



Just a Refill? Clinical Lessons From a Single Case

Huntsville Physician Rounds

Feb 11th 2026

Conflict of Interest

- Nothing to declare



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OK



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lihu→NEMA Prescription Renewal Request HV Campus Trail Pharmacy 705-789-5331 Feb 4, 2026 14:57 Date Due: 2026/02/11
APO-OMEPRazole 20 MG CPDR 1 capsule 1 time daily for 90 days LU 293
Wellbutrin XL 150 mg 1 time daily

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What do you do?



Objectives

Review

Review an interesting case of dysrhythmias and CHF

Discuss

Discuss the indications for PPI use, the risks and follow up refills

Discuss

Discuss SSRI use, the risks and follow up refills



The Case: Mrs. T

- ▶ 65yoF with 3wk of dyspnea on exertion and 1 week of cough
- ▶ Just came back from a 1 week trip to Eastern Canada
- ▶ PND, two pillows, no fever “just had to cough something up”
- ▶ ED presentation (Oct 21 2025):
 - ▶ T=37.3C, HR 151, BP */* RR 22 95% RA
- ▶ ECG – Afib

The Case: Mrs. T

▶ PHMx:

- 1. Hypertension
- 2. Diabetes II – Oral agents
- 3. Hypothyroidism
- 4. SUSPECTED OSA – by family
- 5. Depression
- 6. Dyslipidemia
- 7. GERD
- 8. Irritable Bowel Syndrome (IBS)

▶ Meds:

- Amlodipine, 5mg PO once daily
- Atorvastatin 10mg PO once daily
- Citalopram 20 mg PO once daily
- Hydrochlorothiazide 25 mg PO once daily
- Levothyroxine 0.175 mg PO once daily
- Janument 50-1000mg PO BID
- Rabeprazole 20 mg PO BID



The Case: Mrs. T

- ▶ Labs: WBC 9.9, Trop <0.01, Na 133, Hgb 145, Cr 84
- ▶ CXR: Nil acute.
- ▶ CT PE: No PE. Very small layering bilateral pleural effusions with bibasal relaxation subsegmental atelectasis.
- ▶ A/P: New Afib, ? CHF
 - ▶ Metoprolol IV → PO, Apixaban, IV Lasix
 - ▶ admitted to hospital

During Hospital Stay

- ▶ Internal Medicine consult
- ▶ Diuresis
- ▶ HR improved
- ▶ Dyspnea improved
- ▶ Discharge two days later (Oct 23rd 2025)
- ▶ **Final Diagnosis:** Afib and rate-related CHF

Discharge Medications

- ▶ 1. Acetaminophen 325 mg PO q.4h. p.r.n.
- ▶ 2. Citalopram 20 mg PO q. morning.
- ▶ 3. Voltaren Emulgel q.6h. p.r.n.
- ▶ 4. L-thyroxine 175 mcg PO q. morning.
- ▶ 5. Metformin/Sitagliptin 50/100 mg PO b.i.d.
- ▶ 6. Pariet 20 mg PO b.i.d.
- ▶ 7. Apixaban 5 mg PO b.i.d.
- ▶ 8. Lasix 20 mg PO once a day.
- ▶ 9. Metoprolol 75 mg PO b.i.d.



