

# Best of “GERD and Barrett’s Esophagus”

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# Outline

- Best of GERD
  - PPI risks
  - Diagnostics
  - Pharmacology
- Best of Barrett's esophagus

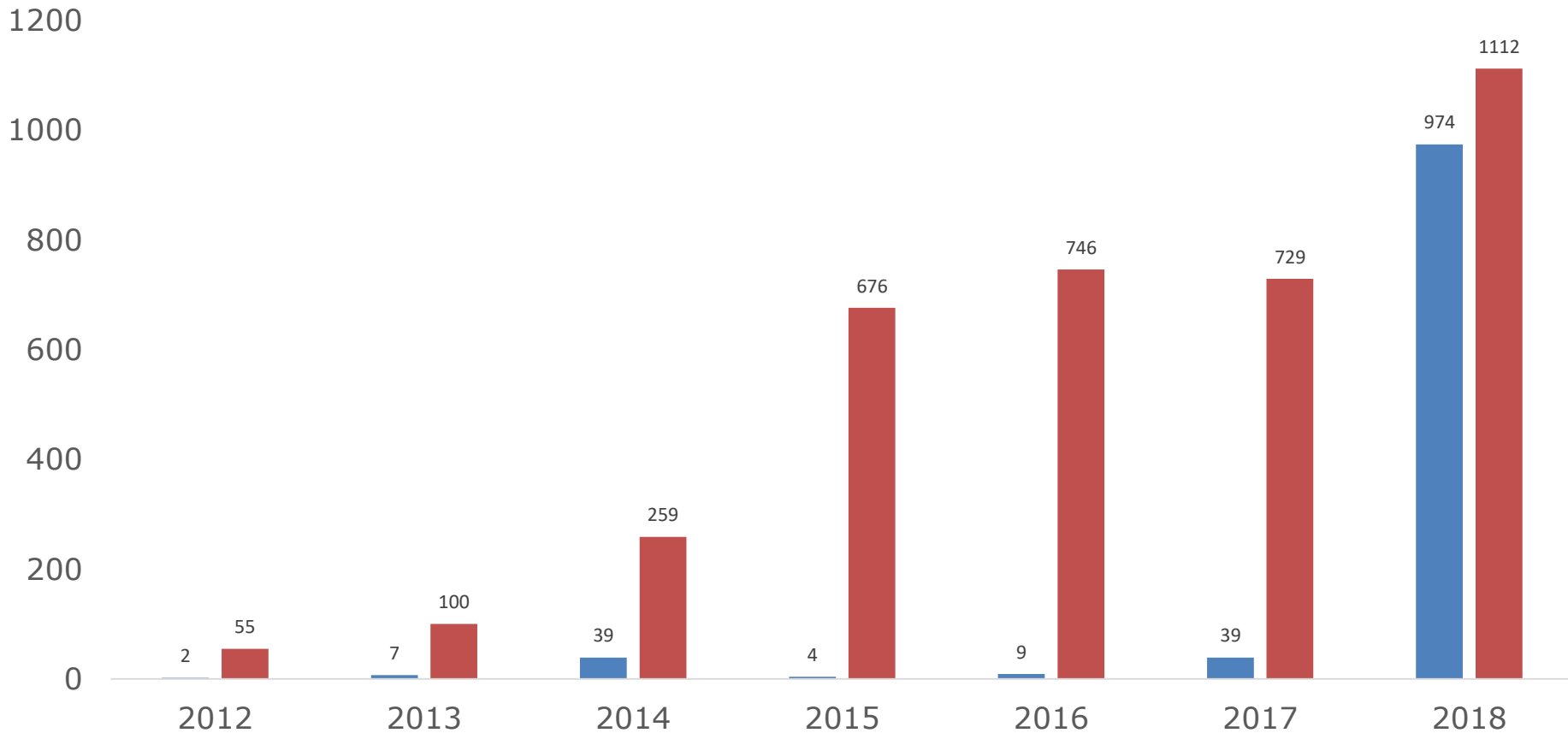
# PPI Controversy

- Several abstract and clinical sessions dedicated to PPI controversy
  - J Kurlander et al found majority of internists are concerned about PPI and only half feel they are effective at preventing GI bleed
  - Dr. Colin Howell reviewed level of evidence behind claims of adverse risk

# PPI Controversy

- *D Kruchko et al, Advocate Lutheran General Hospital, Chicago, IL*
- Searched FDA Adverse Event Reporting System (FAERS)
  - Years 2013-2018
  - 3,989,619 PPI-related
  - Examined proportions of physician and lawyer reports

# PPI Controversy



Lawyer reported 9 in 2016 → 974 in 2018  
10722% increase!



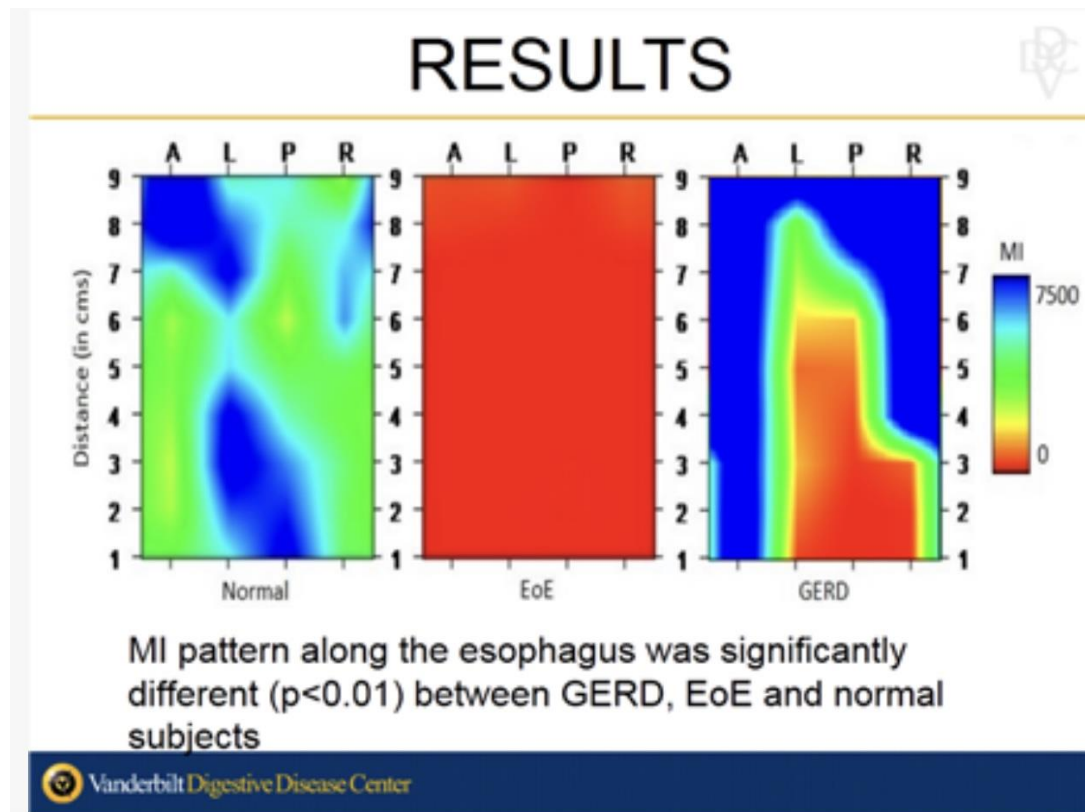
# Novel GERD Diagnostic



- Workup of refractory GERD symptoms can be complicated
  - several options
  - pros/cons to each modality
  - Limitations- variable disease, difficult symptom correlation
- Mucosal Impedance may be surrogate for long-term mucosal changes 2/2 GERD
  - Dilated intracellular spaces decrease impedance
- Through the scope probe re-designed mounted on balloon

