



# The California Poison Control System

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# The California Poison Control System

- ❖ Formed in 1997 by consolidation of six independent statewide PCCs
- ❖ Single administrative system at UCSF with 4 regional hotline sites:
  - ◆ Sacramento
  - ◆ San Francisco
  - ◆ Fresno
  - ◆ San Diego
- ❖ Single statewide #: 1-800-222-1222 (public)

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# PCCs - What do they do?

## *Individual cases:*

- ❖ Determine severity of poisoning hazard
- ❖ Triage: home management vs hospital
- ❖ Recommend specific treatment / antidotes

## *Societal:*

- ❖ Poison prevention and education
- ❖ Surveillance for emerging epidemics

# Two service components on a 24/7 basis

## ❖ *Public Hotline for Poison Management and Advice*

- Emergency hotline for public
- Efficient use of technology

## ❖ *Medical Toxicology Consultation Service*

- For MDs & other professionals
- Specialized services - pesticide reporting

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# POISON HOTLINE 1-800-876-4766

TTY 1-800-972-3323  
(Speech and Hearing Impaired Only)

The CPCS is a statewide network of trained experts who provide toll-free hotline information and advice about treating poisonings 24 hours a day, everyday - free of charge. Interpreting services available in over 100 languages.

## CALIFORNIA POISON CONTROL SYSTEM

General Public

Health Care Professionals

About CPCS

Order Materials

español  
*Spanish*

中文  
*Chinese*

Việt Ngữ  
*Vietnamese*

Tagalog

عربي  
*Arabic*

ລາວ  
*Laotian*

Русский  
*Russian*

한국어  
*Korean*

Hmoob  
*Hmong*

ខ្មែរ  
*Cambodian*

TIGRINYA

English

*Emergency action information is available in 12 languages.  
All hotline phone numbers are valid in California only.*

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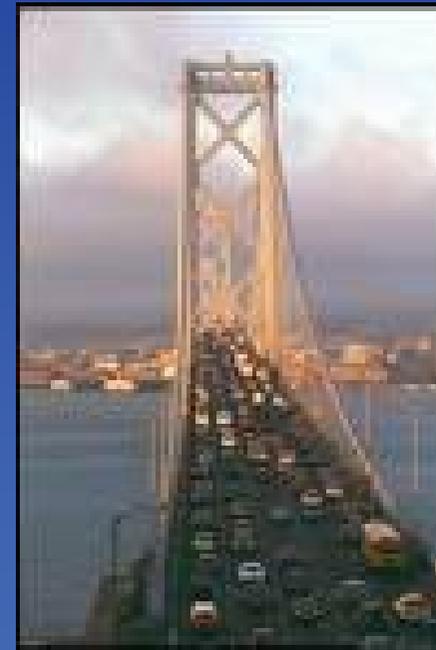
# Staffing Model

## ❖ Staff answering hotline-

- ◆ PharmD CSPI
- ◆ PIP
- ◆ Medical director & managing director

## ❖ Follow up of hospital cases

- ◆ PharmD CSPI
- ◆ Toxicology fellows
- ◆ Teaching service under supervision of staff or fellows
  - ❖ students and visiting residents
  - ❖ usually after hospital day #2



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# Workstation at the PCC



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# Staff Demographics

## All PharmD CSPI staff

- ◆ Average years =14
- ◆ Range of years: 5-25
- ◆ Cumulative Experience 140 Yr.

## PIP Staff

- ◆ Pharmacy Technicians
- ◆ Average years= 12
- ◆ Range of years: 10-14



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# Call Volume & Work Load

## ❖ Call volume

- ◆ CPCS~ 1000 new cases/day
- ◆ ~300,000 cases per year
- ◆ 25% Health care facility
- ◆ 75% public callers

