



Informed[®]



EMS Field Guide[®]

ALS Version[™]

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Rapid Sequence Intubation

Prepare equipment (IV, ECG, oximeter, BVM, suction, ETT)



C-Spine Immobilization p.r.n.



Preoxygenate with 100% O₂



Give Sedative:

- Midazolam 0.1–0.3 mg/kg IV or
- Thiopental 1–3 mg/kg IV or
- Ketamine 1–2 mg/kg IV or
- Etomidate 0.3 mg/kg IV or
- Diazepam 0.2 mg/kg IV (max. 20 mg)



If Pt. <2 y.o., **give Atropine 0.02 mg/kg IV** (blocks reflex bradycardia)



Give Succinylcholine 1–1.5 mg/kg IV, or: Rocuronium 0.6–1.2 mg/kg IV, or: Vecuronium 0.1 mg/kg IV



Intubate (apply cricoid pressure p.r.n.)



Inflate Cuff;

Verify Tube Placement:

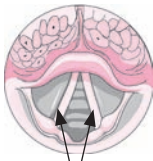
- **Check Chest Expansion**
- **Check Lung Sounds**
- **Fogging of tube**
- **Apply CO₂ Detector**
- **Secure with ETT holder & C-collar**



*Place Pt. in sniff position:
hyperventilate w/O₂*



*Lift tongue leftward &
visualize vocal cords*



Vocal cords



*Insert ETT; inflate cuff;
check breath sounds*

King LT™ Airway

Contra—Pts. <4 feet. Does not protect against aspiration.

- 1 **C-Spine Immobilization** p.r.n.
Preoxygenate with 100% O₂.
- 2 **Deflate cuff. Open mouth, apply chin lift, insert tip** into side of mouth.
- 3 **Advance tip** behind tongue while rotating tube to midline.
- 4 **Advance tube** until base of connector is aligned with teeth or gums.
- 5 **Inflate cuff** with air: (use minimum volume necessary).

Step 2



Step 3



Step 4



Step 6



- 6 **Attach Bag-Valve device.**
While ventilating, gently withdraw tube until ventilation becomes easy.
- 7 **Adjust cuff inflation** if necessary to obtain a good seal.
- 8 **Verify Proper Placement:**
 - Check Cx Expansion & Lung Sounds
 - Apply CO₂ Detector; oximeter
 - Secure with tape or tube holder
 - Reassess airway periodically

Pt. Size	LT Size	Cuff Vol
4–5 feet	Size 3	45–60 mL
5–6 feet	Size 4	60–80 mL
>6 feet	Size 5	70–90 mL

Trauma Triage Criteria

(for patient entry into the Trauma System)

Physiological

- **Systolic BP less than 90 mm/Hg**
- **Respiratory Distress—Rate <10 or >29**
- **Altered mental status, or Glasgow Coma Score ≤ 12**

Anatomical

- Flail chest
- Two or more proximal long bone fractures (humerus, femur)
- Penetrating injury to the head, neck, torso or groin that is associated with significant energy transfer (bullet, knife, impalement, etc.)
- Partial or full thickness burns to the face or airway
- Amputation proximal to the wrist or ankle
- Paralysis of any limb associated with trauma injury

Mechanism

- Extrication taking >20 min. using heavy tools
- Death of any occupant in the patient's vehicle
- Ejection of patient from an enclosed vehicle
- Falls greater than 15 feet

Comorbid Factors

Any combination of high-energy transfer in co-morbid factor should increase the index of suspicion for severe trauma injury.

- **Age <12 or >60**
- Pregnancy
- Significant pre-existing medical problems
- Extremes of environment: **Hot** or **Cold**
- Presence of Intoxicants

INDEX OF SUSPICION: You may enter any patient into the Trauma System suspected of having experienced significant trauma regardless of physical findings. Any combination of co-morbid factors and high energy transfer is dangerous. The reason for system entry must be fully documented.

