Environmental Medicine and the “E” in OEMAC

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“Take two tablets prn for leaf curling and I’m referring you to a specialist to rule out Dutch elm disease.”

Disclosures

- I support myself as a consultant in the fields of health, safety, environment, and sustainability.
- I was a founder of the Canadian Association of Physicians for the Environment.
- I have written or edited several books, including:
  - The Canadian Guide to Health and the Environment (Univ. of Alberta Press, 2001)
  - The Praeger Handbook of Occupational and Environmental Medicine (Praeger, 2009)
  - Health and Sustainability (Oxford, 2015)

This Presentation

- Why Occupational “and Environmental” Medicine?
- What is “environmental medicine”, anyway?
- How can physicians actually practice “environmental medicine”?
- How can physicians contribute to “environmental medicine” and environmental concerns broadly?
Occupational and Environmental Medicine

- Environmental exposures are similar to occupational exposures, differ in degree
  - Measurement technology and interpretation
  - Physiological principles are the same
  - Primacy of allergic disease
  - Application of toxicology and epidemiology
  - Centrality of exposure assessment
- Environmental responsibilities
- Frequent clinical consultations
  - 16% in my clinic
  - Mostly IAQSBS, mold and pesticides
- Medicolegal work
  - Mostly pesticides, mold, hazardous waste, groundwater contamination
  - Class actions present special challenges

How can I both practice medicine and protect the environment?

Scope of OEM

What is “Environmental Medicine”? 

- Clinicians: diagnosis and management of disease related to environmental exposure (OEMAC, AOEC)
- Public health professionals: preventing disease related to environmental exposure (CPHA)
- Ecosystem Health: Humankind on the planet (EcoHealth, late ISEH)
- Activists: Physicians’ role in saving the earth (ISDE, PSR, PGS)
- Alternative practitioners: “Clinical ecology”; MCS
- Medical directors: Regulatory compliance, institutional public health, product stewardship
Alternative Views

THE PYRAMID OF TRIOS
OF ROPE ECOSYSTEMS

Players in Environmental Medicine

Questionable legitimacy!

Concepts of “Environmental Medicine”
Resolving the Confusion

- "Clinical ecology" vs. Medical Model
- Global Survival Model vs. Public Health Model
- Ecopsychology vs. Ecosystem health

Some differences, as well.

- Getting away from cataloguing lists of environmental disease (e.g. ATSDR, Health Canada)
- Population health models over clinical models
  - Environmental exposures act subtly over a large population
  - Individual cases of documented disease rare
- Alternative medicine advocacy model
  - Constantly changing, dominates on web
  - Need to "take back" name of environmental medicine
- Specific solutions for specific problems
  - General expertise not so highly valued as problem-solving
  - Risk communication – highly specialized skill
  - Litigation support
Opportunities for Working in Environmental Medicine

- Natural extension of clinical scope of practice
- Demand for services
  - Clinical consultation
  - Litigation support (causation)
  - Services to clients, employers
  - Regulatory compliance
- Risk communication services
  - Pediatric environmental health, esp.
- Need for evidence-based services

Normah Specialist Medical Centre in Kuching, Malaysia, attracts offshore patients by emphasizing their environment.

Business Model

- Government regulatory agencies
- Academic and research careers (CIHR)
- Corporate medical departments, consultancy
  - Risk and liability management
  - Environmental standards compliance
  - Institutional public health
  - Product stewardship
- Consultation practice
  - Medicolegal practice, litigation support
  - Clinical (pro bono and in support of medicolegal)

Problems - 1

- Clinical services not viable unless subsidized
  - Not enough valid clinical activity to support a practice
  - High overhead and very time consuming
  - Payer reluctance after initial consultation
  - Necessary, however, for credibility as medical expert
- Expectations and stereotyping
  - Advocacy rather than evidence-based practice
  - Patients reject evidence-based practice
- Suspicion of irrelevancy
- Complexity
  - Multiple exposure
  - Ecosystem and human health
  - Perceptions
  - Laboratory services

“Holistic”, “wholistic”, or full of it?
Complexity

Problem - 2
- Fuzzy image
- Scope of practice not recognized, standardized
- Amateur hour: idea that anyone can play at environmental medicine
- Alternative medicine advocates, misinformation on web

Solutions
- Broad preparation in environmental science
- Preparation in medicolegal practice
- Emphasis on issues most aligned with OM:
  - Institutional public health
  - Built environment (esp. “sick building syndrome”)
  - Compliance with environmental regulations
  - Product stewardship and life cycle impact
  - Product- and service-centered approach rather than media approach
The Green Physician

- **Professional Commitment**
  - Green hospitals and healthcare
- **Career Commitment**
  - Public health: environmental health
  - Occupational and environmental medicine
- **Activist Commitment**
  - Knowledgeable advocacy: CAPE, IPPNW
  - Community issues: be aware of physician’s special responsibilities!
- For further exploration of topic:

Anton Chekhov was the original “green physician”: conservation and public health advocate.

How Physicians Can Contribute

- Public and professional education
  - Foundational (integrating health into ecology)
  - Issue-specific (physician carries special responsibilities)
  - Correcting misinformation
- Leading by example (e.g. Green Hospitals)
- Leading through medical organizations
- Political action
- Documenting environmental problems
- Case finding (beware of cancer clusters!)
- “Population health”