

ZepHr™

Analysis Tutorial

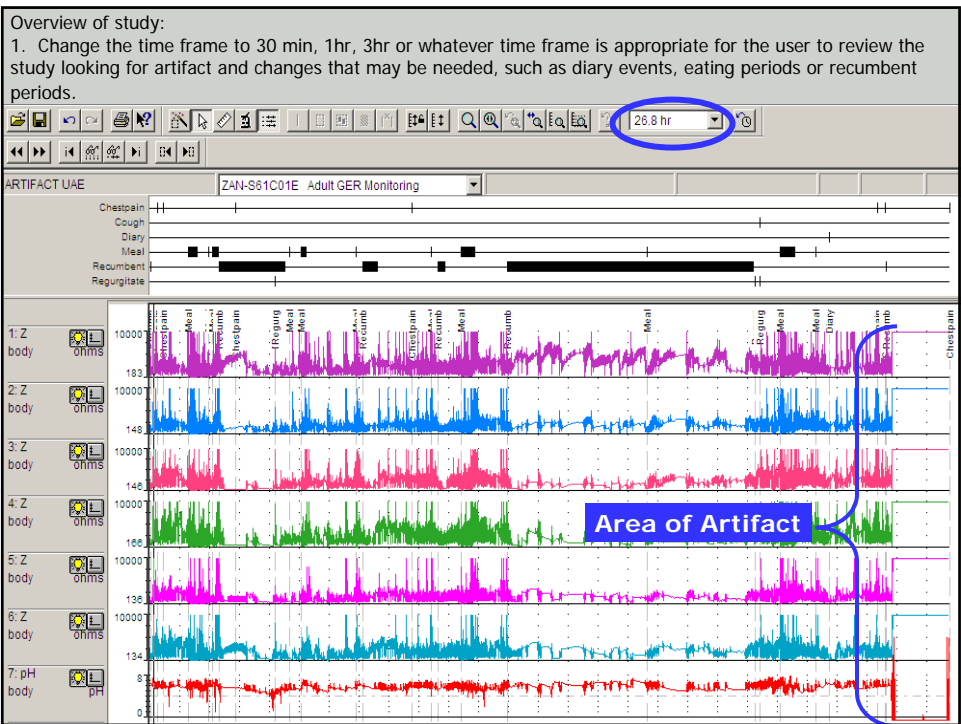


PN: S98-9528 Rev. 1.0

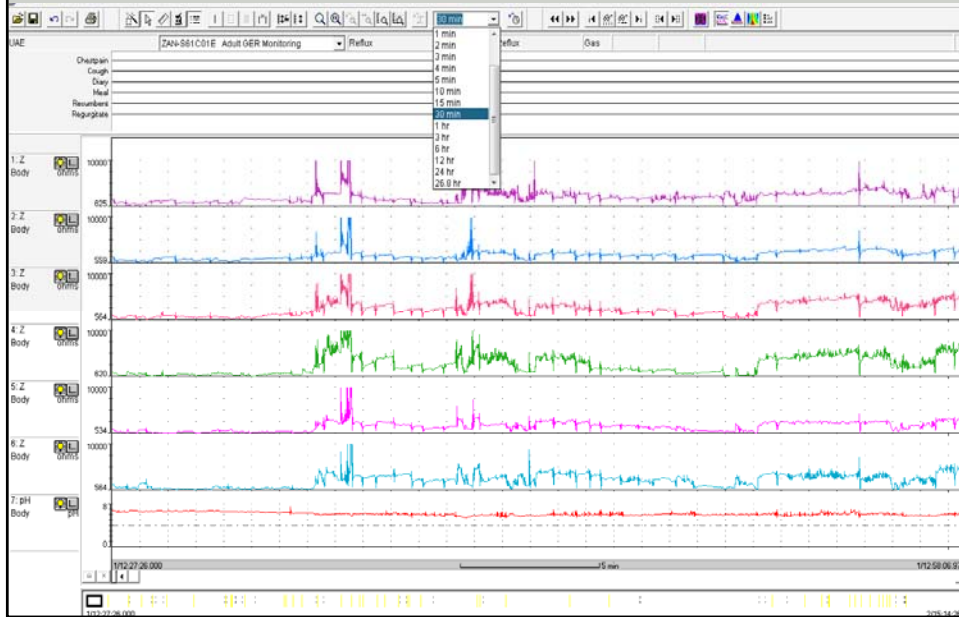
ZepHr™

Editing an Impedance-pH Study

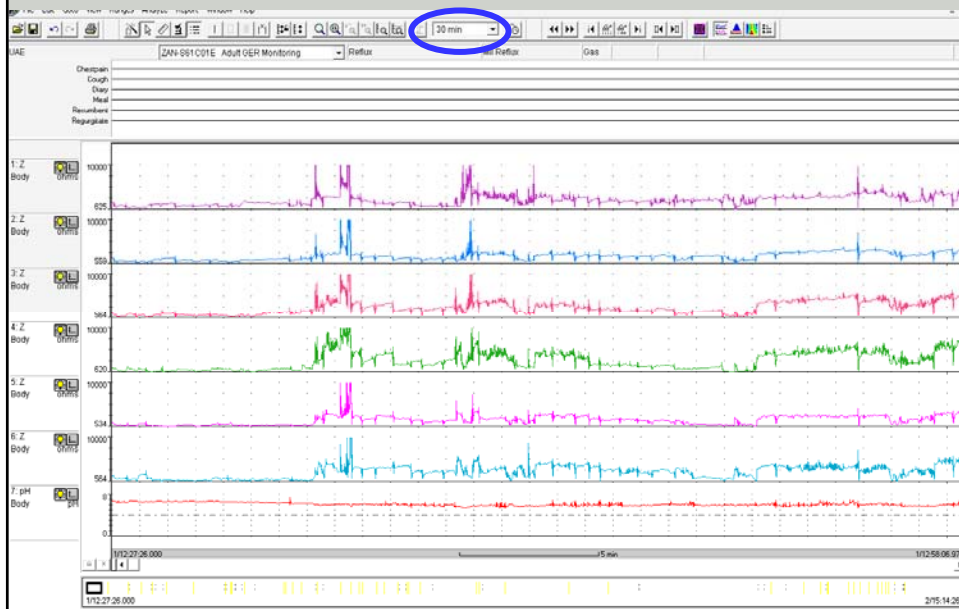