Rapid Triage

(for multiple patient scenes)

PRIORITY	COLOR	CONDITION	NOTES
1	Red	Immediate	Life threatening
2	Yellow	Urgent	Can delay up to 1 hr.
3	Green	Delayed	Up to 3 hrs.
4	Black	Deceased	No care needed

Priority 1—immediate Transport

Unconscious, disoriented, very confused, rapid respirations, weak irregular pulse, severe uncontrolled bleeding, other signs of shock (cold, clammy skin, low blood pressure, etc.).

Priority 2—Urgent, Can Delay Transport up to 1 hr.

Conscious, oriented, with any significant fracture or other significant injury, but without signs of shock.

Priority 3—Delayed Transport up to 3 hrs.

Walking wounded, CAO x3, minor injuries.

Priority 4—Deceased, No Care Needed

No pulse, no respirations (open airway first), obvious mortal wounds (e.g. decapitation).

NOTES: Assessment of patients should be <1 min. each.

(Have someone else control bleeding during your survey.)

- All unconscious patients are Priority 1—Immediate.
- “Walking wounded” are usually GREEN—Priority 3.
- All pulseless patients are BLACK—Priority 4.

Mentation/LOC Assessment

A—Alert:	Able to answer questions
V—Verbal:	Responds to verbal stimuli
P—Pain:	Responds only to pain stimuli. Protect airway
U—Unconscious:	Protect airway, consider intubation

Multiple Patients

1. **Strategically park vehicle and stay in one place**
2. **Establish Command**, and identify yourself as Command to dispatch (use a calm, clear voice)

3. **Size up the scene and advise dispatch of:**

- * Exact location and type of incident
- * Any hazardous conditions
- * The location of the command post
- * The best routes of access to the scene
- * Estimated number and severity of patients

4. **Designate an EMT to perform rapid triage** (see Rapid Triage, page 6), **tag and number multiple patients** (“**Immediate**,” “**Urgent**,” “**Delayed**”)
5. **Order resources** (Fire, Police, Ambulances, HazMat, Extrication, Air Units, Tow vehicles, Buses, etc.)
6. **Set up staging areas** (clearly state the location of staging/assembly areas, and think of access and egress)
7. **Coordinate access** of incoming units to the scene
8. **Assign patients** to incoming medical units
9. **Maintain communications** with On Line Medical Control (OLMC)
10. **Keep patient log** indicating patient number, severity, treating and transporting units, medical interventions, and destination hospitals

Mass Casualty Incident

Use Multiple Patient guidelines above, and the following ICS groups

Medical Branch Director

- Responsible for overall medical direction/coordination
- Orders additional medical resources
- Serves as a resource for group supervisors

Triage Group Supervisor

- Estimates number and severity of patients
- Establishes tagging and extrication teams
- Establishes triage areas, if necessary
- Maintains rapid and orderly flow of patients to treatment areas

Treatment Area Group Supervisor

- Secures treatment areas, identifies equipment needs
- Clearly marks Treatment Areas for “**Immediate**,” “**Urgent**,” “**Delayed**”
- Establishes treatment teams when resources allow
Identifies order of patient transport

Transportation Group Supervisor

- Establishes Patient Loading Zone (near Treatment Area)
- Assigns patients to ambulances, supervises actual loading
- Relays Unit number, severity and number of patients to Communications Group Supervisor.

Communications Group Supervisor

- Communicates with On-line Medical Control (OLMC) to identify receiving hospitals
- Maintains patient log
- Receives information from Transportation Group.
- Coordinates patient destinations to avoid overloading the closest hospitals

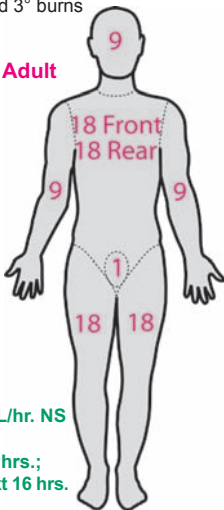
Burn Chart

Count only 2° and 3° burns

Infant



Adult



IV FLUID RESUSCITATION*

$$\frac{\% \text{ Burn Area} \times \text{Pt. Wt. in Kg}}{4} = \text{mL/hr. NS}$$

Give this amount over the first 8 hrs.;
Give an equal amount over the next 16 hrs.

