

Key Competencies for Clinicians from National Strategies for Healthcare Providers: Pesticides Initiative

EPA, in partnership with several federal agencies and organizations, leads the National Strategies for Health Care Providers: Pesticides Initiative. Established in 1998, the Initiative goal is to improve the recognition, diagnosis, treatment, and prevention of pesticide-related illnesses. As a framework to achieve this goal, the Initiative developed a set of practical skills to guide students, nurses and practicing clinicians in recognizing and managing pesticide-related illnesses. These skills and competencies can be integrated into existing education and training of healthcare providers to facilitate the effective management of patients with suspected pesticide-related illnesses.¹

NATIONAL PESTICIDE PRACTICE SKILLS GUIDELINES FOR MEDICAL AND NURSING PRACTICE²

PRACTICE SKILL I: TAKING AN ENVIRONMENTAL HISTORY

- Understand the purposes and general principles for taking an occupational and environmental history.
- Incorporate general occupational and environmental screening questions into routine patient histories.
- Be able to take a complete occupational and environmental exposure/health history for adults and children.

PRACTICE SKILL II: AWARENESS OF COMMUNITY AND INDIVIDUAL PESTICIDE RISK FACTORS

- Possess basic awareness of occupational and environmental aspects of communities in which patients live.
- Recognize high-risk occupations for pesticide exposure.
- Develop community resource list.

PRACTICE SKILL III: KNOWLEDGE OF KEY HEALTH PRINCIPLES

- Demonstrate key principles of environmental/occupational health, epidemiology, and population-based health.
- Understand the dose-response relationship.
- Understand measures of morbidity/mortality and study designs.

PRACTICE SKILL IV: CLINICAL MANAGEMENT OF PESTICIDE EXPOSURE

- Know different groups of pesticides, their mechanism of toxicity (pathophysiology) and adverse health effects.
- Recognize the signs and symptoms of pesticide exposures (both acute and chronic).
- Diagnose pesticide-related illness using appropriate testing procedures and treat pesticide over-exposures.
- Treat and manage health conditions associated with pesticide exposure (know anticholinergic agents and dosages, antidote for organophosphates, treatment of seizures) or refer patients to appropriate specialists and resources, and follow up appropriately.

PRACTICE SKILL V: REPORTING PESTICIDE EXPOSURE AND SUPPORTING SURVEILLANCE EFFORTS

- Understand the importance of surveillance and reporting.
- Know the roles of federal and state regulatory agencies with regard to pesticide exposure control.
- Report pesticide exposures as required.

PRACTICE SKILL VI: PROVIDING PREVENTION GUIDANCE AND EDUCATION TO PATIENTS

- Engage in primary prevention strategies to promote health and prevent disease among patients.
- Work proactively with patients and the community to prevent exposure, ensure early detection, and limit effects of illness.

¹For more information visit EPA's Web page on the National Strategies for Health Care Providers: Pesticide Initiative at: <http://www.epa.gov/oppfead1/safety/healthcare/healthcare.htm>

²Derived from <http://www.epa.gov/oppfead1/safety/healthcare/practiceskifinal.pdf>