

County of Santa Clara Public Health Department



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July 19, 2010

To: All Prehospital Providers

From: Eric Rudnick, MD, FACEP
EMS Medical Director

A handwritten signature in black ink, appearing to read "Eric Rudnick", is placed to the right of the "From:" field.

Subject: Best Practice – Dystonic Reaction

The following information is related to EMS Agency review of prehospital care. Best practices learned from these reviews are applicable to all paramedic providers. Please review this important information and incorporate it into your practice.

Dystonic Reactions

All neuroleptic (antipsychotic) medications and many of the major tranquilizers can cause extrapyramidal symptoms (movement disorders). These symptoms can include dystonia, oculogyric crisis (circular movement of the eyes), torticollis (twisting of the neck), acute Parkinsonism, akathisia (rhythmic movements/restlessness), and others. The various classes of these medications can produce significant unwanted consequences such as: anticholinergic effects, Neuroleptic Malignant Syndrome (uncontrolled fever/hyperthermia), cardiac effects (prolonged QT interval), hypotension, and lowering the seizure threshold (increasing the likelihood for seizures). Anticholinergic effects can include confusion, blurred vision, constipation, inability to urinate, dry mouth, light-headed, and generalized drying of secretions.

Drugs such as: haloperidol (Haldol), loxapine (Loxatane), chlorpromazine (Thorazine), prochlorperazine (Compazine), methotrimeprazine (Nozinan), olanzapine (Zyprexa), quetiapine (Seroquel), and ziprasidone (Geodon) are examples of neuroleptics. Medications such as Compazine are utilized also for the antiemetic effect.

The clinical presentation can include: agitation, hypotension, facial grimaces, protruding tongue, torticollis, spasms of the back muscles, arching of the back, legs and arms contorted, and oculogyric crisis.

The antihistamine medications such as Benadryl restore the neurotransmitter balance. Our policy "Poisoning and Overdose (A15) clearly states that diphenhydramine (Benadryl) 50 mg IVP/IM is the appropriate dose for adults. If you feel that after 15 minutes that a repeat dose is required, then base hospital physician order is required. Please note the anticonvulsant and muscle relaxant medications Valium and Versed are not within scope, protocol, nor indicated for treating this condition.

*Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith*