

Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project, Statistical Brief #158: Origin of Adverse Drug Events in U.S. Hospitals, 2011 (Weiss AJ, Elixhauser A, Bae J, Encinosa, W)

APPENDIX: List of Adverse Drug Event Causes with Constituent ICD-9-CM Codes and Descriptions

Antibiotics and anti-infectives	
Antibiotics	<p>760.74 Anti-infectives affecting fetus or newborn via placenta or breast milk</p> <p>960.0 Poisoning by penicillins</p> <p>960.1 Poisoning by antifungal antibiotics</p> <p>960.2 Poisoning by chloramphenicol group</p> <p>960.3 Poisoning by erythromycin and other macrolides</p> <p>960.4 Poisoning by tetracycline group</p> <p>960.5 Poisoning of cephalosporin group</p> <p>960.6 Poisoning of antimycobacterial antibiotics</p> <p>960.8 Poisoning by other specified antibiotics</p> <p>960.9 Poisoning by unspecified antibiotic</p> <p>E856 Accidental poisoning by antibiotics</p> <p>E930.0 Penicillins causing adverse effects in therapeutic use</p> <p>E930.1 Antifungal antibiotics causing adverse effects in therapeutic use</p> <p>E930.2 Chloramphenicol group causing adverse effects in therapeutic use</p> <p>E930.3 Erythromycin and other macrolides causing adverse effects in therapeutic use</p> <p>E930.4 Tetracycline group causing adverse effects in therapeutic use</p> <p>E930.5 Cephalosporin group causing adverse effects in therapeutic use</p> <p>E930.6 Antimycobacterial antibiotics causing adverse effects in therapeutic use</p> <p>E930.8 Other specified antibiotics causing adverse effects in therapeutic use</p> <p>E930.9 Unspecified antibiotic causing adverse effects in therapeutic use</p>
<i>Clostridium difficile</i> infection	<p>008.45 Intestinal infection due to <i>Clostridium difficile</i></p>

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Antibiotics and anti-infectives	
Other anti-infectives	961.0 Poisoning by sulfonamides
	961.1 Poisoning by arsenical anti-infectives
	961.2 Poisoning by heavy metal anti-infectives
	961.3 Poisoning by quinoline and hydroxyquinoline derivatives
	961.4 Poisoning by antimalarials and drugs acting on other blood protozoa
	961.5 Poisoning by other antiprotozoal drugs
	961.6 Poisoning by anthelmintics
	961.7 Poisoning by antiviral drugs
	961.8 Poisoning by other antimycobacterial drugs
	961.9 Poisoning by other and unspecified anti-infectives
	E857 Accidental poisoning by other anti-infectives
	E931.0 Sulfonamides causing adverse effects in therapeutic use
	E931.1 Arsenical anti-infectives causing adverse effects in therapeutic use
	E931.2 Heavy metal anti-infectives causing adverse effects in therapeutic use
	E931.3 Quinoline and hydroxyquinoline derivatives causing adverse effects in therapeutic use
	E931.4 Antimalarials and drugs acting on other blood protozoa causing adverse effects in therapeutic use
	E931.5 Other antiprotozoal drugs causing adverse effects in therapeutic use
	E931.6 Anthelmintics causing adverse effects in therapeutic use
	E931.7 Antiviral drugs causing adverse effects in therapeutic use
E931.8 Other antimycobacterial drugs causing adverse effects in therapeutic use	
E931.9 Other and unspecified anti-infectives causing adverse effects in therapeutic use	

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Hormones	
Steroids	<p>365.31 Corticosteroid-induced glaucoma, glaucomatous stage 365.32 Corticosteroid-induced glaucoma, residual stage 962.0 Poisoning by adrenal cortical steroids E932.0 Adrenal cortical steroids causing adverse effects in therapeutic use</p>
Insulin and Hypoglycemics	<p>962.3 Poisoning by insulins and antidiabetic agents 995.23 Unspecified adverse effect of insulin 996.57 Mechanical CX due to insulin pump E932.3 Insulins and antidiabetic agents causing adverse effects in therapeutic use</p>
Other hormones	<p>760.76 Diethylstilbestrol [DES] affecting fetus or newborn via placenta or breast milk 962.1 Poisoning by androgens and anabolic congeners 962.2 Poisoning by ovarian hormones and synthetic substitutes 962.4 Poisoning by anterior pituitary hormones 962.5 Poisoning by posterior pituitary hormones 962.6 Poisoning by parathyroid and parathyroid derivatives 962.7 Poisoning by thyroid and thyroid derivatives 962.8 Poisoning by antithyroid agents 962.9 Poisoning by other and unspecified hormones and synthetic substitutes E858.0 Accidental poisoning by hormones and synthetic substitutes E932.1 Androgens and anabolic congeners causing adverse effects in therapeutic use E932.2 Ovarian hormones and synthetic substitutes causing adverse effects in therapeutic use E932.4 Anterior pituitary hormones causing adverse effects in therapeutic use E932.5 Posterior pituitary hormones causing adverse effects in therapeutic use E932.6 Parathyroid and parathyroid derivatives causing adverse effects in therapeutic use E932.7 Thyroid and thyroid derivatives causing adverse effects in therapeutic use E932.8 Antithyroid agents causing adverse effects in therapeutic use E932.9 Other and unspec hormones and synthetic substitutes causing adv eff in therapeutic use</p>

