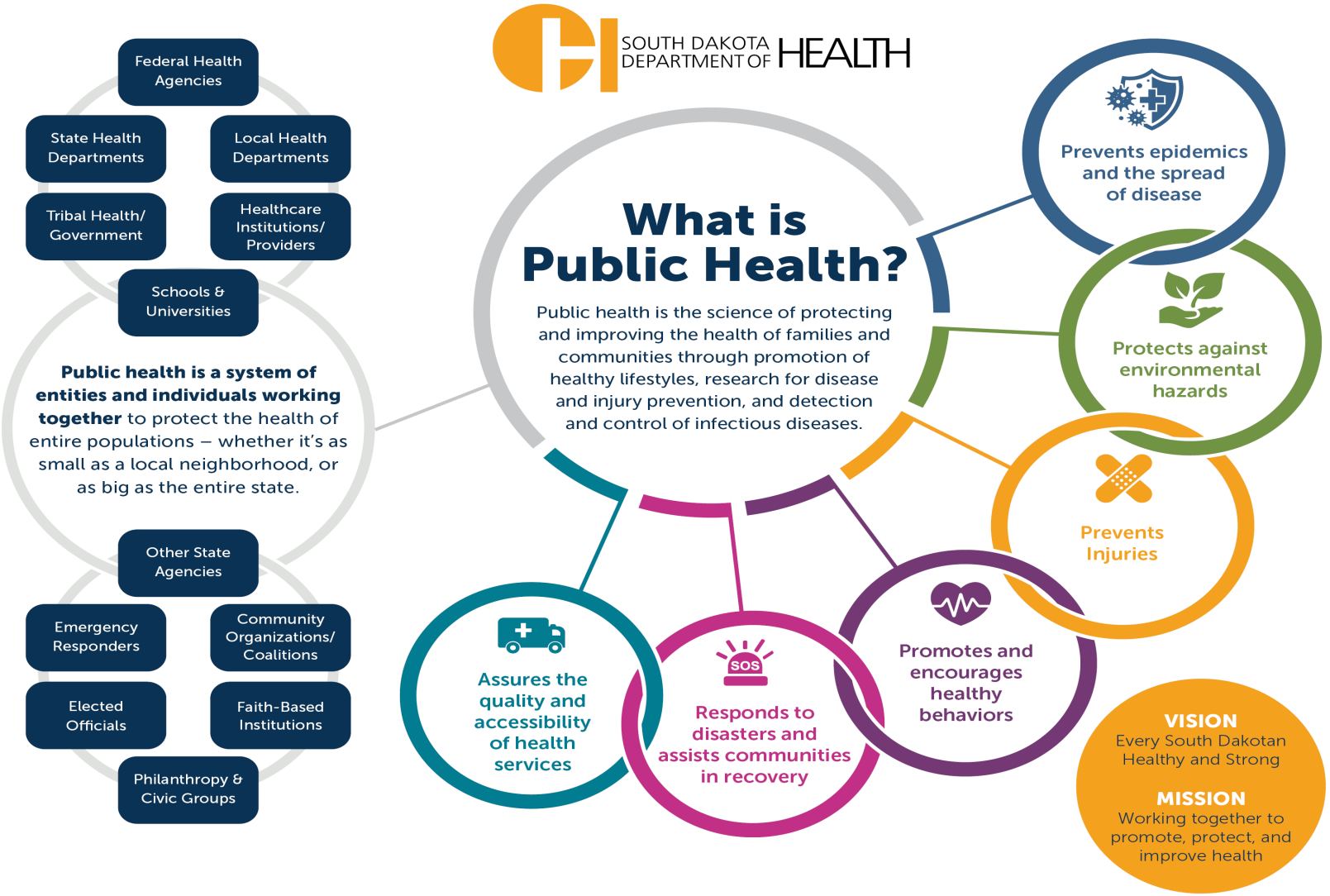
South Dakota
Department of Health

2026 HAI Precision Antibiotic Series

Pneumonia 2026: Avoiding Overtreatment and Diagnosis Across Healthcare Settings

November 18, 2026
12:00-1:00pm CST


SOUTH DAKOTA DEPARTMENT OF HEALTH
What is Public Health?
Public health is the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention, and detection and control of infectious diseases.
Public health is a system of entities and individuals working together to protect the health of entire populations – whether it's as small as a local neighborhood, or as big as the entire state.
Federal Health Agencies
State Health Departments
Local Health Departments
Tribal Health/ Government
Healthcare Institutions/ Providers
Schools & Universities
Other State Agencies
Emergency Responders
Community Organizations/ Coalitions
Elected Officials
Faith-Based Institutions
Philanthropy & Civic Groups
Prevents epidemics and the spread of disease
Protects against environmental hazards
Prevents Injuries
Promotes and encourages healthy behaviors
Responds to disasters and assists communities in recovery
SOS
Assures the quality and accessibility of health services
VISION
Every South Dakotan Healthy and Strong
MISSION
Working together to promote, protect, and improve health

