MEMORANDUM

To: All Prehospital Providers

From: Eric Rudnick, MD, FACEP
EMS Medical Director

Date: August 4, 2010

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. This information has been added to our formulary and Overdose/Ingestion policy. 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 new policy states that diphenhydramine (Benadryl) 25 mg IV/IM is the appropriate dose for adults and may be repeated once for a total of 50 mg. Please note the anticonvulsant and muscle relaxant medications Valium and Versed are not within scope, protocol, nor indicated for treating this condition.