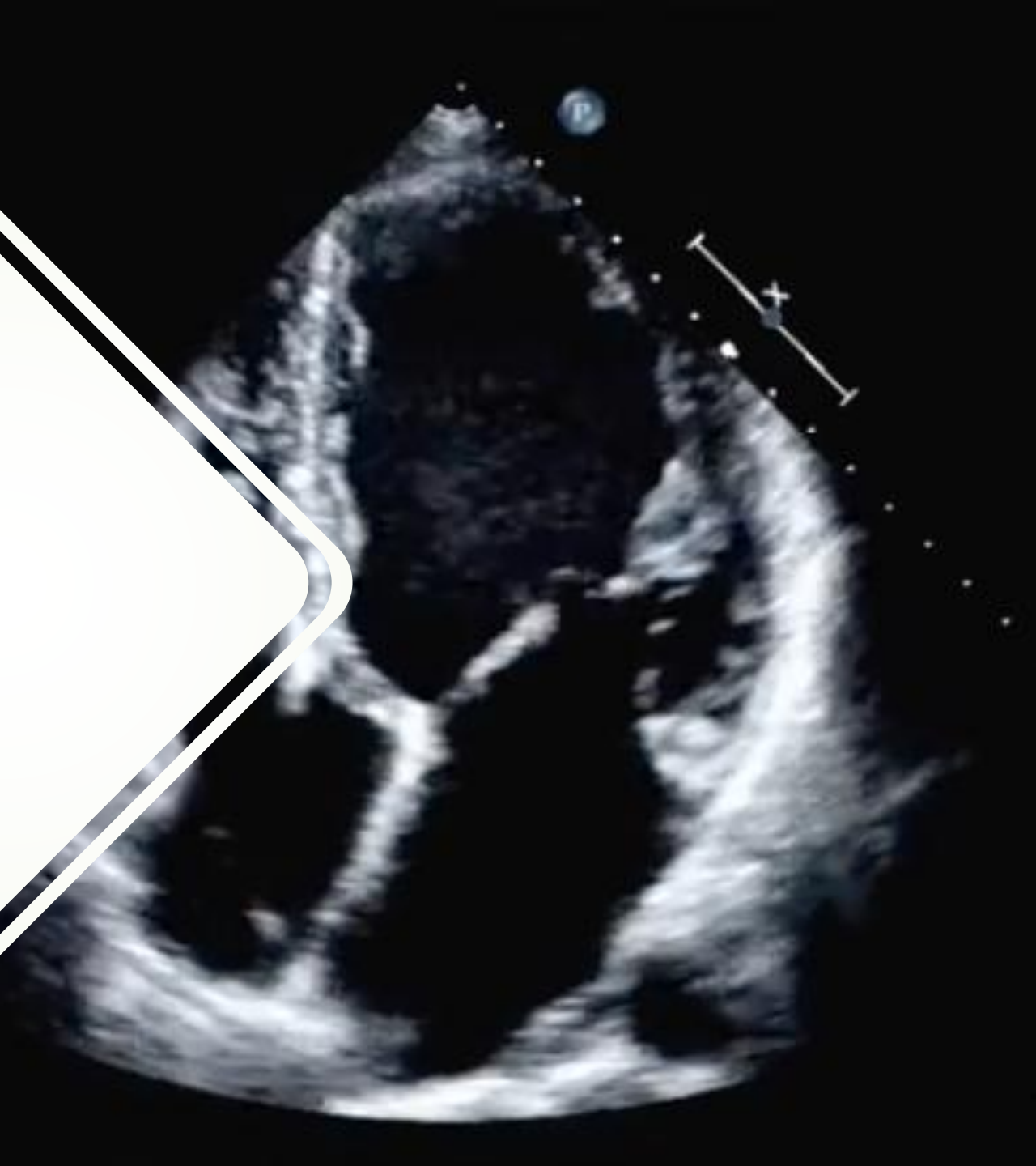


Follow up

- In office follow up visits
- BP: 102/78 , Heart rate: 130 bpm, irregularly irregular., Oxygen saturation: 97% on room air.
- No chest pain, shortness of breath when walking, loose BM 2-3 per day
- No longer drinking 4-6 glasses of wine per day
- Plan:
 - Lasix and metoprolol titrated, digoxin started

ECHO

- ▶ Severe LV systolic dysfunction. LVEF is 32%. Mild left ventricular cavity dilatation.
- ▶ Differential diagnosis Includes Ischemic, nonischemic, EtOH and tachycardia induced cardiomyopathy.



- ▶ Elective cardioversion Nov 27th



Emergency Department

- brought by EMS for altered LOC
- does not recall events, was well yesterday, woke to go to BR at 6 am
- husband beside her in bed at 7 am heard gasping/snoring resps and checked on pt - pt unresponsive/not breathing - denies seeing seizure activity - he called EMS, started CPR
- unsure how long, pt 'came around' was flailing arms, confused
- T= 37.1C, HR 151 , RR 21, O2 95% RA



Emergency Department



Labs: Cr 79, Na 137, K 3.2 (LOW),
Corrected Ca 2.04 mmol/L (LOW),
Mg 0.19 (CRIT), WBC 6.1, HGB 132

