



Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help




GERD

What to Do When PPI's Don't Help

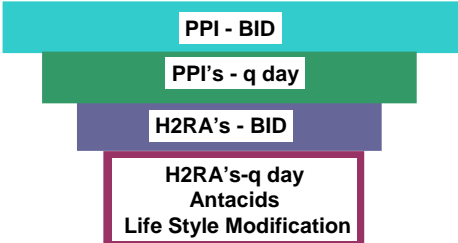
Michael F. Vaezi, MD, PhD, MSc, FACC
 Professor of Medicine
 Clinical Director
 Division of Gastroenterology, Hepatology and Nutrition
 Vanderbilt University Medical Center




Vanderbilt Digestive Disease Center




STEP DOWN






Vanderbilt Digestive Disease Center



ACID SUPPRESSION

H2RA	PPI's
<ul style="list-style-type: none"> - Cimetidine (Tagamet) <ul style="list-style-type: none"> • 400 mg BID - Ranitidine (Zantac) <ul style="list-style-type: none"> • 150 mg BID - Famotidine (Pepcid) <ul style="list-style-type: none"> • 20 mg BID - Nizatidine (Axid) <ul style="list-style-type: none"> • 150 mg BID 	<ul style="list-style-type: none"> - Omeprazole (Prilosec) <ul style="list-style-type: none"> • 20 mg QD - Lansoprazole (Prevacid) <ul style="list-style-type: none"> • 30 mg QD - Rabeprazole (Aciphex) <ul style="list-style-type: none"> • 20 mg QD - Pantoprazole (Protonix) <ul style="list-style-type: none"> • 40 mg QD - Esomeprazole (Nexium) <ul style="list-style-type: none"> • 40 mg QD
	<ul style="list-style-type: none"> - Omeprazole + bicarb (Zegerid) <ul style="list-style-type: none"> • 40 mg QD - Dexlansoprazole (Kapindex) <ul style="list-style-type: none"> • 60 mg QD



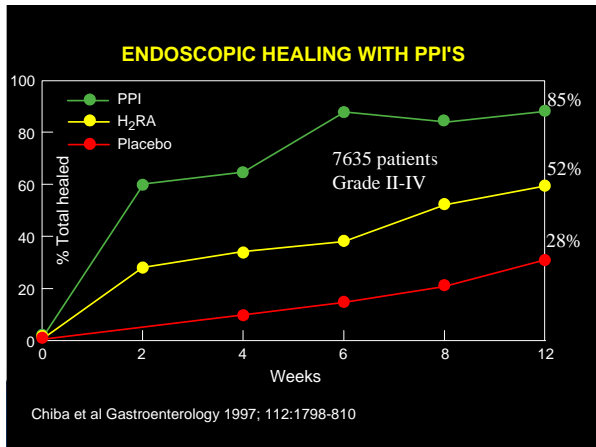
Vanderbilt Digestive Disease Center

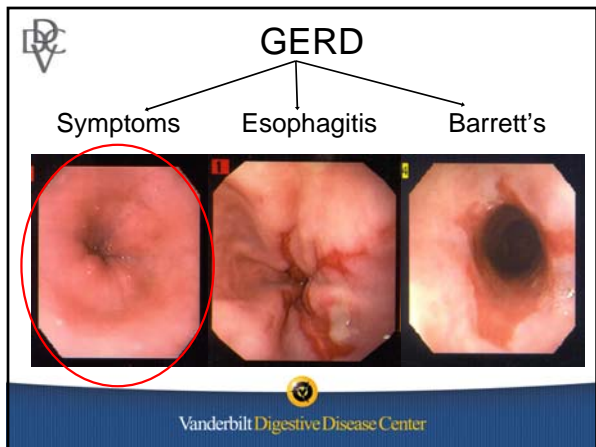
Session 1A: The Upper Gut: GERD:
 What to Do When PPIs Don't Help

Success Rates of Medical Therapy of GERD

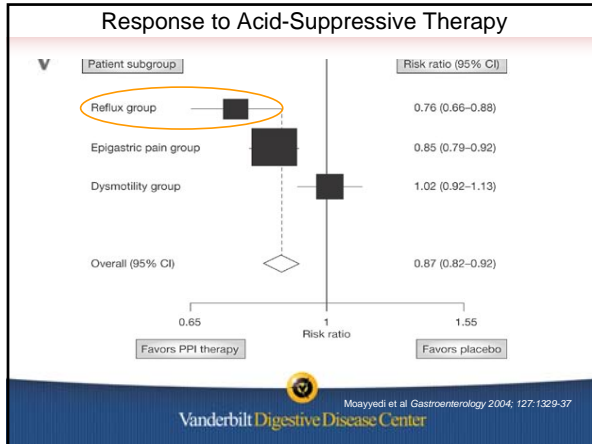
Option	Success
Lifestyle	20%
Antacids	20%
H2RA	50%
Cisapride	50%
PPIs	80%
High dose PPIs	100%