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Systemic agents	
Antineoplastic drugs	<p>284.11 Antineoplastic chemotherapy induced pancytopenia 285.3 Antineoplastic chemotherapy induced anemia 528.01 Mucositis (ulcerative) due to antineoplastic therapy 760.78 Antimetabolic agents affecting fetus or newborn via placenta or breast milk 960.7 Poisoning by antineoplastic antibiotics 963.1 Poisoning by antineoplastic and immunosuppressive drugs E930.7 Antineoplastic antibiotics causing adverse effects in therapeutic use E933.1 Antineoplastic and immunosuppressive drugs causing adverse effects in therapeutic use</p>
Antiallergy and antiemetic drugs	<p>963.0 Poisoning by antiallergic and antiemetic drugs E933.0 Antiallergic and antiemetic drugs causing adverse effects in therapeutic use</p>
Other systemic agents	<p>963.2 Poisoning by acidifying agents 963.3 Poisoning by alkalizing agents 963.4 Poisoning by enzymes, not elsewhere classified 963.5 Poisoning by vitamins, not elsewhere classified 963.8 Poisoning by other specified systemic agents 963.9 Poisoning by unspecified systemic agent E858.1 Accidental poisoning by primarily systemic agents E933.2 Acidifying agents causing adverse effects in therapeutic use E933.3 Alkalizing agents causing adverse effects in therapeutic use E933.4 Enzymes, not elsewhere classified, causing adverse effects in therapeutic use E933.5 Vitamins, not elsewhere classified, causing adverse effects in therapeutic use E933.6 Oral bisphosphonates E933.7 Intravenous bisphosphonates E933.8 Other systemic agents, not elsewhere classified, causing adv eff in therapeutic use E933.9 Unspecified systemic agent causing adverse effects in therapeutic use</p>

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Agents affecting blood constituents	
Anticoagulants	<p>964.2 Poisoning by anticoagulants</p> <p>E934.2 Anticoagulants causing adverse effects in therapeutic use</p>
Other agents that affect blood constituents	<p>964.0 Poisoning by iron and its compounds</p> <p>964.1 Poisoning by liver preparations and other antianemic agents</p> <p>964.3 Poisoning by vitamin K (phytonadione)</p> <p>964.4 Poisoning by fibrinolysis-affecting drugs</p> <p>964.5 Poisoning by anticoagulant antagonists and other coagulants</p> <p>964.6 Poisoning by gamma globulin</p> <p>964.7 Poisoning by natural blood and blood products</p> <p>964.8 Poisoning by other specified agents affecting blood constituents</p> <p>964.9 Poisoning by unspecified agent affecting blood constituents</p> <p>E858.2 Accidental poisoning by agents primarily affecting blood constituents</p> <p>E934.0 Iron and its compounds causing adverse effects in therapeutic use</p> <p>E934.1 Liver preparations and other antianemic agents causing adv eff in therapeutic use</p> <p>E934.3 Vitamin k [phytonadione] causing adverse effects in therapeutic use</p> <p>E934.4 Fibrinolysis-affecting drugs causing adverse effects in therapeutic use</p> <p>E934.5 Anticoagulant antagonists and other coagulants causing adv eff in therapeutic use</p> <p>E934.6 Gamma globulin causing adverse effects in therapeutic use</p> <p>E934.7 Natural blood and blood products causing adverse effects in therapeutic use</p> <p>E934.8 Other agents affecting blood constituents causing adverse effects in therapeutic use</p> <p>E934.9 Unspecified agent affecting blood constituents causing adv eff in therapeutic use</p>

