

# CHEMICAL EMERGENCIES

### CASE DEFINITION

## Colchicine

## Clinical description

Ingestion of colchicine typically leads to profuse vomiting and diarrhea, which can be bloody, followed by hypovolemic shock and multisystem organ failure within 24-72 hours. Coma, convulsions, and sudden death might also occur. Subsequent complications include bone marrow suppression with resultant leukopenia, thrombocytopenia (nadir in 4-7 days), and possibly sepsis (1).

# Laboratory criteria for diagnosis

• *Biologic*: A case in which colchicine is detected in urine, serum, or plasma (2), as determined by a commercial laboratory.

-OR-

• Environmental: Detection of colchicine in environmental samples, as determined by FDA.

#### Case classification

- Suspected: A case in which a potentially exposed person is being evaluated by health-care workers or public health officials for poisoning by a particular chemical agent, but no specific credible threat exists.
- *Probable*: A clinically compatible case in which a high index of suspicion (credible threat or patient history regarding location and time) exists for colchicine exposure, or an epidemiologic link exists between this case and a laboratory-confirmed case.
- *Confirmed*: A clinically compatible case in which laboratory tests have confirmed exposure.

The case can be confirmed if laboratory testing was not performed because either a predominant amount of clinical and nonspecific laboratory evidence of a particular chemical was present or a 100% certainty of the etiology of the agent is known.

#### Additional resources

- 1. Milne ST, Meek PD. Fatal colchicine overdose: report of a case and review of the literature. Am J Emerg Med 1998;16:603--8.
- 2. Tracqui A, Kintz P, Ludes B, Rouge C, Douibi H, Mangin P. High-performance liquid chromatography coupled to ion spray spectrometry for the determination of colchicine at ppb levels in human biofluids. Chromatogr B: Biomed Sci Appl, 1996;675:235-42.

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