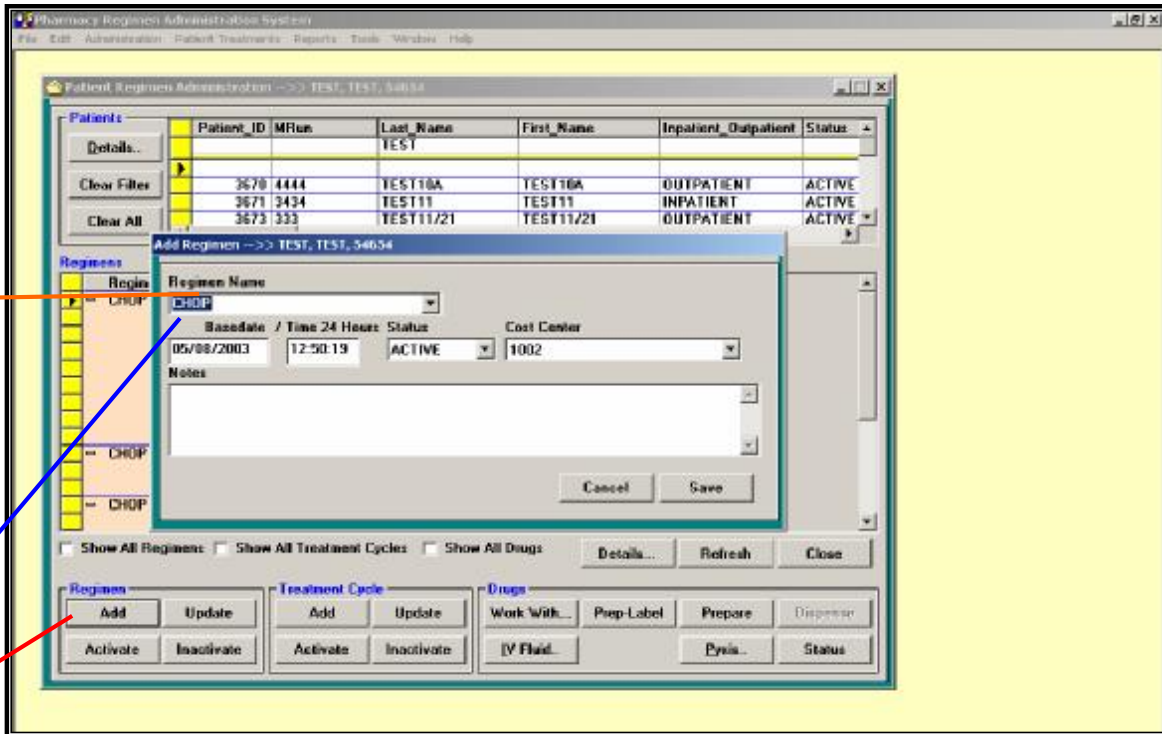
Created Date: 11/13/2002 7:12:19, Created By: JOHNL

| Regimen | Start Date | End Date | Drug            | Status        | Quantity |
|---------|------------|----------|-----------------|---------------|----------|
| CHOP    | 04/15/2003 | 05:14:00 | CLADRIBINE      | NOT DISPENSED | 257      |
|         |            |          | DIPHENHYDRAMINE | NOT DISPENSED | 258      |
|         |            |          | VINCRIStINE     | NOT DISPENSED | 259      |
| CHOP    | 03/15/2003 | 21:00:00 | CLADRIBINE      | NOT DISPENSED | 248      |
|         |            |          | DIPHENHYDRAMINE | NOT DISPENSED | 249      |
|         |            |          | VINCRIStINE     | NOT DISPENSED | 250      |
|         |            |          | CLADRIBINE      | NOT DISPENSED | 196      |
|         |            |          | DIPHENHYDRAMINE | NOT DISPENSED | 197      |

Buttons: Add, Update, Activate, Inactivate, Work With..., Prep-Label, Prepare, Dispense, IV Fluid..., Pysis..., Status



## Add Regimen



The first step in the construction of a regimen for a patient is the assignment of a regimen name. Selecting the Add button from the regimen group, displays the regimen form that is used to capture important information about the regimen. The regimen name is significant not only to give meaning to the regimen, but also to take advantage of the ability to select a predefined regimen (in the example above "CHOP" (see the pharmacy administration section of the manual for details on predefined regimens).

Another important feature of the regimen administration form is the selection of basedate/time for the treatment cycle of the regimen. This basedate will serve as a start point for subsequent treatments that are assigned in the treatment cycle section of the regimen administration – this topic is discussed in the treatment cycle section of the manual.



|                |            |                        |            |              |            |         |          |
|----------------|------------|------------------------|------------|--------------|------------|---------|----------|
| <b>Regimen</b> |            | <b>Treatment Cycle</b> |            | <b>Drugs</b> |            |         |          |
| Add            | Update     | Add                    | Update     | Work With... | Prep-Label | Prepare | Dispense |
| Activate       | Inactivate | Activate               | Inactivate | IV Fluid..   |            | Pyxis.. | Status   |

Additional features available include the ability to modify existing regimens, activate and inactivate these regimens, capture notes, and to recalculate dose for the regimen.

**Note:** The recalculation of dose is invoked for all attached treatment cycles.

Regimen Administration --> TEST, TEST, 54654

|                          |            |          |        |               |                     |
|--------------------------|------------|----------|--------|---------------|---------------------|
| Regimen Name             | CHOP       |          |        | Modified Date | 4/15/2003 5:15:52 / |
| Basedate / Time 24 Hours | 04/15/2003 | 05:15:45 | Status | Modified By   | JOHNL               |
|                          |            |          | ACTIVE | Created Date  | 4/15/2003 5:15:52 / |
| Cost Center              | 1002       |          |        | Created By    | JOHNL               |

Notes

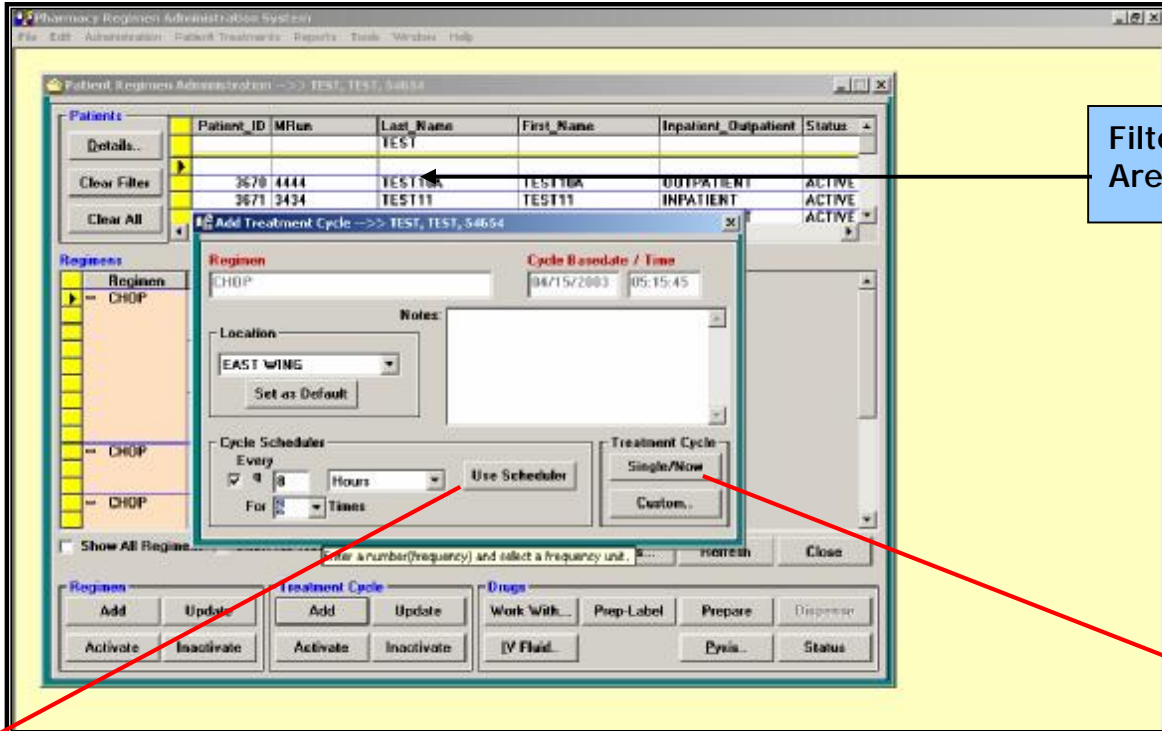
Calc Dose Close Save

**Note:** basedate/time modification adjust all attached treatment cycles and alters them proportionally to the basedate modifications. For example, if the basedate is moved by 6 hours all related treatment cycles are moved by 6 hours.

