# Board 5 - Acute occupational disinfectant-related poisoning in Texas workers, 2006-2015

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Tuesday, November 5, 2019

9:00 AM - 10:00 AM

*Pennsylvania Convention Center - Hall AB*

**Session:** New researchers/practitioners in OHS poster competition

**Program:** Occupational Health and Safety

## Abstract

**Introduction:** Disinfectants are antimicrobial pesticides widely used to destroy harmful pathogens, which, if misused, can affect exposed workers' health. Previous research on acute occupational pesticide-related poisonings (AOPP) in Texas demonstrated that 51% of these cases are caused by disinfectants. This study evaluated the Texas Department of State Health Services Pesticide Exposure Surveillance in Texas (PEST) program data to examine acute occupational disinfectant-related poisonings (AODP) among workers in Texas during 2006-2015.

**Methods:** We extracted PEST program surveillance data for cases of AODP in workers aged 16 years and older during 2006-2015. We then examined the distribution of AODP by worker demographics, industry, occupation, exposure route and site, health effects, treatment site, personal protective equipment used, and contributing factors. Next, we calculated incidence rates for AODP using the Bureau of Labor Statistics Current Population Survey full-time equivalent (FTE) worker estimates as a denominator. Poisson regression analyses were conducted to estimate incidence rate ratios and 95% confidence intervals (CI).

**Results:** There were 1,008 cases of AODP during 2006-2015, with a rate of 0.9 cases per 100,000 FTE workers in Texas. The 10-year AODP rates were highest in female workers (456; 0.9/100,000 FTE workers), workers aged 16-17 years (43; 6.7/100,000 FTE workers), and workers in service occupations (254; 12.3/100,000 FTE workers). The most frequently-reported exposure site was non-manufacturing commercial facilities (242, 24%). The most common contributing factor was spill/splash of liquid or dust (135, 13%). Frequently reported health effects included cough (334, 33%), dyspnea (279, 28%), and upper respiratory pain (253, 25%).

**Conclusion:** AODP are a public health concern. Further analyses of surveillance data will help identify high-risk worker populations for AODP and tailor prevention strategies.

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## Learning Areas

## Learning Objectives

Describe the epidemiology of acute occupational disinfectant-related poisonings in Texas workers between 2006-2015. Identify Texas worker populations at high risk of acute occupational disinfectant-related poisonings. Assess the most commonly reported adverse health effects associated with acute occupational disinfectant-related poisonings.

## Keyword(s)

Occupational Health and Safety, Surveillance

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