Pediatric Dogmas 2.0

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Outline

• Brief Summary – Dogmas 1.0
• Why Dogmas exist
• Pro/Con Debate – Dogma: Strep Pharyngitis Treatment
• Dogmas from Listserve
• Dogma: Hypoxia in bronchiolitis is bad
• Conclusion

Introduction

• Review of Dogmas 1.0
Why Dogmas Exist?

Eric Biondi, MD

“The one thing that unites all human beings, regardless of age, gender, religion or economic status, is that deep down, we all believe we are above average drivers.”
Svenson, O. Are we all less risky and more skillful than our fellow drivers? Acta Psychologica. 1981;47:143-8


46.3% regard themselves among the most skillful 20%. The corresponding number in the Swedish group was only 15.5%. In the US sample 93% believed themselves to be more skillful drivers than the median driver and 69% of the Swedish drivers shared this belief in relation to their compatriot group.

In summary, there was a strong tendency to believe oneself safer and more skillful than the average driver. In addition, there seemed to be a stronger tendency to believe oneself as safer than and more skillful than the average person.

than 0; all ts(13) > 1.79, all ps < 0.10. Only one participant (0.1%) had an average bias blind spot score that was significantly lower than 0: (t(13) = −2.46, \( p = 0.03 \)).
Conclusions

• Everyone is awesome at everything.
“It is useless to attempt to reason a man out of something he was never reasoned into.”

Jonathan Swift
Rule No. 11

Wait 30 minutes to swim after eating.

Oral albuterol works great!
Stats don’t matter, I’ve seen it work many times.
Here are some data showing it doesn’t!
I’ve got some over here, fool!
Will you read this paper?
A respiratory viral panel costs $300!

I don’t need data, I know lab tests are expensive.

Here are some data showing it doesn’t!

I’ve got some over here, too!

Will you read this paper?

[Insert Belief]

[What would it take to change it?]
Belief + Conflicting Evidence

Dissonance

Adapt
Suspend
Ignore
Draw a bicycle.

- Wheels
- Frame
- Chain
- Pedals
- Seat
- Handlebars
A bicycle.
Minimizing Dissonance

When people react to disconfirming evidence by strengthening their beliefs.[17]
Minimizing Dissonance

The tendency of people, when evaluating the causes of the behaviors of a person they dislike, to attribute their positive behaviors to the environment and their negative behaviors to the person's inherent nature.

Aversion to contact with or use of products, research, standards, or knowledge developed outside a group.
Minimizing Dissonance

CONFIRMATION BIAS
ARGUMENT FROM AUTHORITY
Stop Worrying about Strep Pharyngitis

Ricardo Quinonez, MD
Department of Pediatrics
Baylor College of Medicine
• Quirky history
• Rheumatic Fever what?
• Treatment does barely any good
• .....and it might be bad
• .....and really expensive

Why I’d have my own kid tested and treated for Strep (if sick enough)

Alan Schroeder, MD
Department of Pediatrics
Stanford University School of Medicine
Dogmas from the Listserv

Kavita Parikh, MD
What diet to recommend?

Why so many labs?
Antibiotic “myths”

Avoid fluoroquinolones in children

Avoid ceftriaxone in neonates

Clinical Practices?
Asthma Management?

Asthma - Inflamed Bronchial Tube

Thank you to our submitters

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Pediatric Hospitalists improve care, right?

Daniel Coghlin, MD
July 30, 2016

Three main categories for what’s been studied so far:

• COST (Inpatient LOS and readmits mainly)
• SATISFACTION (with inpatient care)
• QUALITY (much fewer data on this, mainly looking at inpatient guidelines adherence)
What seems clear now

- Decreased LOS (about 10%), which leads to decreased cost of inpatient stay
- Probably no change in readmissions
- Patient/family satisfaction is not worse when measured during inpatient setting
- Pediatrics quality measures are lacking, making it difficult to evaluate hospitalists’ impact on quality

Are we seeing the whole picture?
What’s the fundamental difference between the hospitalist system and the non-hospitalist system?