Example: 20% burned area, Pt. weighs 70 kg:

$$\frac{20 \times 70}{4} = \frac{1400}{4} = 350 \text{ mL/hr for 8 hrs.}^\dagger \text{ Then give 175 mL/hr over the next 16 hrs.}$$

[†](calculated from time of injury)

***The patient in shock needs more aggressive IV fluid replacement and should be treated according to your shock protocol.**

Major burns should be treated in a burn center, including: $\geq 25\%$ body surface; hands, feet, face or perineum; electrical burns; inhalation burns; other injuries; or severe preexisting medical problems.

Trauma—Abdominal

HX—Mechanism of injury, associated trauma, penetrating vs blunt injury? Suspect internal hemorrhage. **Guarding, distension, rigidity, hypotension, pallor, bruising?**

⊕ Vitals, O₂, IV, treat for shock, transport.

Trauma—Chest

Suspect cardiac, pulmonary, or great vessel trauma.

Secure airway, high flow O₂, intubate if necessary and assist ventilations. **Open chest wound:** cover with occlusive dressing. Look for exit wounds. **Tension pneumothorax:** Evaluate and decompress. **Impaled objects:** stabilize in place. Do not delay transport if patient is unstable. Consider IV fluids for shock (2 large bore IVs), monitor ECG, Vitals. Full spinal immobilization. **Caution: Consider other causes for respiratory distress.**

Trauma—General

HX—Mechanism of injury, location of trauma, penetrating vs. blunt injury? Assess level of consciousness (Alert, Verbal, Pain, Unconscious). **Airway obstruction?** Pulses, BP, capillary refill; severe bleeding? Disability/neuro assessment, Glasgow coma score, Expose and perform exam, check pupils. **Tracheal deviation?** Sub-Q air? Jugular venous distension? **Assess chest:** look for trauma, pneumo, check lung sounds, Evaluate abdomen, pelvis, extremities, back. Abdominal guarding, distension, rigidity, **hypotension, pallor, bruising?** Are there medical causes? (e.g., diabetes, CVA, MI, etc.)

⊕ **Assess scene safety.** Protect C-Spine; Give O₂, check respiratory rate, adequacy—**ventilate if needed.**

Traumatic Cardiac Arrest

Rapid extrication and transport immediately.

⊕ Secure airway, do CPR (shock VF). O₂, IVs, en route. Splint fractures en route.

Trauma—Head

Secure airway while providing C-spine immobilization. Control bleeding with direct pressure. Do not stop bleeding from nose, ears if CSF leak is suspected. Give **+** O₂, Start large bore IV (TKO unless patient is in shock). Monitor vitals & neuro status. ECG, Pulse oximetry; **Consider intubation and ventilation if GCS \leq 8.**

Caution: Always suspect C-spine injury in the head injury patient. Assess and document LOC changes. Be alert for airway problems and seizures. Restlessness & or agitation can be due to hypoxia or hypoglycemia. Check chemstrip.

Glasgow Coma Scale

**Patient with a score of 3–8 is in a coma
“and needs ventilatory support”**

INFANT

Eye Opening

CHILD/ADULT

4	Spontaneously	Spontaneously	4
3	To speech	To command	3
2	To pain	To pain	2
1	No response	No response	1

Best Verbal Response

5	Coos, babbles	Oriented	5
4	Irritable cries	Confused	4
3	Cries to pain	Inappropriate words	3
2	Moans, grunts	Incomprehensible	2
1	No response	No response	1

Best Motor Response

6	Spontaneous	Obeys commands	6
5	Localizes pain	Localizes pain	5
4	Withdraws from pain	Withdraws from pain	4
3	Flexion (decorticate)	Flexion (decorticate)	3
2	Extension (decerebrate)	Extension (decereb.)	2
1	No response	No response	1

=Total → (GCS \leq 8? → Intubate!) ← **Total=**

ACLS Algorithms

Please Note:

Not all patients require the treatment indicated by these algorithms. These algorithms assume that you have assessed the patient, started CPR where indicated, and performed reassessment after each treatment. These algorithms also do not exclude other appropriate interventions which may be warranted by the patient's condition.



