Tests You Wouldn't Have Ordered...

Had the Patient Been Examined

Pedro A. Espat, DO, FACOI

ACOI Baltimore 2022

- Deterioration in examination skills among physicians:
  - Technological improvement | Imaging protocols
  - Time constraints | Employment demands | RVU beast
  - Financial | Practice economic considerations
  - EMR-potential competitions for attention

- Trend in practice of medicine increasingly disembodied
  - Threat to patient safety
  - Missed/delayed diagnosis
  - Adverse affects on timely treatment
  - Unnecessary testing procedures, complications, etc.
  - Algorithms | Pathway formula | Cookbook medicine

Cureus 2017 May: 9(5): e1212

- 74 y.o F with chest pain, SOB, nausea without emesis, 6-8 hours duration; attributed to “GERD”. BP 112/68, HR 80, RR 20, SaO2 92%, afebrile
  - MH: HTN, DM2, GERD, CKD
  - Labs: WBC 14.2 mild left shift

    CMP: Cr 1.6, SGOT/SGPT 2x normal. Cardiac enzyme profile:

    Trop I 3.0

    Procalcitonin, PT, PTT WNL D-dimer mod elevated
  - CXR: B/L perihilar opacification; mild-mod cardiomegaly
  - EKG: NSR 92 BPM; 2-3 mm ST elevation septal leads / ST depression inferior leads

- ER workup: Sputum GS/C&S

  CT chest (NC)

  V/Q scan

  Blood cultures x 2

  B/L LE venous doppler

- Therapeutics:
  - IV Ceftriaxone/azithromycin
  - Nebulizer therapy
  - IV NTG
  - SQ heparin
  - Home meds (Glipizide, Losartan, ASA, Nexium)

- ICU Admission – B/L pneumonia, evolving respiratory failure, 3.2 hours post-presentation:
  - BP 92/50, HR 110, RR 24, SaO2 88 (4L NC O2)
  - Tele: sinus tach, PVCs
  - Alert, oriented x 3, diaphoretic, orthopneic, tachypneic
  - Chest: B/L rales, diffuse expiratory wheezing
  - Heart: reg S1/S2, gr 3-4 pan-systolic murmur apex to left axilla; JVD prominence