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Incoming telephone call

Greeting in English & Spanish

San Francisco

BUSY

Sacramento

CALL DIRECTED TO NEXT AVAILABLE HOTLINE STAFF

San Diego

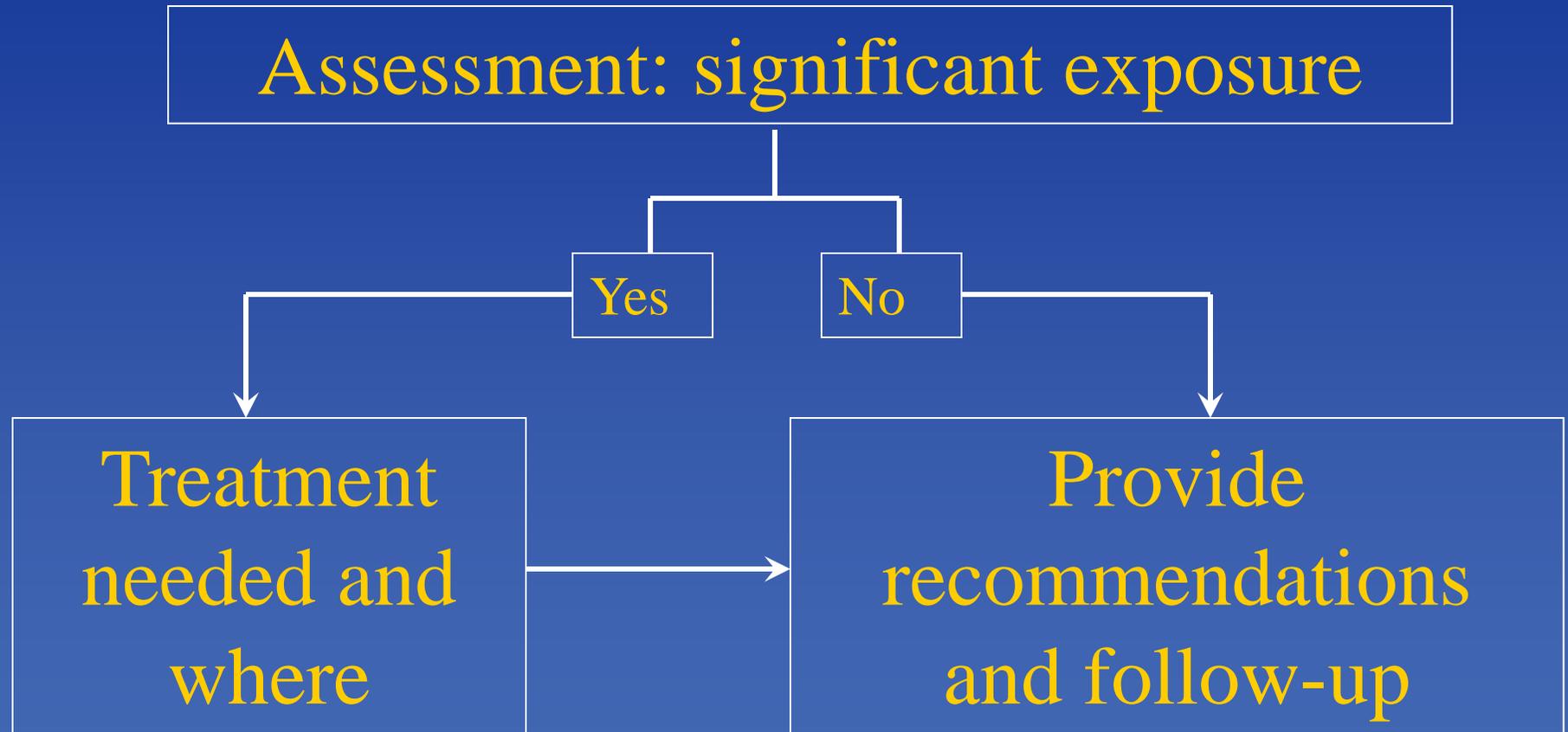
BUSY

Fresno

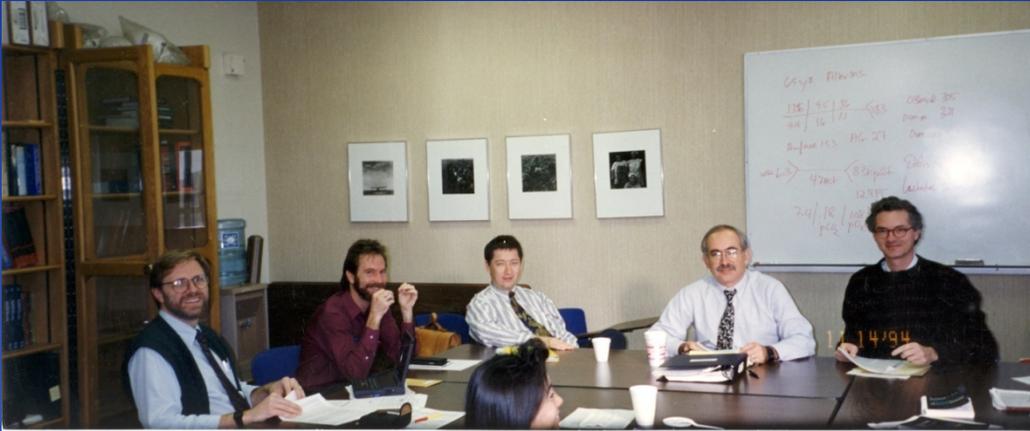
BUSY

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# Handling a Poisoning Call



# Use of Medical Back up



- ❖ As needed
- ❖ Difficult or unusual cases – sentinel case?
- ❖ Interesting cases – teaching value