Treat the patient, not the ECG.

Treatment Classes—Risks vs Benefits

Class I: Benefit >>>Risk: **should be performed**

Class IIa: Benefit >> Risk: **a reasonable treatment**

Class IIb: Benefit > Risk: **may be considered**

Class Indeterminate: insufficient evidence—**no recommendations**

Class III: Risk > Benefit: **not helpful, may be harmful**

Possible Causes of Cardiac Arrest/Arrhythmia

Hypoxia—Ventilation

Hypovolemia—IV Fluids

Hypothermia—Warm patient

Hypokalemia—Restore electrolyte balance

Hypoglycemia—Dextrose

Toxins—Detoxify & appropriate therapies

Coronary or Pulmonary Thrombosis—Thrombolysis

Trauma—Surgery/Control Hemorrhage

Cardiac Tamponade—Pericardiocentesis

Tension Pneumothorax—Thoracic Decompression

Hyperkalemia—Sodium Bicarbonate 1 mEq/kg IV

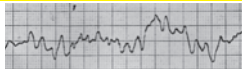
Metabolic Acidosis—Sodium Bicarbonate 1 mEq/kg IV

Respiratory Acidosis—Ventilation

Special Footnotes

▼ **Sodium Bicarbonate (1 mEq/kg IV)** is **Class IIa:** For metabolic acidosis, hyperkalemia, or TCA overdose; **Class IIb:** for prolonged cardiac arrest & and for some toxidromes; **Sodium Bicarbonate is contraindicated (Class III)** in hypercarbic acidosis (arrest with Pt. not intubated).

Pulseless Arrest—V-Fib/V-Tach



Assess ABCs, Perform CPR (30:2, 100/min.)

↗ Defibrillate @ 120–200J Biphasic energy
(or 360J monophasic energy, or AED)

Continue CPR Immediately x 5 Cycles (~2 min.)

Asystole? PEA?

See Asystole/PEA
Algorithm page 12

Pulse Present?

Assess vital signs, Support
airway & breathing, Give meds
appropriate for BP, HR and ECG.

STILL VF/VT?

↗ Defibrillate 120–200J (or 360J monophasic, or AED)
Continue CPR Immediately x 5 Cycles (~2 min.)

Intubate (verify ETT placement and secure tube), Start IV/IO
Epinephrine 1 mg IV/IO—repeat every 3–5 min., OR:
Vasopressin 40 units IV/IO (single dose only)
(▼ Sodium bicarbonate (1 mEq/kg) if patient is hyperkalemic)

STILL VF/VT?

↗ Defibrillate 120–200J (or 360J monophasic, or AED)
Continue CPR Immediately x 5 Cycles (~2 min.)

Amiodarone 300 mg IV/IO, (may repeat once 150 mg in 5 min.)
OR: Lidocaine 1–1.5 mg/kg IV/IO,
(may give 0.5 – 0.75 mg/kg in 5 min. x3 or max. 3 mg/kg) OR:
Magnesium Sulfate 1–2 Gm IV/IO,
(for torsades de pointes, hypomagnesemia)

STILL VF/VT?

↗ Defibrillate 120–200J (or 360J monophasic, or AED)
Continue CPR Immediately x 5 Cycles (~2 min.)

Epinephrine 1 mg IV/IO—repeat every 3–5 min.
(▼ See Special Footnotes, page 11) Consider & treat causes

Pulseless Arrest/Asystole & PEA

(assess appropriateness of resuscitation attempts)



Continue CPR (minimize interruptions in CPR)
(Confirm asystole in more than one lead)

Intubate (verify ETT placement and secure tube)



Start IV/IO - Epinephrine 1 mg IV/IO (repeat every 3–5 min.)
OR: Vasopressin 40 units IV/IO (single dose only)



Consider Atropine 1 mg IV/IO, repeat every 3 min., max. 3 mg
Continue CPR Immediately x 5 Cycles (~2 min.)