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Analgesics	
Opiates/Narcotics	<p>965.09 Poisoning by other opiates and related narcotics E850.2 Accidental poisoning by other opiates and related narcotics E935.2 Other opiates and related narcotics causing adverse effects in therapeutic use</p>
NSAIDS	<p>965.1 Poisoning by salicylates 965.4 Poisoning by aromatic analgesics, not elsewhere classified 965.5 Poisoning by pyrazole derivatives 965.61 Poisoning by propionic acid derivatives 965.69 Poisoning by other antirheumatics 965.7 Poisoning by other non-narcotic analgesics 965.8 Poisoning by other specified analgesics and antipyretics 965.9 Poisoning by unspecified analgesic and antipyretic E850.3 Accidental poisoning by salicylates E850.4 Accidental poisoning by aromatic analgesics, not elsewhere classified E850.5 Accidental poisoning by pyrazole derivatives E850.6 Accidental poisoning by antirheumatics (antiphlogistics) E850.7 Accidental poisoning by other non-narcotic analgesics E850.8 Accidental poisoning by other specified analgesics and antipyretics E850.9 Accidental poisoning by unspecified analgesic or antipyretic E935.3 Salicylates causing adverse effects in therapeutic use E935.4 Aromatic analgesics, not elsewhere classified, causing adv eff in therapeutic use E935.5 Pyrazole derivatives causing adverse effects in therapeutic use E935.6 Antirheumatics [antiphlogistics] causing adverse effects in therapeutic use E935.7 Other non-narcotic analgesics causing adverse effects in therapeutic use E935.8 Other specified analgesics and antipyretics causing adverse effects in therapeutic use E935.9 Unspecified analgesic and antipyretic causing adverse effects in therapeutic use E980.0 Poisoning by analgesics, antipyretics, and antirheumatics, undetermined whether accidentally or purposely inflicted</p>

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Anticonvulsants and anti-Parkinson drugs	
Hydantoin	<p>966.1 Poisoning by hydantoin derivatives E936.1 Hydantoin derivatives causing adverse effects in therapeutic use</p>
Other anticonvulsants	<p>760.77 Anticonvulsants affecting fetus or newborn via placenta or breast milk 966.0 Poisoning by oxazolidine derivatives 966.2 Poisoning by succinimides 966.3 Poisoning by other and unspecified anticonvulsants E855.0 Accidental poisoning by anticonvulsant and anti-parkinsonism drugs E936.0 Oxazolidine derivatives causing adverse effects in therapeutic use E936.2 Succinimides causing adverse effects in therapeutic use E936.3 Other and unspecified anticonvulsants causing adverse effects in therapeutic use</p>
Anti-Parkinson drugs	<p>966.4 Poisoning by anti-Parkinsonism drugs E936.4 Anti-parkinsonism drugs causing adverse effects in therapeutic use</p>

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Sedatives or hypnotics	
Sedatives or hypnotics	<p>967.0 Poisoning by barbiturates</p> <p>967.1 Poisoning by chloral hydrate group</p> <p>967.2 Poisoning by paraldehyde</p> <p>967.3 Poisoning by bromine compounds</p> <p>967.4 Poisoning by methaqualone compounds</p> <p>967.5 Poisoning by glutethimide group</p> <p>967.6 Poisoning by mixed sedatives, not elsewhere classified</p> <p>967.8 Poisoning by other sedatives and hypnotics</p> <p>967.9 Poisoning by unspecified sedative or hypnotic</p> <p>E851 Accidental poisoning by barbiturates</p> <p>E852.0 Accidental poisoning by chloral hydrate group</p> <p>E852.1 Accidental poisoning by paraldehyde</p> <p>E852.2 Accidental poisoning by bromine compounds</p> <p>E852.3 Accidental poisoning by methaqualone compounds</p> <p>E852.4 Accidental poisoning by glutethimide group</p> <p>E852.5 Accidental poisoning by mixed sedatives, not elsewhere classified</p> <p>E852.8 Accidental poisoning by other specified sedatives and hypnotics</p> <p>E852.9 Accidental poisoning by unspecified sedative or hypnotic</p> <p>E937.0 Barbiturates causing adverse effects in therapeutic use</p> <p>E937.1 Chloral hydrate group causing adverse effects in therapeutic use</p> <p>E937.2 Paraldehyde causing adverse effects in therapeutic use</p> <p>E937.3 Bromine compounds causing adverse effects in therapeutic use</p> <p>E937.4 Methaqualone compounds causing adverse effects in therapeutic use</p> <p>E937.5 Glutethimide group causing adverse effects in therapeutic use</p> <p>E937.6 Mixed sedatives, not elsewhere classified, causing adverse effects in therapeutic use</p> <p>E937.8 Other sedatives and hypnotics causing adverse effects in therapeutic use</p> <p>E937.9 Unspecified sedatives and hypnotics causing adverse effects in therapeutic use</p> <p>E980.1 Poisoning by barbiturates, undetermined whether accidentally or purposely inflicted</p> <p>E980.2 Poisoning by other sedatives and hypnotics, undetermined whether accidentally or purposely inflicted</p>