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# Management Site for Poison Center Callers - CPCS

## Site

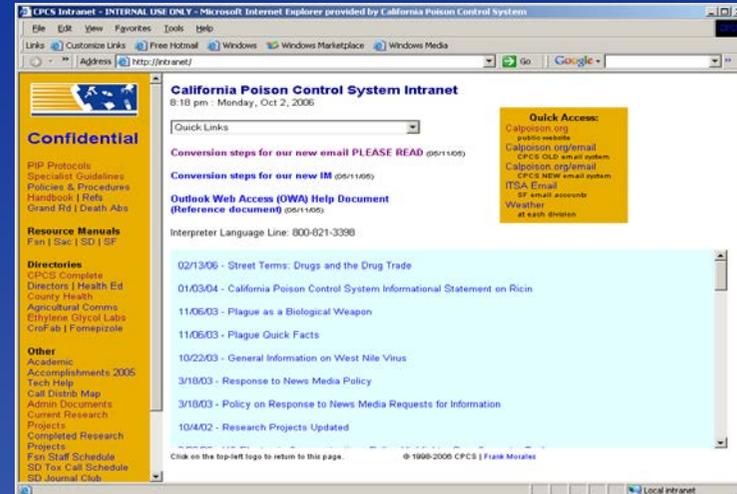
Home	77.96%
Health care facility	19.54%
Refused referral	1.97%
Other/unknown	0.53%

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# Policies & Guidelines

## CPCS 'intranet' website

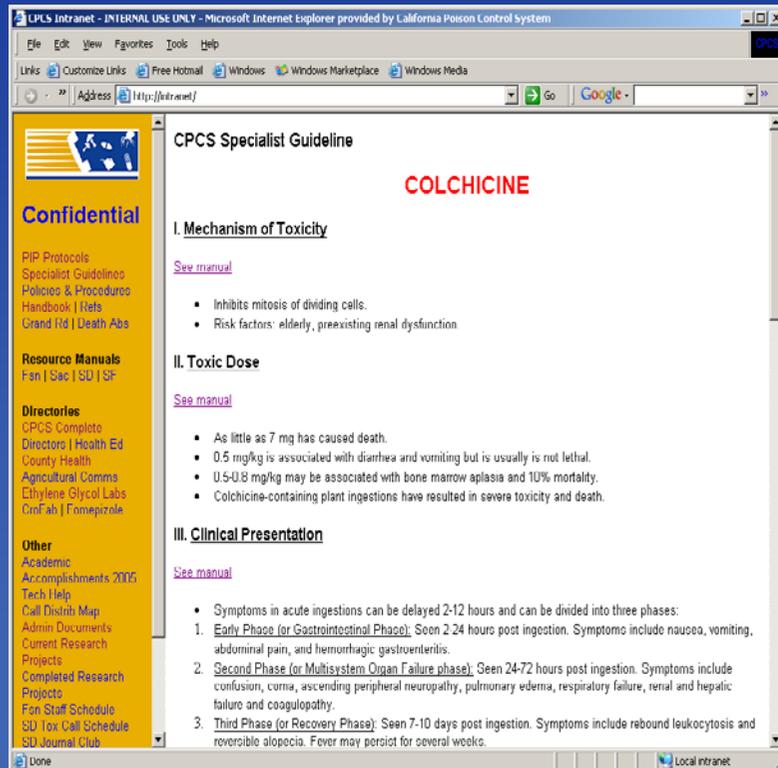
- ◆ PIP Protocols
- ◆ SPI Guidelines
- ◆ Suggested Pediatric send in guidelines.
- ◆ Poisoning & Drug Overdose in E-format



