MEDICINE FOR A CHANGING PLANET

Air Pollution: Key Clinical Points

Vulnerability to Air Pollution:
(Host Risk Factors)

- Underlying cardiac disease
- Underlying lung disease
- Older age
- Infants
- Respiratory infection

Exposure Risks:

- Indoor cookstoves
- Poor ventilation
- Animals in house
- Wildfires
- Dust storms
- Outdoor air pollution
- Pollen

Screening Questions:

- Are your symptoms worse in particular environments or with particular activities?
- Is there an indoor cookstove?
- Are you aware of fires or other outdoor sources of air pollution?
- Then ask about potential exposure sources

Assessing Risk in Patient:

1. What is the exposure
2. HOW MUCH exposure
3. HOW MUCH RISK (1 and 2)
4. HOW VULNERABLE is the patient
5. Combined risk assessment from 3 and 4

Preventive Management:

- Reduce host vulnerability (improve risk factors: optimize cardiac and respiratory status)
- Reduce exposures: change cookstove/fuel type, improve ventilation, avoid outdoor exposures, wear dust mask, consider air purifiers if feasible

Call to Action:

- Engage with community efforts to improve air quality
- Report increased cases to health department
- Advocate for clean and renewable energy

Data Sources on Air Pollution:

Look for online data such as www.iqair.com/us/

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The Big Picture:

Air pollution, both indoor and outdoor, can adversely affect respiratory and cardiac function in patients. Prolonged exposure to air pollution can cause COPD and lead to right heart failure.