Consider & Treat Possible Causes

Hypoxia—Ventilation

Hypovolemia—IV Fluids

Hypothermia—Warm patient

Hypokalemia—Restore electrolyte balance

Hypoglycemia—Dextrose

Toxins—Detoxify & appropriate therapies

Coronary or Pulmonary Thrombosis—Thrombolysis

Trauma—Surgery/Control Hemorrhage

Cardiac Tamponade—Pericardiocentesis

Tension Pneumothorax—Thoracic Decompression

Hyperkalemia—Sodium Bicarbonate 1 mEq/kg IV

Metabolic Acidosis—Sodium Bicarbonate 1 mEq/kg IV

Respiratory Acidosis—Ventilation



If VF/VT—see Pulseless Arrest V-Fib & V-Tach



If pulse present: Assess vital signs, support airway and breathing, and give meds appropriate for BP, HR and ECG.



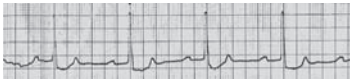
If Asystole—Consider termination of efforts

(after successful intubation and medications, and no reversible causes are identified. consider interval since arrest.)

(▼See Special Footnotes, page 12)

Bradycardias

(HR <60/min. with serious signs or symptoms: cx pain, dyspnea, ↓LOC, ↓BP, shock, pulmonary congestion, CHF, AMI)



Assess ABCs, **Maintain airway**, **Give O₂**, **Start IV/IO**
Attach ECG, pulse oximeter, and BP cuff.
Assess vital signs, Get patient's history
Perform physical examination



For Poor Perfusion

Transcutaneous Pacing for Mobitz II or 3rd° Block

Verify patient's capture and perfusion;
Use sedation as needed



Consider **Atropine 0.5 mg IV** every 3–5 min., max.: 3 mg♦
Consider **Epinephrine 2–10 mcg per min.**, or:
Dopamine 2–10 mcg/kg per min.



Prepare for transvenous pacer



Pulseless Arrest—See **Pulseless Arrest Algorithm**, page 12



Consider & Treat Causes, page 14

Unsymptomatic Bradycardia

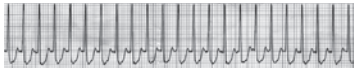
—NOT Type II (Mobitz) 2nd° or 3rd° AV heart block



Observe

- ▼ Do not delay TCP while starting IV, or waiting for atropine to work if patient is symptomatic.
- ♦ Atropine may not work for Mobitz (Type II) AV Block or 3rd° AV Block w/ IVR. Transplanted hearts may not respond to atropine—Begin pacing, and/or catecholamine infusion.

Tachycardias



Assess ABCs, **Secure airway**, **Give O₂**, **Start IV**, **ECG**,
Oximeter, **BP**, **Obtain history**, **examination**;
Get 12-lead ECG Consider & Treat Causes, page 14

Is Patient unstable, with serious signs or symptoms?

(S/Sx must be related to the tachycardia: chest pain, dyspnea,
↓LOC, ↓BP, shock, HR >150, pulmonary congestion, CHF, AMI.)

⚡ **Immediate Synchronized Cardioversion**, page 20
(sedation if possible, but do not delay cardioversion)

Pulseless Arrest—See **Pulseless Arrest Algorithm**, page 12

Stable Narrow Complex Tachycardia?

(obtain expert consultation when possible)

Regular?



Vagal maneuvers*

Adenosine 6 mg rapid IVP
Adenosine 12 mg, rapid IVP
(may repeat once in 1–2 min)

If Rhythm Converts,
likely Reentry SVT

Treat Recurrence with
Adenosine, or: • **Diltiazem**,
• **Beta-Blocker** **If Rhythm Does**
NOT Convert, likely A-Flutter,
Ectopic AT, or Ectopic JT

Control Rate with
• **Diltiazem**, • **Beta-Blocker**
Treat Underlying Causes

Irregular?