**Plus/Minus**

On the Plus side, opportunities for...
- improved specialization of inpatient care
- improved safety
- improved outcomes
- improved efficiencies/ value

Threats from the Minus side...
- Errors from incomplete or inaccurate handoffs
- Disruption of connections between community PMDs and hospitals
10% reduction in length of stay is good but...

- The largest inpatient/outpatient study of adults to date found a cost shift to outpatient that resulted in an overall increase in costs with a hospitalist model, mainly by sending people home less often (decreasing hospital costs but increasing SNF costs)
- Overall pediatric cost, bridging inpatient and outpatient areas, is unknown
**Cost of the handoffs?**

- Office staff processing electronically faxed documents
- Missed f/u visits that the PMD and/or family did not want
- Duplicated radiology or lab studies
- Errors being amplified across systems designed to share data across EMRs (i.e., med rec error that leads to error in other setting)
- Handoff omissions leading to missed diagnoses or iatrogenic harm

**Changes in referral patterns?**

- Impact on initial decisions by PMDs to refer to ED or to directly admit are unknown
Patient/ Family satisfaction

- No consistent evidence of a difference between hospitalists and PCPs, but most studies focused the questions about their inpatient experience, not the illness.
PMDs’ satisfaction with inpatient care

About half of PCPs report that hospitalists improve quality of care

New dissatisfiers stemming from the hospitalist model

- inconsistent and fragmented written/electronic communication
- not enough verbal communication
- lack of PMDs’ inclusion in medical decision-making
PMDs’ satisfaction with their hospital and faculty?

Increased specialization leads to increased performance, right?

QUALITY/SAFETY
Are we over-valuing our expertise?

- Inpatient resource utilization?
- Maybe adhere to guidelines more often?
- No differences in adherence to pathways

Overall clinical outcomes are hard to measure...

- Objectively bad outcomes such as mortality are so rare in kids.
- Pediatrics quality measures are lacking (mainly adherence to guidelines and pathways)
- Rates of iatrogenic harm?
- Diagnostic accuracy?
- Rates of change to plan once taken over by the PMD? (problem list, medication change, etc.)
- Overall healthcare utilization? (Consults, referrals, outpatient tests, home services, etc.)
The Good Ship Hospitalist...

"Looks like that ship has sailed"

Future comparative healthcare delivery research?
Examine systems that integrate the two settings...

Preadmission visits to plan for subacute processes? (FTT, arthritis, potential somatoform diagnosis etc.)?
Post-discharge hospitalists visits? Virtual visits with PMDs?
PMD inpatient rounds or virtual rounds with hospitalists?

Bibliography

Hypoxemia: why being blue might just be OK

Pulse oximetry and Bronchiolitis

• Bronchiolitis: extremely low mortality rate, has remained constant throughout the years
• Hospitalization – increased over 300% since the 1980s
• Pulse oximetry use – routine since late 70s and early 80s


• Pulse oximetry is the main determinant of admission and its use is associated with increased length of stay

Cunningham S. Archives of disease in childhood 2012, Schroeder AR, Archives of pediatrics & adolescent medicine 2000

- Intervention: falsely increased the number of the pulse ox on patients with bronchiolitis in ER by 3%
  - Example 92% actual value - 95% shown to physician
  - Controls – 41% admitted
  - Intervention – 26% admitted

Hypoxia and outcomes

- Hypoxia is common in healthy infants

- Even more so during sleep

- What about in bronchiolitis?

- 118 infants discharged from the emergency department with pulse oximeters.
- Oxygen continuously recorded, but the alarm and display were disabled.
- Main outcome: unscheduled medical visits due to bronchiolitis.
  - 64% had desaturation (<90% x 1 minute)
  - 29 infants had sustained desaturations to 70% or less.
  - No difference in unscheduled medical visits or rehospitalization amongst infants with or without desaturations.