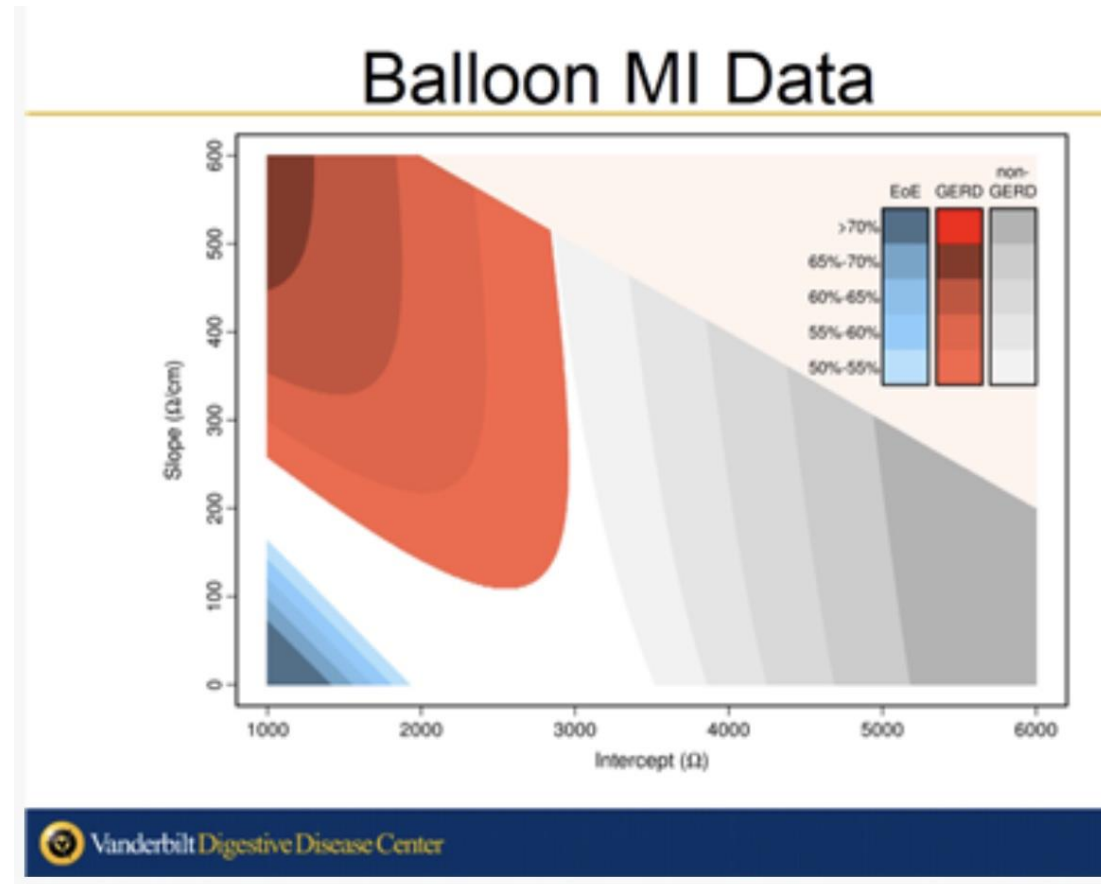
# Novel GERD Diagnostic

- Balloon provides dynamic measurement along the esophagus, placed during EGD



# Novel GERD Diagnostic

- Program can provide “probability” of diagnoses like GERD, non-GERD, and EoE
- Will also have function of inputting clinical features (age, sex, symptom) to tailor this probability



 Vanderbilt Digestive Disease Center



# Novel GERD Diagnostic

- Ultimate goal= simplify our complicated algorithms in defining cause of persistent symptoms + optimize patient comfort