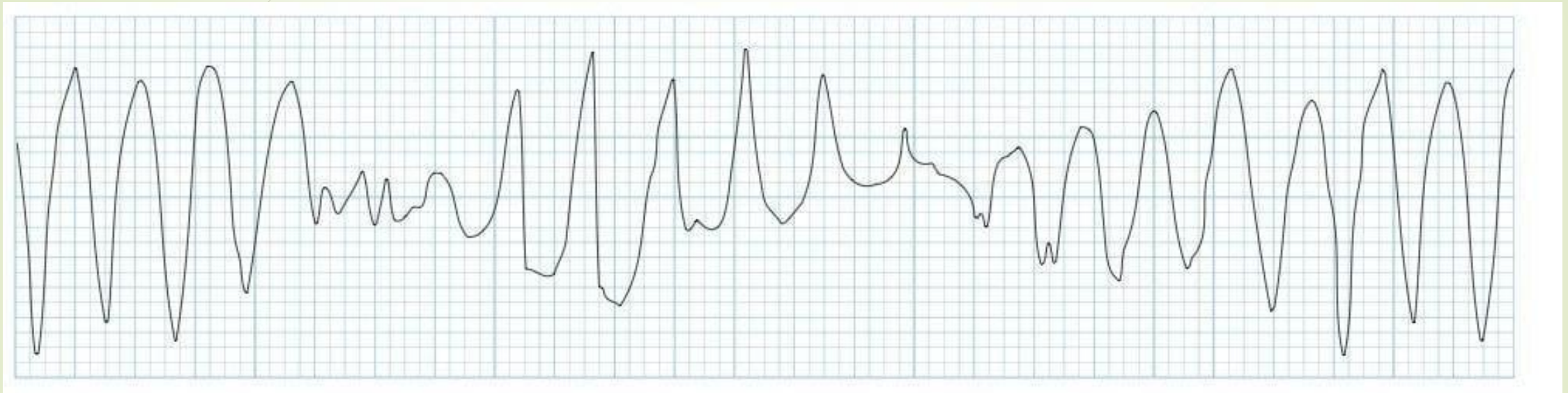


ECG:- sinus rhythm, prolonged QTc
560, T-Wave I V3-V6 and inferior
leads.



Started IV magnesium replacement,
admitted to the ICU ? Cardiac arrest
secondary to hypo Mg

While still in ED



- another episode of LOC and went into Torsades on Monitor - brief and self resolved.
- K replaced and Mg rate of replacement increased



Her Risk factors for HypoMg

- ▶ PPI use
- ▶ Diuretic use
- ▶ Alcohol consumption
- ▶ Diarrhea for 4weeks
 - ▶ Noted to be having 4-6 loose BM per day now



Later that Night....

- Code Blue → unresponsive CPR
- Torsades de Pointes on monitor → Defibrillation at 200J → Afib
- Aroused, CPR stopped
- 2g IV Mg given again

Remainder of Hospital Stay

- No occlusive coronary disease on angiogram
- Mg 0.76 on oral replacement
- Plan to see Electrophysiology as outpatient



Discharge Medications

- 1. Eliquis 5 mg b.i.d.
- 2. Bisoprolol 2.5 mg PO once daily
- 3. Jardiance 25mg PO once daily
- 4. Levothyroxine 0.175mg PO once daily
- 5. Magnesium Complex 500 mg elemental b.i.d.
- 6. Spironolactone 12.5 mg PO once daily
- **OF NOTE: PPI and citalopram stopped**




Polypharmacy

- Generally defined as regular use 5 or more medications
- Patient related factors:
 - Multiple medical conditions with subspecialty physicians
 - Chronic mental health conditions
 - Long term care facilities
- System related factors:
 - Poor medical records
 - Automated refills
 - Prescribing to meet disease related metrics



Deprescribing

- Reduce polypharmacy and risks
- Tools to help:
 - BEER criteria
 - START/STOPP
 - Medication Appropriateness Index



Mrs. Ts Medications Prior to Cardiac Arrest

- 1. Acetaminophen 325 mg PO q.4h. p.r.n.
- 2. Citalopram 20 mg PO q. morning.
- 3. Voltaren Emulgel q.6h. p.r.n.
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- 5. Metformin/Sitagliptin 50/100 mg PO b.i.d.
- 6. Pariet 20 mg PO b.i.d.
- 7. Apixaban 5 mg PO b.i.d.
- 8. Lasix 20 mg PO once a day.
- 9. Metoprolol 75 mg PO b.i.d.