Consulting Team

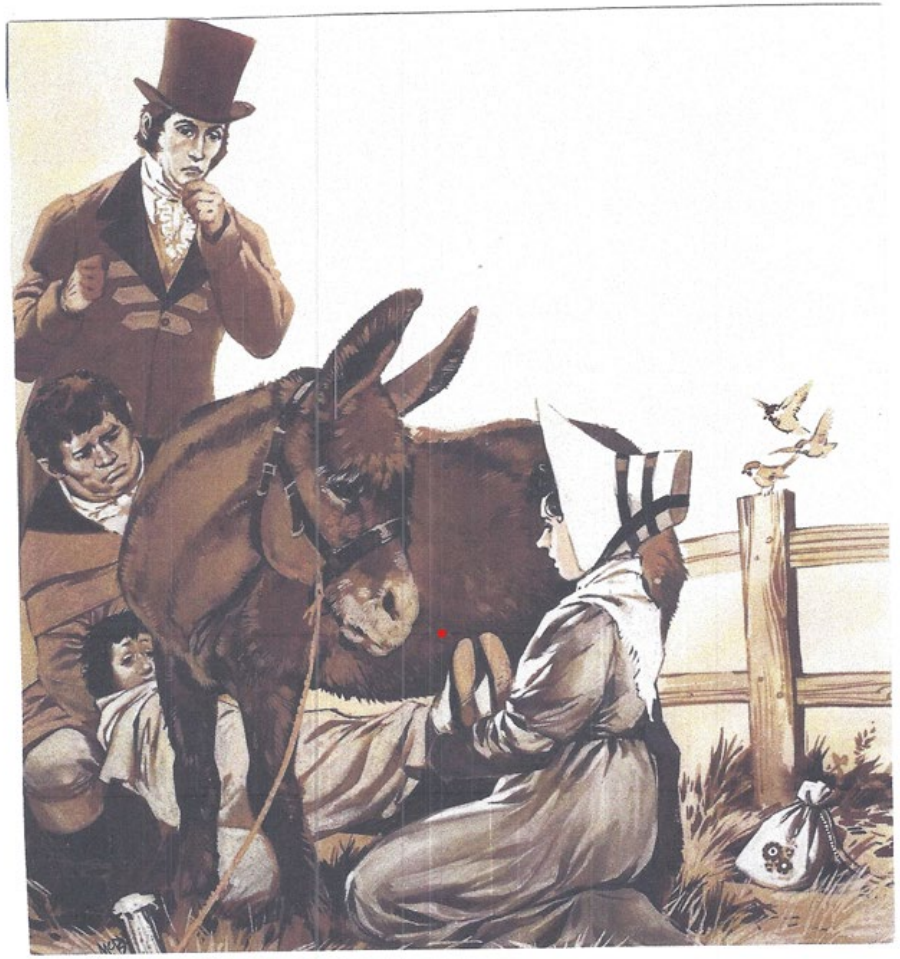


JAMES M. KEEGAN, MD



RANDEE MASON, RN, BSN, CPHQ

1700's Whooping Cough/Pertussis treatment

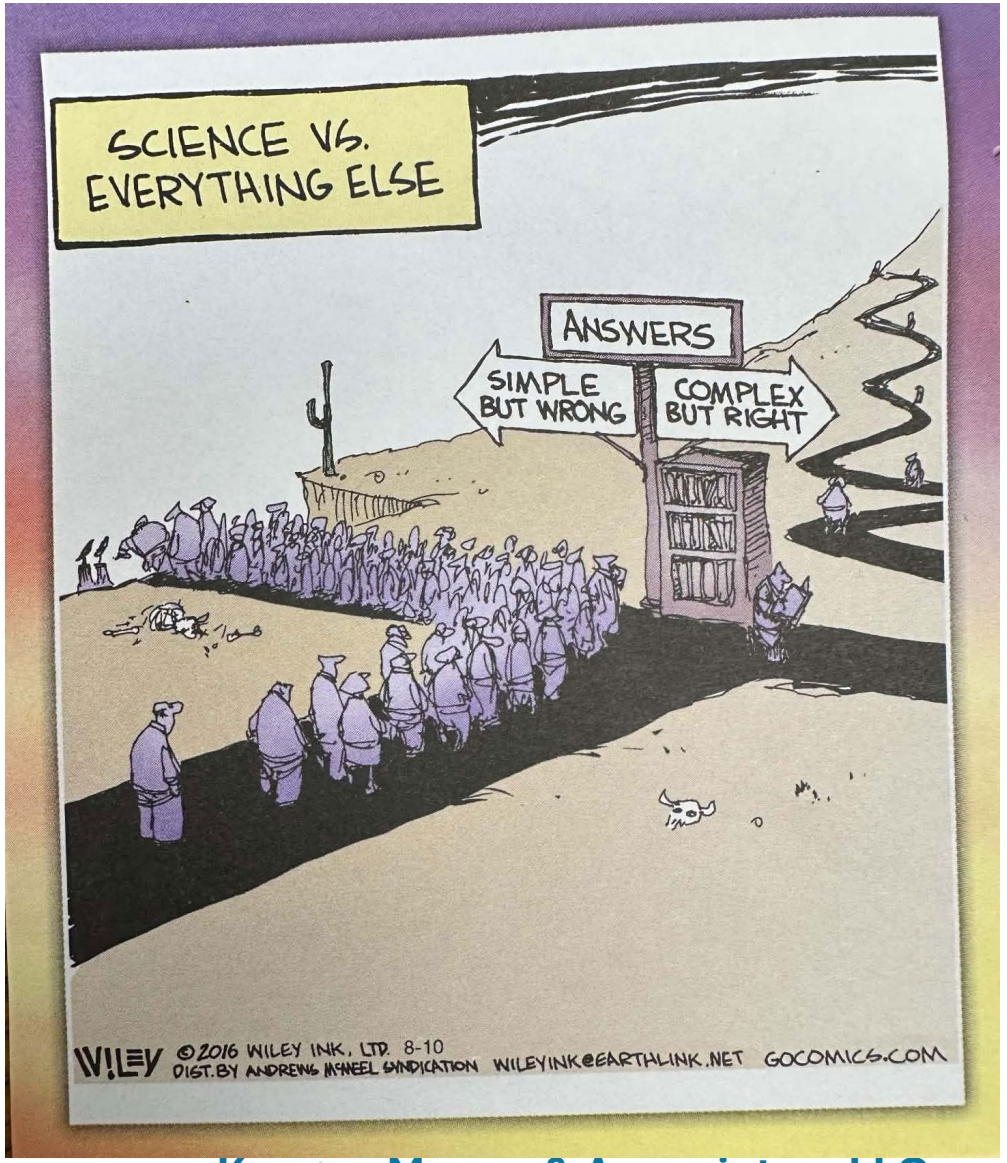


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Ecclesiastes -

One underlying philosophy is that the individual can find truth by using his powers of observation and reason instead of blindly following tradition. You acquire wisdom and focus that wisdom to figure out the world on your own.

“For every complex problem, there is an answer that is clear, simple, and wrong.”