**Note:** if any of the drugs on a regimen have been dispensed the modification features of the regimen form are disabled. Any adjustments that are needed at the regimen level must be preceded by a change in status of any dispensed drug to a *not dispense* state (see the Drug Status Change section of the manual).



## Add Treatment Cycle



Once the regimen has been assigned, a treatment cycle can be defined for the regimen. The treatment cycle form has three options for setting up treatment cycles for a patient.

**Note:** the regimen basedate/time is displayed for reference and is used by the process as the basis for the treatment cycles. The basedate/time is used as a starting point in time and cycles are calculated based on the selection of the cycle scheduler.

The treatment cycle capabilities can be broken down into three areas:

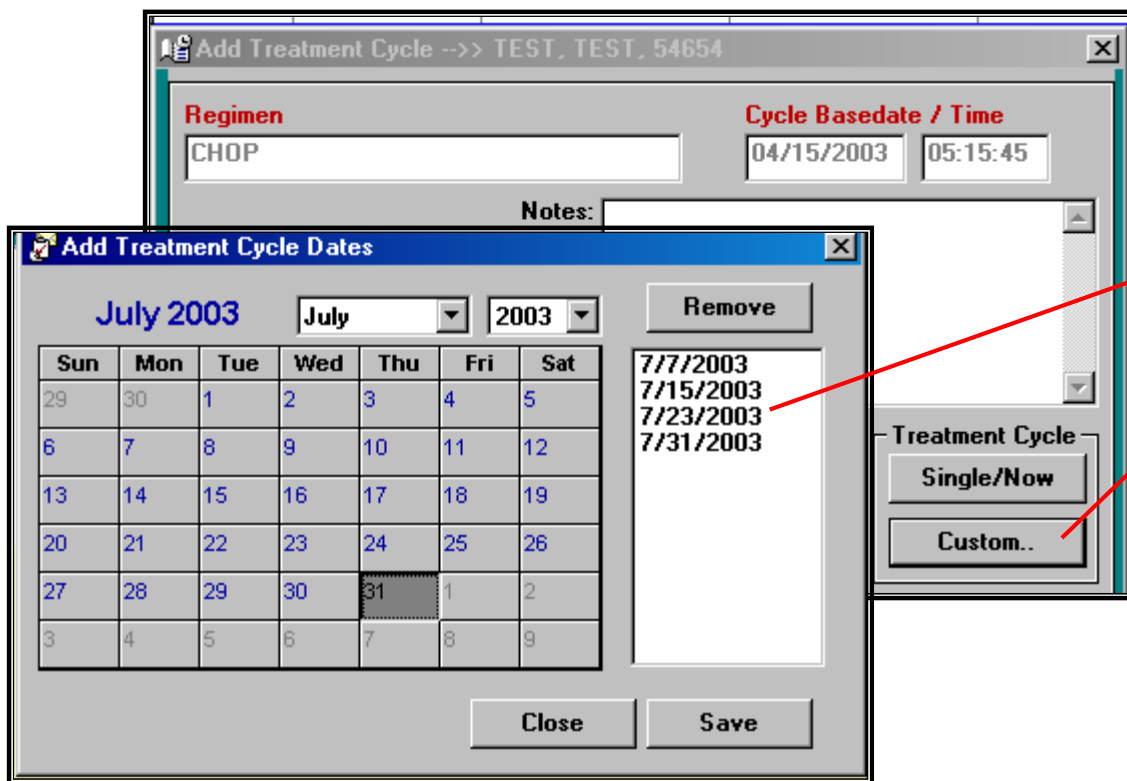
- 1) The queuing of cycles by the *Use Scheduler* allows a series of treatments to be assigned using the basedate/time as a starting point and the subsequent drop downs criteria as the incremental measures of time to be added in a fixed cycle i.e. 8 Hrs for 5 times.
- 2) The single/now under the treatment cycle section uses the current date and time as the treatment cycle date/time.



3) The custom treatment cycle allows a series of dates to be assigned based on a selection from a pop-up calendar.

**Note:** The location drop down for the treatment is also captured on the Add treatment cycle form and has the ability to be set as a default for the patient.

**Add Treatment (Custom)**



**Treatment Cycles And Predefined Regimens**

The assignment of treatment cycles are predefined regimens aware. For example, given that a predefined regimen is setup during the add regimen process. The subsequent drugs, label notes, etc. associated with the predefined regimen are assigned to each of the treatment cycle(s). Additionally, calculation of dose based on the dosages that were associated with the predefined regimen are calculated given the patient's characteristics at the point in time of the assignment of the treatment cycle.



## Work With Drugs

Pharmacy Regimen Administration System

Patient Regimen Administration --> TEST, TEST, 54654

| Patient ID | MRN | Last Name | First Name | Inpatient_Outpatient | Status |
|------------|-----|-----------|------------|----------------------|--------|
|            |     | TEST      |            |                      |        |

Filter Area

Select Drugs For Treatment Cycle --> TEST, TEST, 54654

| Selected                 | Drug Name (Active Drugs Only) | STD Qty | STD Units |
|--------------------------|-------------------------------|---------|-----------|
| <input type="checkbox"/> | ACETAMINOPHEN                 | 650     | MG        |
| <input type="checkbox"/> | ACETAMINOPHEN                 | 325     | MG        |
| <input type="checkbox"/> | ACYCLOVIR                     | 500     | MG        |
| <input type="checkbox"/> | ACYCLOVIR                     | 500     | MG        |
| <input type="checkbox"/> | ALBUMIN                       | 50      | ML        |
| <input type="checkbox"/> | ALBUTEROL                     | 17      | GM        |
| <input type="checkbox"/> | ALBUTEROL                     | 3       | ML        |

Regimen Name: CHOP      Cycle Date / Time 24 Hours: 04/15/2003 00:15:00      Order Entry Pharmacist: TEST

| Label ID | Drug Name       | Dosage | Dosage Unit | Dose   | Dose Units | Status |
|----------|-----------------|--------|-------------|--------|------------|--------|
| 251      | CLADRIKINE      | 750    | MG/M2       | 1147.5 | MG         | ACTIVE |
| 252      | DIPHENHYDRAMINE | 50     | MG/M2       | 76.5   | MG         | ACTIVE |
| 253      | VINCRIKINE      | 1.4    | MG/M2       | 2.14   | MG         | ACTIVE |

Buttons: Pick, Reset, Clear Filter, Show InActivated, Calc Dose, InActivate, IV Fluid, Group, Patient Details, Refresh, Close, Activate, UnGroup, Save

The work with drug selection form is the main facility for building drug regimens. The regimen construction process involves a selection of drugs using a check box methodology that allows the selection of individual drugs from a drug inventory list. The checked drugs are transferred to the *selected drugs* portion of the form by clicking the Pick button.

**Note:** the selection of drugs on the *Work With Drug* form represent class/category of drugs that “will need to be” manufactured and dispensed. The *Prepare* function of the system, discussed in the Prepare Processing section of this guide, captures the functions/information of the manufacturing of the drugs that are selected in the *Work With Drug* phase of the regimen construction process.



Note: The drugs on *Work With Drug* form represent the types of drugs (i.e. CLADRIBINE, VINCRISTINE, DIPHENHYDRAMINE) that are “to be” manufactured and the manufacturing process (the *Prepare* function of the system) actually associates them to the specific inventory item used (i.e. DIPHENHYDRAMINE INJ 50MG).

