

Note: Many figures are available in print version, submitted in separate file. These figures are to appear in an on-line only data supplement. Numbers are not sequential due to those figures that appear in print not being present herein.

Figure 5. “Pop-up” options (pane #5) after selecting nitroglycerin order from pane #1 window.

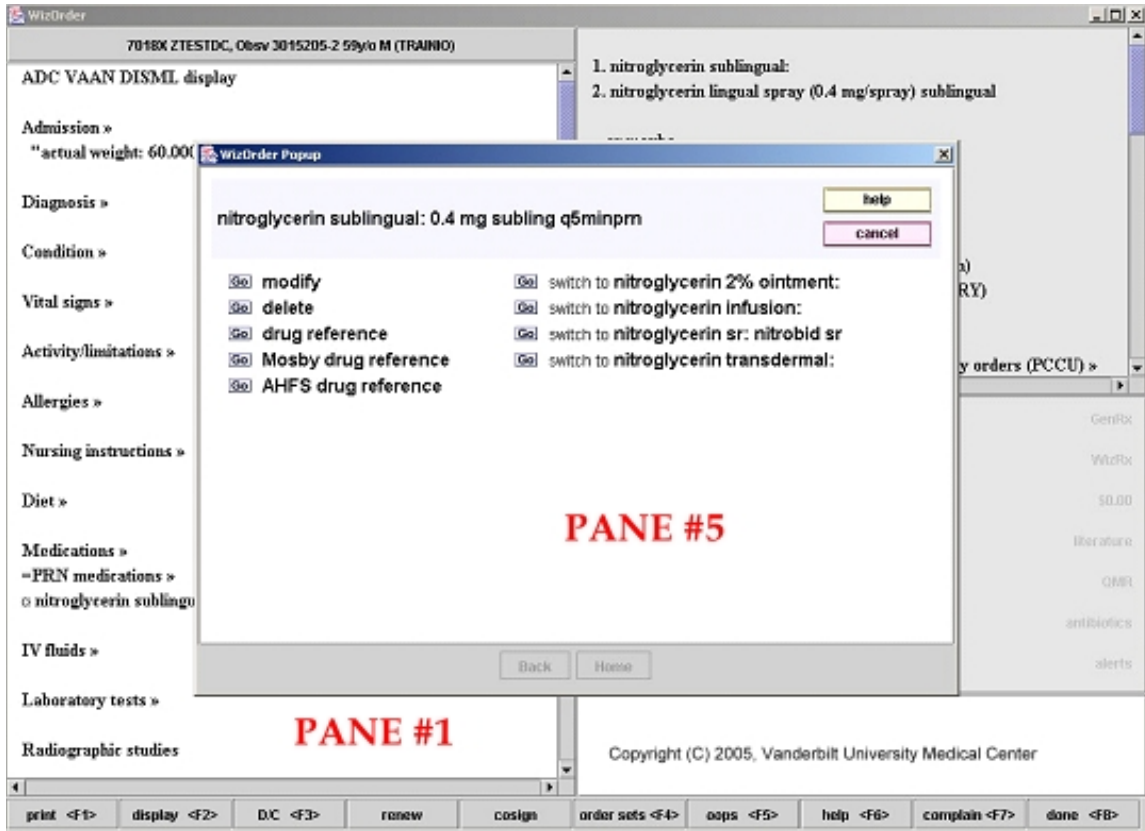


Figure 6. Final Accept screen (pane #5) allows user to verify orders at end of ordering session.