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CNS depressants and anesthetics	
CNS depressants and anesthetics	<p>668.00 Pulmonary CX of anesthesia or other sedation in labor and delivery, unspecified as to episode of care</p> <p>668.01 Pulmonary CX of anesthesia or other sedation in L&D, delivered, w or w/o antepartum condition</p> <p>668.02 Pulmonary CX of anesthesia or other sedation in labor and delivery, delivered, with postpartum CX</p> <p>668.03 Pulmonary CX of anesthesia or other sedation in labor and delivery, antepartum condition or CX</p> <p>668.04 Pulmonary CX of anesthesia or other sedation in labor and delivery, postpartum condition or CX</p> <p>668.10 Cardiac CX of anesthesia or other sedation in L&D, unspecified as to episode of care or not applicable</p> <p>668.11 Cardiac CX of anesthesia or other sedation in L&D, delivered, w or w/o antepartum condition</p> <p>668.12 Cardiac CX of anesthesia or other sedation in labor and delivery, delivered, with postpartum CX</p> <p>668.13 Cardiac CX of anesthesia or other sedation in labor and delivery, antepartum condition or CX</p> <p>668.14 Cardiac CX of anesthesia or other sedation in labor and delivery, postpartum condition or CX</p> <p>668.20 Central nervous system CX of anesthesia or other sedation in L&D, unspecified as to episode of care</p> <p>668.21 Central nervous system CX of anesthesia or other sedation in L&D, delivered, w or w/o antepartum</p> <p>668.22 Central nervous system CX of anesthesia or other sedation in L&D, delivered, with postpartum CX</p> <p>668.23 Central nervous system CX of anesthesia or other sedation in L&D, antepartum condition or CX</p> <p>668.24 Central nervous system CX of anesthesia or other sedation in L&D, postpartum condition or CX</p> <p>668.80 Other CX of anesthesia or other sedation in L&D, unspecified as to episode of care or not applicable</p> <p>668.81 Other CX of anesthesia or other sedation in L&D, delivered, w or w/o antepartum condition</p> <p>668.82 Other CX of anesthesia or other sedation in labor and delivery, delivered, with postpartum CX</p> <p>668.83 Other CX of anesthesia or other sedation in labor and delivery, antepartum condition or CX</p> <p>668.84 Other CX of anesthesia or other sedation in labor and delivery, postpartum condition or CX</p> <p>668.90 Unspecified CX of anesthesia and other sedation in L&D, unspecified as to episode of care</p> <p>668.91 Unspecified CX of anesthesia and other sedation in L&D, delivered, w or w/o antepartum condition</p> <p>668.92 Unspecified CX of anesthesia and other sedation in labor and delivery, delivered, with postpartum CX</p> <p>668.93 Unspecified CX of anesthesia and other sedation in labor and delivery, antepartum condition or CX</p> <p>668.94 Unspecified CX of anesthesia and other sedation in labor and delivery, postpartum condition or CX</p> <p>763.5 Maternal anesthesia and analgesia affecting fetus or newborn</p> <p>968.0 Poisoning by central nervous system muscle-tone depressants</p> <p>968.1 Poisoning by halothane</p> <p>968.2 Poisoning by other gaseous anesthetics</p> <p>968.3 Poisoning by intravenous anesthetics</p> <p>968.4 Poisoning by other and unspecified general anesthetics</p> <p>968.5 Surface (topical) and infiltration anesthetics</p> <p>968.6 Poisoning by peripheral nerve- and plexus-blocking anesthetics</p>

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CNS depressants and anesthetics	
CNS depressants and anesthetics	968.7 Poisoning by spinal anesthetics
	968.9 Poisoning by other and unspecified local anesthetics
	995.22 Unspecified adverse effect of anesthesia
	995.24 Failed moderate sedation during procedure
	995.4 Shock due to anesthesia, not elsewhere classified
	995.86 Malignant hyperthermia
	E855.1 Accidental poisoning by other central nervous system depressants
	E855.2 Accidental poisoning by local anesthetics
	E938.0 Central nervous system muscle-tone depressants causing adverse effects in therapeutic use
	E938.1 Halothane causing adverse effects in therapeutic use
	E938.2 Other gaseous anesthetics causing adverse effects in therapeutic use
	E938.3 Intravenous anesthetics causing adverse effects in therapeutic use
	E938.4 Other and unspecified general anesthetics causing adverse effects in therapeutic use
	E938.5 Surface and infiltration anesthetics causing adverse effects in therapeutic use
E938.6 Peripheral nerve- and plexus-blocking anesthetics causing adverse effects in therapeutic use	
E938.7 Spinal anesthetics causing adverse effects in therapeutic use	
E938.9 Other and unspecified local anesthetics causing adverse effects in therapeutic use	