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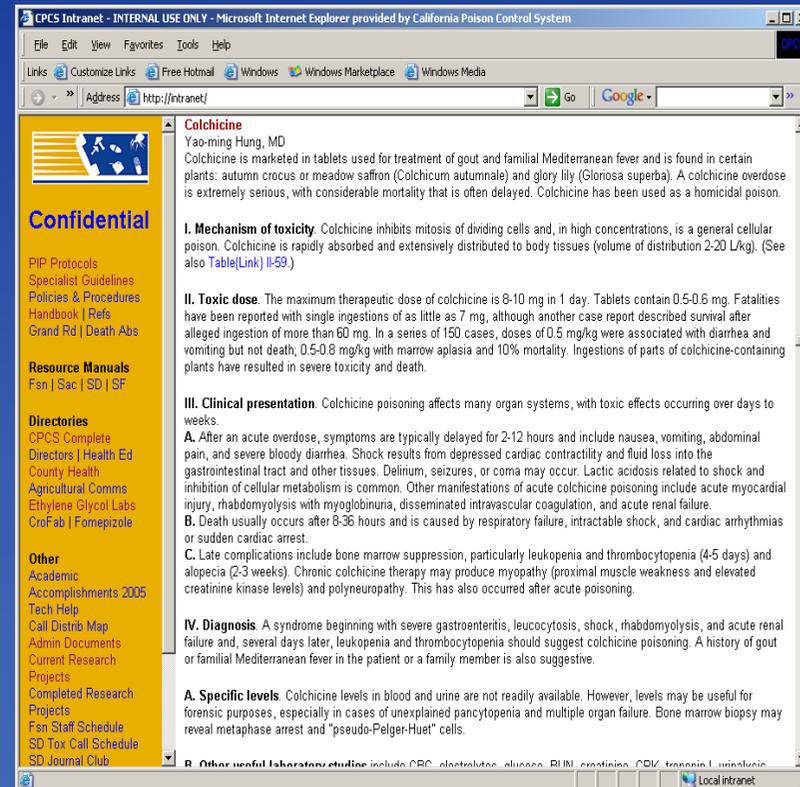
# Example SPI Guideline- Colchicine

Click on **link** = pulls up 'manual', Monograph from Poisoning & Drug Overdose.



The screenshot shows a web browser window titled "CPCS Specialist Guideline" for Colchicine. The page is marked as "Confidential" and contains the following sections:

- I. Mechanism of Toxicity**
  - [See manual](#)
  - Inhibits mitosis of dividing cells.
  - Risk factors: elderly, preexisting renal dysfunction.
- II. Toxic Dose**
  - [See manual](#)
  - As little as 7 mg has caused death.
  - 0.5 mg/kg is associated with diarrhea and vomiting but is usually is not lethal.
  - 0.5-0.8 mg/kg may be associated with bone marrow aplasia and 10% mortality.
  - Colchicine-containing plant ingestions have resulted in severe toxicity and death.
- III. Clinical Presentation**
  - [See manual](#)
  - Symptoms in acute ingestions can be delayed 2-12 hours and can be divided into three phases:
    - Early Phase (or Gastrointestinal Phase):** Seen 2-24 hours post ingestion. Symptoms include nausea, vomiting, abdominal pain, and hemorrhagic gastroenteritis.
    - Second Phase (or Multisystem Organ Failure phase):** Seen 24-72 hours post ingestion. Symptoms include confusion, coma, ascending peripheral neuropathy, pulmonary edema, respiratory failure, renal and hepatic failure and coagulopathy.
    - Third Phase (or Recovery Phase):** Seen 7-10 days post ingestion. Symptoms include rebound leukocytosis and reversible alopecia. Fever may persist for several weeks.