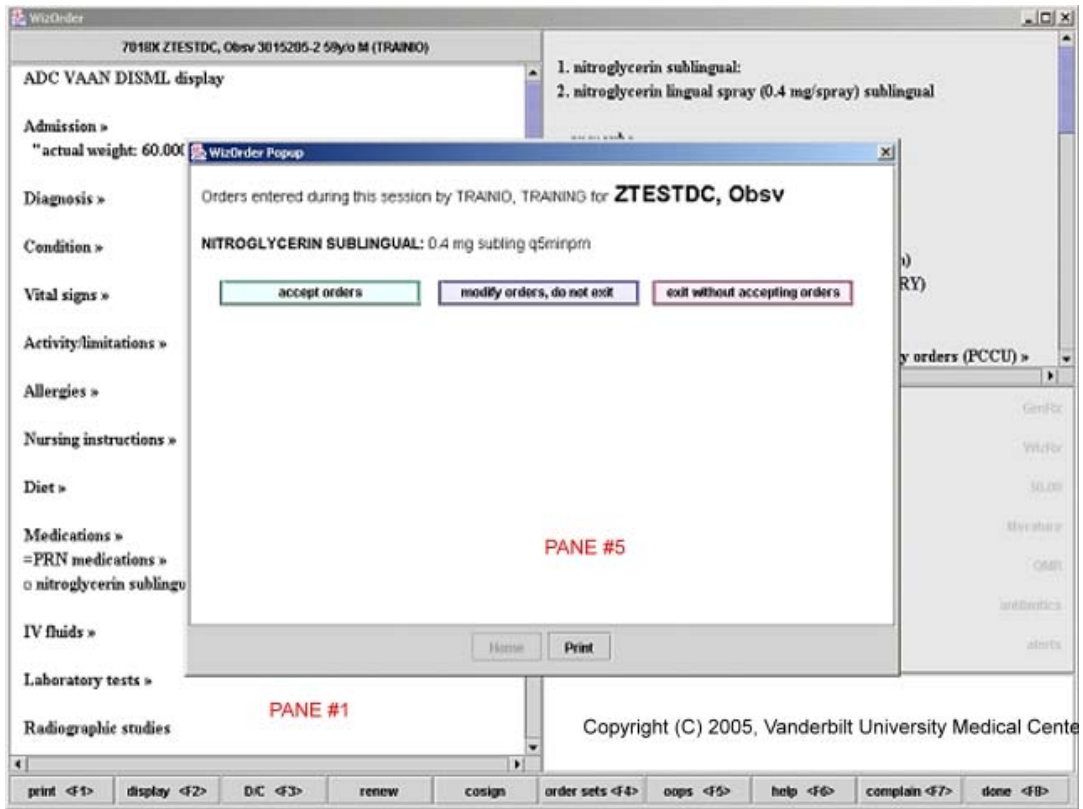


Figure 10: Interrupted / incomplete previous WizOrder CPOE session warning.

Allows user to recover from previously interrupted ordering session.