Mrs. Ts Medications Prior to Cardiac Arrest

- ▶ Pariet use
 - ▶ Started in 2008 after severe GERD symptoms
 - ▶ Upper endoscopy chronic gastric inflammation (PPI increased)
 - ▶ No complains of GERD symptoms
 - ▶ NSAID use since 2024
- ▶ Citalopram use
 - ▶ No mental health visits
 - ▶ Stress of Knee OA

BEERS for PPIs

Organ system, therapeutic category, drug(s) ^a	Rationale	Recommendation	Quality of evidence ^b	Strength of recommendation ^b
Gastrointestinal				
Proton-pump inhibitors Dexlansoprazole Esomeprazole Lansoprazole Omeprazole Pantoprazole Rabeprazole	Risk of <i>C. difficile</i> infection, pneumonia, GI malignancies, bone loss, and fractures.	Avoid scheduled use for >8 weeks unless for high-risk patients (e.g., oral corticosteroids or chronic NSAID use), erosive esophagitis, Barrett's esophagitis, pathologic hypersecretory condition, or demonstrated need for maintenance treatment (e.g., because of failure of drug discontinuation trial or H2-receptor antagonists).	<i>C. difficile</i> , bone loss, and fractures: High Pneumonia and GI malignancies: Moderate	Strong

BEERs for citalopram

Drug(s) ^b	Rationale	Recommendation	Quality of evidence ^c	Strength of recommendation ^c
Antidepressants (selected) Mirtazipine SNRIs SSRIs TCAs	May exacerbate or cause SIADH or hyponatremia; monitor sodium levels closely when starting or changing dosages in older adults.	Use with caution	Moderate	Strong
Antiepileptics (selected) Carbamazepine Oxcarbazepine				
Antipsychotics				
Diuretics				
Tramadol				



STOPP-START v.2

➤ STOP

- PPI for uncomplicated Peptic ulcer disease at the therapeutic dosage after 1-2 months (then low dose maintenance treatment, possible on an 'as required' basis –reviewed at least annually)

➤ START

- For severe grade esophagitis or esophageal stricture
 - Full dosage for 2 months, can consider full dose maintenance with annual review
- Use around high GI risk bleeding medications (NSAIDS, corticosteroids)



STOPP v.2

► STOP

Selective serotonin re-uptake inhibitors (SSRIs) with a history of clinically significant hyponatraemia (below 130 mmol/l within the previous 2 months).

Citalopram and Escitalopram with QT-interval prolongation or with concomitant drugs that cause prolonged QT-interval.

CLINICAL PRACTICE UPDATE

AGA Clinical Practice Update on De-Prescribing of Proton Pump Inhibitors: Expert Review



Laura E. Targownik,¹ Deborah A. Fisher,² and Sameer D. Saini^{3,4}

- One of most commonly used medications in the US
- 40% of population over 70yo
- 1/4 all patients use PPI longer than 1 year



AGA PPI BEST Practice Advice

- 1: regular review of ongoing indications for use (documentation of such)
- 2: All patients without a definitive indication for chronic PPI should be considered for trial of de-prescribing
- 3: Most patients with an indication for chronic PPI use who take twice-daily dosing should be considered for step down to once-daily PPI.
- 4: Complicated GERD, such as those with a history of severe erosive esophagitis, esophageal ulcer, or peptic stricture, should generally not be considered for PPI discontinuation.
- 5: Known Barrett's esophagus, eosinophilic esophagitis, or idiopathic pulmonary fibrosis should generally not be considered for a trial of de-prescribing.

