

Acetadote / Mucomyst (acetylcysteine)

Indication: Tylenol overdose

If patient's acetaminophen level falls above "possible toxicity line" they should receive treatment. The line connects at 150mcg/ml at 4 hours and 50mcg/ml at 12 hours following first order elimination. The following concentrations are the concentrations of the toxicity line for the given time post ingestion. If the levels are at or above these levels, the patient should be treated for acetaminophen toxicity.

- Hour 4: 150mcg/ml
- Hour 5: 131mcg/ml
- Hour 6: 114mcg/ml
- Hour 7: 100mcg/ml
- Hour 8: 87mcg/ml
- Hour 9: 76mcg/ml
- Hour 10: 66mcg/ml
- Hour 11: 58mcg/ml
- Hour 12: 50mcg/ml

Dosing Regimen:

Acetadote (IV): 150mg/kg in 200ml D5W over 15 minutes, then 50mg/kg in 500ml D5W over 4 hours, then 100mg/kg in 1000ml D5W over 16 hours

Mucomyst (PO): 140mg/kg once, then 70mg/kg q4 hours X 17 doses (Dilute with juice or coke: 3 ml per every ml of Mucomyst)

Dosing Chart: (Acetadote on the left side and PO Acetylcysteine on the right side)

Patient Weight (kg)	Bag #1 (mg) (IV)	Bag #1 (ml/hr) (IV)	Bag #2 (mg) (IV)	Bag #2 (ml/hr) (IV)	Bag #3 (mg) (IV)	Bag #3 (ml/hr) (IV)	140mg/kg (mg) (PO)	140mg/kg (ml of Acetylcysteine 20%) (PO)	70mg/kg (mg) (PO)	70mg/kg (ml of Acetylcysteine 20%) (PO)
45	6750	935	2250	128	4500	64	6300	31.5	3150	15.8
50	7500	950	2500	128	5000	64	7000	35.0	3500	17.5
55	8250	965	2750	128	5500	64	7700	38.5	3850	19.3
60	9000	980	3000	129	6000	64	8400	42.0	4200	21.0
65	9750	995	3250	129	6500	65	9100	45.5	4550	22.8
70	10500	1010	3500	129	7000	65	9800	49.0	4900	24.5
75	11250	1025	3750	130	7500	65	10500	52.5	5250	26.3
80	12000	1040	4000	130	8000	65	11200	56.0	5600	28.0
85	12750	1055	4250	130	8500	65	11900	59.5	5950	29.8
90	13500	1070	4500	131	9000	65	12600	63.0	6300	31.5
95	14250	1085	4750	131	9500	65	13300	66.5	6650	33.3
100	15000	1100	5000	131	10000	66	14000	70.0	7000	35.0
105	15750	1115	5250	132	10500	66	14700	73.5	7350	36.8
110	16500	1130	5500	132	11000	66	15400	77.0	7700	38.5
115	17250	1145	5750	132	11500	66	16100	80.5	8050	40.3
120	18000	1160	6000	133	12000	66	16800	84.0	8400	42.0
125	18750	1175	6250	133	12500	66	17500	87.5	8750	43.8
130	19500	1190	6500	133	13000	67	18200	91.0	9100	45.5

Acetadote / Mucomyst (continued)

Adverse reactions: Tachycardia (generally mild), gastrointestinal disorders, nausea/vomiting, immune system disorders, respiratory disorders, injection site reactions

Drug Interactions: Activated charcoal (may absorb Oral Acetylcysteine; see nursing considerations) and Nitrates (acetylcysteine may enhance effect of nitrates)

Contraindications: None

Nursing Considerations: If giving activated charcoal with gastric lavage, oral Acetylcysteine should probably be given after lavage to decrease the chance of decreased Acetylcysteine absorption. However, if necessary, the two may be given together. (Acetylcysteine absorption may vary from 75-100% of expected if given with activated charcoal) Due to the terrible taste of Mucomyst, it should be diluted with Coca-Cola (3ml per every ml of Mucomyst).