Patient detailed information can also be accessed from the *Work With Drug* form. This functionality is synonymous with the functionality what is available at the regimen administration level of the system (see the Patient Information section of the regimen administration section for details).

| Selected                 | Drug Name (Active Drugs Only) | STD Qty | STD Units |
|--------------------------|-------------------------------|---------|-----------|
| <input type="checkbox"/> | ACETAMINOPHEN                 | 650     | MG        |
| <input type="checkbox"/> | ACETAMINOPHEN                 | 325     | MG        |
| <input type="checkbox"/> | ACYCLOVIR                     | 500     | MG        |
| <input type="checkbox"/> | ACYCLOVIR                     | 500     | MG        |
| <input type="checkbox"/> | ALBUMIN                       | 50      | ML        |
| <input type="checkbox"/> | ALBUTEROL                     | 17      | GM        |
| <input type="checkbox"/> | ALBUTEROL                     | 3       | ML        |

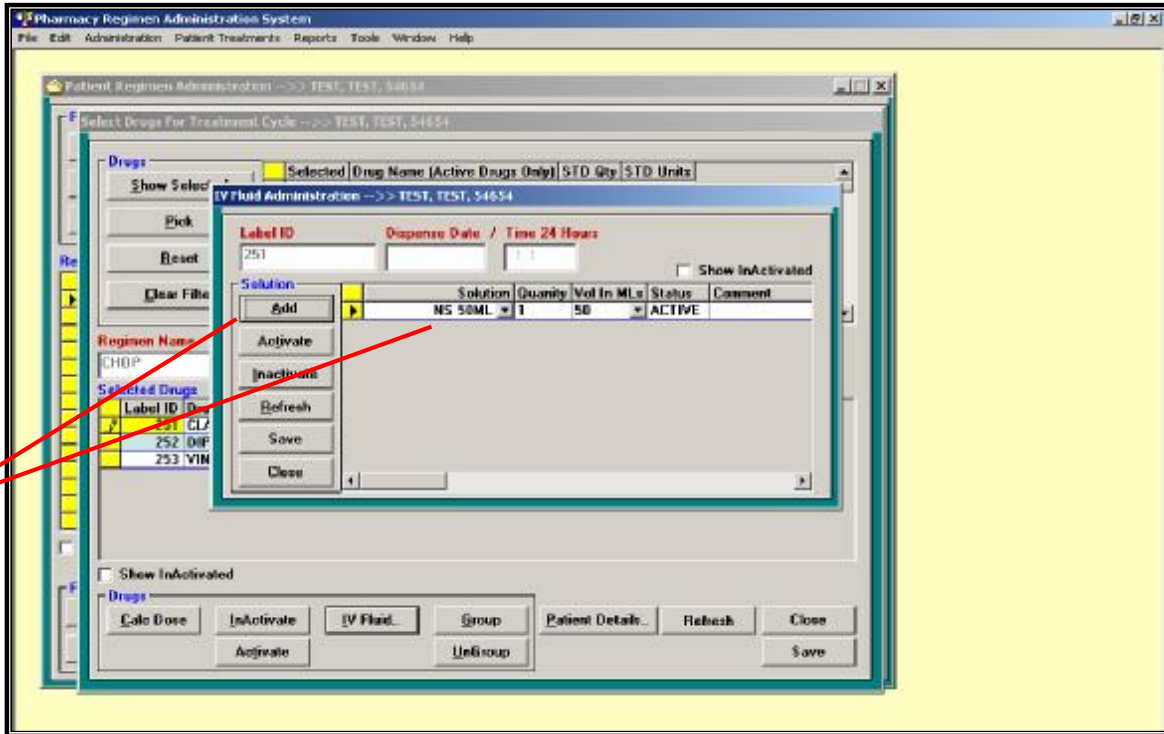
  

| Label ID | Drug Name       | Dosage | Dosage Unit | Dose   | Dose Units | Status |
|----------|-----------------|--------|-------------|--------|------------|--------|
| 251      | CLADRIBINE      | 750    | MG/M2       | 1147.5 | MG         | ACTIVE |
| 252      | DIPHENHYDRAMINE | 50     | MG/M2       | 76.5   | MG         | ACTIVE |
| 253      | VINCRISTINE     | 1.4    | MG/M2       | 2.14   | MG         | ACTIVE |

Note: Selecting a drug from the selected drug list and clicking the calculate (Calc) Dose button recalculation the dose for that specific drug in a regimen. Additionally, drug grouping is also a capability of the *Work With Drug* form, allowing drug groups to be formed by using standard Windows selection techniques and clicking the Group button. This function allows drugs to be grouped together for dispensing.



### IV Fluid Selection



IV Fluid form, accessible from the Work With Drug form, associates IV Fluids with specific drugs or a group of drugs. An additional functionality available on the IV Fluid administration form includes the ability to inactivate and activate specific IV Fluid associated with a drug or drug group.



## Prep-Labels

The screenshot displays the 'Prep-Label Create and Administration' window within the 'Pharmacy Regimen Administration System'. The window title is 'Prep-Label Create and Administration --> TEST, TEST, 54654'. The form is divided into several sections:

- Label Section:** Includes fields for 'Label ID' (251), 'Dispense Status' (NOT DISPENSED), and 'Technician' (DAN). There is a large text area for 'Label Comment'.
- Dispense Information:** Fields for 'Dispense Date / Time 24 Hr', 'Exp. Hours', and 'Expiration Date / Time 24 Hr'.
- Drugs Table:** A table with columns: Drug Name, Dose, Dose Units, Dosage, Dosage Unit, Order Entry Pharmacist. One entry is visible: CLADRIBINE, 1147.5, MG, 750, MG/M2, JOHNL.
- IV Fluid Table:** A table with columns: Solution, Vol In MLs, Comment. One entry is visible: NS 50ML, 50.
- Buttons:** 'Save', 'Show', 'Print', 'Close', 'Copies: 2', 'Refresh', 'Close', 'Add', 'Update', 'Work With...', 'Prep-Label', 'Prepare', 'Dispense', 'Activate', 'Inactivate', 'IV Fluid...', 'Phys...', 'Status'.

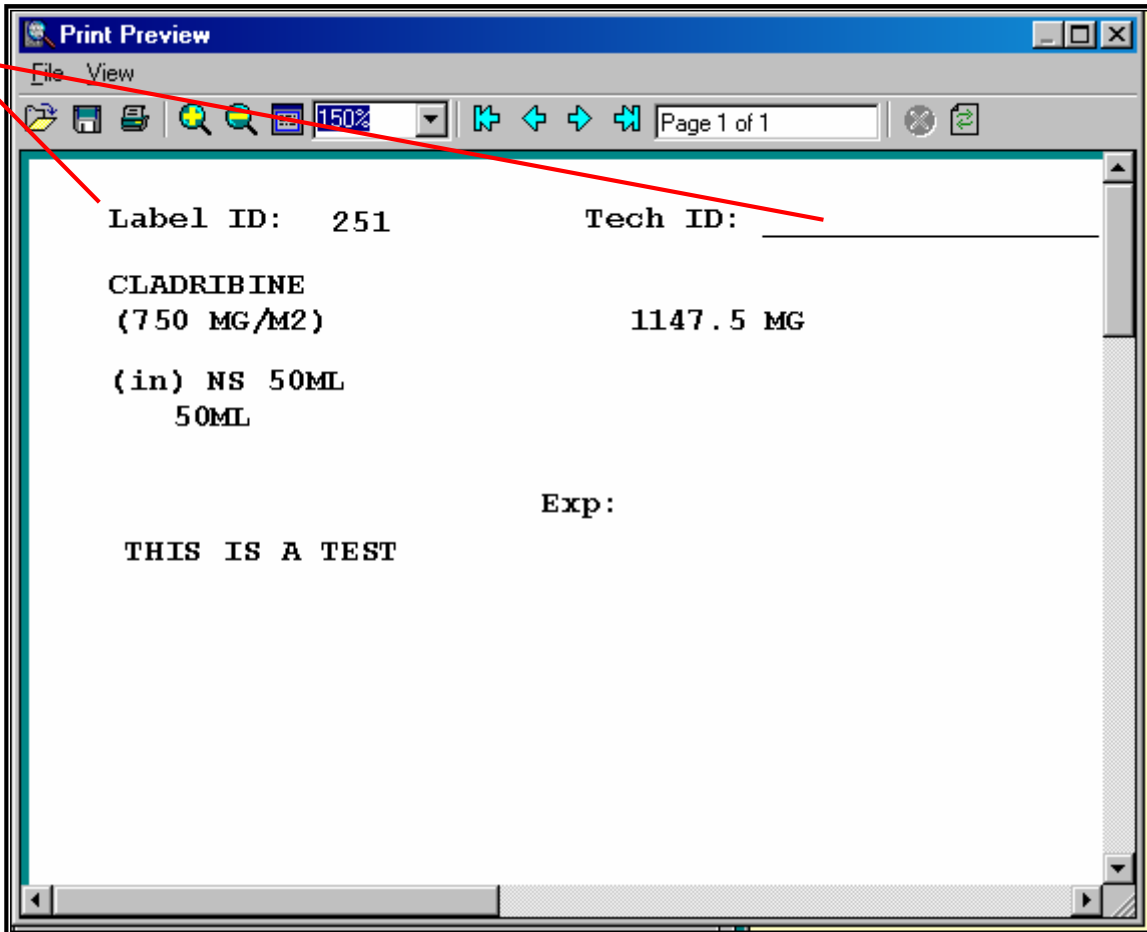
The preparatory label (*Prep-Label*) process in the regimen construction workflow represents the formal interaction/coordination between the *Order Entry Pharmacist* and the *Pharmacy Technician*. The process/form (shown above) allows the *Order Entry Pharmacist* to construct a drug regimen and to subsequently produce a preparatory label that can be used in the regimen manufacturing process by the *Pharmacy Technician*.

The preparatory label allows label comments and additional information to be communicated between the *Order Entry Pharmacist* and the *Pharmacy Technician* in the drug setup and preparation process. The preparatory label step in the regimen construction workflow allows the labels to be produced in advance of the dispensing process and enables formal control and coordination between the distinct workflow and events in the regimen manufacturing process. The preparatory label creation form produces a label for a single drug or drug group. However, there is a comparable preparatory label



report within the reports section of the system that allows these labels to be produced by treatment day.

The preparatory label and complementary workflow control/coordination reports allow the pharmacists and technicians within a pharmacy department to coordinate the different resources within the drug regimen order entry, manufacturing and dispensing process.





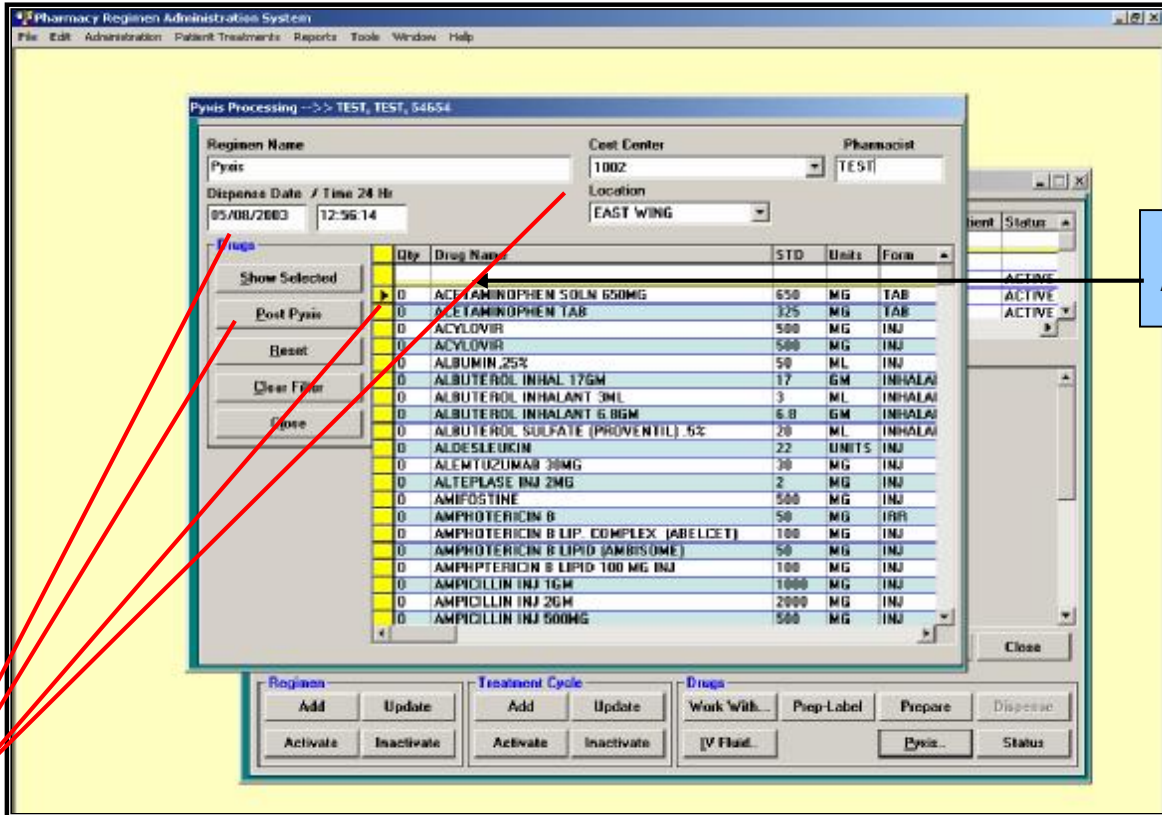
## Prepare Drugs (Manufacturing)

The screenshot shows the 'Pharmacy Regimen Administration System' window. The main form is titled 'Select Components and Quantity --> TEST, TEST, 54654'. It features a table with columns: Quantity, Drug Name, STD Qty, Units, Form, Conc, Units, and Multi-Dose. Below this table are buttons for 'Show Selected', 'Pick', 'Reset', and 'Clear Filter'. A 'Filter Area' label points to the top right of this table. Below the table are input fields for 'Label ID' (251), 'Total Selected', 'Prepare Drug' (CLADRIBINE), 'Dose' (1147.5 MG), 'Vol. To Add', and 'Technician' (TEST). At the bottom of the form is a table with columns: Drug Name, Lot Number, Manufacturer, Vial Size, Units, Diluent, Vol. ml, Conc, Conc Units, and Comments. Below this table are buttons for 'Show InActivated', 'Refresh', 'Clear', 'Activate', 'Inactivate', 'Copy Row', 'Paste Row', 'IV Fluid...', 'ReCalc...', 'Save', and 'Close'. At the very bottom of the window are buttons for 'Add', 'Update', 'Add', 'Update', 'Work With...', 'Prep-Label', 'Prepare', 'Dispense', 'Activate', 'Inactivate', 'Activate', 'Inactivate', 'IV Fluid...', 'Phys...', and 'Status'.

The regimen manufacturing process allows individual drugs that were assigned in the Work With Drug process to have detailed drug information with respect to the exact drug inventory item(s) used in the preparation of the drug recorded. This process includes selecting the exact vial (or comparable unit) and recording any concentration and/or diluent information used in the preparation process. The form has the ability to select individual diluent used in the process and to record lot numbers and other specific drug information. A number of usability items are included that allow the form to efficiently process multiply vials, including the ability to copy and paste complete rows of information using the buttons located at the bottom of the form. Other features include, the ability to inactivate and activate individual items, recalculate total dose selected and the ability to view the IV Fluid that that are associated with a selected drug.



## Pyxis Drug Entry



This pRAS system has the ability to record Pyxis drugs that are directly administered to patients without going through the formal workflow process within the software. In order to capture this information Pyxis drugs are recorded on the Pyxis form (shown above) and all related functions (Work With Drug, Prepare, Dispense) are performed by the system automatically without intervention. These drugs do not have the labeling capabilities that are available with other formal drug regimen's and are not included in the labeling process. However, these drugs are included on Billing and Revenue Analysis Reports and for inventory information.



## Dispense Drug

Dispense Regimen Drugs -->> TEST, TEST, 54654

**Label**

Save  
Show  
Print  
Copies 2

Label ID: 251  
Dispense Status: NOT DISPENSED  
Pharmacist: JOHNL

Label Comment: THIS IS A TEST

**Treatment**

Dispense  
Close

Dispense Date / Time 24 Hr: 07/06/2003 08:53:42  
Expiration Date / Time 24 Hr: 07/06/2003 08:53:42

**Drugs**

| Drug Name    | Dose   | Dose Units | Dosage | Dosage Unit | OE Pharmacist | Technician |
|--------------|--------|------------|--------|-------------|---------------|------------|
| ▶ CLADRIBINE | 1147.5 | MG         | 750    | MG/M2       | JOHNL         | DAN        |

**IV Fluid**

| Solution  | Vol In MLs | Comment |
|-----------|------------|---------|
| ▶ NS 50ML | 50         |         |

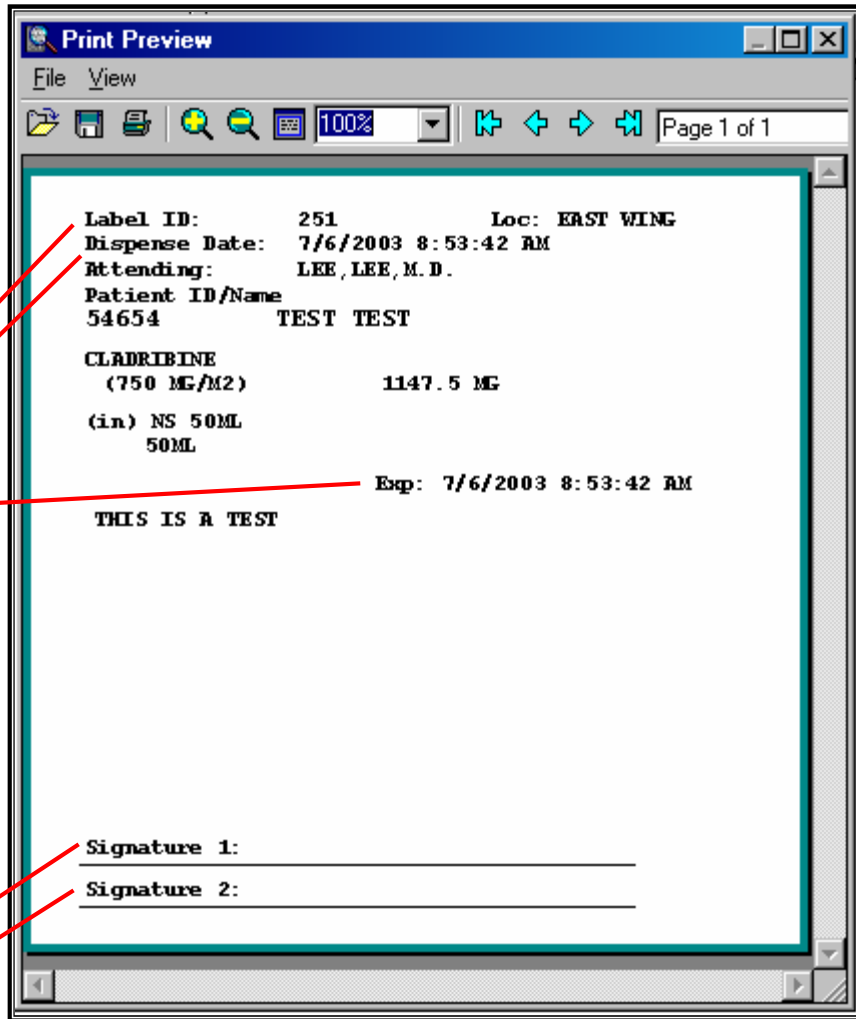
The dispense form allows a drug to complete its workflow. The dispense date and time is captured for specific drug and the expiration on the drug is calculated from the drug inventory table. Label comments can be attached at this point in the process by typing into the label comments area and clicking the Save button. Subsequently, clicking the Dispense button fully dispenses the drug and prevents any other alteration of the information that is associated with drugs within the pRas system.

**Note:** the dispense process once completed captures all patient and drug related information at the time of the dispense occurrence.



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Above is shown a completed label that has all the related information including signature lines for the appropriate staff responsible for dispensing the drug.



## Drugs Status Change

The screenshot shows the 'Patient Regimen Administration' window for patient 'TEST, TEST, 54654'. It contains two main tables: 'Patients' and 'Regimens'. The 'Regimens' table shows a regimen named 'CHOP' with a dispense status of 'DISPENSED'. A 'Change Dispense Status' dialog box is open, showing the current status as 'DISPENSED' and allowing it to be changed to 'NOT DISPENSED'. The dialog box also displays the drug name 'CLADRIBINE', the regimen name 'CHOP', and the cycle date and time '04/15/2003 08:15:00'. A red line highlights the 'Change Status To' dropdown menu and the 'Change' button.

| Patient_ID | MRUN  | Last_Name | First_Name | Inpatient_Outpatient | Status |
|------------|-------|-----------|------------|----------------------|--------|
|            |       | test      |            |                      |        |
| 3672       | 54654 | TEST      | TEST       | OUTPATIENT           | ACTIVE |
| 3670       | 4444  | TEST10A   | TEST10A    | OUTPATIENT           | ACTIVE |
| 3671       | 3434  | TEST11    | TEST11     | INPATIENT            | ACTIVE |
| 3673       | 333   | TEST11/21 | TEST11/21  | OUTPATIENT           | ACTIVE |

| Regimen | Cycle Date | Cycle Time | Drug Name  | Dispense Status | Label ID |
|---------|------------|------------|------------|-----------------|----------|
| PYXIS   | 05/08/2003 | 12:56:00   |            |                 |          |
| CHOP    | 04/15/2003 | 08:15:00   | CLADRIBINE | DISPENSED       | 251      |

Change Dispense Status --> TEST, TEST, 54654

Status: **DISPENSED**

Change Status To: **NOT DISPENSED**

Dispense Date / Time 24 Hours: 07/06/2003 08:53:42

Drug: CLADRIBINE

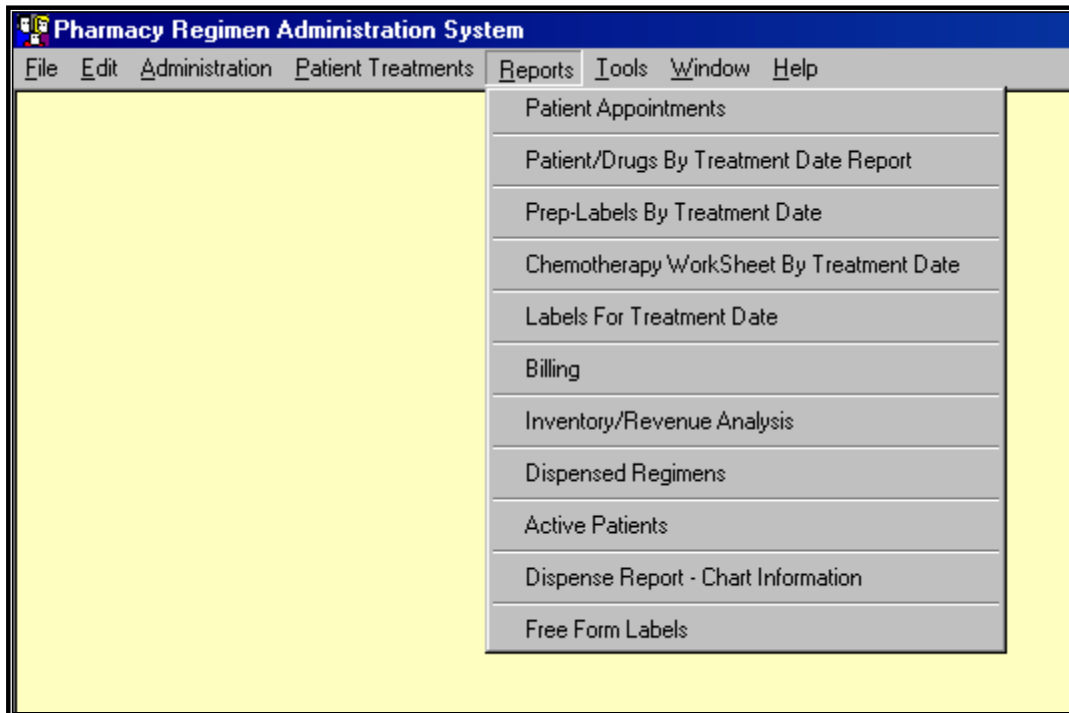
Cycle Date / Time 24 Hours: 04/15/2003 08:15:00

Regimen Name: CHOP

Once a drug is dispensed, a number of functions within the system are disabled to protect the information that was captured at the time of the dispensing. In order to alter information within the system a drug status must be altered once a drug has been dispensed. The change dispense status form (shown above) allows drugs to be changed from a dispense state to a "not dispensed" state subsequently allowing the drug to be reworked if required. Once corrections have been made, the drug can be re-dispensed and a label reproduced.



## Reports



The system uses standard set of reports that allow the pharmacist to control the system workflow and general patient reporting. These reports including: Patient Appointments, Patient/Drugs By Treatment Date, Prep-Labels By Treatment Date, Chemotherapy Worksheet By Treatment Date, Labels For Treatment Date and Dispense Report - Chart Information.

The system also provides revenue and billing reports that enable the control of drug inventory and drug consumption. These reports include: Billing and Inventory/Revenue Analysis.

The system provides additional reports that facilitate the general maintenance of the patient information by showing the status of current active patients and the completed drug regimens. These reports include: Dispensed Regimens and Active Patients.

Finally a free-form label capability is provided that allows the pharmacist to produce labels with their own specifications. The report Free Form Labels provides this function.



## **Patient Appointments**

This report consists of a listing of patient name and the date/time that their treatment cycle is scheduled along with the location of the treatment cycle. This report is date driven by the treatment cycle date i.e. patient appointment date.

## **Patient/Drugs By Treatment Date**

Produces a report by patient and the drugs that are/were to be dispensed for a given treatment cycle date/time. The report is driven by Drug Label Identification and produces the report by Label ID for a patient on a given treatment.

## **Prep-Labels By Treatment Date**

The report produces the preparatory drug labels for a specific treatment date – the date(s) that were used in the Add Treatment Cycle. The labels includes the information needed to prepare the drugs and is used as a communication tool between the administration pharmacist and the manufacturing pharmacists including the drug, IV Fluid along with the pharmacist's notes and drug expiration information.

## **Chemotherapy Worksheet By Treatment Date**

This report lists patients and the actual drugs that were used in the preparation of the prescribed regimen's dose. The report is driven by Drug Label Identification, producing a listing by Label ID for a patient(s) given treatment date/date range and the actual inventory drug items that were used in the preparation of the dispense regimen.

## **Labels For Treatment Date**

The report produces drug labels for a specific treatment date – the date(s) that were used in the Add Treatment Cycle). The labels include the patient information as well as the drugs, IV Fluid along with the pharmacist's notes and drug expiration information.

## **Billing**

The report, also known as the Encounter Form, produces a listing by patient of the inventory items that are to be billed for a patient and includes the order quantity. The order quantity is based on the order quantity from the drug table divided by the dose that was



administered. The bill quantity represents the order quantity times a multiplier for that drug located in the drug table. The billing report shows only regimens that had been fully dispensed.

## **Inventory/Revenue Analysis**

This report produces a listing by department of the replacement inventory items from the main pharmacy and the bill quantity. The order quantity is based on the order quantity from the drug table divided by the dose that was administered. The bill quantity represents the order quantity times the multiplier for that drug from the drug table. The billing report shows only regimens that had been fully dispensed.

## **Dispensed Regimens**

The dispense regimen report shows by treatment date or date range the regimens that are fully dispensed by patients. The purpose of this report facilitate patient maintenance by locating fully dispensed regimens and to close these regimens that are no longer needed to be viewed directly through the Patient Regimen Administration Form. The closing of the regimens does not delete the records but allows them to be invisible to the interface, thereby improving the efficiency and speed of the form.

## **Active Patients**

This report provides a listing of patients that are an active state. It uses a selection process that isolates groups of patients using in an alphabetical selection and provides a listing in alphabetical order.

## **Dispense Report - Chart Information**

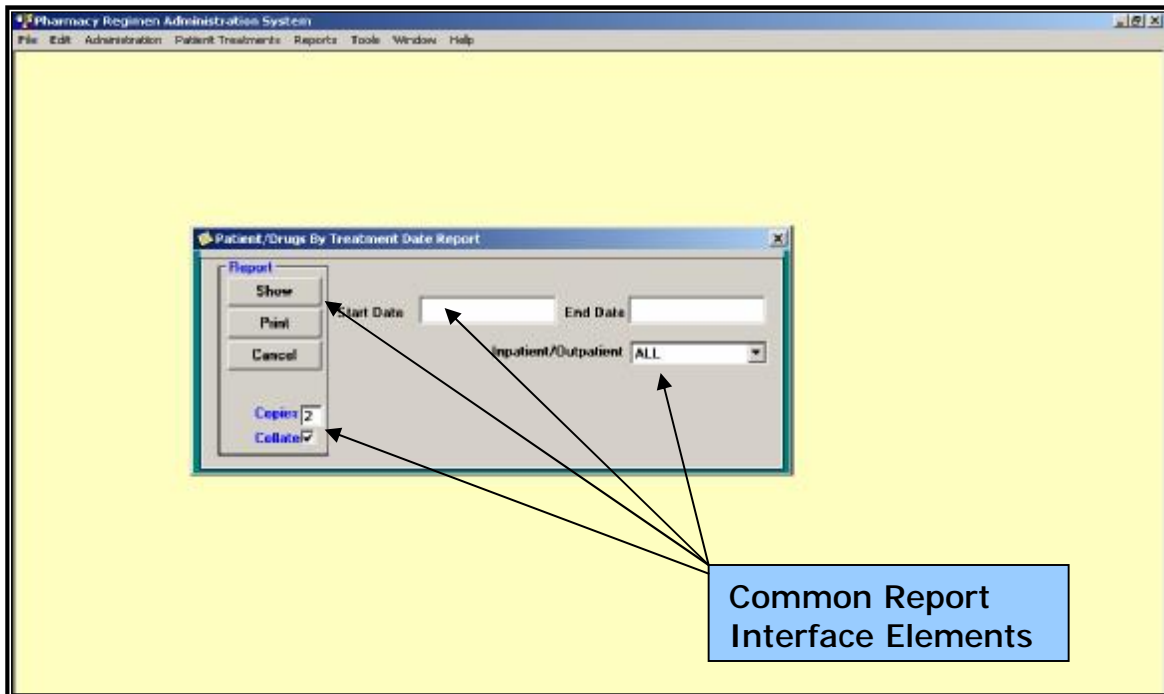
This report provides a listing of drugs dispensed by patient and includes the demographic information of the patient that was available at the time of individual dispensing events. The listing shows the individual drug regimens and the label IDs that were associated with these drugs. The report provides the ability to show multiple dispense days and provides patients summaries over this period.

## **Free-Form Labels**

Allows the pharmacist to produce free-form labels by typing text into an open input field and prints its contents on a label.



## Reports (Common Interface Elements)

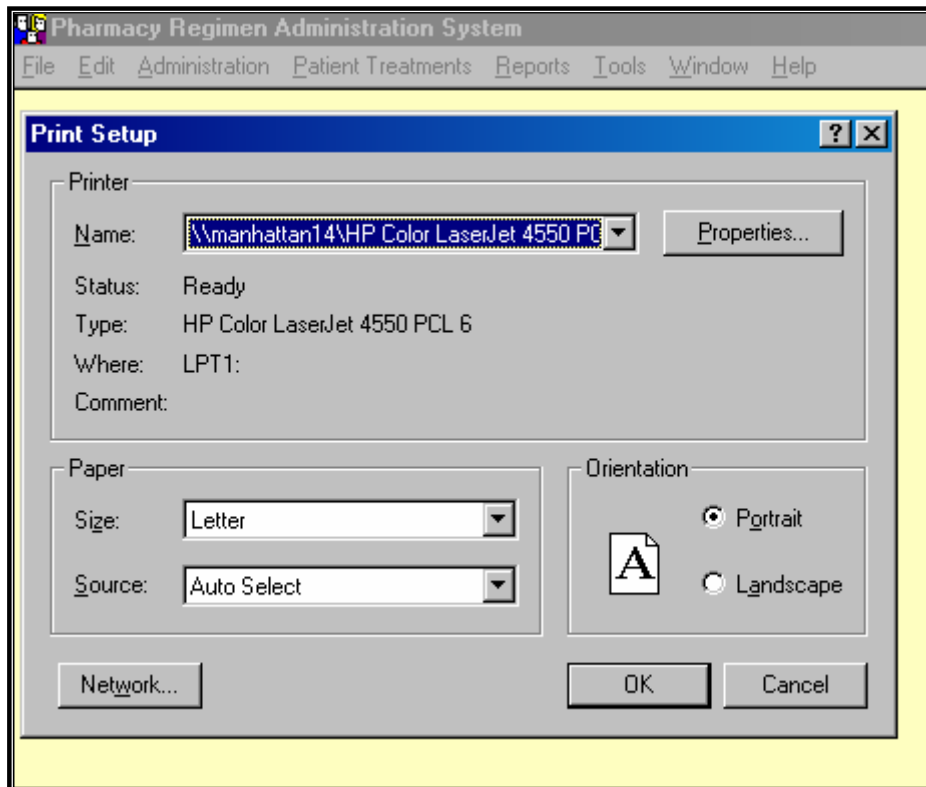
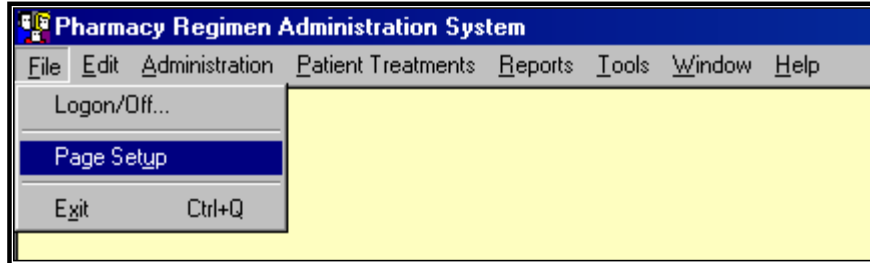


The system provides a common printer interface that has a number of elements that are available as selection criteria for each of the reports. Although some of the reports have additional selection criteria the fields shown in the form above are minimally available on each of the report selection forms. The reports can be shown on the screen by clicking the Show button or printed using the Print button. Most of the reports provide for a start and end date as the major selection limiting criteria. Note that this date selection is potentially different for each of the reports based on the report's subject area. The ability to select the major categories is also available on this form. Reports can be run for the inpatient department as well as outpatient or a combination of both of these categories.

