







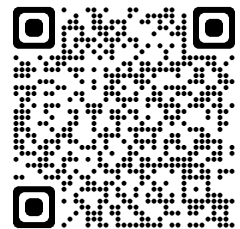
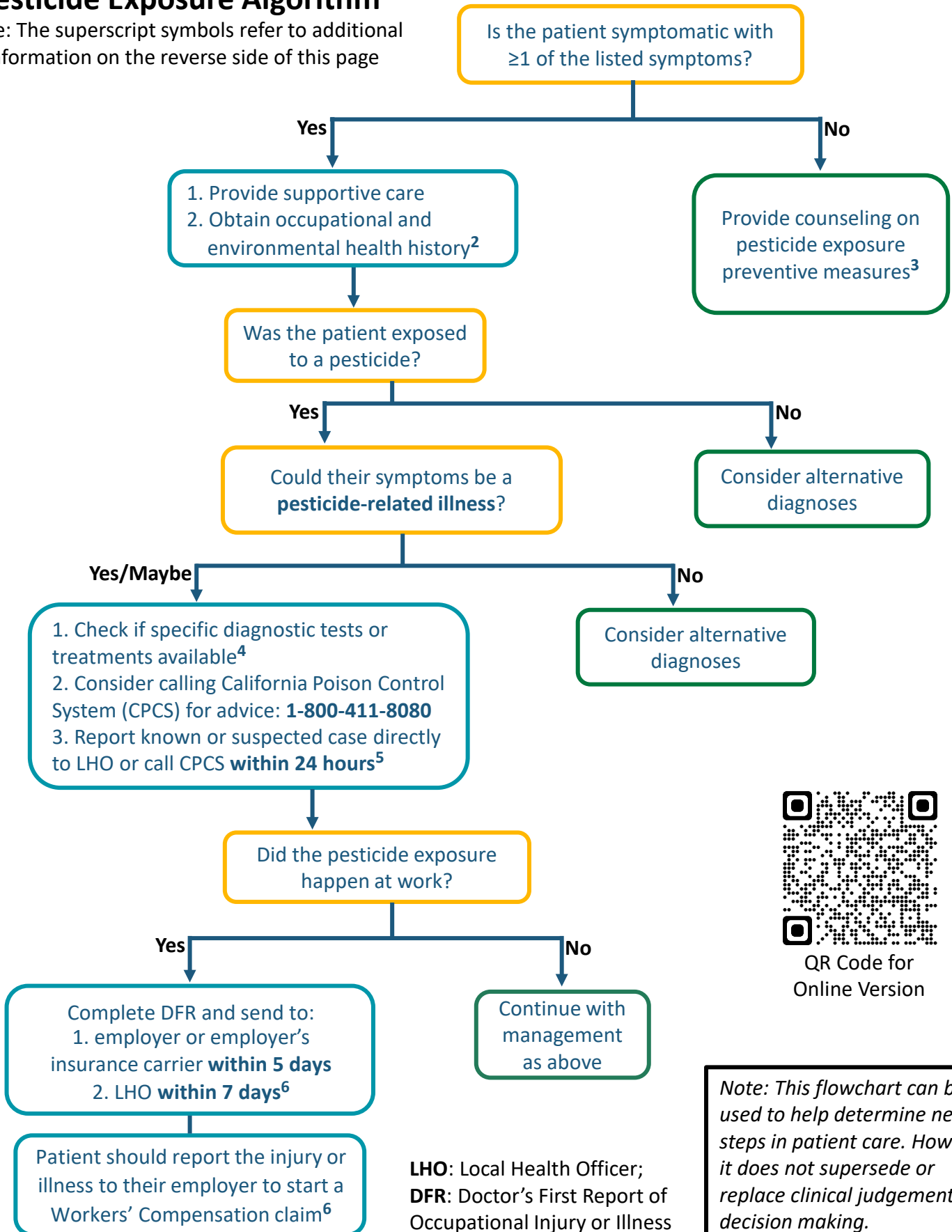
Caring for Agricultural Workers at Risk of Pesticide Exposure: A Guide for Healthcare Providers