AGA PPI BEST Practice Advice

- ▶ 6/7: PPI users should be assessed for upper GI bleeding risk and Do NOT De-prescribe high risk
- ▶ 8: Patients who discontinue long-term PPI therapy should be advised that they may develop transient upper GI symptoms due to rebound acid hypersecretion.
 - ▶ Consider OTC antacids or H₂-receptor antagonists or PPI PRN
- ▶ 9: De-prescribing: Taper or Abrupt
- ▶ 10: The decision to discontinue PPIs should be based solely on the lack of an indication for PPI use, and not because of concern for PPI associated adverse events (PAAEs)

Table 1. Indications for Proton Pump Inhibitor Use

Indications					
Definitely indicated for long-term use (>8 wk)	Conditionally indicated for long-term use	Not indicated for long-term use	Definitely indicated for acute/short-term use (≤8 wk)	Conditionally indicated for acute/short-term use	Not indicated for acute/short-term use
Barrett's esophagus Clinically significant (LA Classification grade C/D) erosive esophagitis Esophageal strictures from GERD (ie, peptic strictures) Zollinger-Ellison syndrome Eosinophilic esophagitis Gastroprotection in users of ASA/nonsteroidal anti-inflammatory drug at high risk for GI bleeding Prevention of progression of idiopathic pulmonary fibrosis	PPI-responsive endoscopy-negative reflux disease, with recurrence on PPI cessation PPI-responsive functional dyspepsia, with recurrence on PPI cessation PPI-responsive upper airway symptoms ascribed to laryngopharyngeal reflux, with recurrence on PPI cessation Refractory steatorrhea in chronic pancreatic insufficiency with enzyme replacement Secondary prevention of gastric and duodenal peptic ulcers with no concomitant antiplatelet drugs	Symptoms of nonerosive reflux disease with no sustained response to high-dose PPI therapy Functional dyspepsia with no sustained response to PPI therapy Steroid therapy in the absence of ASA/nonsteroidal anti-inflammatory drug therapy Prevention of recurrent upper GI bleeding from causes other than: Peptic ulcer disease, including gastric and duodenal erosions Erosive esophagitis	<i>Helicobacter pylori</i> eradication Stress ulcer prophylaxis for ICU patients with risk factors Uninvestigated GERD/dyspepsia Treatment of NSAID-related gastric and duodenal peptic ulcers	Initial or on-demand treatment of endoscopy-negative reflux disease Initial treatment of functional dyspepsia Uninvestigated dyspepsia Ulcer prevention after sclerotherapy or band ligation treatment of esophageal varices Prevention of rebleeding from Mallory-Weiss tears	Empiric treatment of laryngopharyngeal symptomatology Acute undifferentiated abdominal pain Acute nausea and vomiting not believed to be related to GERD/esophagitis Any isolated lower GI symptomatology

ASA, aspirin; ICU, intensive care unit; LA, Los Angeles



SSRI use

- More antidepressants prescribed each year and increased treatment duration occurring over time
- Median duration 2 years in UK and 5 years in US (2020)
- Associated with weight changes, sleep disturbance and sexual dysfunction
- Over 65yo increased adverse events
- Longer treatment durations less likely review by GP



SSRI Prescription Use

- Indication:
 - not first line for first visit mild depression
 - First line for anxiety
- Duration of therapy:
 - 6-12 months for first MDD
 - Recurrent MDD and risk factors for recurrence 2 years maintenance or more
 - Anxiety at least 1 year



SSRI Prescription Use

Risk Factors for Recurrence of Depressive Episodes.

- Persistent residual symptoms* (e.g., anhedonia, sleep problems, and cognitive dysfunction)
 - History of childhood maltreatment*
 - Greater severity of depressive episodes
 - Chronic depressive episodes
 - Presence of medical comorbidities (psychiatric or nonpsychiatric)
 - Greater number of previous episodes
 - Poor social support
 - Persistent stressful life events
-



Deprescribing Antidepressants

- Up to 50% of people experience discontinuation symptoms
 - Flu-like, insomnia, nausea, imbalance, sensory disturbances and hyperarousal
- Start within days of stop and last a few weeks
- Highest Risk: Venlafaxine and Paroxetine
- Taper recommended



SO.....

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APO-OMEPRAZOLE 20 MG CPDR 1 capsule 1 time daily for 90 days LU 293
Wellbutrin XL 150 mg 1 time daily

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Would you look at this refill different now?

Questions?



- 
- 
- Resources Comprehensive Geriatric Assessment Based toolkit (www.cgakit.com)