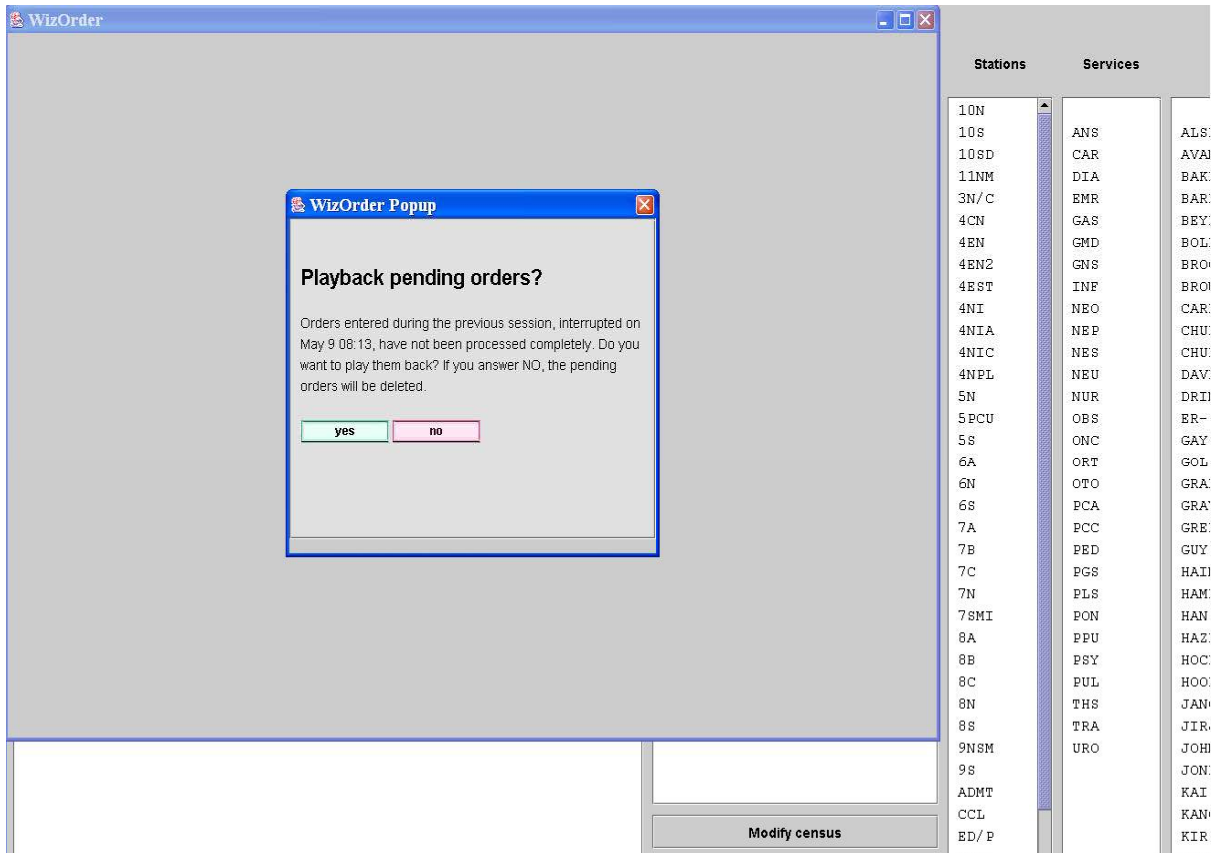


Figure 13a: Clinician-user initially attempted to order “VQ scan” of lung for pulmonary embolism, and WizOrder completer maps to official name of test (item 1 in pane #2), which user then selects by typing choice in pane #4.