# Novel GERD Medication

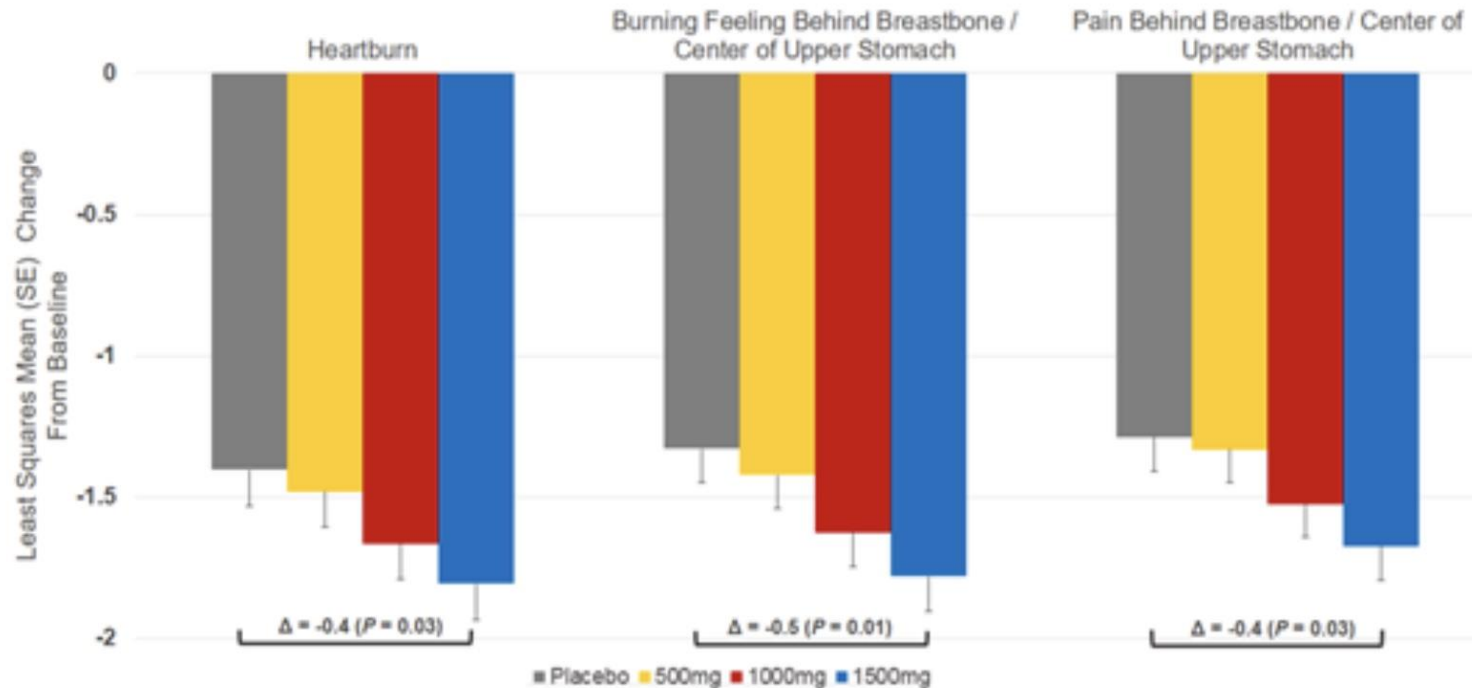
- *Vaezi M, Fass R, Vakil N, Hanion J, Mittleman R, Hall M, Shao J, Chen Y, Lane L, Gates A, Currie M, Impact of IW-3718 on a spectrum of GERD symptoms=double-blind placebo-controlled study*
- Phase 2b study IW-3718
- Mechanism: Extended release tablet that releases bile acid sequestrant in stomach, rendering bile acids inert
- RCT of pts on once daily PPI with ongoing symptoms >4x a week

# Novel GERD Medication

- Inclusion: Pts with esophagitis or (+)wireless pH test with ongoing symptoms
- Intervention: PPI + placebo or PPI + various doses of IW-3718
- Outcomes: symptoms expressed as severity and frequency (modified reflux symptom questionnaire)

# Novel GERD Medication

## Symptoms Assessed for Severity



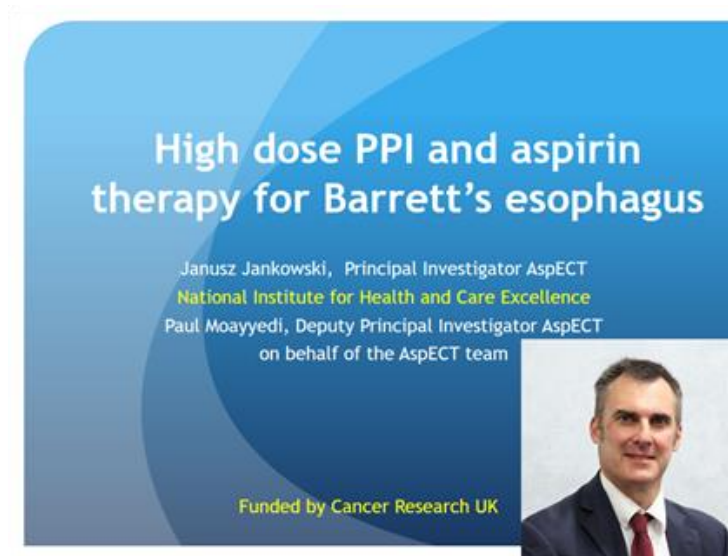
Severity assessed on a 6-point scale: 0=did not have, 5=severe. No adjustment for multiplicity.