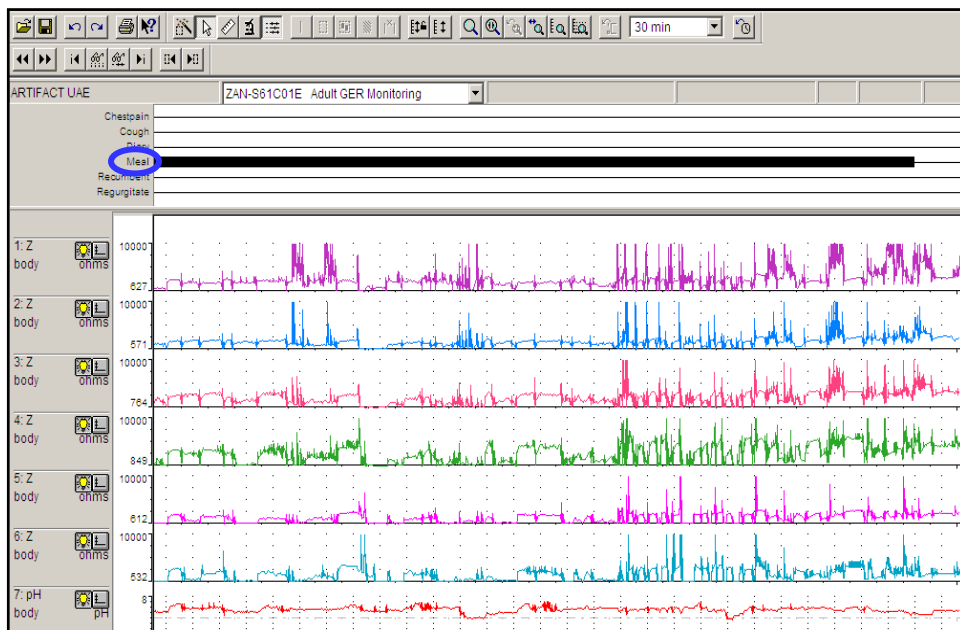
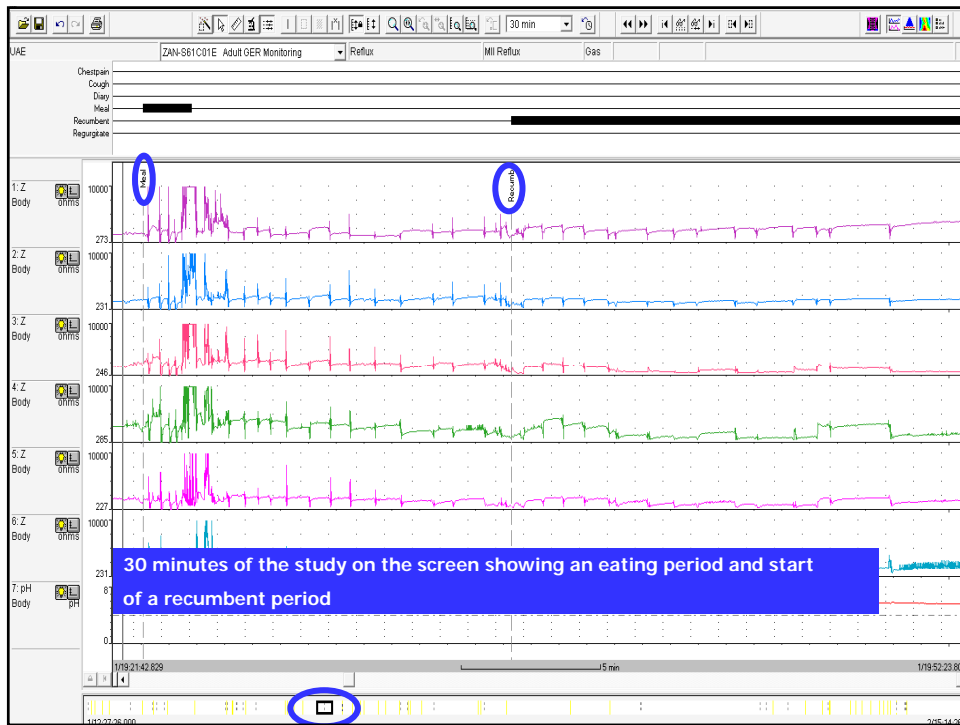


Use the arrow to the right of the time window to select the time frame from the pull down window. In this case a 30 minute window was selected.