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Quality Metrics

- Opportunity for Antimicrobial Stewardship



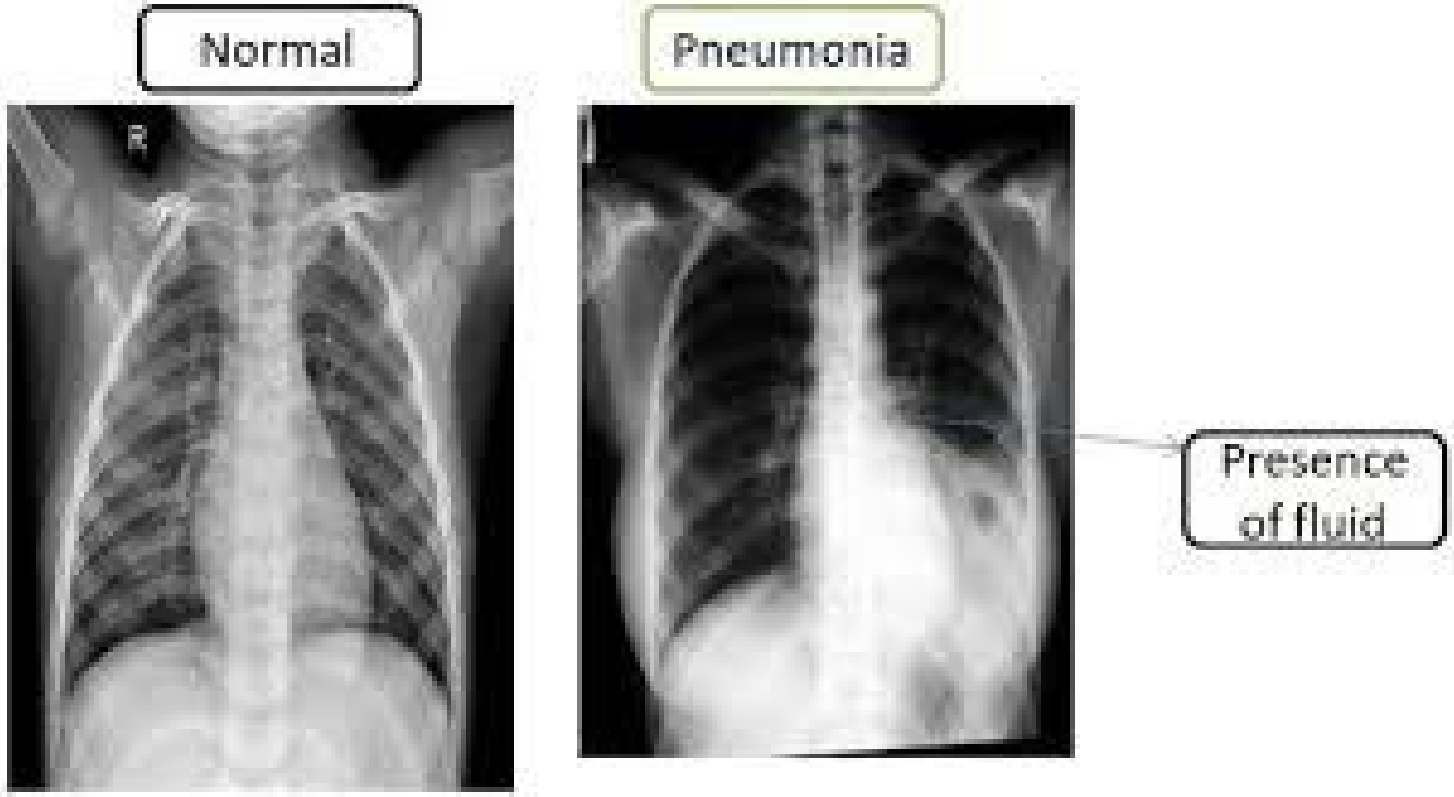
Case Example: 16 y.o. with wheezing

- Initial labs at urgent care showed strep throat

- Sore throat
- Cough
- Fatigue
- Wheezing
- Temp 101.8

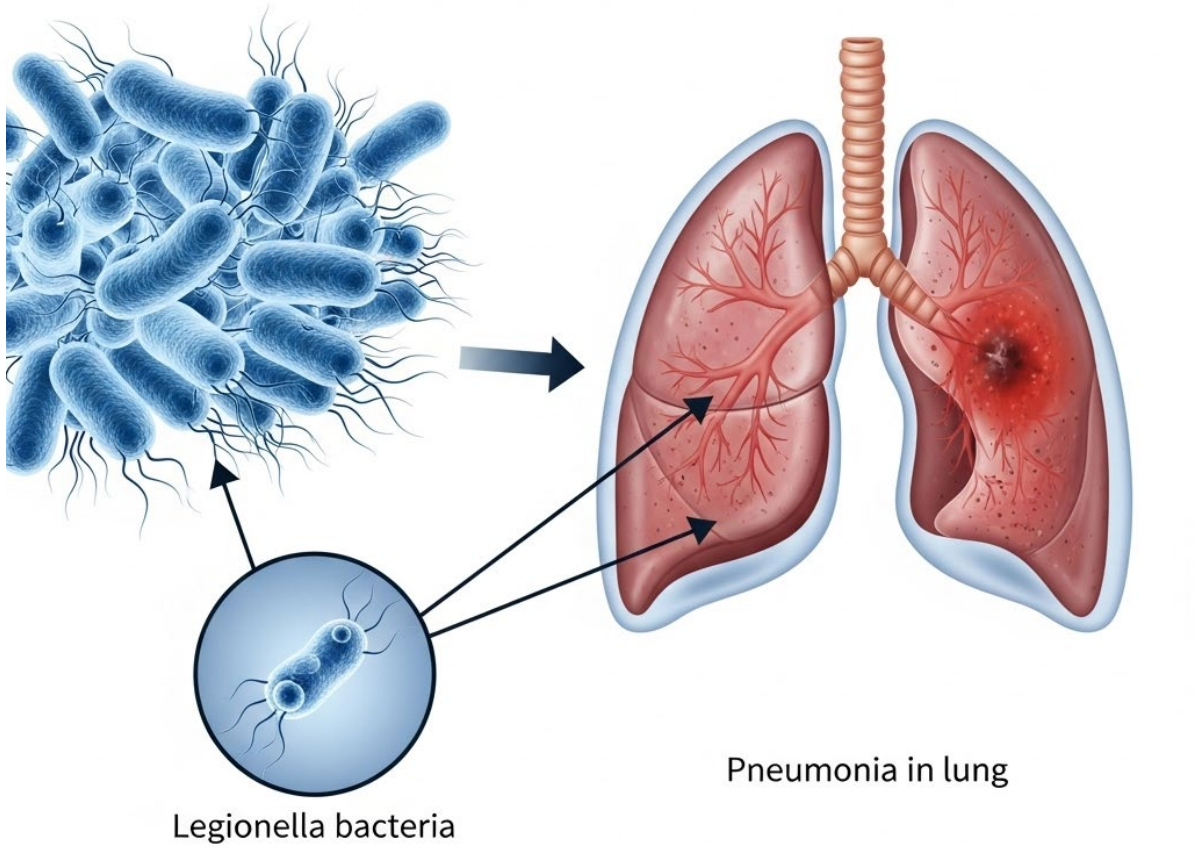
Pneumonia: Not One Diagnosis

- Typical vs. atypical
- Patient factors
- Setting
- Epidemiology
- Exposures



Exposure and Susceptibility Matter

- Legionella exposure
- Immunocompromised host
- Exposure-related pneumonia in an immunocompetent patient