From Castell DO. Clinical Perspectives in Gastroenterology November 1998



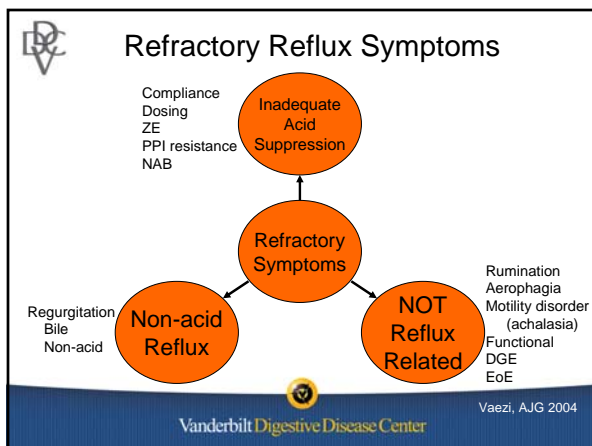


Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help




“Refractory GERD”
Poor response to *bid* PPI


Vanderbilt Digestive Disease Center




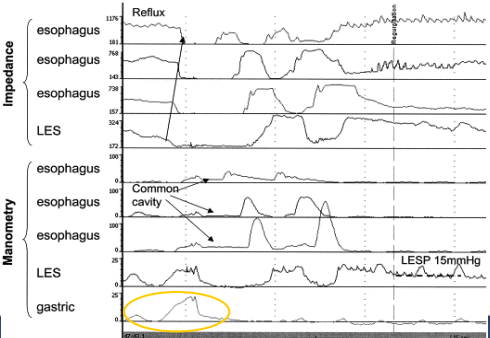
Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help

 **Rumination**

- Rare
- Often confused with GERD
- Persistent regurgitation of ingested food
- Remastication and swallow
- No nausea
- Does not respond to PPI

 Vanderbilt Digestive Disease Center

 **RUMINATION: MII-EM**



Impedance

- esophagus 117%
- esophagus 91%
- esophagus 79%
- LES 24%

Manometry


- esophagus 9%
- esophagus 29%
- esophagus 39%
- LES 25%
- gastric 25%


Reflux

Swallow


Common cavity

LESP 15mmHg

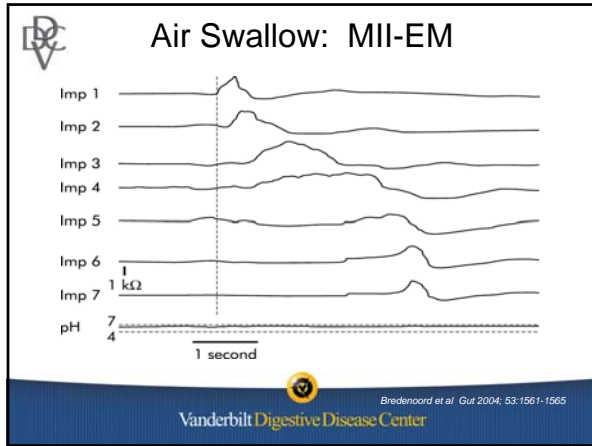
 Vanderbilt Digestive Disease Center
Tuttilian and Castell, C/JG 2004; 2:340-343