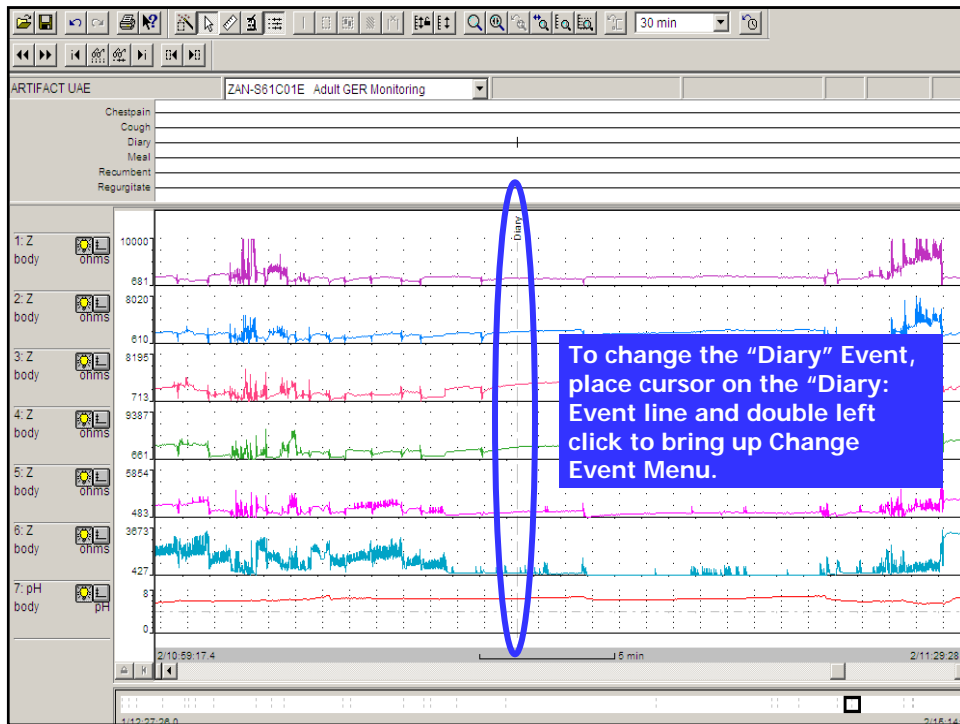
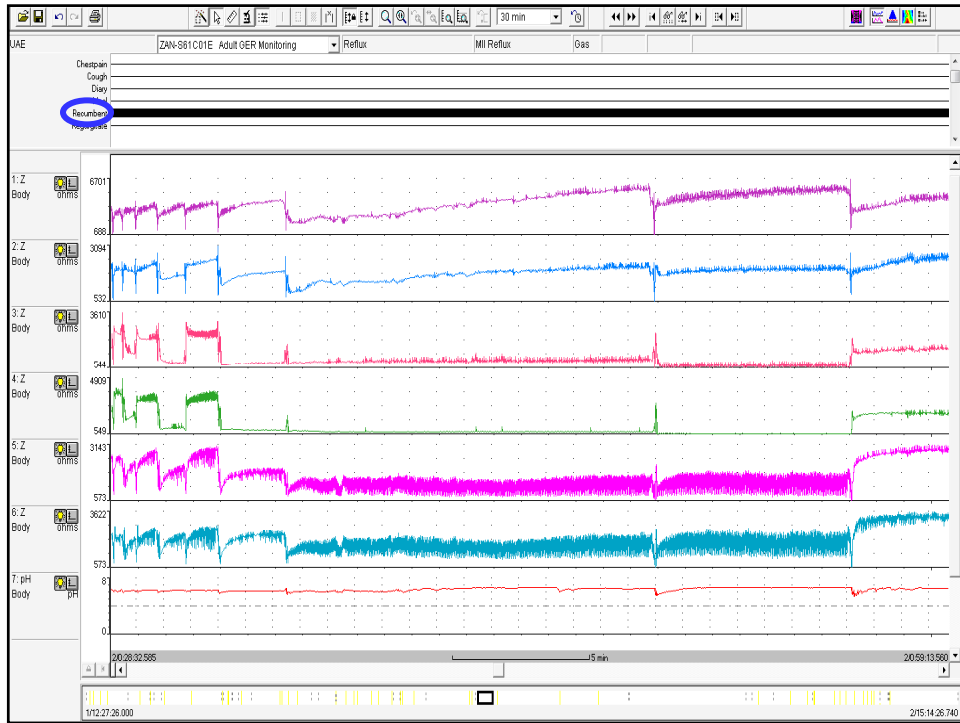


The 30 minute time frame was selected to review the study. The screen is showing the first 30 minutes of the recorded study. No changes are needed in this screen, so use the right left arrow keys on the computer keyboard to move to the next 30 minute window.





The analysis software (AutoScan) will automatically exclude the periods that were marked eating periods by the patient. It also ignores any symptoms that were documented by the patient during the eating period. No measurements will be made during the eating period.



Select the symptom to replace the "diary" event. If it is not in the pull down, list it will need to be added by typing it into Name box. When event is changed, select OK.

The Diary Event has been changed to Heartburn

Exclude icon

ARTIFACT UAE ZAN-S61C01E Adult GER Monitoring

1. Z body ohms 100000
2. Z body ohms 80200
3. Z body ohms 81987
4. Z body ohms 93877
5. Z body ohms 6854
6. Z body ohms 3873
7. pH body pH 8

Shows that it is end of the study

Area of artifact at the end of the study: In this example it is due to the probe being removed and the recorder was left recording. The green area defines what was recorded after probe removal. Define the area to be excluded by left clicking and dragging the cursor over the area to be excluded. Select the Exclude Icon.
Note: the symptom in this area will not need to be deleted. This is because the area and any documented events will be excluded from the analysis.

File Edit Goto View Ranges Analyze Report Window Help

ARTIFACT UAE ZAN-S61C01E Adult GER Monitoring

1. Z body ohms 100000
2. Z body ohms 80200
3. Z body ohms 81987
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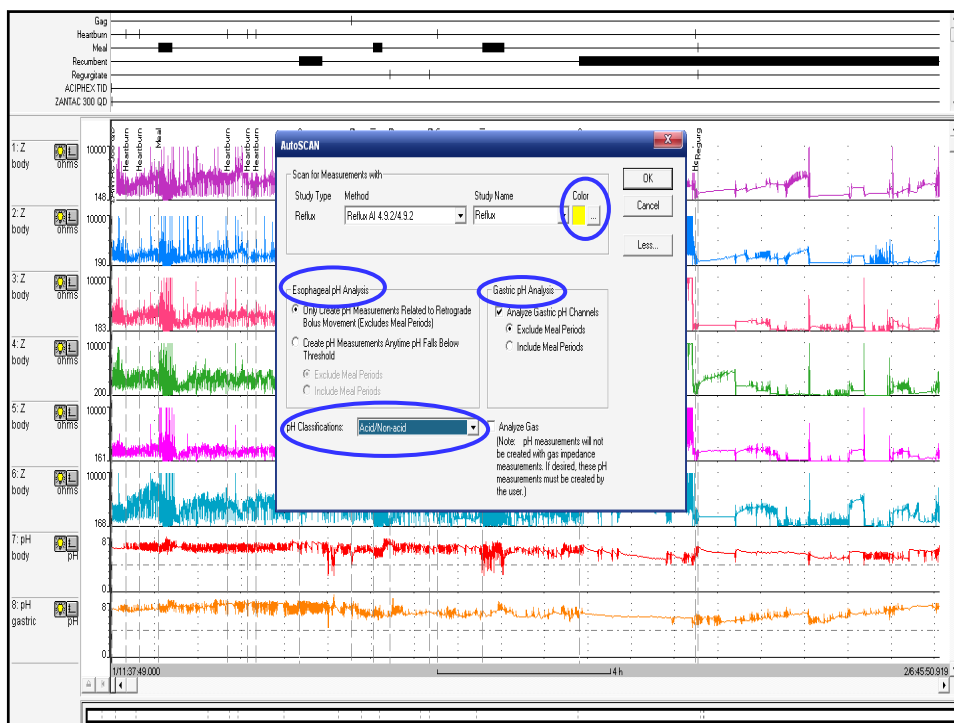
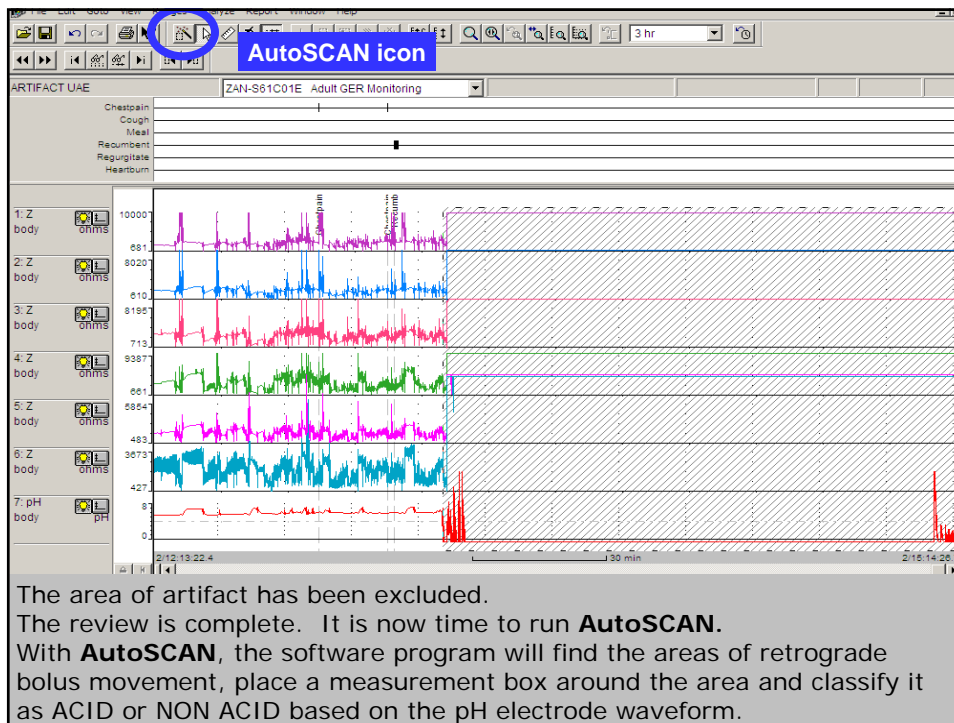
Select channels to be excluded

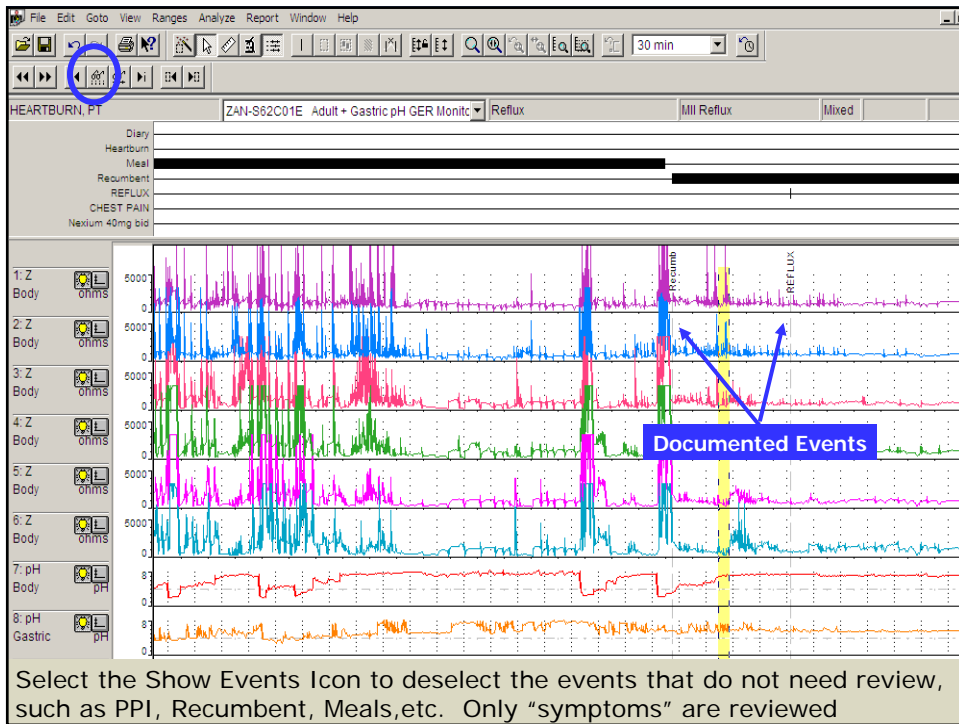
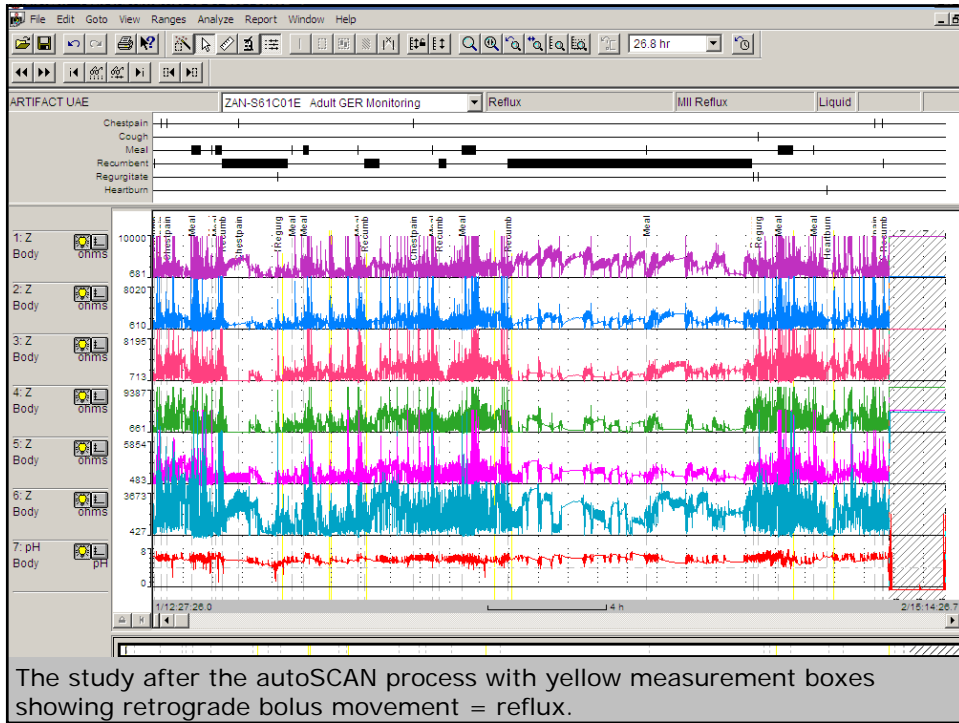
Create Excluded Area

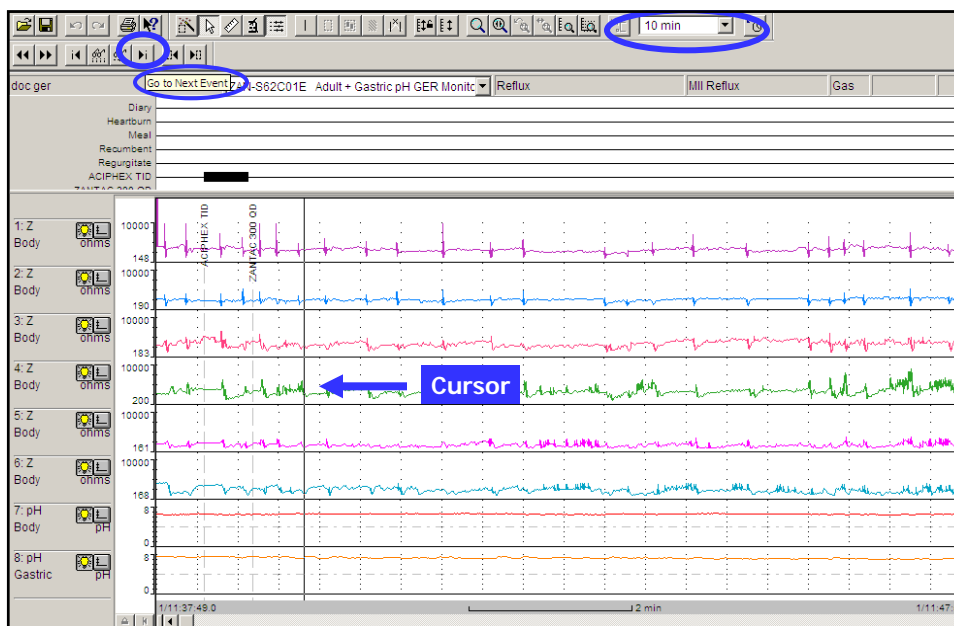
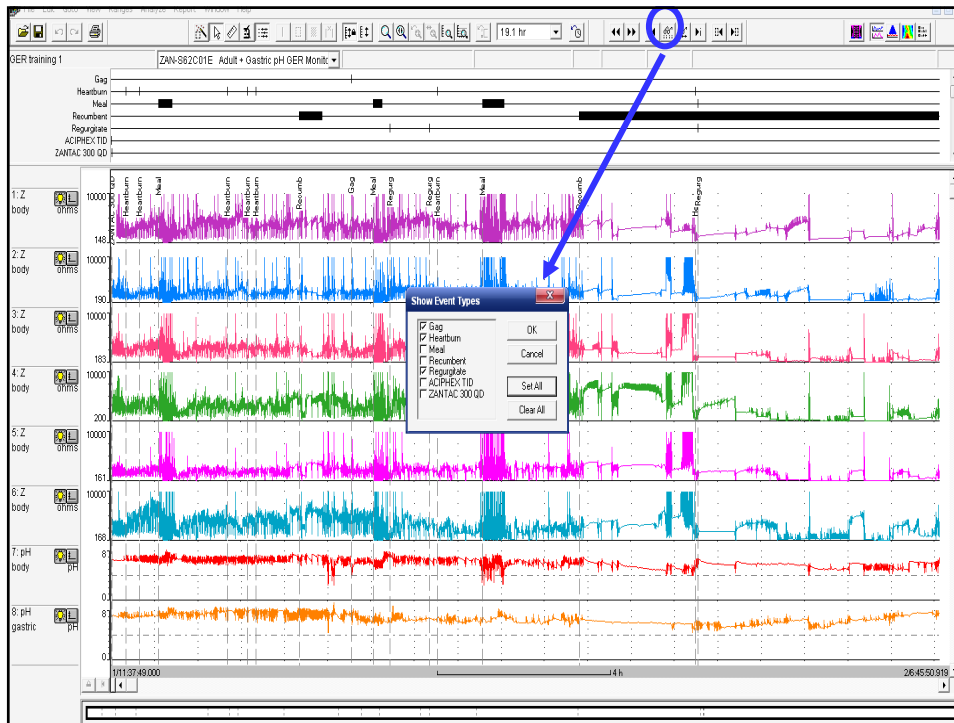
Chan. 1
Chan. 2
Chan. 3
Chan. 4
Chan. 5
Chan. 6
Chan. 7

Time: _____ minutes
Duration: 116.571 minutes

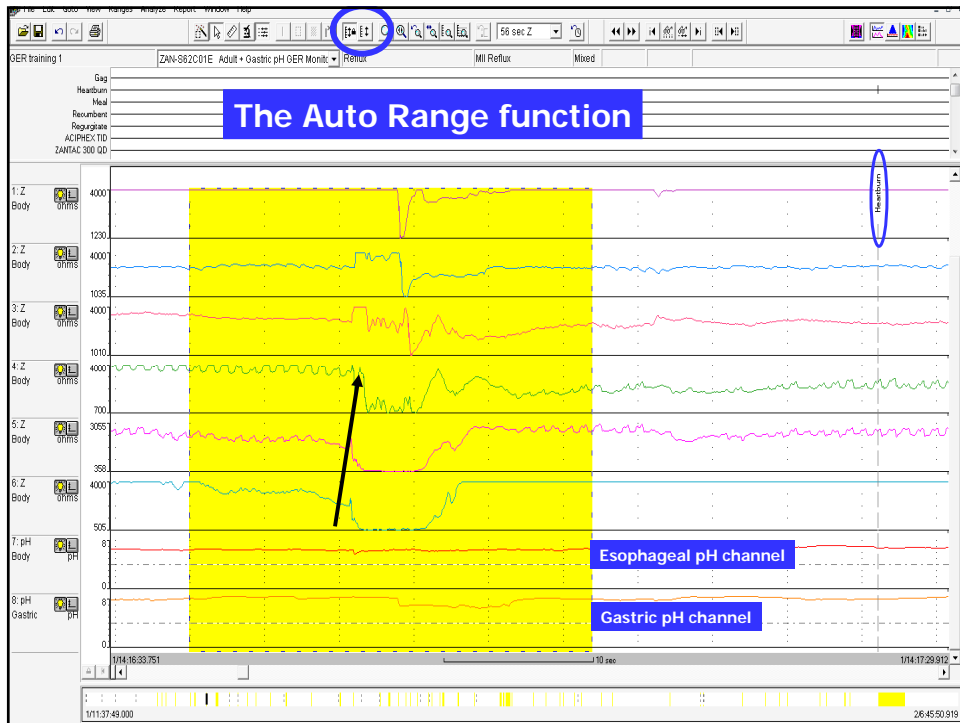
OK
Cancel
Help







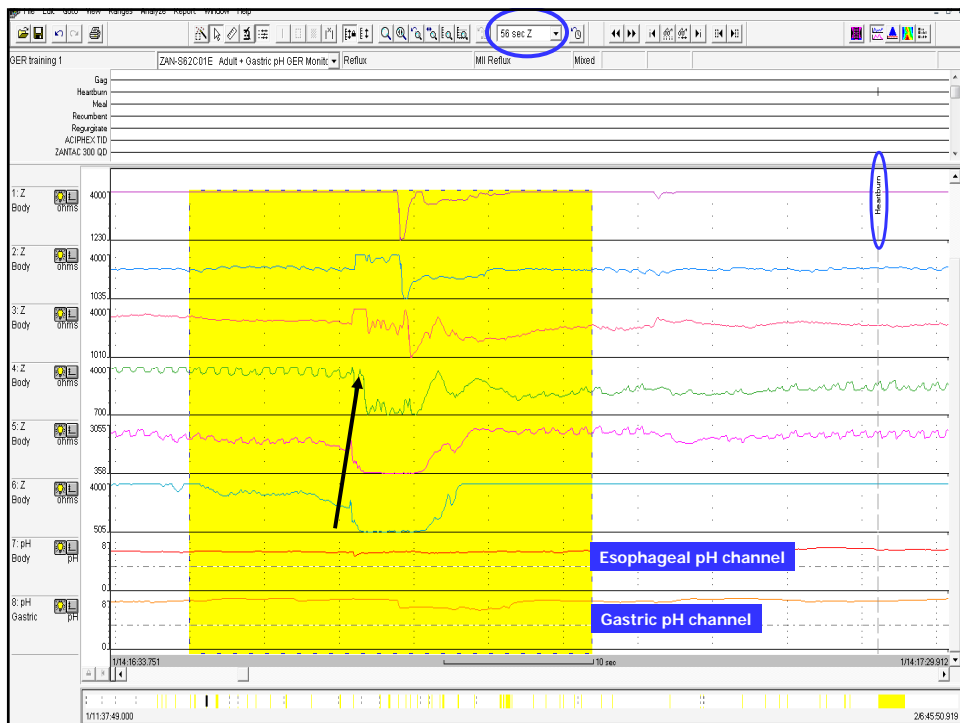
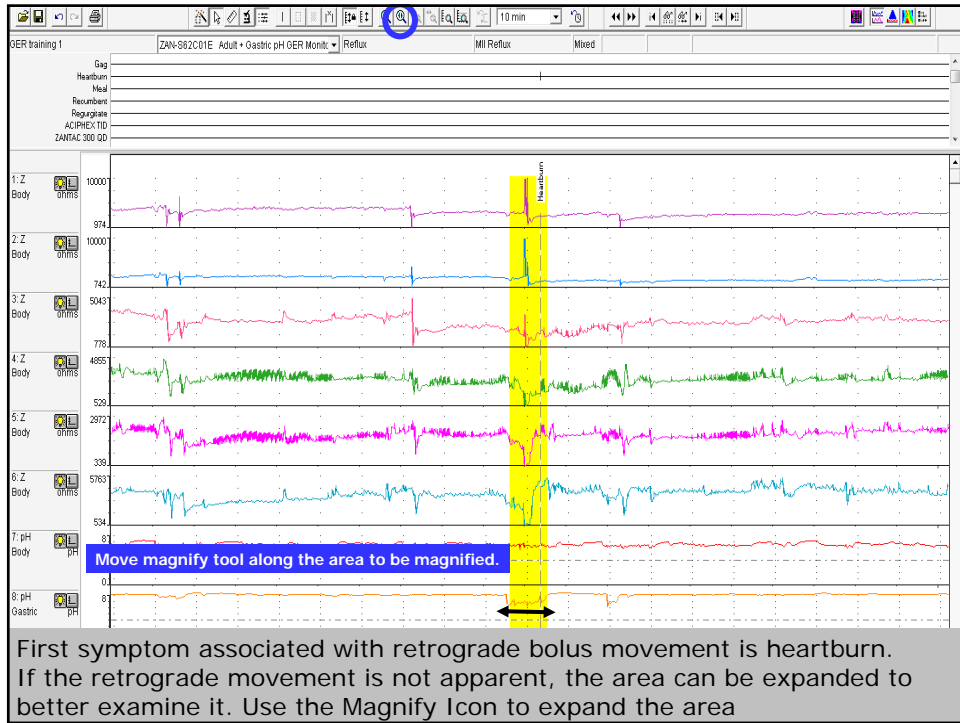
Change the time frame to a 10 minute window.
 To review, use the Event Arrow Icon to move to each of the symptom events documented by the patient



Auto Range

See appendix for more information on the Auto Range function

The slide features a background image of a person's eye looking through a microscope. The text is centered on the slide. The SANDHILL SCIENTIFIC logo is located in the bottom right corner.



To view how the software program analyzed the waveform; click on the measurement box (this makes it the "active measurement").
Click on the analysis tool icon to view the computer generated analysis marks.

