

## Potassium Ferrocyanide: A Tale of the Blues

Cynthia Aaron

*Wayne State University / Children's Hospital of Michigan Regional Poison Control Center, Detroit, MI, USA*

Background: Thallium and cesium poisoning are rare events, and when they occur, rapidly obtaining the chelator Prussian Blue (PB) can be life-saving. However, the process to obtain PB is extremely arduous.

Hypothesis: To provide a more streamlined approach to obtaining a rare antidote.

Methods/Results: We obtained PB to treat a thallium-poisoned patient and established a process by which this could be repeated by other treating physicians or Poison Centers. After discussion with the Minnesota Poison Center, who had previously obtained PB for another patient, we attempted to obtain PB via the same route. However, we experienced significant roadblocks following the same pathway. We learned that PB is no longer stocked at REAC/TS, there was no hospital supply of PB in Michigan, and that our state's CBRNE stockpile no longer had PB. We then obtained an emergency supply from the CDC. Eventually, we were able to facilitate shipment from McGuff Compounding Pharmacy in California, the only US licensed supplier of PB (Radiogardase®) manufactured by Heyltex. Obtaining PB from this supplier was further complicated by restricted operating hours. We were able to locate an alternative source of compounded PB in Florida, but unique Michigan regulations related to compounded pharmaceutical products prevented its transport. We have since created an action plan that provides several alternate paths to rapidly obtain PB.

Discussion: Thallium and cesium poisoning are rare events and treatment is made more difficult because the chelator is difficult to obtain. We found unexpected barriers in securing this antidote through normal channels. However, once involved, the CDC was able to rapidly and graciously provide a temporary source of PB until we could arrange supplies through normal distribution channels. Because of these barriers, and to avoid the potential for future delays in care, we have tried to make this process smoother and more efficient.

Conclusion: Thallium and cesium poisoning are rare and require prompt antidotal therapy with PB, which is itself rare. We have streamlined a previously arduous process so that PB can be obtained reliably and emergently by other providers.