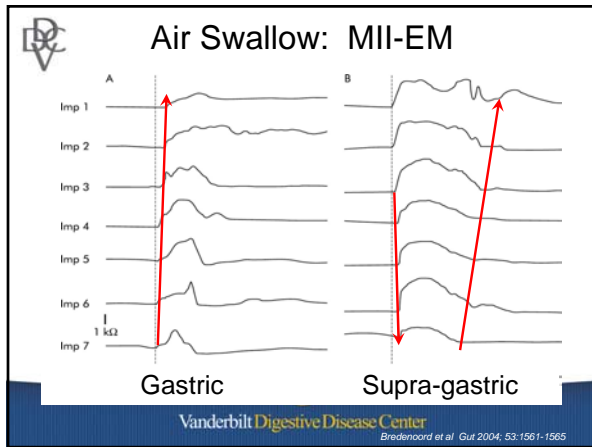
 **Aerophagia**

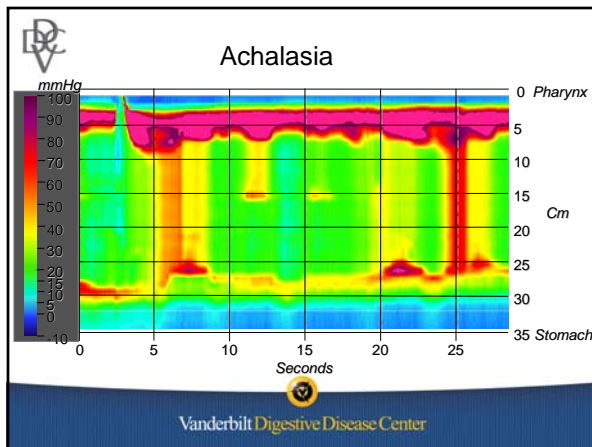
- Belching (up to 20 / min)
- Excessive air swallow
- Gastric
- Subpragastric
- Often confused with GERD
- Poor response to PPI

 Vanderbilt Digestive Disease Center

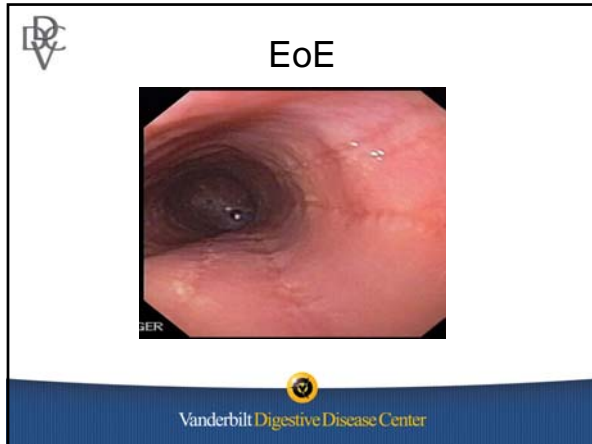
Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help

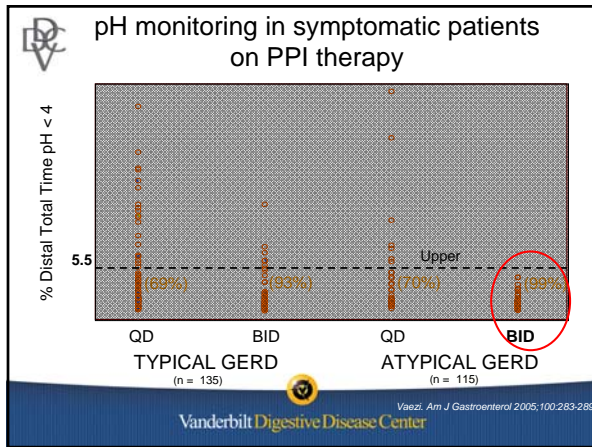






Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help





Compliance

Aliment. Pharmacol ther 2006- 23:1473-7

- 100 pts with persistent GERD
 - 54% not dosed appropriately
 - 39% qhs ppi use
 - 4% prn