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Psychotropic agents	
Antidepressants	<p>969.00 Poisoning by antidepressant, unspecified 969.01 Poisoning by monoamine oxidase inhibitors 969.02 Poisoning by selective serotonin and norepinephrine reuptake inhibitors 969.03 Poisoning by selective serotonin reuptake inhibitors 969.04 Poisoning by tetracyclic antidepressants 969.05 Poisoning by tricyclic antidepressants 969.09 Poisoning by other antidepressants E854.0 Accidental poisoning by antidepressants E939.0 Antidepressants causing adverse effects in therapeutic use</p>
Antipsychotics	<p>333.92 Neuroleptic malignant syndrome 969.3 Poisoning by other antipsychotics, neuroleptics, and major tranquilizers E939.3 Other antipsychotics, neuroleptics, and major tranquilizers causing adverse effects in therapeutic use</p>
Benzodiazepine	<p>969.4 Poisoning by benzodiazepine-based tranquilizers E853.2 Accidental poisoning by benzodiazepine-based tranquilizers E939.4 Benzodiazepine-based tranquilizers causing adverse effects in therapeutic use</p>
Other psychotropic drugs (other than hallucinogens, amphetamines, and caffeine)	<p>969.1 Poisoning by phenothiazine-based tranquilizers 969.2 Poisoning by butyrophenone-based tranquilizers 969.5 Poisoning by other tranquilizers 969.8 Poisoning by other specified psychotropic agents 969.9 Poisoning by unspecified psychotropic agents E853.0 Accidental poisoning by phenothiazine-based tranquilizers E853.1 Accidental poisoning by butyrophenone-based tranquilizers E853.8 Accidental poisoning by other specified tranquilizers E853.9 Accidental poisoning by unspecified tranquilizer E854.8 Accidental poisoning by other psychotropic agents E939.1 Phenothiazine-based tranquilizers causing adverse effects in therapeutic use E939.2 Butyrophenone-based tranquilizers causing adverse effects in therapeutic use E939.5 Other tranquilizers causing adverse effects in therapeutic use E939.8 Other psychotropic agents causing adverse effects in therapeutic use E939.9 Unspecified psychotropic agent causing adverse effects in therapeutic use E980.3 Poisoning by tranquilizers and other psychotropic agents, undetermined whether accidentally or purposely inflicted</p>

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Central nervous system drugs	
Central nervous system drugs	970.0 Poisoning by analeptics
	970.1 Poisoning by opiate antagonists
	970.81 Poisoning by cocaine
	970.89 Poisoning by other central nervous system stimulants
	970.9 Poisoning by unspecified central nervous system stimulant
	E854.3 Accidental poisoning by central nervous system stimulants
	E940.0 Analeptics causing adverse effects in therapeutic use
	E940.1 Opiate antagonists causing adverse effects in therapeutic use
	E940.8 Other specified central nervous system stimulants causing adverse effects in therapeutic use
E940.9 Unspecified central nervous system stimulant causing adverse effects in therapeutic use	

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Autonomic nervous system drugs	
Autonomic nervous system drugs	971.0 Poisoning by parasympathomimetics (cholinergics)
	971.1 Poisoning by parasympatholytics (anticholinergics and antimuscarinics) and spasmolytics
	971.2 Poisoning by sympathomimetics [adrenergics]
	971.9 Poisoning by unspecified drug primarily affecting autonomic nervous system
	E855.3 Accidental poisoning by parasympathomimetics [cholinergics]
	E855.4 Accidental poisoning by parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics
	E855.5 Accidental poisoning by sympathomimetics [adrenergics]
	E855.8 Accidental poisoning by other specified drugs acting on central and autonomic nervous systems
	E855.9 Accidental poisoning by unspecified drug acting on central and autonomic nervous systems
	E941.0 Parasympathomimetics [cholinergics] causing adverse effects in therapeutic use
E941.1 Parasympatholytics [anticholinergics and antimuscarinics] and spasmolytics causing adverse effects in therapeutic use	
E941.2 Sympathomimetics [adrenergics] causing adverse effects in therapeutic use	
E941.9 Unspecified drug primarily affecting the autonomic nervous system causing adverse effects in therapeutic use	