The screenshot shows a multi-channel physiological monitoring software interface. On the left, a list of channels includes 'GER training 1', 'Gap', 'Nasobron', and various 'Body' and 'pH' channels. A blue circle highlights a measurement box for 'Nasobron'. A blue arrow points from this box to a waveform in the main display area. Another blue circle highlights an analysis tool icon in the top toolbar. The main display shows several waveforms over time, with a yellow shaded region indicating a specific event.

Continue to review each symptom. Use the "show next event" icon (arrow to right of eye glass icon) to move to the next symptom. The symptom will be in the middle of the 10 minute screen. Review the first half of the screen (the 5 minutes prior to the symptom) for any retrograde bolus movement.

The screenshot shows the same software interface as above, but with a different view. A blue circle highlights a 'show next event' icon in the top toolbar. A blue arrow points from this icon to a yellow shaded region in the main display area. A blue double-headed arrow indicates a 5-minute interval prior to the symptom. The main display shows several waveforms over time, with a yellow shaded region indicating a specific event.

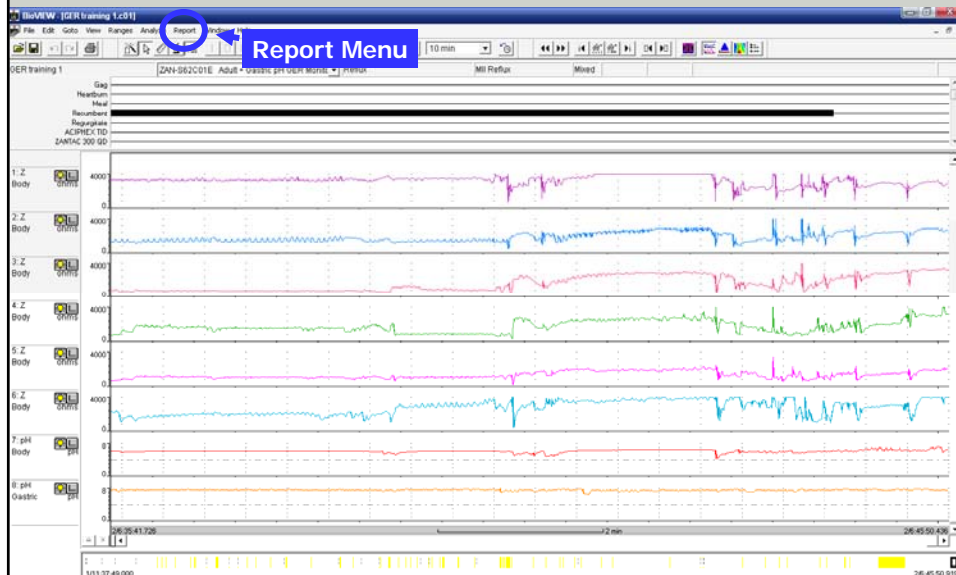
Measurement Box

- See appendix for information on creating and deleting measurement boxes
- See appendix for information on adding and deleting analysis marks within the measurement box

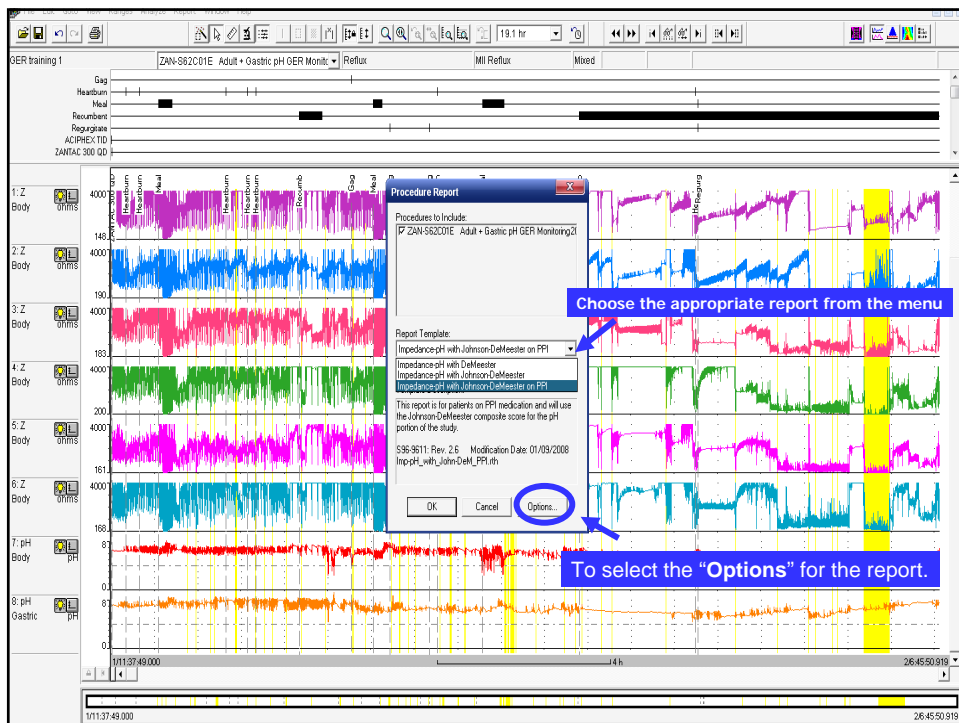
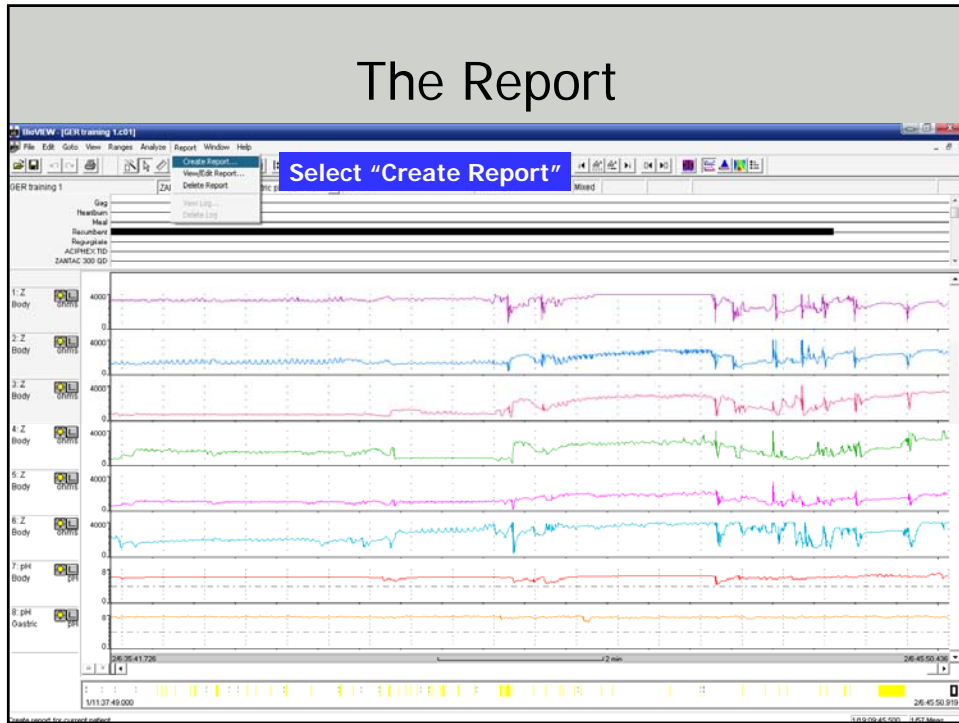