The screenshot shows a web browser window titled "Colchicine" monograph. The page is marked as "Confidential" and contains the following sections:

- Colchicine**

Yao-ming Hung, MD

Colchicine is marketed in tablets used for treatment of gout and familial Mediterranean fever and is found in certain plants: autumn crocus or meadow saffron (*Colchicum autumnale*) and glory lily (*Gloriosa superba*). A colchicine overdose is extremely serious, with considerable mortality that is often delayed. Colchicine has been used as a homicidal poison.
- I. Mechanism of toxicity.** Colchicine inhibits mitosis of dividing cells and, in high concentrations, is a general cellular poison. Colchicine is rapidly absorbed and extensively distributed to body tissues (volume of distribution 2-20 L/kg). (See also [Table\(Link\) II-59.](#))
- II. Toxic dose.** The maximum therapeutic dose of colchicine is 8-10 mg in 1 day. Tablets contain 0.5-0.6 mg. Fatalities have been reported with single ingestions of as little as 7 mg, although another case report described survival after alleged ingestion of more than 60 mg. In a series of 150 cases, doses of 0.5 mg/kg were associated with diarrhea and vomiting but not death; 0.5-0.8 mg/kg with marrow aplasia and 10% mortality. Ingestions of parts of colchicine-containing plants have resulted in severe toxicity and death.
- III. Clinical presentation.** Colchicine poisoning affects many organ systems, with toxic effects occurring over days to weeks.
  - After an acute overdose, symptoms are typically delayed for 2-12 hours and include nausea, vomiting, abdominal pain, and severe bloody diarrhea. Shock results from depressed cardiac contractility and fluid loss into the gastrointestinal tract and other tissues. Delirium, seizures, or coma may occur. Lactic acidosis related to shock and inhibition of cellular metabolism is common. Other manifestations of acute colchicine poisoning include acute myocardial injury, rhabdomyolysis with myoglobinuria, disseminated intravascular coagulation, and acute renal failure.
  - Death usually occurs after 8-36 hours and is caused by respiratory failure, intractable shock, and cardiac arrhythmias or sudden cardiac arrest.
  - Late complications include bone marrow suppression, particularly leukopenia and thrombocytopenia (4-5 days) and alopecia (2-3 weeks). Chronic colchicine therapy may produce myopathy (proximal muscle weakness and elevated creatinine kinase levels) and polyneuropathy. This has also occurred after acute poisoning.
- IV. Diagnosis.** A syndrome beginning with severe gastroenteritis, leucocytosis, shock, rhabdomyolysis, and acute renal failure and, several days later, leukopenia and thrombocytopenia should suggest colchicine poisoning. A history of gout or familial Mediterranean fever in the patient or a family member is also suggestive.
  - Specific levels.** Colchicine levels in blood and urine are not readily available. However, levels may be useful for forensic purposes, especially in cases of unexplained pancytopenia and multiple organ failure. Bone marrow biopsy may reveal metaphase arrest and "pseudo-Pelger-Huet" cells.
  - Other useful laboratory studies** include CBC, electrolytes, glucose, BUN, creatinine, CO<sub>2</sub>, troponin I, urea, liver

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# 2011 Japan Earthquake Information

- ❖ [Coding Cases Related to the Japan Earthquake with Templates](#)
- ❖ [Information for PCs – Travelers Returning From Japan: CDC plans and procedures](#)
- ❖ [AAPCC Japan Earthquake 2011: Nuclear Concerns Master FAQ's Ver. 2 25 March 2011](#)
- ❖ [CDC Interim Recommendation for Evaluation of Passengers from Japan](#)
- ❖ [Additional Traveler FAQs](#)
- ❖ [Traveler Screening Script for CBP Officers](#)
- ❖ [Information for Travelers Who Have Tested Positive for Radioactive Material](#)
- ❖ [List of Airports Receiving Direct Flights from Japan.pdf](#)
- ❖ [CDPH FAQs about Radiation](#)