Typical Pneumonia

- **What Are We Looking For?**
  - Symptoms and clinical presentation
  - Chest X-ray findings
  - Laboratory findings
  - Gram stain and sputum culture

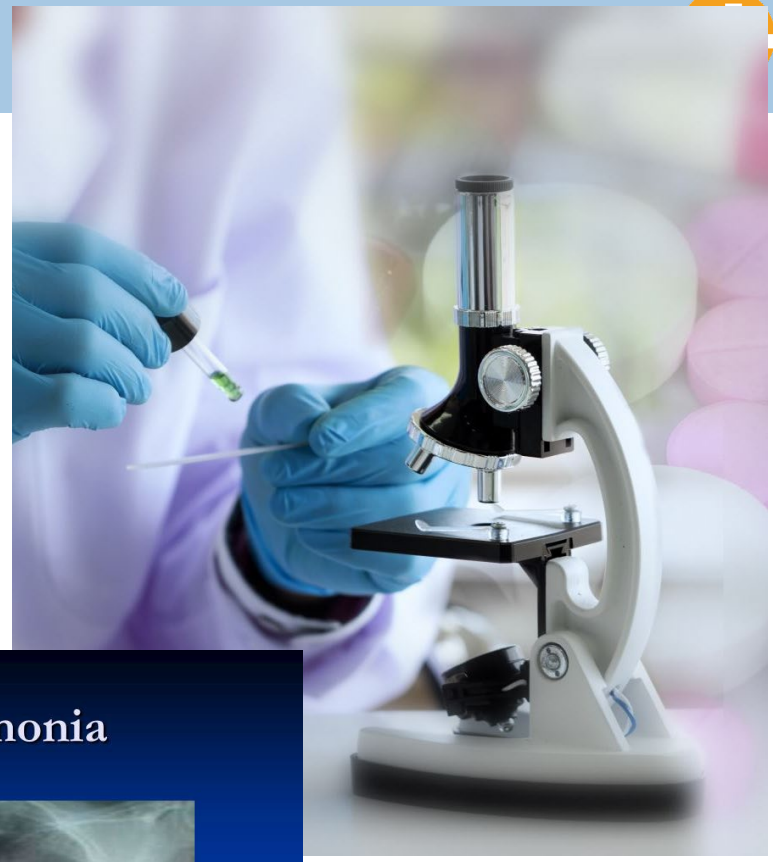
- Streptococcus pneumoniae
  - - impact of vaccination
- Haemophilus influenzae
  - impact of vaccination
- Staphylococcus aureus
  - consider following viral/influenza infection
- Other bacterial pathogens based on setting and exposure

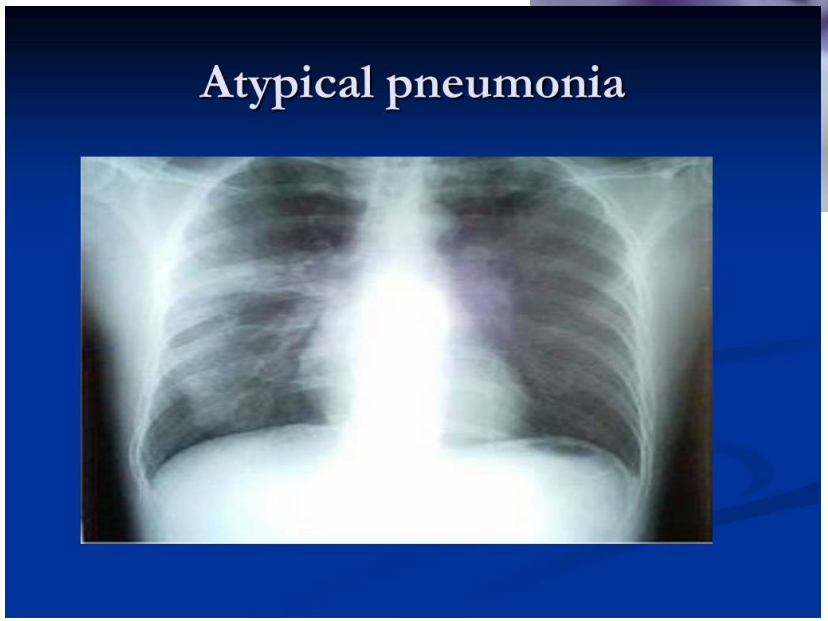


Atypical Pneumonia

- **Think Beyond the Usual**
  - Symptoms and clinical presentation
  - Chest X-ray findings
  - Respiratory viral testing
  - Exposure and epidemiologic clues