In many instances multiple copies of labels and chart information is needed. The copies and collate feature allows a report to be printed and collated correctly for efficient distribution.



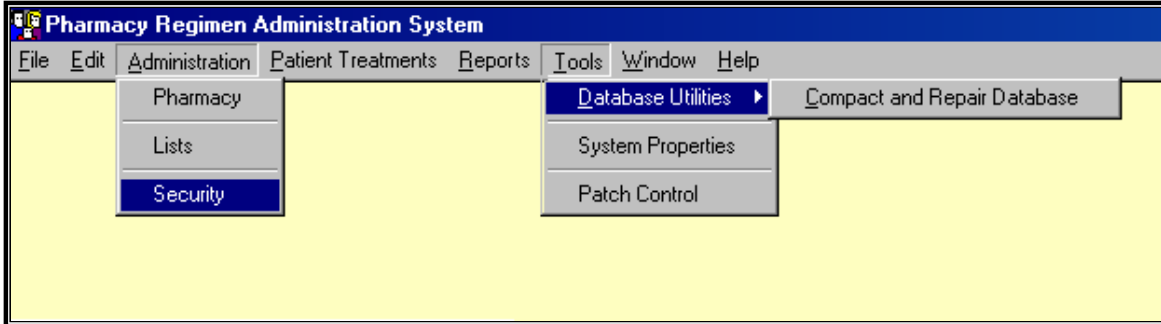
## Page Setup



The system uses standard Microsoft Windows print setup facilities for printer selection. This is an important concept because the multiple forms produced by the system require specific printer settings. It is important to note that before a report is printed i.e. labels, that use non-standard paper that the page setup is selected and the appropriate printer is defined/selected. This will insure that the report is produced in the form that can be printed directly to the type of printer that is required for its presentation.



## Administration – Security



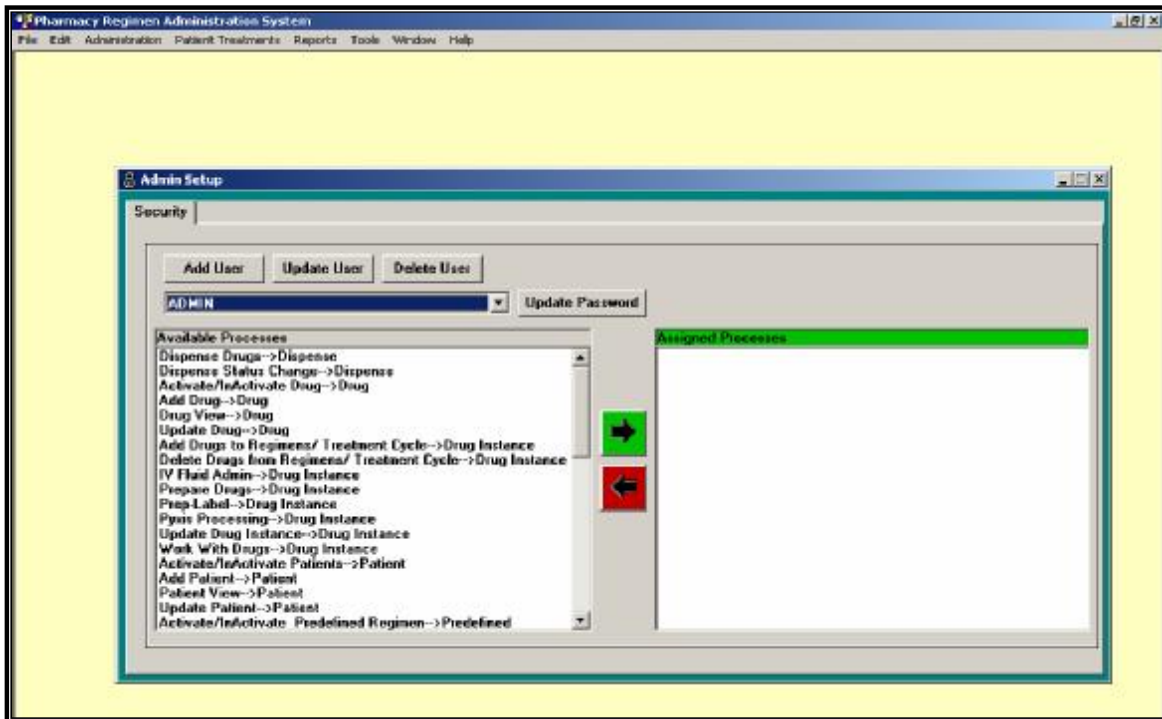
This is to administration functions of the system are divided into two sections. The first under the “Administration” menu is the “Security ” function that allows users of the pRas system to be created along with their password. In this section, privileges by functional form and your report are granted to the user on an individual basis. The other administrative section of the system is located under the tools menu. This section allows database maintenance to be conducted. This section contains database utilities for compacting in repairing the system database as well as applying database patches that are distributed on a periodic basis. The administrative guide for the system has detailed information on these functions. The following pages show general information and form layouts of these functions.



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## User / Privilege Management



The software supports a wide range of manageable privileges. Each user can have one or more assigned privileges that will either prohibit or non-prohibit the user's ability to create, modify or remove information.

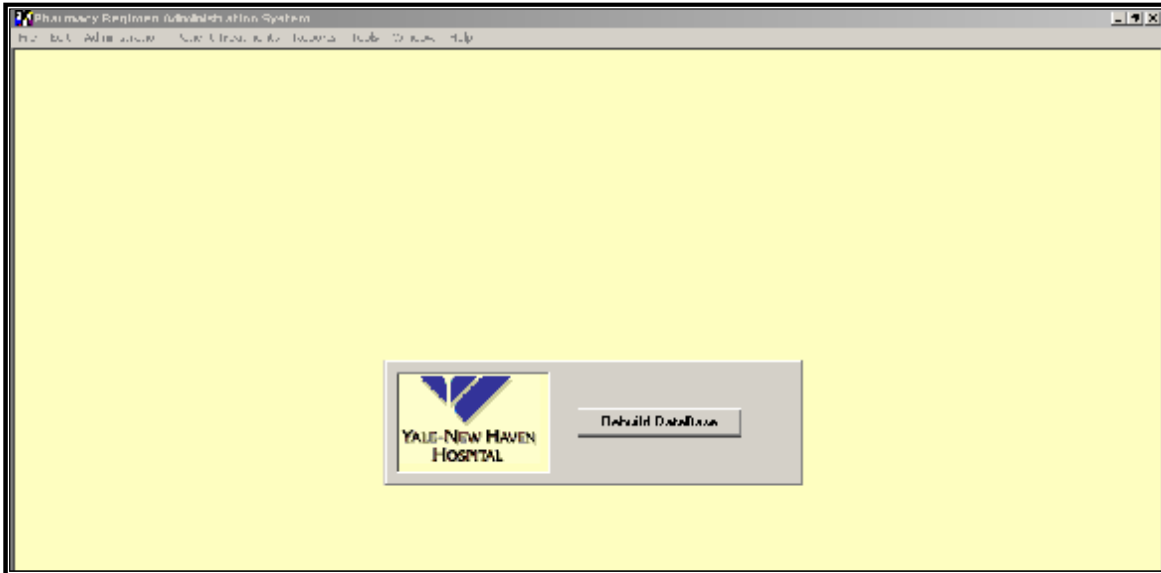
Please note that only the assigned system administrator can manage users. Please consult your local technical or administrative staff for the account information. (See *pRas Administrative Manual for Additional Information*)



