TESTS I WISH YOU'D NEVER ORDERED

(CHOOSING WISELY ©)

G Blackburn DO, MACOI

Moderator/Infectious Disease

ACOI's 82nd Annual Convention and Scientific Sessions

October, 2022

Baltimore

DISCLOSURES:

- -NO CONFLICTS OF INTEREST
- -OPINIONS ARE MY OWN

- Most any day on hospital rounds, I see patients undergoing various tests or procedures that do not appear (to me) to add to their care; some turn out to be less than beneficial
- A significant number of my consultations are to explain away results, cancel tests or discontinue orders (especially antibiotics) that could have been avoided
- Do other docs feel the same?
- Is there a way of conveying our opinions to our residents and other physicians, hopefully favorably influencing patterns of care, that could easily include us as patients in the future?

WHEN YOU ARE YOUNG, YOU THINK YOU ARE BULLETPROOF, BUT.....

SOMEDAY, YOU WILL BE A PATIENT

(Blackburn's Law #4?)

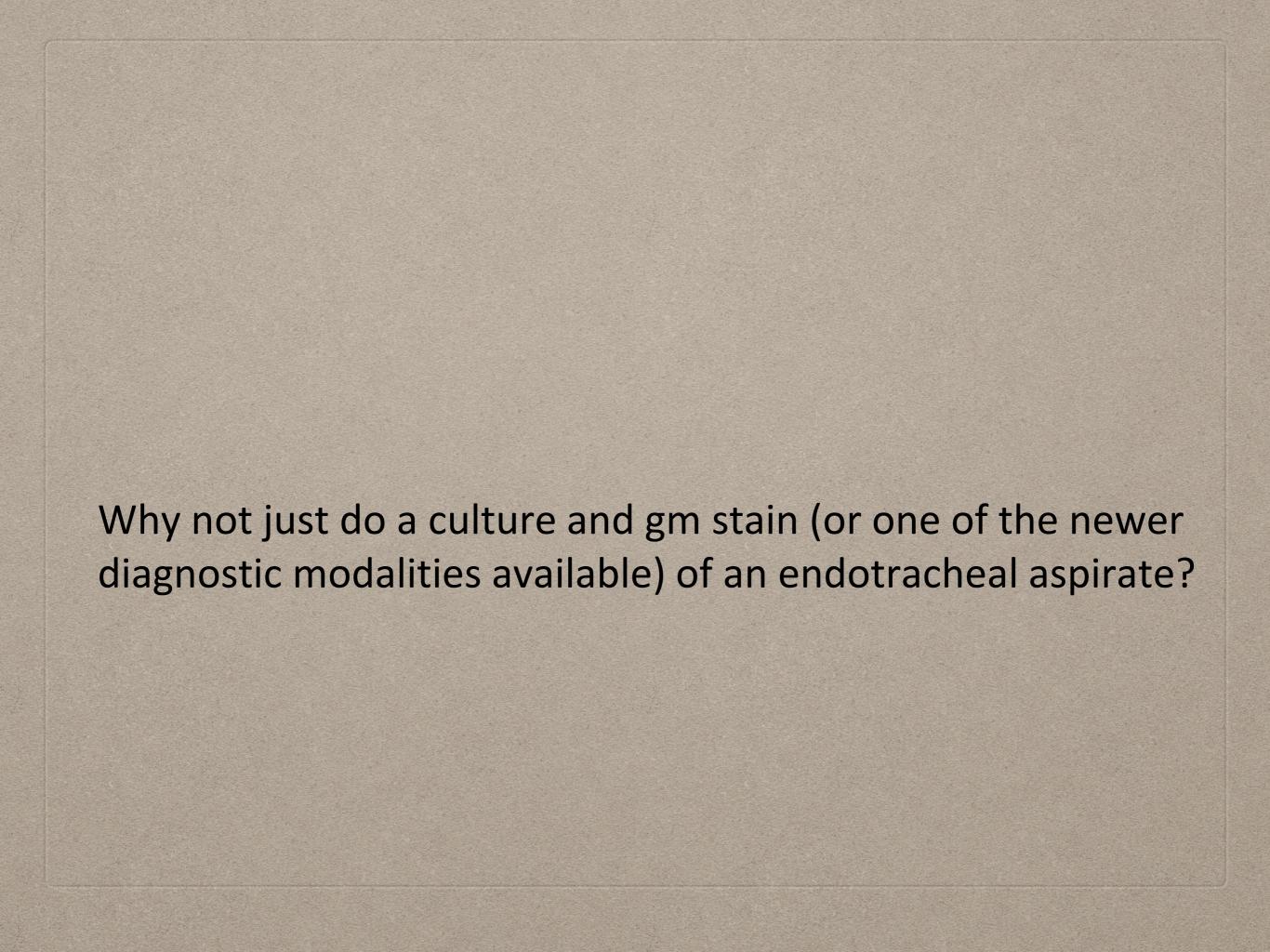
(Unfortunately), the stories never seem to end

- This 52 yo female, previously well, collapsed suddenly while dining at a restaurant with her family
- Bystanders immediately began CPR w/ intubation by EMS as soon as they arrived.
- This was followed by transfer to our hospital with admission to the ICU

 The usual "order everything you can think of" studies included cardiac enzymes, EKG and CXR

- EKG and cardiac enzymes were consistent w/ an acute MI
- CXR demonstrated a RLL infiltrate
 - most likely explanation?
 - do you think she was given abs?
 - do you think she should have been given abs?
 - If given, what abs do you think were ordered?
 - so what else do you think the ICU team insisted upon ordering?