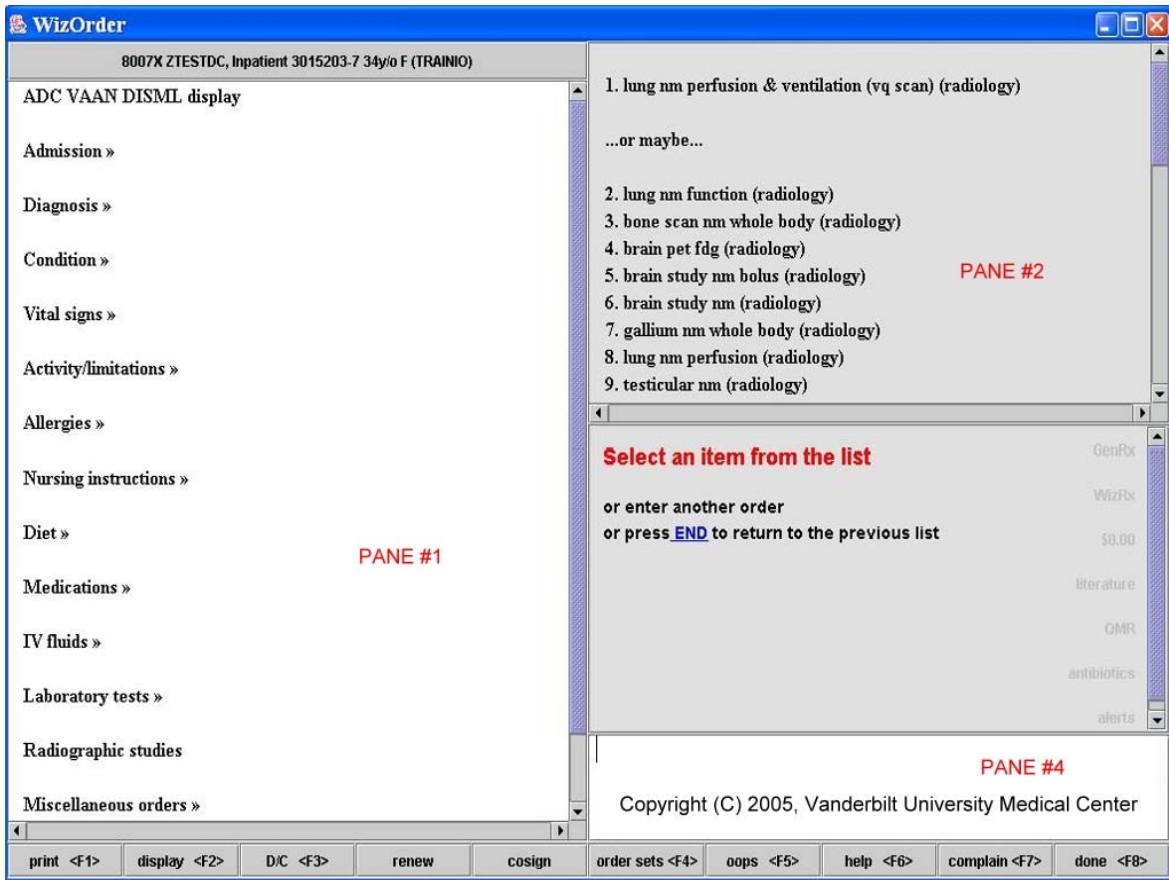


Figure 13b: Selecting lung scan order from Figure 12a launches Anticoagulation Adviser in WizOrder, helps clinician select appropriate diagnostic workup and therapy for suspected or confirmed deep venous thrombosis (DVT) or pulmonary embolism (as well as DVT prophylaxis, and therapy for other disorders such as acute coronary syndrome).

WizOrder Popup

Adult Low Molecular Weight (LMW) Heparin / Unfractionated Heparin Anticoagulation Treatment Advisor (Revised 9/1/03)

Guidelines Regarding Enoxaparin (LMW Heparin): The resource utilization committee recommends the use of **low molecular weight heparin (enoxaparin)** over unfractionated heparin based on studies demonstrating equal or improved efficacy and safety for DVT prophylaxis, DVT/PE treatment, and acute coronary syndrome. Enoxaparin is more cost effective because of its predictable dose-response curve and lack of costs associated with need for monitoring. **NOTE:** Unfractionated heparin may be preferred over LMWH in selected patients, including those with renal insufficiency (GFR < 30), those who are obese (>160kg), or those where **reversibility in under 12 hours** may be required.

1 Review Clinical Data: Last Serum Creatinine: None available () -- Estimated Creatinine Clearance: Unknown mL/min

Select appropriate indication, test, and/or heparin type from the list below:

2 Pick an Indication (pick ONE from below)	3 Pick a Test to order		4 Pick a Heparinoid (if applicable)	
	LE Venous Doppler	V/Q Scan	LMW Heparin	Unfractionated Heparin
<input type="radio"/> DVT prophylaxis	N/A	N/A	Click Here for DVT Prophylaxis Advisor	
<input type="radio"/> DVT or PE, suspected (initial workup)	<input type="checkbox"/>	N/A	<input type="radio"/> (Recommended)	<input type="radio"/>
<input type="radio"/> PE suspected (with negative bilateral LE Doppler)	N/A	<input type="checkbox"/>	<input type="radio"/> (Recommended)	<input type="radio"/>
<input type="radio"/> PE suspected and... LE Doppler negative AND V/Q Scan inconclusive	Consider chest CT (helpful only if positive), pulmonary arteriogram, or pulmonary consult		<input type="radio"/> (Recommended)	<input type="radio"/>
<input type="radio"/> Massive PE suspected and patient in shock	Start with C-T Chest		Consider thrombolytics or invasive radiological embolectomy	
<input type="radio"/> DVT or PE, confirmed	N/A	N/A	<input type="radio"/> (Recommended)	<input type="radio"/>
<input type="radio"/> Acute Coronary Syndrome	N/A	N/A	<input type="radio"/> (Recommended)	<input type="radio"/>
<input type="radio"/> Atrial Fibrillation or Prosthetic Valve			<input type="radio"/>	<input type="radio"/> (Recommended)
<input type="radio"/> Other Indications for Heparin use	N/A	N/A	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Diagnostic test only (Not for acute DVT/PE workup)	<input type="checkbox"/>	<input type="checkbox"/>	N/A	N/A