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## System Tools



## Rebuilding The Database

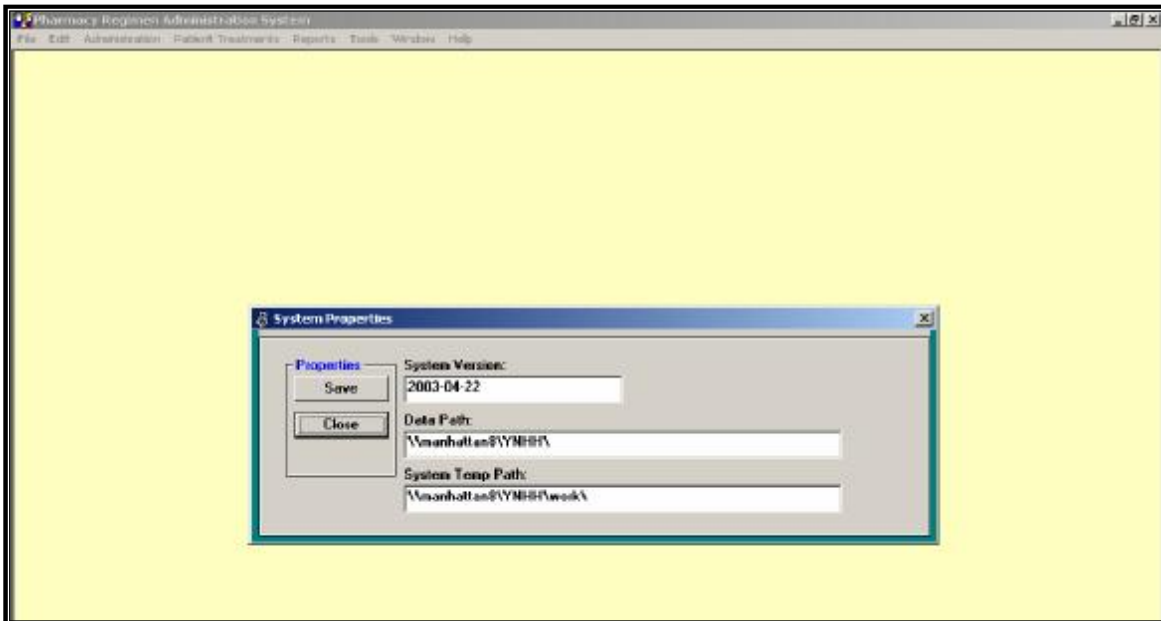
It is recommended that you issue a compact and repair on the system database once a week. The compact and repair will reorganize the database tables removing any unused space. The removal of the space will shrink the physical database size and allow for increased performance when using the software. (*See the pRas Technical Guide for additional information*).



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## System Properties



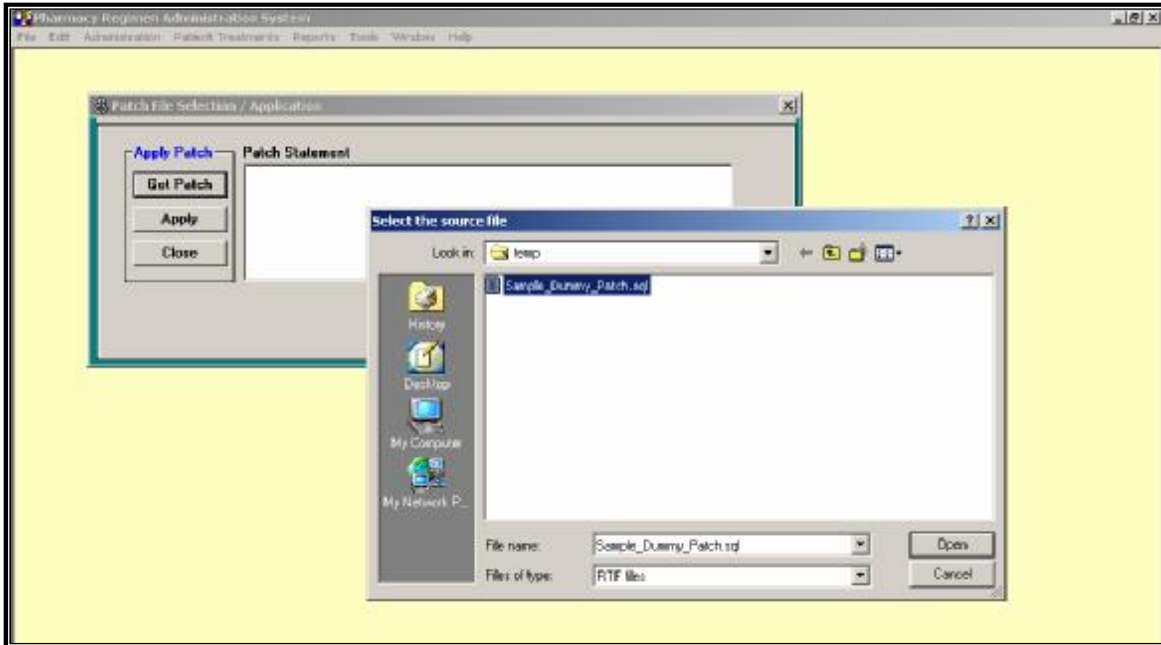
The software needs to know the full network share name in which the database operates. In the dialog window (above), information about the location of the database and work directory (for the database rebuild process) is specified. The work directory must exist and the administrative user must have full rights to the directory for the product's database rebuild process to function. (*See the pRas Technical Guide for additional information*).



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## Patch Control



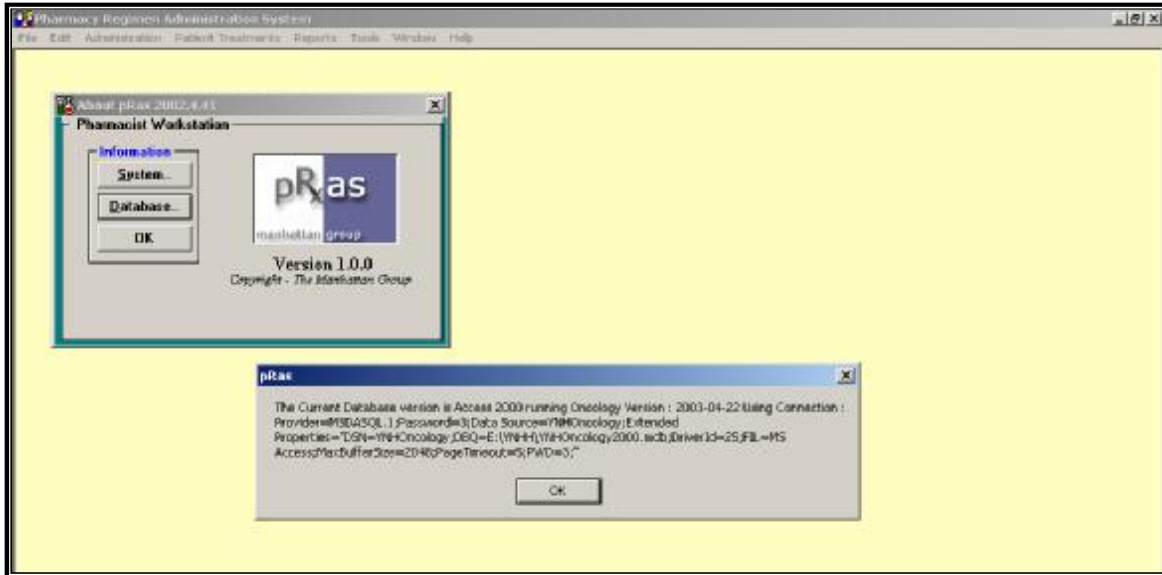
When product updates are necessary, it will be required to update the pRas database system. If this event occurs the system administrator would need to ensure no users are using the system. Log in to the system as the system administrator and click on the "Tools"-*"Patch Control"* menu item. (*See pRas Administrative Manual for Patch processing Details*)



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## pRas System About (Information)



System information (*Database*) allows you to display the current version of the software as well as the connection strings that are currently in use. The information is important for support of the pRas product

System information (*System*) is the current environmental settings of the PC that the software is currently executing.



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