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Cardiovascular drugs	
Digoxin	<p>972.1 Poisoning by cardiotonic glycosides and drugs of similar action</p> <p>E942.1 Cardiotonic glycosides and drugs of similar action causing adverse effects in therapeutic use</p>
Antiadrenergics (e.g., “beta blockers”)	<p>971.3 Poisoning by sympatholytics [antiadrenergics]</p> <p>E855.6 Accidental poisoning by sympatholytics [antiadrenergics]</p> <p>E941.3 Sympatholytics [antiadrenergics] causing adverse effects in therapeutic use</p>
Other cardiovascular drugs	<p>972.0 Poisoning by cardiac rhythm regulators (e.g., practolol, procainamide, propranolol, quinidine)</p> <p>972.2 Poisoning by antilipemic and antiarteriosclerotic drugs</p> <p>972.3 Poisoning by ganglion-blocking agents</p> <p>972.4 Poisoning by coronary vasodilators</p> <p>972.5 Poisoning by other vasodilators</p> <p>972.6 Poisoning by other antihypertensive agents</p> <p>972.7 Poisoning by antivaricose drugs, including sclerosing agents</p> <p>972.8 Poisoning by capillary-active drugs</p> <p>972.9 Poisoning by other and unspecified agents primarily affecting the cardiovascular system</p> <p>E858.3 Accidental poisoning by agents primarily affecting cardiovascular system</p> <p>E942.0 Cardiac rhythm regulators causing adv eff in therapeutic use (e.g., propranolol)</p> <p>E942.2 Antilipemic and antiarteriosclerotic drugs causing adverse effects in therapeutic use</p> <p>E942.3 Ganglion-blocking agents causing adverse effects in therapeutic use</p> <p>E942.4 Coronary vasodilators causing adverse effects in therapeutic use</p> <p>E942.5 Other vasodilators causing adverse effects in therapeutic use</p> <p>E942.6 Other antihypertensive agents causing adverse effects in therapeutic use</p> <p>E942.7 Antivaricose drugs, including sclerosing agents, causing adverse effects in therapeutic use</p> <p>E942.8 Capillary-active drugs causing adverse effects in therapeutic use</p> <p>E942.9 Other and unspec agents primarily affecting the cardiovascular system causing adv eff in therapeutic use</p>

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GI system drugs	
GI system drugs	<p>973.0 Poisoning by antacids and antigastric secretion drugs</p> <p>973.1 Poisoning by irritant cathartics</p> <p>973.2 Poisoning by emollient cathartics</p> <p>973.3 Poisoning by other cathartics, including intestinal atonia</p> <p>973.4 Poisoning by digestants</p> <p>973.5 Poisoning by antidiarrheal drugs</p> <p>973.6 Poisoning by emetics</p> <p>973.8 Poisoning by other specified agents primarily affecting the gastrointestinal system</p> <p>973.9 Poisoning by unspecified agent primarily affecting the gastrointestinal system</p> <p>E858.4 Accidental poisoning by agents primarily affecting gastrointestinal system</p> <p>E943.0 Antacids and antigastric secretion drugs causing adverse effects in therapeutic use</p> <p>E943.1 Irritant cathartics causing adverse effects in therapeutic use</p> <p>E943.2 Emollient cathartics causing adverse effects in therapeutic use</p> <p>E943.3 Other cathartics, including intestinal atonia drugs, causing adverse effects in therapeutic use</p> <p>E943.4 Digestants causing adverse effects in therapeutic use</p> <p>E943.5 Antidiarrheal drugs causing adverse effects in therapeutic use</p> <p>E943.6 Emetics causing adverse effects in therapeutic use</p> <p>E943.8 Other specified agents primarily affecting the GI system causing adverse effects in therapeutic use</p> <p>E943.9 Unspecified agent primarily affecting the GI system causing adverse effects in therapeutic use</p>

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Water, mineral, and uric acid metabolism drugs	
Saluretics (e.g., chlorothiazide)	<p>974.3 Poisoning by saluretics E944.3 Saluretics causing adverse effects in therapeutic use</p>
Other diuretics (e.g., ethacrynic acid, furosemide)	<p>974.0 Poisoning by mercurial diuretics 974.1 Poisoning by purine derivative diuretics 974.4 Poisoning by other diuretics E944.0 Mercurial diuretics causing adverse effects in therapeutic use E944.1 Purine derivative diuretics causing adverse effects in therapeutic use E944.4 Other diuretics causing adverse effects in therapeutic use</p>
Other drugs affecting mineral and uric acid metabolism	<p>974.2 Poisoning by carbonic acid anhydrase inhibitors 974.5 Poisoning by electrolytic, caloric, and water-balance agents 974.6 Poisoning by other mineral salts, not elsewhere classified 974.7 Poisoning by uric acid metabolism drugs E858.5 Accidental poisoning by water, mineral, and uric acid metabolism drugs E944.2 Carbonic acid anhydrase inhibitors causing adverse effects in therapeutic use E944.5 Electrolytic, caloric, and water-balance agents causing adv eff in therapeutic use E944.6 Other mineral salts, not elsewhere classified, causing adv eff in therapeutic use E944.7 Uric acid metabolism drugs causing adverse effects in therapeutic use</p>

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APPENDIX: List of Adverse Drug Event Causes with Constituent ICD-9-CM Codes and Descriptions