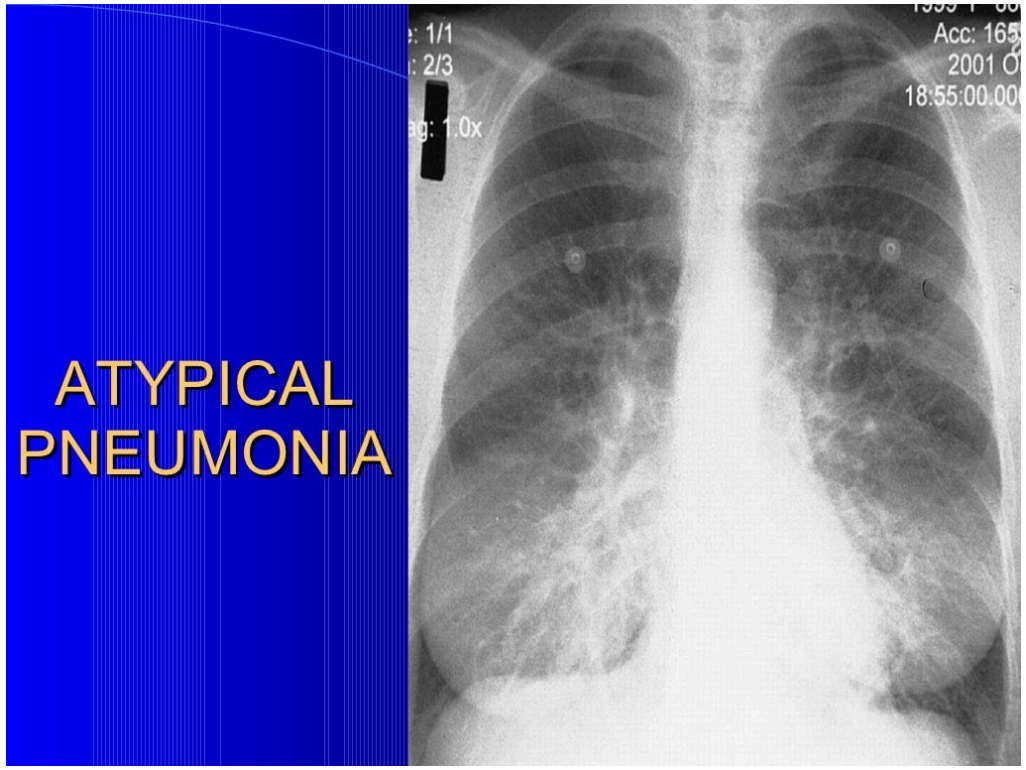
- **Potential pathogens**
  - Viruses
  - Mycoplasma
  - Pneumocystis
  - Histoplasma
  - Blastomyces
  - Coccidioides
  - Francisella tularensis