DDW 2019

# Novel GERD Medication

- Adverse events:
  - 42% IW-3718 group, 41% placebo
  - Most common constipation, nausea
- Conclusion: Novel gastric-retentive bile acid sequestrant IW-3718 was efficacious to reduce severity and frequency of GERD symptoms
  - Best dose 1500mg BID

# Barrett's Esophagus



## High dose PPI and aspirin therapy for Barrett's esophagus

Janusz Jankowski, Principal Investigator AspECT  
National Institute for Health and Care Excellence  
Paul Moayyedi, Deputy Principal Investigator AspECT  
on behalf of the AspECT team



Funded by Cancer Research UK



## Esomeprazole and aspirin in Barrett's oesophagus (AspECT): a randomised factorial trial



Janusz A Z Jankowski, John de Caestecker, Sharon B Love, Gavin Reilly, Peter Watson, Scott Sanders, Yeng Ang, Danielle Morris, Pradeep Bhandari, Claire Brooks, Stephen Attwood, Rebecca Harrison, Hugh Barr, Paul Moayyedi, the AspECT Trial Team\*



Lancet 2018;392: 400-408



# Background

- Despite advancing technology for the treatment of Barrett's, incidence of esophageal cancer continues to rise
- Is there a role for chemoprevention?

# Study Design

- Inclusion: 1cm or more of Barrett's
- 2x2 factorial design
  - High dose PPI (40mg BID) or Low dose PPI (20mg QD)
  - Aspirin 300mg or no aspirin

<b>High dose PPI Aspirin</b>	<b>Low dose PPI Aspirin</b>
<b>High dose PPI No aspirin</b>	<b>Low dose PPI No aspirin</b>



# Participants

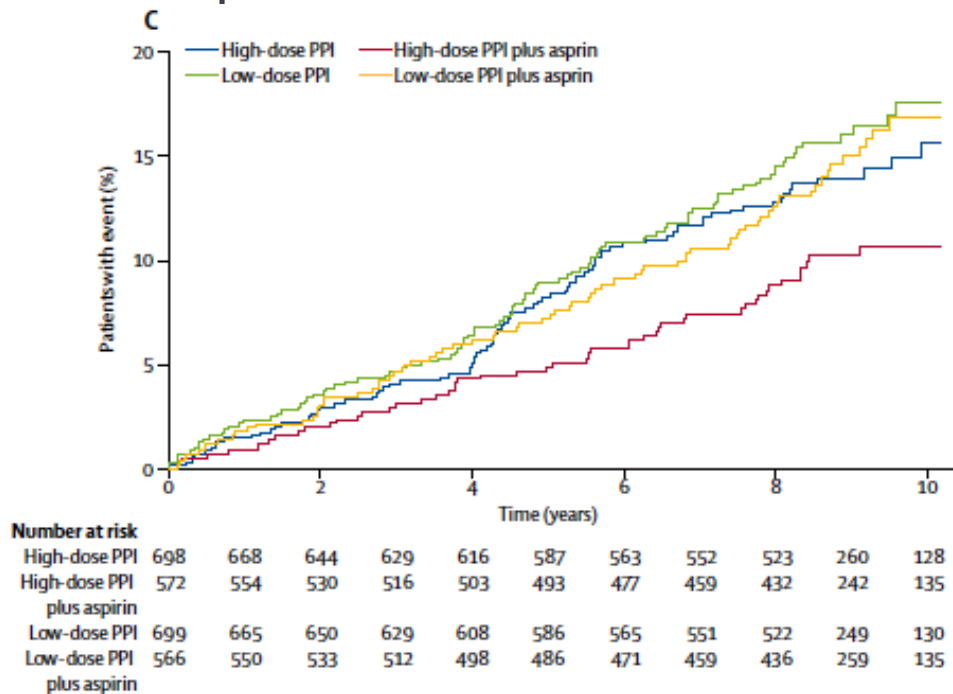
- 2557 randomized → 20,095 person yrs of f/u
  - Length Barrett's mostly 2-8cm (80%)- no diff between arms
  - Male 80%, Female 20%

<b>High dose PPI n=577</b> <b>Aspirin</b>	<b>Low dose PPI n=571</b> <b>Aspirin</b>
<b>High dose PPI n=704</b> <b>No aspirin</b>	<b>Low dose PPI n=705</b> <b>No aspirin</b>

- Outcome: Time to all-cause mortality, esophageal cancer, or HGD

# Results

- High dose PPI > Low dose      Aspirin = no aspirin
- High dose PPI+Aspirin has the best effect



- NNT 34 ppi, 43 Aspirin

# What now?

- Should we add an Aspirin to those already on high dose PPI therapy for symptoms?
- Does this effect get even better? (First 5 years of f/u were non-significant)

Thank you