Smooth muscle and respiratory drugs	
Smooth muscle and respiratory drugs	975.0 Poisoning by oxytocic agents
	975.1 Poisoning by smooth muscle relaxants
	975.2 Poisoning by skeletal muscle relaxants
	975.3 Poisoning by other and unspecified drugs acting on muscles
	975.4 Poisoning by antitussives
	975.5 Poisoning by expectorants
	975.6 Poisoning by anticommon cold drugs
	975.7 Poisoning by antiasthmatics
	975.8 Poisoning by other and unspecified respiratory drugs
	E858.6 Accidental poisoning by agents primarily acting on the smooth and skeletal muscles and respiratory system
	E945.0 Oxytocic agents causing adverse effects in therapeutic use
	E945.1 Smooth muscle relaxants causing adverse effects in therapeutic use
	E945.2 Skeletal muscle relaxants causing adverse effects in therapeutic use
	E945.3 Other and unspecified drugs acting on muscles causing adverse effects in therapeutic use
	E945.4 Antitussives causing adverse effects in therapeutic use
	E945.5 Expectorants causing adverse effects in therapeutic use
	E945.6 Anticommon cold drugs causing adverse effects in therapeutic use
E945.7 Antiasthmatics causing adverse effects in therapeutic use	
E945.8 Other and unspecified respiratory drugs causing adverse effects in therapeutic use	

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Skin, eye, mucous membrane drugs	
Skin, eye, mucous membrane drugs	976.0 Poisoning by local anti-infectives and anti-inflammatory drugs
	976.1 Poisoning by antipruritics
	976.2 Poisoning by local astringents and local detergents
	976.3 Poisoning by emollients, demulcents, and protectants
	976.4 Poisoning by keratolytics, keratoplastics, other hair treatment drugs and preparations
	976.5 Poisoning by eye anti-infectives and other eye drugs
	976.6 Poisoning by anti-infectives and other drugs and preparations for ear, nose, and throat
	976.7 Poisoning by dental drugs topically applied
	976.8 Poisoning by other agents primarily affecting skin and mucous membrane
	976.9 Poisoning by unspecified agent primarily affecting skin and mucous membrane
	E858.7 Accidental poisoning by agents primarily affecting skin and mucous membrane, ophthalmological, ENT, and dental drugs
	E946.0 Local anti-infectives and anti-inflammatory drugs causing adverse effects in therapeutic use
	E946.1 Antipruritics causing adverse effects in therapeutic use
	E946.2 Local astringents and local detergents causing adverse effects in therapeutic use
	E946.3 Emollients, demulcents, and protectants causing adverse effects in therapeutic use
	E946.4 Keratolytics, keratoplastics, other hair treatment drugs and preparations causing adverse effects in therapeutic use
	E946.5 Eye anti-infectives and other eye drugs causing adverse effects in therapeutic use
	E946.6 Anti-infectives and other drugs and preparations for ENT causing adv eff in therapeutic use
	E946.7 Dental drugs topically applied causing adverse effects in therapeutic use
E946.8 Other agents primarily affecting skin and mucous membrane causing adv effects in therapeutic use	
E946.9 Unspecified agent affecting skin and mucous membrane causing adv effects in therapeutic use	

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Vaccines	
Vaccines	<p>978.0 Poisoning by BCG vaccine</p> <p>978.1 Poisoning by typhoid and paratyphoid vaccine</p> <p>978.2 Poisoning by cholera vaccine</p> <p>978.3 Poisoning by plague vaccine</p> <p>978.4 Poisoning by tetanus vaccine</p> <p>978.5 Poisoning by diphtheria vaccine</p> <p>978.6 Poisoning by pertussis vaccine, including combinations with a pertussis component</p> <p>978.8 Poisoning by other and unspecified bacterial vaccines</p> <p>978.9 Poisoning by mixed bacterial vaccines, except combinations with a pertussis component</p> <p>979.0 Poisoning by smallpox vaccine</p> <p>979.1 Poisoning by rabies vaccine</p> <p>979.2 Poisoning by typhus vaccine</p> <p>979.3 Poisoning by yellow fever vaccine</p> <p>979.4 Poisoning by measles vaccine</p> <p>979.5 Poisoning by poliomyelitis vaccine</p> <p>979.6 Poisoning by other and unspecified viral and rickettsial vaccines</p> <p>979.7 Poisoning by mixed viral-rickettsial and bacterial vaccines, except with a pertussis component</p> <p>979.9 Poisoning by other and unspecified vaccines and biological substances</p> <p>995.21 Arthus reaction (due to vaccine)</p> <p>999.0 Generalized vaccinia as a complication of medical care, not elsewhere classified</p> <p>999.42 Anaphylactic reaction due to vaccination</p> <p>999.52 Other serum reaction due to vaccination</p> <p>E875.1 Contaminated substance injected or used for vaccination</p> <p>E948.0 Bcg vaccine causing adverse effects in therapeutic use</p> <p>E948.1 Typhoid and paratyphoid vaccines causing adverse effects in therapeutic use</p> <p>E948.2 Cholera vaccine causing adverse effects in therapeutic use</p> <p>E948.3 Plague vaccine causing adverse effects in therapeutic use</p> <p>E948.4 Tetanus vaccine causing adverse effects in therapeutic use</p> <p>E948.5 Diphtheria vaccine causing adverse effects in therapeutic use</p> <p>E948.6 Pertussis vaccine, including with a pertussis component, causing adverse effects in therapeutic use</p> <p>E948.8 Other and unspecified bacterial vaccines causing adverse effects in therapeutic use</p> <p>E948.9 Mixed bacterial vaccines, except with pertussis component, causing adv effects in therapeutic use</p> <p>E949.0 Smallpox vaccine causing adverse effects in therapeutic use</p>