- Emergent cath lab: CP arrest/resuscitation/cardiogenic shock

  Severe triple vessel CAD/papillary muscle injury

  - chordae rupture/flail posterior leaflet MV

  IABP

  CABG x 3/MVR

  Prolonged post-op recovery/rehab

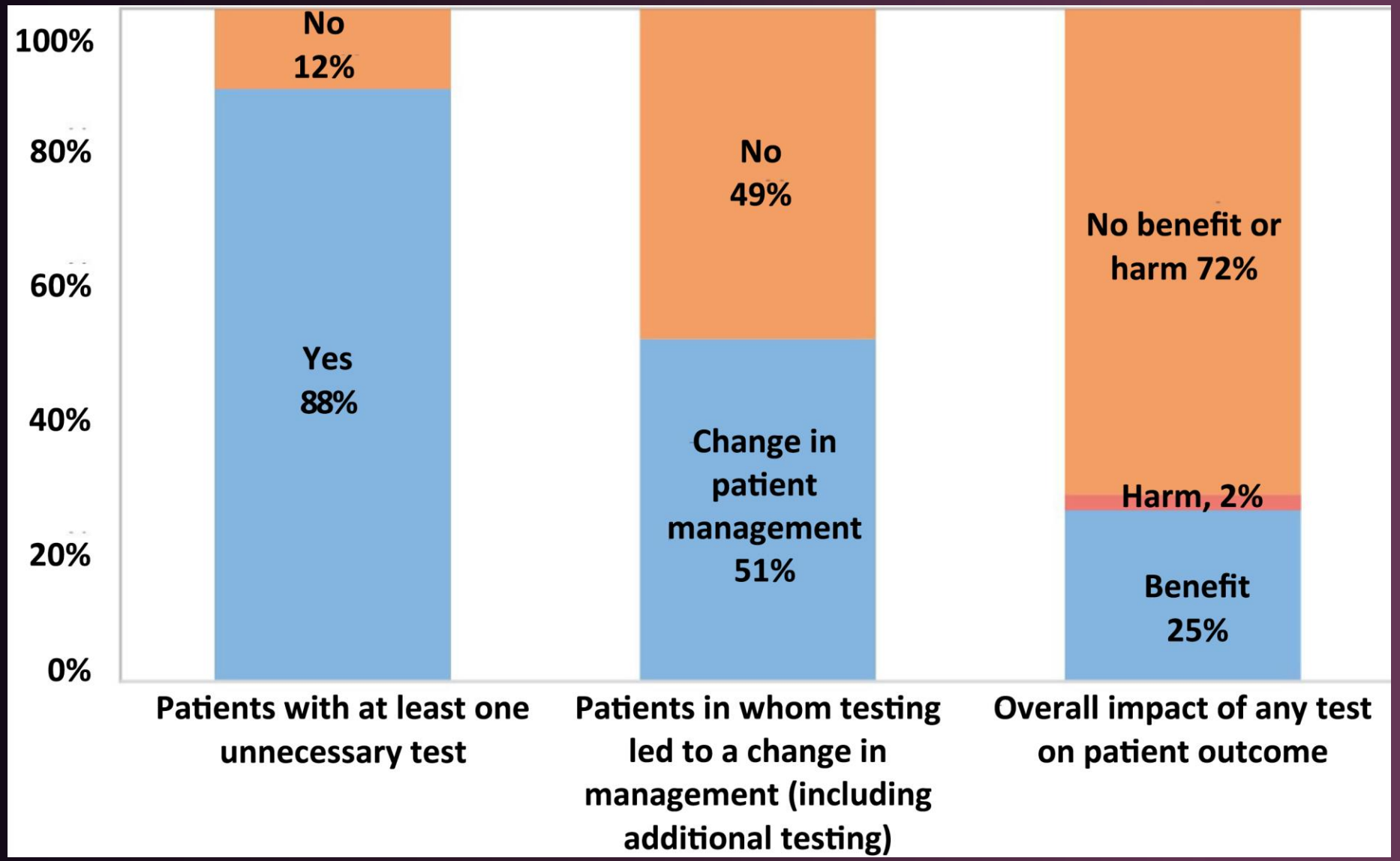
“The physical exam of newly admitted patients is often cursory, and worse, perverted by drop-down boxes into an exaggerated and invented form that reads better than the truth.”

JAMA; A Piece of My Mind

Elder et al 2013; 310(8):799-800

- Most common defect in physical exam not performing one
- 208 vignettes of known oversights:
  - Oversight by failure to perform P.E.: 63%
  - P.E. misinterpreted: 14%
  - Missed/delayed Dx: 76%
  - Incorrect Dx: 27%
  - Unnecessary Tx: 18%
  - No/Delayed Tx: 42%

A. Verghese et al: AMJ MED 2015: 128:1322-24



Proportion of patients with at least one unnecessary tests, frequency with which testing lead to patient management change and overall testing outcome.

American Journal of Medicine 2018 May: 131(5): 500-503

- Society to Improve Diagnosis in Medicine:
  - Testing appropriateness/physical exam informed
  - Impact of unnecessary testing on healthcare quality
  - Economics of unnecessary testing
  - Patient-driven testing
  - Arbiter of doctor-patient relationship/doctor–based only
  - Direct patient marketing
  - POCUS

- How much medical uncertainty is appropriate/tolerable? How much testing is reasonable?
  - Only navigable by both sides of doctor-patient relationship
  - Health history, symptoms and severity, exam findings
  - Symptomatic treatment vs. etiology
  - EMR clinical decision supports 10-13% effective
  - “Cascade of care/low value services”