There are many ways by which agricultural workers can be exposed to pesticides, both at work and at home¹. Symptoms of **pesticide-related illness** vary widely and may include:

	Rash, skin irritation, excessive sweating		Red eyes, eye irritation, lacrimation, change in vision, blurry vision		Chest pain
	Shortness of breath, dyspnea, productive cough		Nausea, vomiting, diarrhea, abdominal pain		Fatigue, weakness, headache, muscle fasciculations, dizziness, confusion, seizure, loss of consciousness, paresthesia, changes in mood or behavior

Pesticide Exposure Algorithm

Note: The superscript symbols refer to additional information on the reverse side of this page



QR Code for Online Version

Note: This flowchart can be used to help determine next steps in patient care. However, it does not supersede or replace clinical judgement and decision making.

LHO: Local Health Officer;
DFR: Doctor's First Report of Occupational Injury or Illness

1 Pesticide Exposure Pathways:

Agricultural workers can be exposed to pesticides during preparation and application, by drift from neighboring fields, or by contact with pesticide residues on crops, soil, or spraying and mixing equipment. Additionally, agricultural workers may bring pesticide residues home on their shoes and clothes exposing themselves and people living in their households. Pesticides can also accumulate in house dust and remain on surfaces for a long period of time. Dust can later be inhaled or ingested.

2 Examples of Environmental and Occupational Exposure History Questions:

- What kind of work do you do? What are your specific job duties?
- Do you handle or come in close contact with pesticides at work?
 - If so, do you use personal protective equipment when handling pesticides?
- Do you take steps to prevent carrying pesticides from work into your home?
- Exposure details: timing, duration, amount, route.
- Are your symptoms worse at work, and do they improve when off work?
- Are any co-workers or individuals living with you experiencing similar symptoms?

3 Preventive Measures:

At Work:

- Carefully read and follow instructions on pesticide labels.
- Mix, load, or apply restricted-use pesticides only if you are certified.
- Do not enter treated areas during the restricted entry interval.
- Wear appropriate personal protective equipment (PPE) that fits.
- Wash hands before eating, drinking, and using the bathroom.

At Home:

- Remove work clothes and shoes before entering the house. Leave work shoes outside and immediately take a shower upon return.
- Wash work clothes separately from family laundry.

4 Diagnostic and Treatment Recommendations:

- Call the California Poison Control System for advice.
- Refer to US EPA's Recognition and Management of Pesticide Poisonings: 6th Edition.
<https://www.epa.gov/pesticide-worker-safety/recognition-and-management-pesticide-poisonings>

5 Pesticide-Related Illness Reporting:

By California law, physicians and other healthcare providers must report known or suspected pesticide illness or injury **within 24 hours to the Local Health Officer (LHO)**. Information on reporting can be found here: <https://oehha.ca.gov/pesticides/pesticide-illness-surveillance-pesticide-illness-reporting>

Four ways to Report:

- Call the California Poison Control System
- Contact the LHO directly
- Complete a Confidential Morbidity Report (CMR) and submit to the LHO
- Submit via the California Reportable Disease Information Exchange (CalREDIE)

6 Doctor's First Report of Occupational Injury or Illness (DFR) and Workers' Compensation:

Every physician who treats an injured employee must file a DFR
<https://www.dir.ca.gov/dwc/Electronic-Reporting-System-for-DFR/Index.htm>).

The main purpose of the DFR is to administer the California Workers' Compensation system. Workers' Compensation provides medical care and wage replacement benefits to workers who suffer on-the-job injuries and illnesses. In California, regardless of whether a worker is documented or undocumented, they are eligible to receive workers' compensation and it does not matter who is responsible for the accident. It is illegal for employers to punish or fire employees who have a job-related illness or injury or who request workers' compensation benefits.

Patients should report injury or illness to their employer within 30 days of the incident in order to avoid losing their right to workers' compensation benefits.

Coding for Pesticide-Related Illness:

A list of ICD-10 codes relating to the toxic effects of pesticide exposure and the signs and symptoms of pesticide-related illnesses can be found here:

<https://pesticideresources.org/med/resources/coding-for-pesticide-related-illness.pdf>.