5 Verify / enter patient weight: kg lb

Copyright (C) 2005, Vanderbilt University Medical Center

Clinical Warnings: Current renal function is unknown. Patient weight is not entered.

<p>Major Contraindications to All Forms of Heparin Therapy</p> <ul style="list-style-type: none"> - intracranial hemorrhage - active internal bleeding - bleeding peptic ulcer - heparin-induced thrombocytopenia anytime in the past - concern for spontaneous bleeding - imminent surgery/invasive procedure planned or likely - malignant hypertension 	<p>More Information and Recommendations</p> <p>diagnostic tests to confirm or exclude the diagnosis of DVT</p> <p>diagnostic tests to confirm or exclude the diagnosis of PE</p> <p>acute coronary syndrome (MI, NQWMI, USA, and CP)</p> <p>medical therapy of acute DVT</p> <p>medical therapy of acute PE</p> <p>Low molecular weight heparin</p> <p>heparin induced thrombocytopenia</p>	PANE #5
---	--	---------

Back Home Print

Figure 15: After completing gentamicin order (seen in left panel, pane #1), system offers selectable gentamicin monitoring orders (in upper right panel, pane #2) as “one click away” for convenience (suggesting best practice, but not requiring it).

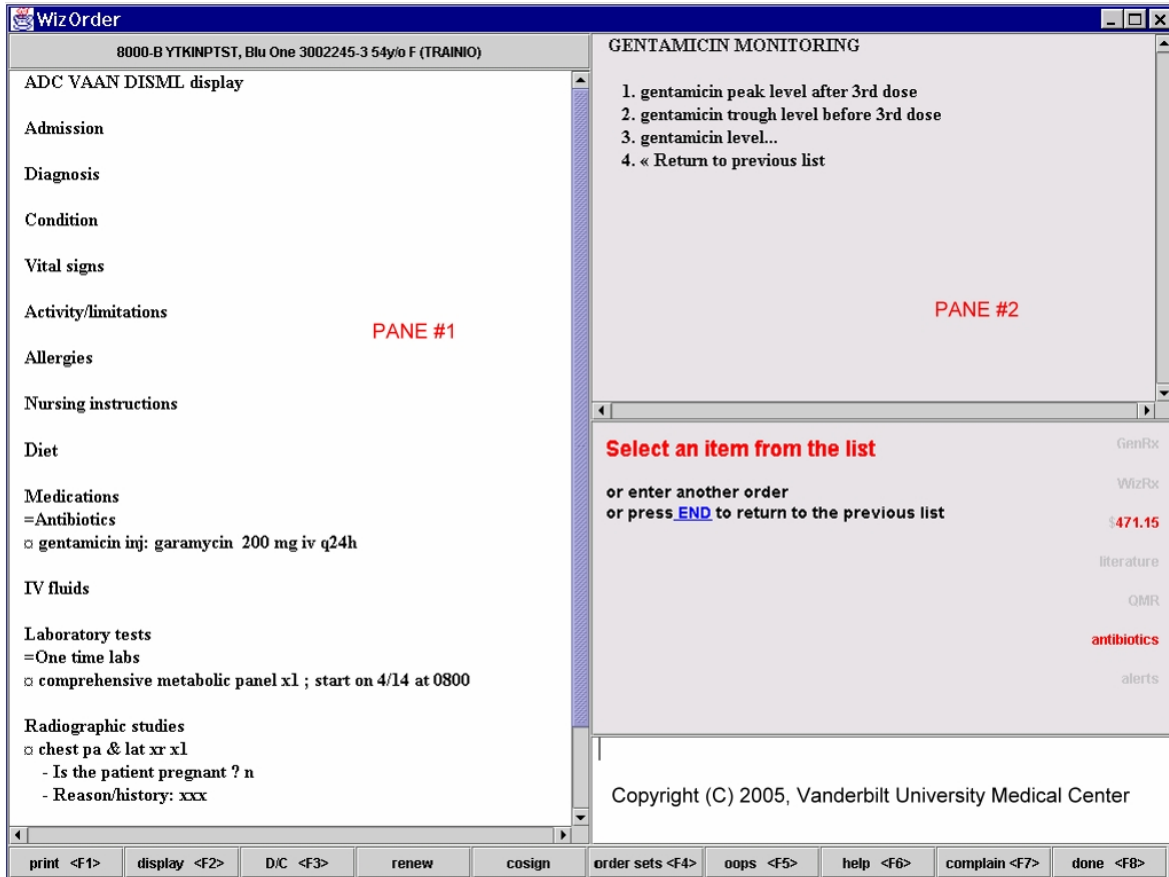


Figure 17: User (from Figure 15) requests assistance in specifying RASS score; web-based advisor makes assists user with data collection and score calculation.

The screenshot shows a web browser window titled "WizOrder Popup". At the top, a yellow banner contains the instruction: "Please select the target Richmond Agitation Sedation Scale (RASS) value for ZTESTWIZ, 7smi 1". Below this is a table with two columns: "Target RASS Value" and "RASS Description". The table lists five options, each with a radio button. Below the table are two buttons: "Submit Order" (green) and "Exit Without Ordering" (red). Underneath the buttons is a section titled "Procedure for RASS Assessment" with a numbered list of steps and sub-steps. At the bottom left, the date and time "05/04/05 09:58" are displayed. At the bottom right, the text "PANE #5" is shown in red. At the very bottom, there are three small buttons: "Back", "Home", and "Print".