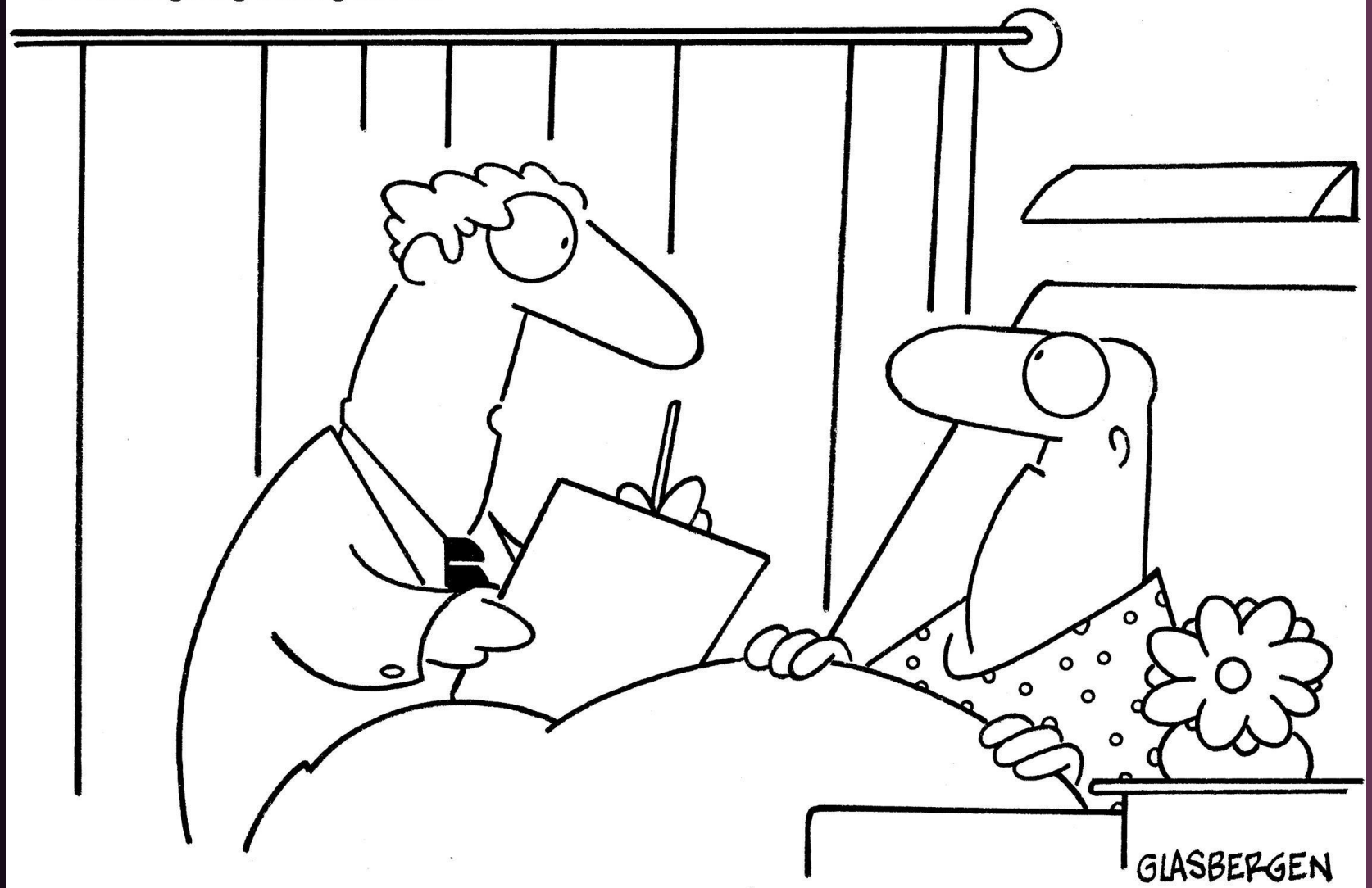
“There is the thought that if there is any possibility of disease, we should do something about it; if there is doubt, test. If the test helps one patient, then everyone should get the test.”