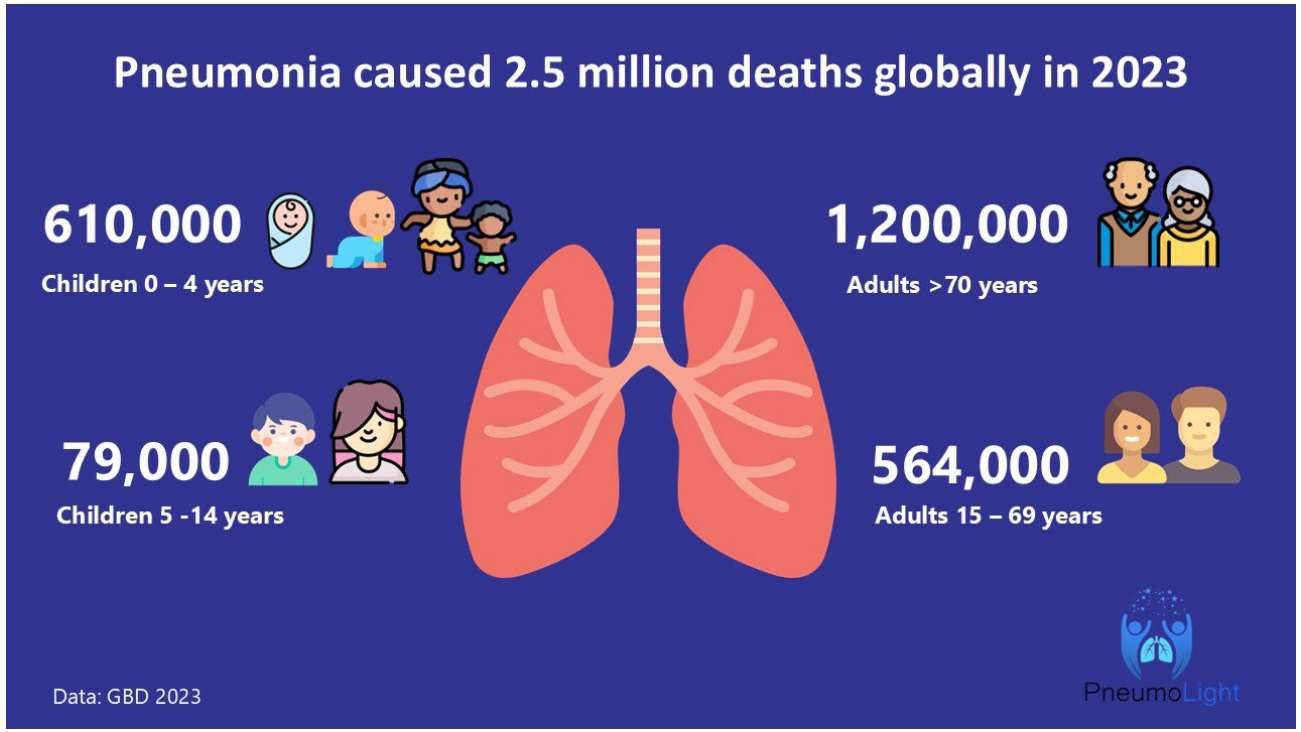
Atypical Pneumonia

- **Exposures are critical**
- Ask about:
  - Animals
  - Geographic location
  - Travel
  - Birds
  - Rabbits
  - Fleas / prairie dog exposure
  - Occupational or environmental exposures



Quality Pneumonia Metrics

Opportunities for ASP



Diagnostic Testing

- **Helpful – or just more data?**
  - Procalcitonin
  - CRP
  - WBC
  - Sputum Gram stain and culture
  - Respiratory viral panel
  - Mycoplasma testing
  - Chlamydia pneumoniae testing