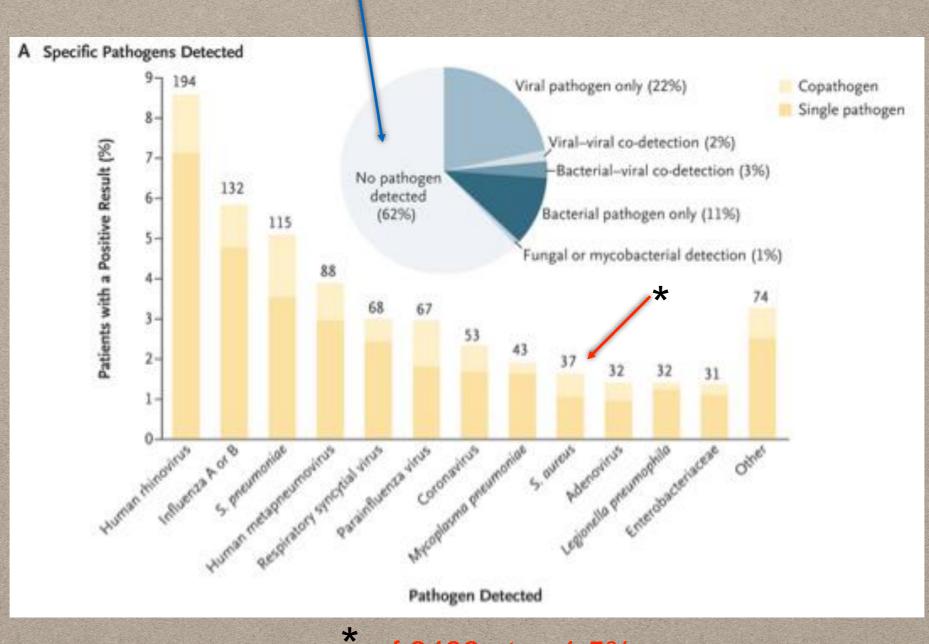
- Of course she was given abs vancomycin/pip-tazo
- She probably should not have been given abs
- And.....
 - a nasal swab screen for MRSA was ordered by the ICU team! Huh?



The Clinical Utility of Methicillin-Resisant Staphylococcus aureus (MRSA) Nasal Screening to Rule Out MRSA Pneumonia: A Diagnostic Meta-Analysis... (CID, 2018)

- 22 studies; 5163 patients
- both CAP and HCAP patients
- PPV for MRSA pneumonia 44.8%
- NPV for MRSA pneumonia- 96.5%
- assumes a 10% prevalence of potential MRSA pneumonia

could many of these be aspiration events?



* of 2488 pts - 1.5%

Jain S et al. Community-Acquired Pneumonia Requiring Hospitalization among U.S. Adults 2015 N Engl J Med

The Clinical Utility of Methicillin-Resisant Staphylococcus aureus (MRSA) Nasal Screening to Rule Out MRSA Pneumonia

CAVEATS:

- assumes a 10% prevalence of potential MRSA pneumonia
- 82% were retroactive studies
- may not apply to patients w/ structural lung dx, those w/ recent nasal decolonization
- did not sort out hi risk patients from others
- does not address/apply to extra-pulmonary infections
- does not address the significance (or lack thereof) of nares screen results + for MSSA

3 possibilities

- MRSA nasal swab screen is + for MSSA
- MRSA nasal swab screen is + for MRSA
- MRSA nasal swab screen is negative

• MRSA nasal swab screen is + for MSSA

now what?

• MRSA nasal swab screen is + for MSSA

no data (in context that up to 30% of healthy adults carry S. aureus in their nose)

• MRSA nasal swab screen is + for MRSA

now what?

• MRSA nasal swab screen is + for MRSA

PPV - 44.8% (for MRSA PNEUMONIA)

MRSA nasal swab screen is negative for MRSA (and MSSA)

now what?

MRSA nasal swab screen is negative for MRSA (and MSSA)

NPV - 96.5% (for MRSA <u>PNEUMONIA</u>)

Summary

In the <u>appropriate</u> setting, nasal screening for MRSA is most useful for it's NPV in which case the diagnosis of MRSA pneumonia is unlikely, allowing for the discontinuation of unnecessary antibiotics

Law # 13

"the delivery of medical care is to do as much nothing as possible"

....from Shem S. The House of God. 1978

Primum non nocere.....

Someday, YOU - and every single person you know and love - will be a patient

OUR DISTINGUISHED, HIGHLY OPINIONATED AND UNFILTERED PANEL

- Annette Carron, DO, FACOI, Past-President ACOI -Palliative Care
- Pedro Espat DO, FACOI Internal Medicine, Critical Care
- Roberta Rose DO, FACON Neurology