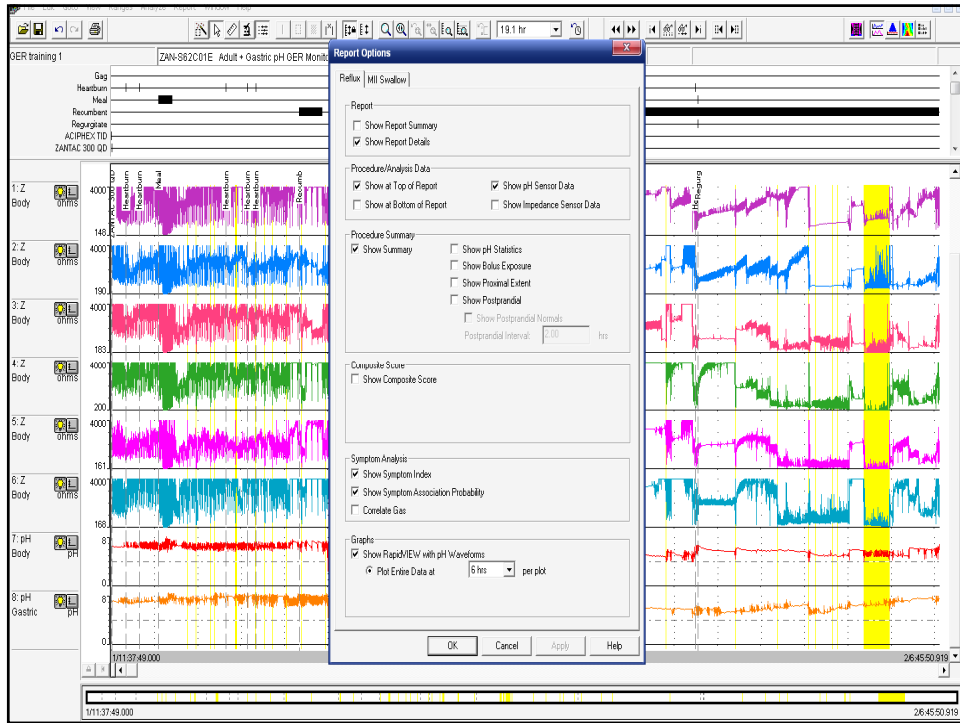
The Report:

When editing is complete, create the final report.



The Report





Report

Impedance-pH Monitoring Report

Patient Data		Clinician Data	
Patient Name:	GER training 1	Physician:	Doctor
Patient ID:	1446392	Referring Physician:	Doctor
Patient Sex:	Female	Performed by:	ERTW
Date of Birth:	1959-09-08		
Date of Admission:	2004-09-13		
Visit ID:			

Procedure Data	
Procedure Start:	2004-09-13 11:37:49
Procedure Duration:	19:08:01
Catheter pH Sensor Position(s):	-10.0, 5.0 cm
Catheter Depth:	36 cm

Reflux Analysis Settings	
pH Level:	5.0 cm
Analysis Duration Upright:	09:14:14
Analysis Duration Recumbent:	08:50:53
Analysis Duration Total:	18:05:07

Patient History
Symptom(s):

Medications:

Impressions
Gastric Acid Control:

Esophageal Acid Exposure:

Total Number Reflux Episodes:

Symptom Association:

Report

Acid Exposure (pH)

	Upright		Reclined		Total	Normal
	Upright	Normal	Reclined	Normal		
Claremont pH - Channel 7						
Time	0.0 min		0.0 min		0.0 min	
Percent Time	0.0%	(< 1.5%)	0.0%	(< 0.5%)	0.0%	(< 1.0%)
Mean Acid Clearance Time	0 sec		0 sec		0 sec	
Longest Episode	0.0 sec		0.0 sec		0.0 sec	
Outer pH - Channel 8						
Time	0.0 min		0.0 min		0.0 min	
Percent Time	0.0%		0.0%		0.0%	

Acid Exposure normal values in parentheses are valid for PPI medication 95th percentile of age.

Reflux Episode Activity (Impedance)

	Upright	Reclined	Total	Normal
Acid	0	0	0	
Nonacid	39	11	50	
All Reflux	39	11	50	(< 40)

NOTE: Reflux episodes are detected by impedance and categorized as acid or nonacid by pH.

Symptom Correlation to Reflux (Impedance)

Symptom	Occurrence	Acid Related	Nonacid Related	All Reflux Related	Uncorrelated
Osg	1	0	0	0	1
Heartburn	7	0	5	5	2
Regurgitate	3	0	3	3	0

Reflux Symptom Index (Impedance)

Symptom	Acid	Nonacid	All Reflux
Osg	0%	0%	0%
Heartburn	0%	71%	71%
Regurgitate	0%	100%	100%

Reflux Symptom Association Probability (Impedance)

Symptom	Acid	Nonacid	All Reflux
Osg	0%	0%	0%
Heartburn	0%	100%	100%
Regurgitate	0%	97%	97%



Report

Waveform