Treatment

- **Antibiotics for COVID-19 pneumonia**
  - When are antibiotics indicated?
  - What evidence supports bacterial infection?

- **Unnecessary antibiotic exposure can contribute to:**
  - Antimicrobial resistance
  - Microbiome/immune system effects
  - Antibiotic-associated complications
  - C. difficile infection
  - Other medication-related adverse effects



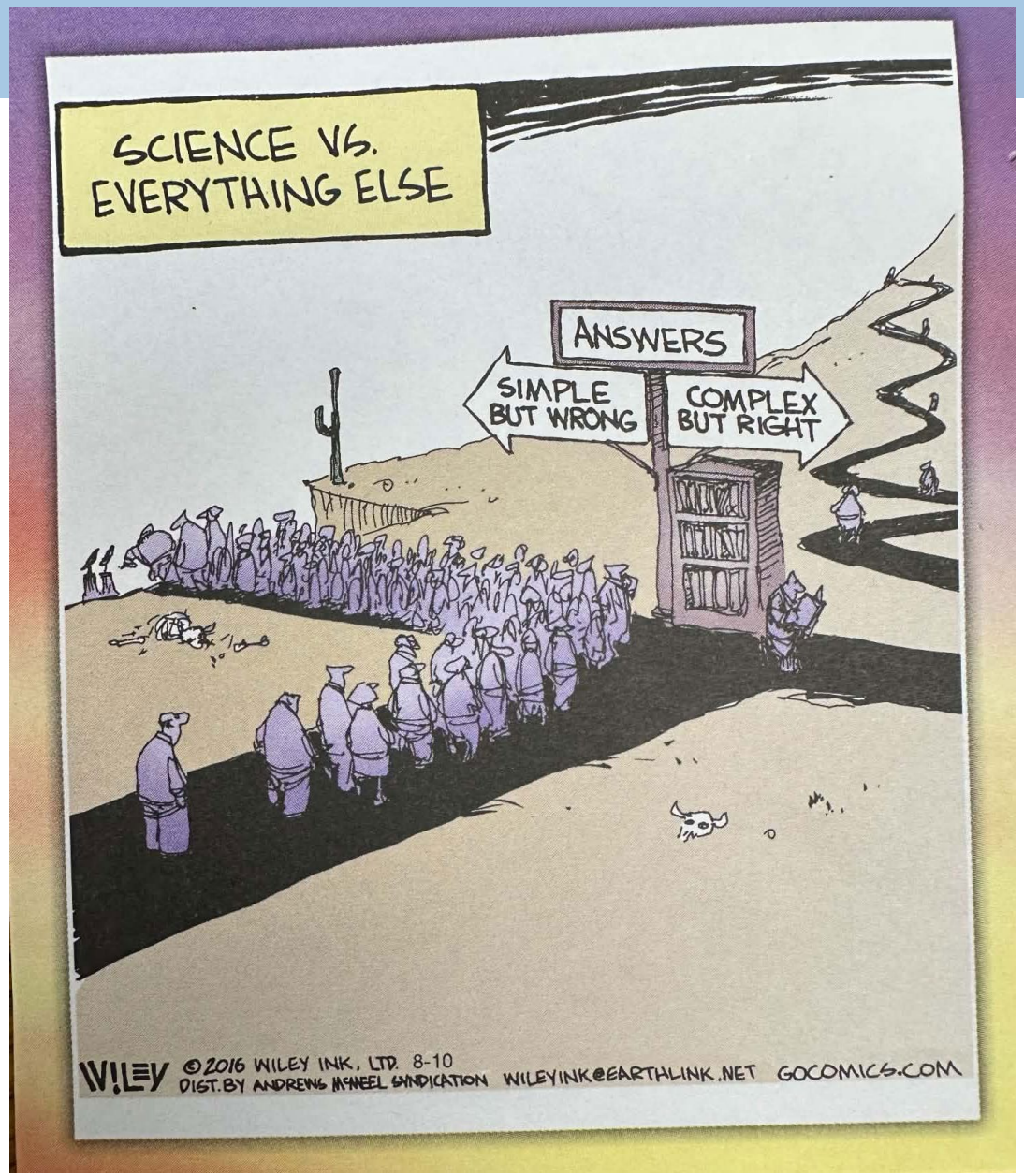
Treatment

What is your treatment for an automobile accident?