Anonymous ER Medicine Director

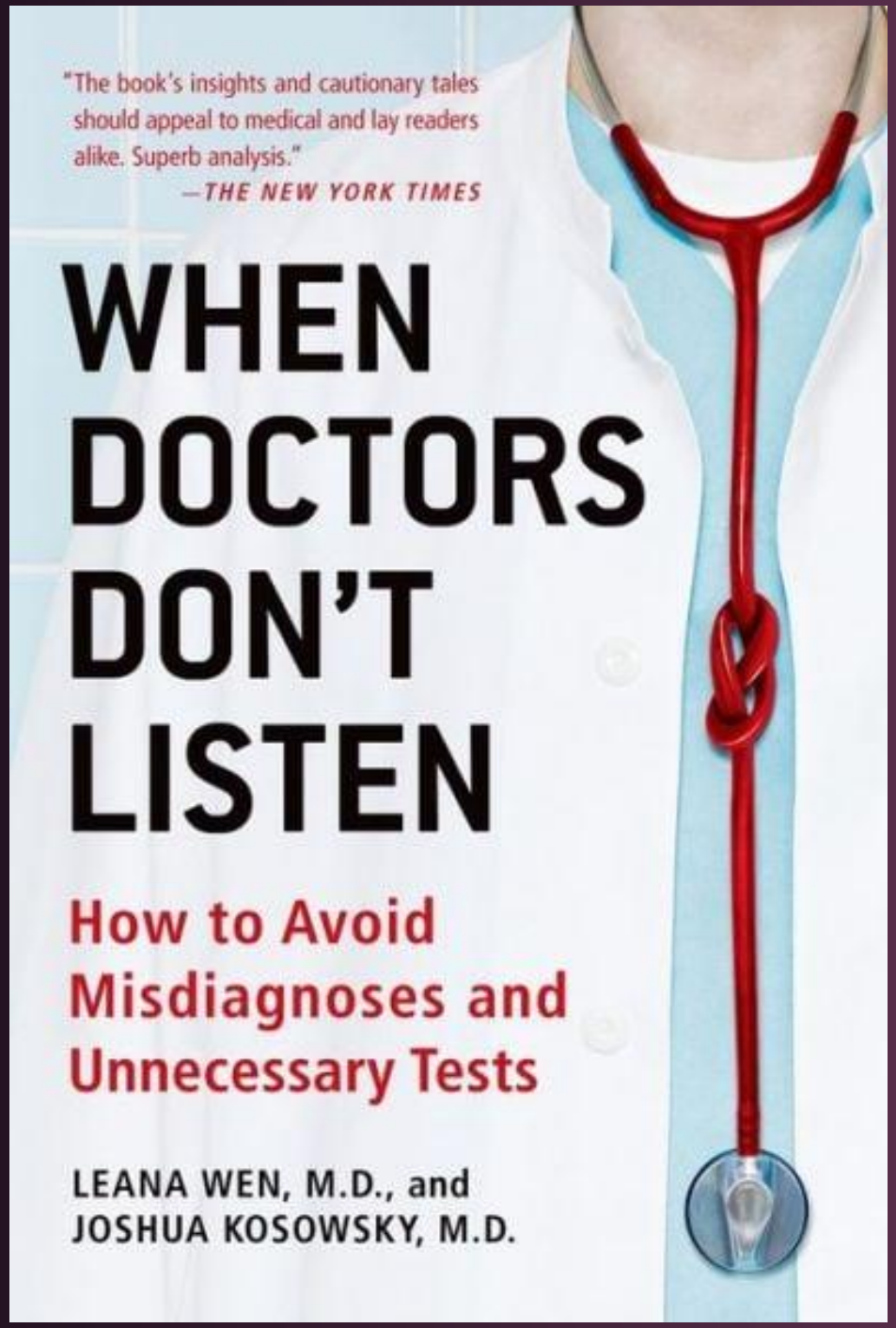
“The medical system does what it so often does – perform tests unnecessarily, to reveal problems not quite problems, to then be fixed, unnecessarily, at great expense and risk.”

“Overkill”; The New Yorker

Atul Gawande, MD



"I think today is Wednesday, but I'll need to run some tests to be sure."


"The book's insights and cautionary tales should appeal to medical and lay readers alike. Superb analysis."
—THE NEW YORK TIMES
WHEN DOCTORS DON'T LISTEN
How to Avoid Misdiagnoses and Unnecessary Tests
LEANA WEN, M.D., and JOSHUA KOSOWSKY, M.D.