



Toxic Exposures: Key Clinical Points

Diagnosis

- Recognition of toxic exposures can be lifesaving – history is key.
- Clinicians should pursue targeted diagnostic testing based on their differential diagnosis.
- Determine the hazard and the degree of exposure (dose) to determine the risk to the patient.
- Sentinel cases (human and animal) can indicate toxic risk in the environment and narrow differential diagnosis. Clinicians can play a key role in detecting sentinel cases. Communication between human health clinicians and veterinarians can improve sentinel detection.

Treatment

Treat the acute condition, but also utilize a host-environment approach to prevention:

- Improve host factors, such as (in this case) iron deficiency.
- Reduce ongoing environmental exposures, which could require both working with the patient and broader community.

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The Big Picture

- While individual-level interventions can help to reduce toxic pollution exposure, particularly in the short term, personal harm reduction measures are not nearly sufficient.
- Populations with greater resource constraints are often at greater risk – for example, in this case, local communities rely on gold mining for income. Advocating for or supporting alternative income-generating initiatives in local communities that otherwise depend on gold mining is key for this risk to be reduced or eliminated.
- Efforts to reduce pollution on a national and global scale are essential to creating both meaningful population and ecological health improvements.