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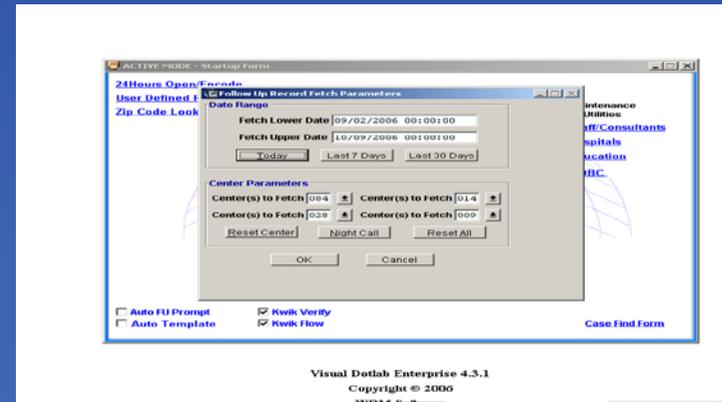
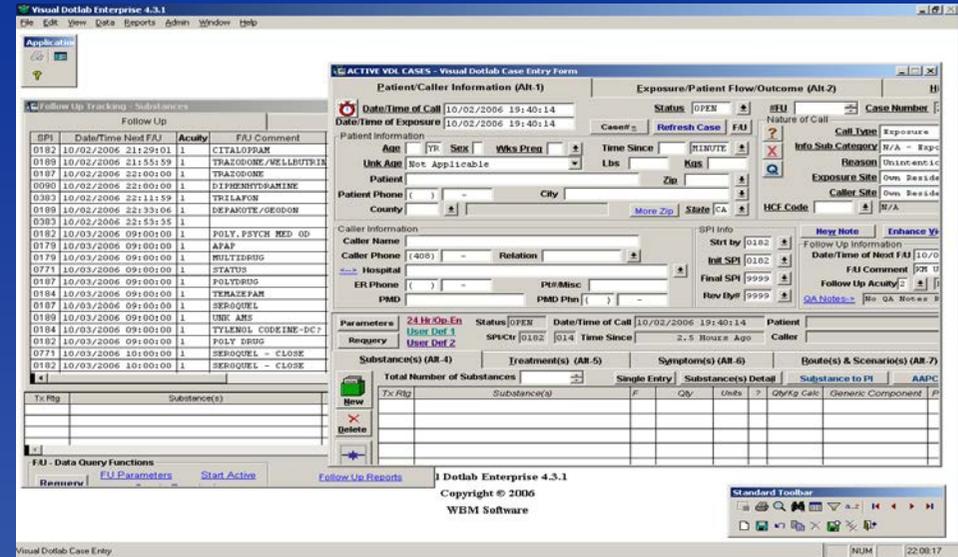
# Follow-up

- ❖ CPCS follows cases based on clinical need.
- ❖ Hospital cases are actively managed with numerous follow-ups throughout the hospital course.

# Documentation

## Documentation VDL program

- ◆ All 4 CPCS sites
- ◆ Use 'follow up' parameters to narrow search to just one center.
- ◆ Can quickly access data from other centers when overflow calls come through



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# Continued Learning



Bi-monthly Journal Club

Bi-Monthly Statewide Rounds - a Statewide teleconference

Weekly SF Grand Rounds

Bi-monthly SF Lecture Series given by visiting experts, attending physicians, and staff specialist topics.

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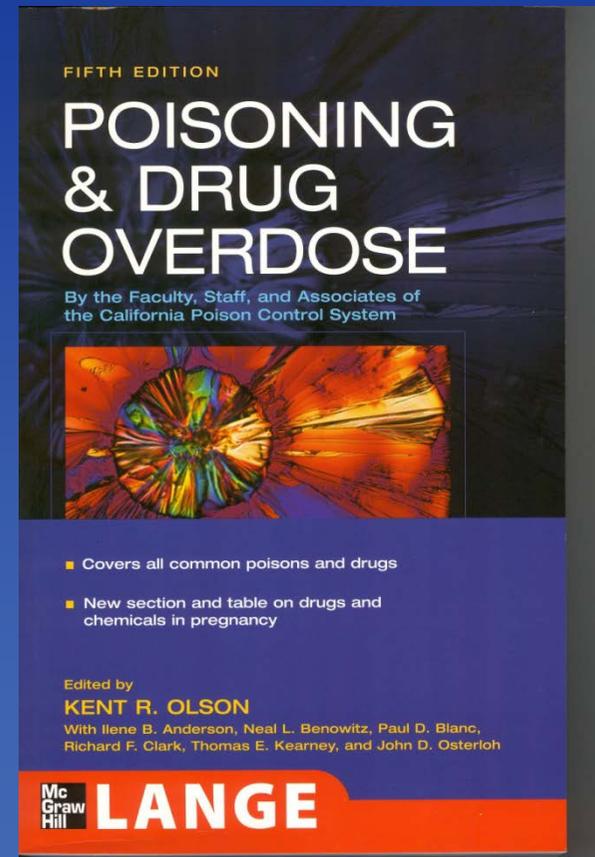
# Publications

## Poisoning & Drug Overdose.

- ❖ 1<sup>st</sup> Edition in 1989
- ❖ All San Francisco Staff invited to contribute

Now all CPCS contribute to this publication.

Updated every 2 years.



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