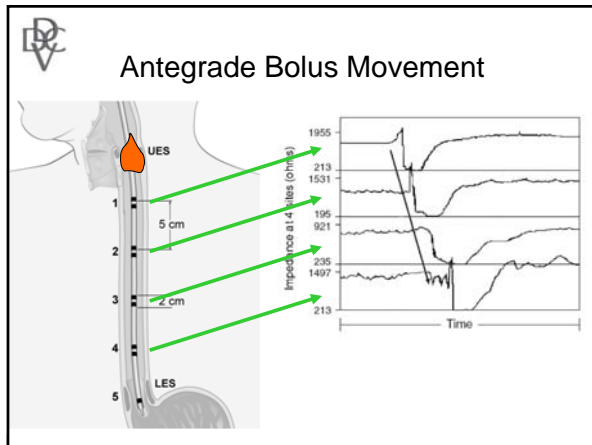
The gallup Organization 2000

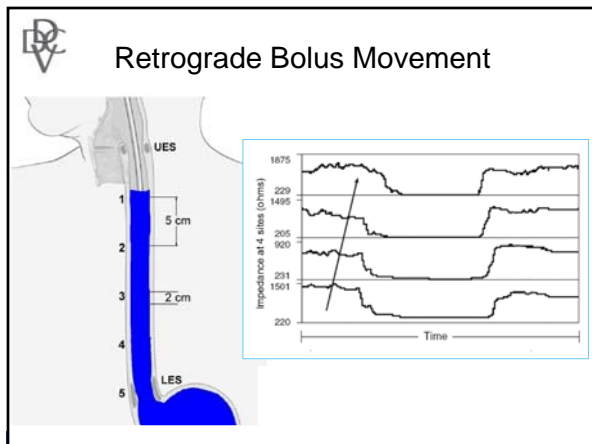
- 52% pts reported qhs ppi use

Vanderbilt Digestive Disease Center

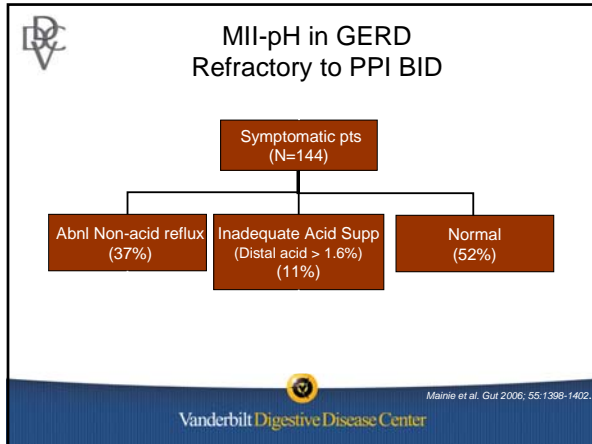
Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help