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Vaccines	
Vaccines	<p>E949.1 Rabies vaccine causing adverse effects in therapeutic use</p> <p>E949.2 Typhus vaccine causing adverse effects in therapeutic use</p> <p>E949.3 Yellow fever vaccine causing adverse effects in therapeutic use</p> <p>E949.4 Measles vaccine causing adverse effects in therapeutic use</p> <p>E949.5 Poliomyelitis vaccine causing adverse effects in therapeutic use</p> <p>E949.6 Other and unspecified viral and rickettsial vaccines causing adverse effects in therapeutic use</p> <p>E949.7 Mixed viral-rickettsial and bacterial vaccines, except with pertussis, causing adv eff in therapeutic use</p> <p>E949.9 Other and unspecified vaccines and biological substances causing adverse effects in therapeutic use</p>

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Other specific drugs	
Other specific drugs	<p>977.0 Poisoning by dietetics</p> <p>977.1 Poisoning by lipotropic drugs</p> <p>977.2 Poisoning by antidotes and chelating agents, not elsewhere classified</p> <p>977.3 Poisoning by alcohol deterrents</p> <p>977.4 Poisoning by pharmaceutical excipients</p> <p>E947.0 Dietetics causing adverse effects in therapeutic use</p> <p>E947.1 Lipotropic drugs causing adverse effects in therapeutic use</p> <p>E947.2 Antidotes and chelating agents, not elsewhere classified, causing adverse effects in therapeutic use</p> <p>E947.3 Alcohol deterrents causing adverse effects in therapeutic use</p> <p>E947.4 Pharmaceutical excipients causing adverse effects in therapeutic use</p>

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Nonspecific ADE causes (drug type not specified)	
Nonspecific ADE causes (drug type not specified)	284.12 Other drug-induced pancytopenia
	288.03 Drug induced neutropenia
	332.1 Secondary parkinsonism (due to drugs)
	333.72 Acute dystonia due to drugs
	333.85 Subacute dyskinesia due to drugs
	333.90 Unspecified extrapyramidal diseases (incl. medication-induced movement disorders)
	333.99 Other extrapyramidal diseases and abnormal movement disorders (incl. drug-induced)
	339.3 Drug induced headache, not elsewhere classified
	357.6 Polyneuropathy due to drugs
	359.24 Drug- induced myotonia
	528.02 Mucositis (ulcerative) due to other drugs
	692.3 Contact dermatitis and other eczema due to drugs and medicines in contact with skin
	693.0 Dermatitis due to drugs and medicines taken internally
	695.13 Stevens-Johnson syndrome
	695.14 Stevens-Johnson syndrome -- epidermal necrolysis overlap syndrome
	695.15 Toxic epidermal necrolysis
	909.0 Late effect of poisoning due to drug, medicinal or biological substance
	909.5 Late effect of adverse effect of drug, medicinal or biological substance
	977.8 Poisoning by other specified drugs and medicinal substances
	977.9 Poisoning by unspecified drug or medicinal substance
	E980.4 Poisoning by other specified drugs and medicinal substances, undetermined whether accidentally or purposely inflicted
	E980.5 Poisoning by unspecified drug or medicinal substance, undetermined whether accidentally or purposely inflicted
	995.0 Other anaphylactic reaction due to medicinal substance properly administered
	995.20 Unspecified adverse effect of unspecified drug, medicinal and biological substance
	995.27 Other drug allergy
995.29 Unspecified adverse effect of other drug, medicinal and biological substance	
E875.2 Contaminated drug or biological substance administered by other means	
E858.8 Accidental poisoning by other specified drugs	
E858.9 Accidental poisoning by unspecified drug	
E947.8 Other drugs and medicinal substances causing adverse effects in therapeutic use	
E947.9 Unspecified drug or medicinal substance causing adverse effects in therapeutic use	