Target RASS Value	RASS Description
<input type="radio"/> 0 Alert and Calm	
<input type="radio"/> - 1 Drowsy	Not fully alert, but has sustained awakening to voice (eye opening/contact > 10 seconds)
<input type="radio"/> - 2 Light Sedation	Briefly awakens to voice (eye opening/contact < 10 seconds)
<input type="radio"/> - 3 Moderate Sedation	Movement or eye opening to voice (but no eye contact)
<input type="radio"/> - 4 Deep Sedation	No response to voice, but movement or eye opening to physical stimulation
<input type="radio"/> - 5 Unarousable	No response to voice or physical stimulation

Submit Order **Exit Without Ordering**

Procedure for RASS Assessment

1. Observe Patient
 - a. Is patient alert, restless, or agitated? **(Score 0 to + 4)**
2. If not alert, state patient's name and say to open eyes and look at speaker.
 - b. Does patient awaken - sustained eye opening and contact? **(Score - 1)**
 - c. Does patient awaken with eye opening and contact, but not sustained? **(Score - 2)**
 - d. Patient does not awaken (eye opening and contact), but has eye opening or movement in response to voice **(Score - 3)**
3. Physically stimulate patient by shaking shoulder and/or rubbing sternum
 - e. No response to voice, but response (movement) to physical stimulation **(Score - 4)**
 - f. No response to voice or physical stimulation **(Score - 5)**

05/04/05 09:58 **PANE #5**

Copyright (C) 2005, Vanderbilt University Medical Center

Back Home Print

Figure 18: Display of recent laboratory test results while ordering new tests: passive graphs of last 7 days of lab results (if test ordered and result completed)

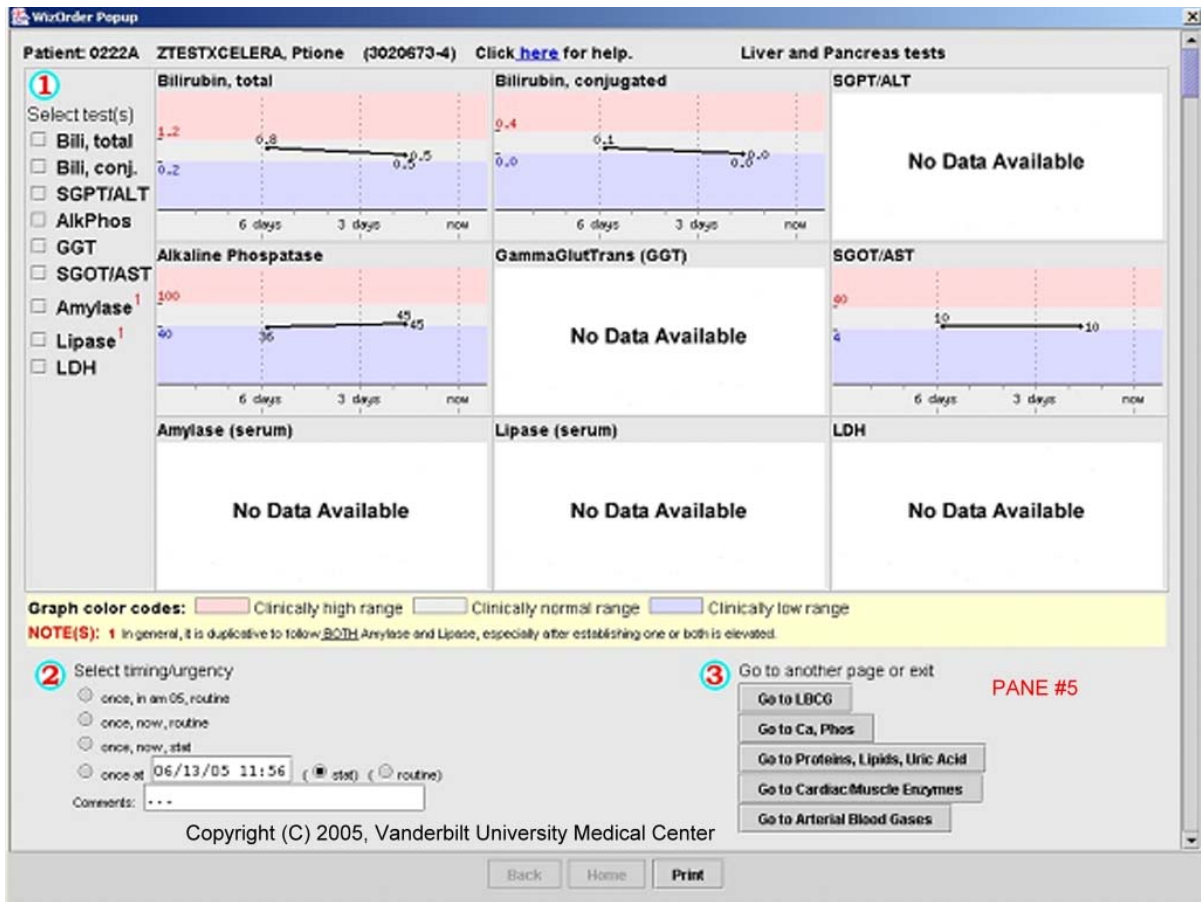


Figure 19: Clinician prescribed cyclosporine while a currently active order for gentamicin was in place. Following a drug interaction alert (upper right panel, pane #2), user clicks on item 1, pane #2 to request evidence basis for what is known about the drug interaction (displayed in pop-up window, pane #5).