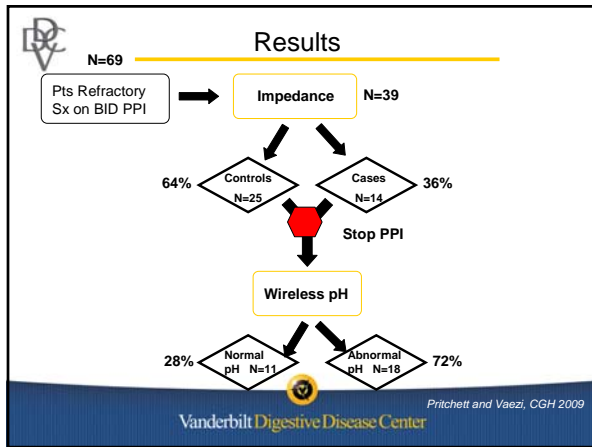


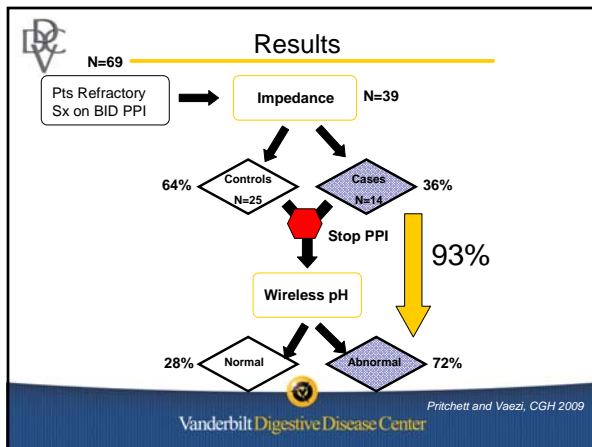




Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help





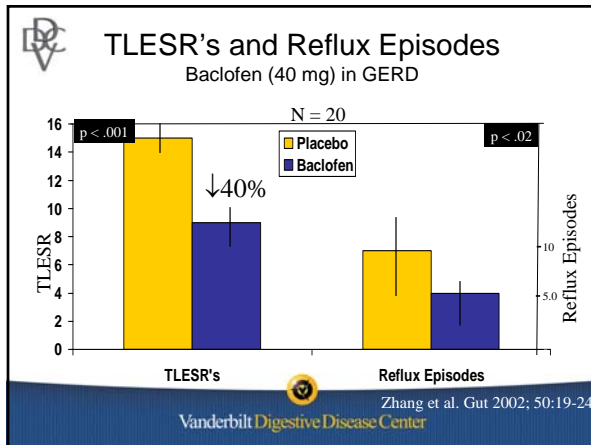


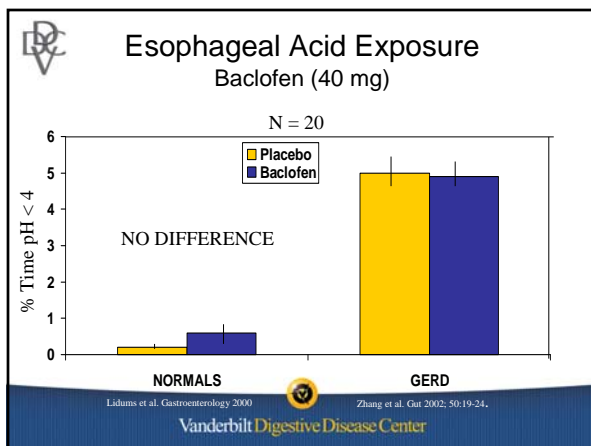
Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help

UPCOMING GERD THERAPIES

- More PPI's over the counter
- Additional PPI enantiomers
 - rabeprazole
- PPI + other agents
- TLESR inhibitors
 - Baclofen
 - mGluR5 antagonist
- ?PCABs/CCK2-receptor antagonists
- Sensory inhibition**

Vanderbilt Digestive Disease Center





Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help

BACLOFEN
Side Effect Profile

- Drowsiness
- Dizziness
- Fatigue
- Nausea
- Decreased seizure threshold

Avoid pts < 60 kg

Vanderbilt Digestive Disease Center

Suspected LPR Patients
N=72

Responders N=47 ← BID PPI 4-months

Non-responders
N=25

- Abnormal baseline pH
- Normal pH on BID PPI
- Continued signs/symptoms

Surgery (Fundoplication) N=10

Continued BID PPI N=15

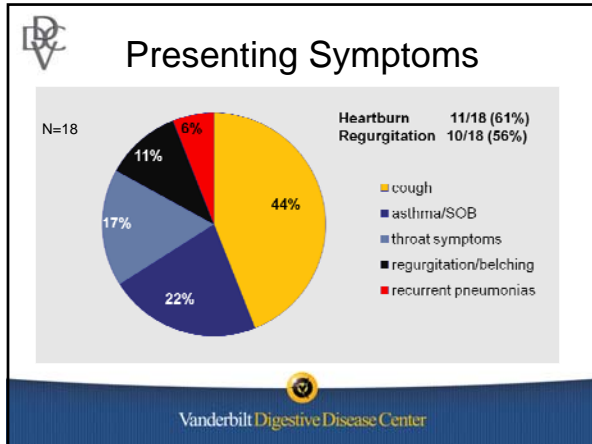
Vanderbilt Digestive Disease Center

Surgery Does not Improve Symptom

Group	12-month response
Surgery Group	10%
Medical Group	7%

Vanderbilt Digestive Disease Center
Swager and Vaici, CGH 2007

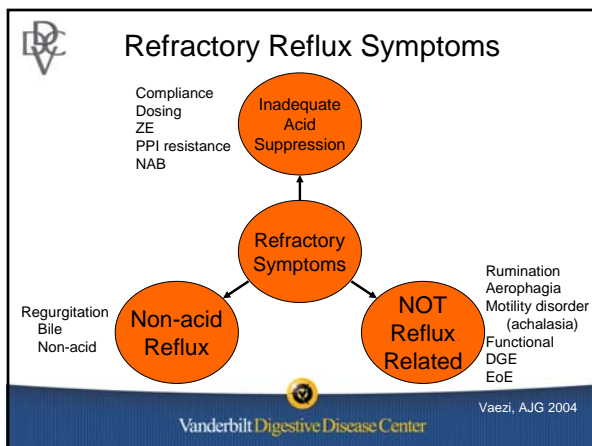
Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help



Predictors of Surgical Response

	Non-responder	Responder (partial + complete)	P-value
% time pH <4 (Bravo)	18.6 (14.8-22.0)	10.7 (8.6-13.9)	0.20
SI >50% on Bravo	0.77 (0.54-0.90)	0.24 (0.19-0.49)	0.052
# Of non-acid events	44 (36-82)	28 (22-48)	0.20
SI non-acid on impedance	39 (28-47)	24 (4-33)	0.067
SAP non-acid on impedance	93 (87-97)	56 (0-96)	0.2
Hiatal hernia	57%	62%	0.83
Heartburn	29%	82%	0.02
Regurgitation	29%	73%	0.07

Vanderbilt Digestive Disease Center



Session 1A: The Upper Gut: GERD: What to Do When PPIs Don't Help