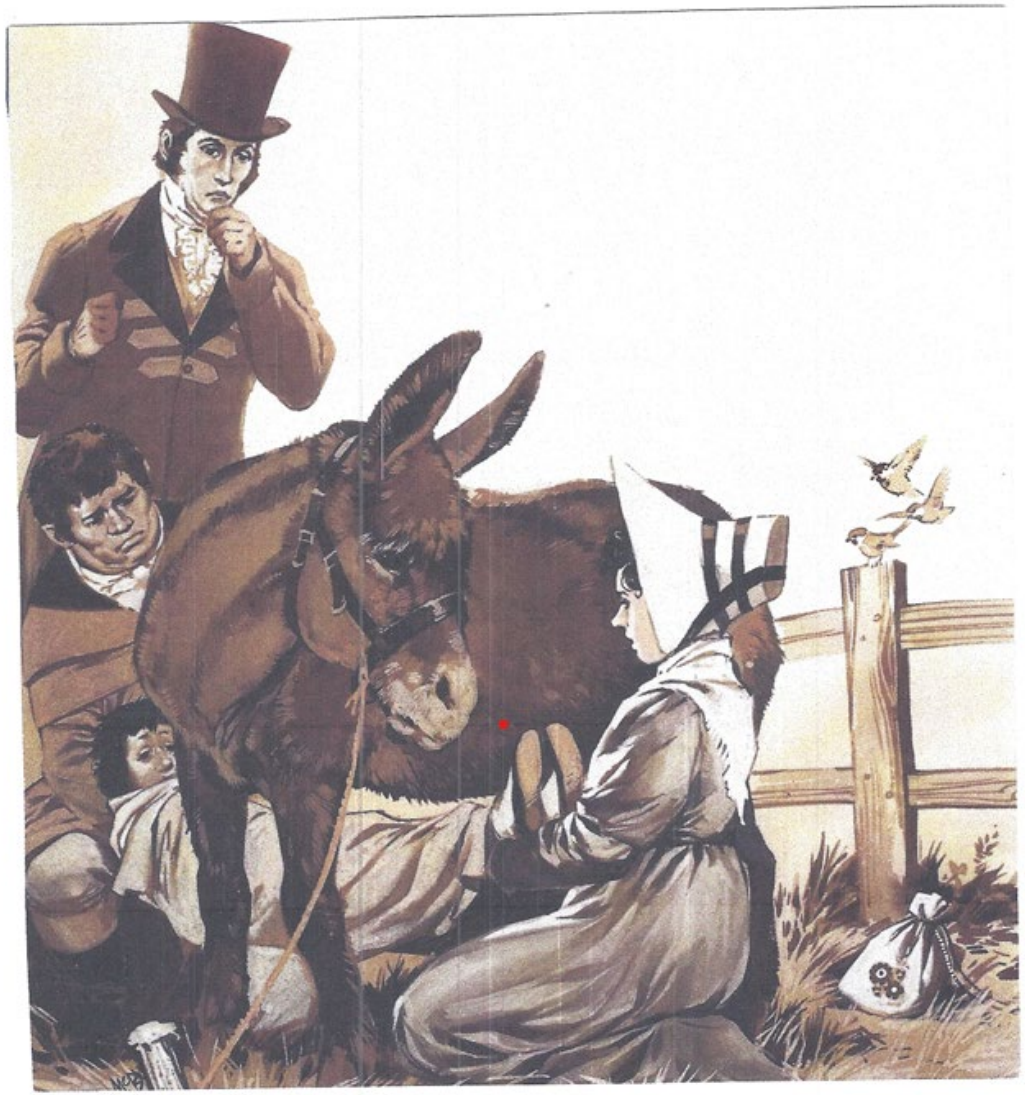
The customer never buys a product. By definition the customer buys the satisfaction of a want.

He buys value…….

- Peter Drucker


SCIENCE VS. EVERYTHING ELSE
ANSWERS
SIMPLE BUT WRONG
COMPLEX BUT RIGHT
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1700's Whooping Cough/Pertussis treatment



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Questions and Discussion

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Thank you for joining us today.

Mark your calendars: MDRO's:

Understanding the Threat

November 24, 2026: 12:00-1:00pm CST

This educational program is sponsored by the South Dakota Department of Health HAI/AR Progam.

This project is supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling $1,777,753 with 100 percent funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government. Award Number 6NU50CK000512-03-02.