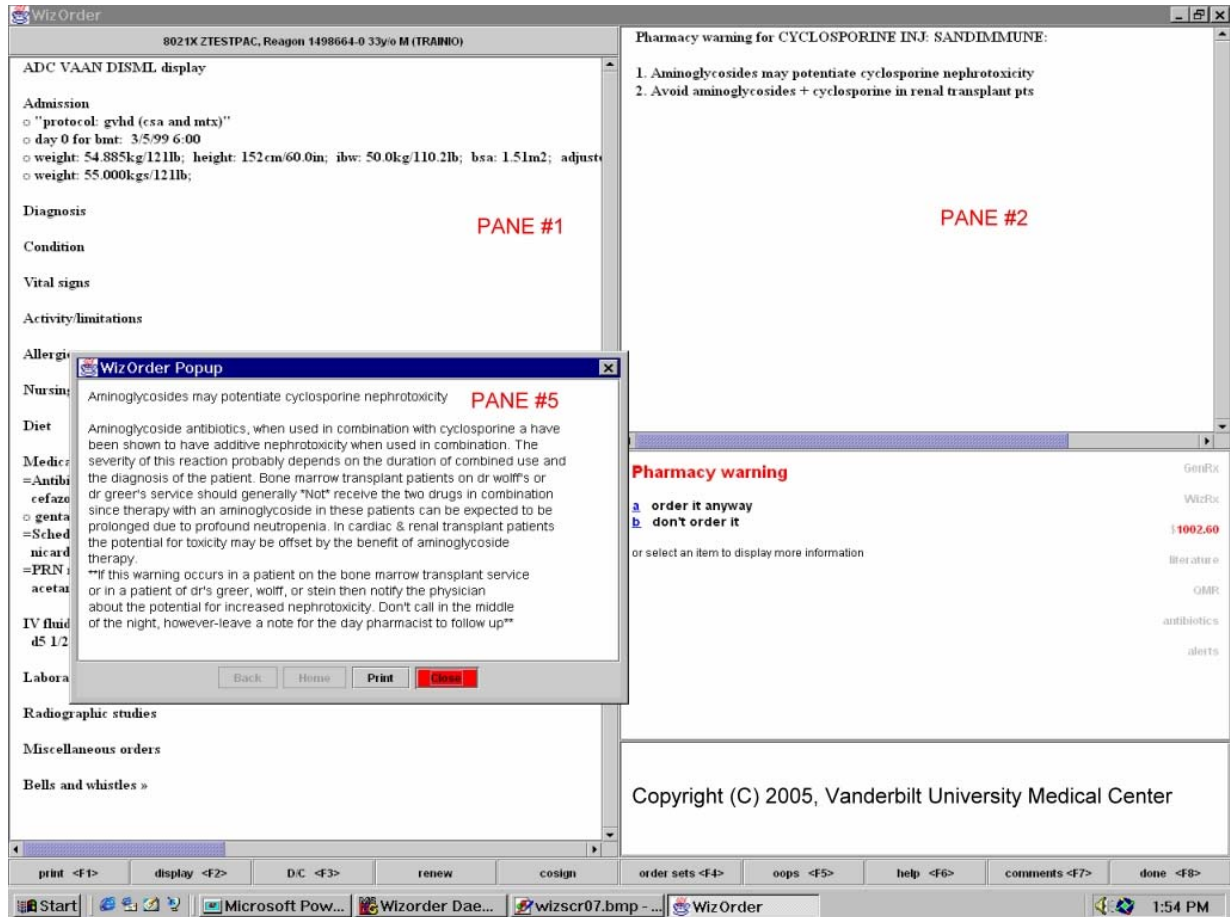


Figure 20: Clinician user begins to order “selenium blood” level (pane #2), prompting a pop-up warning (pane #5) that stops workflow and demands attention. Pop-up explains that the test is sent to a reference laboratory and takes 3 days to perform. User is notified that reimbursement may be compromised if patient is discharged before result is known. Pop-up provides instructions for alternative ordering mechanisms (that can be selected directly from pop-up) if clinician believes that obtaining the result of the order is not urgent / emergent for the current patient.