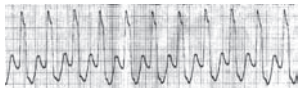


Probable Atrial
Fibrillation;
Possible Atrial Flutter
or MAT

Control Rate with
• **Diltiazem**,
• **Beta-Blocker**

Wide-QRS Tachycardia of Uncertain Type

(try to make a specific rhythm diagnosis with 12-lead ECG)



Obtain Expert Consultation

Regular?

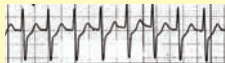


For VT or Uncertain Rhythm

Amiodarone 150 mg IV over 10 min.

May repeat, (Max. dose: 2.2 gm IV/24 hrs.)

↗ **Sync. cardioversion**
—See Cardioversion, page 20



For SVT with Aberrancy

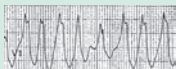
Adenosine 6 mg rapid IVP
Adenosine 12 mg, rapid IVP
(may repeat once in 1–2 min.)

Irregular?



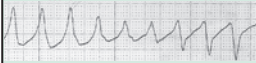
For Atrial Fibrillation with Aberrancy

Control Rate with
• **Diltiazem** • **Beta-Blocker**



For Pre-excited Atrial Fib (WPW)

Consider **Amiodarone 150 mg IV over 10 min.**
(avoid adenosine, digoxin,



For Torsades de Pointes

Magnesium 1–2 Gm IV
over 5–60 min., followed by infusion

* **CSM is contraindicated in patients with carotid bruits.**
Avoid ice water immersion if Pt. has ischemic heart disease.

Hypotension, Shock

Assess ABCs, Secure airway (verify placement, secure tube)

Administer oxygen, Start IV

Attach ECG monitor, pulse oximeter, automatic BP

Assess vital signs, Review history

Perform physical examination

Get 12 lead ECG, portable chest X-Ray

What is the nature of the problem?

Volume problem?

Administer:
IV Fluids
Blood transfusions

Cause-specific
interventions
Consider
vasopressors

Systolic BP
<70 mm Hg:

Norepinephrine
0.5–30 mcg/min. IV

Fluid bolus of 250 –
500 mL normal
saline should be tried.
If no response,
consider
sympathomimetics.

*Consider further
actions especially if
the patient has APE



Rate problem?

(Brady: pg. 15)
(Tachy: pg. 16)

Pump problem?

What is the BP?
(if possible, use invasive
hemodynamic monitoring)

BP <70? 70–100? >100?

Systolic BP
70–100 w/ Shock

Dopamine 2–20 mcg/kg/min.*

Systolic BP 70–100 mm Hg
without shock symptoms:

Dobutamine 2–20 mcg/kg/min.*

Systolic BP >100 mm Hg:

Nitroglycerin 10–20 mcg/min.
Consider
Nitroprusside 0.1–5 mcg/kg/min.*

Further considerations:

- Pulmonary artery catheter
- Intra-aortic balloon pump
- Angiography for AMI/ischemia
- Additional diagnostic studies
- Surgical interventions
- Additional drug therapy

Acute Pulmonary Edema

RATE PROBLEM?

Too slow—See Bradycardia Algorithm, page 15

Too fast—See Tachycardia Algorithm, page 16

First-line actions

Oxygen/intubate p.r.n.
Nitroglycerin 0.4 mg SL
Furosemide 0.5–1 mg/kg IV
Morphine 2–4 mg IV

Second-line actions

Nitroglycerin/Nitroprusside IV (if BP >100 mm Hg)
Dopamine (if BP 70–100 mm Hg with **shock** symptoms)
Dobutamine (if BP >100 mm Hg, no shock symptoms)

Also Consider:

Treat reversible causes
Pulmonary artery catheter
Intra-aortic balloon pump
Angiography & PCI
Additional diagnostic studies
Surgical interventions
Additional drug therapy

Electrical Cardioversion

(for non-arrest tachycardia, with serious signs and symptoms related to the tachycardia)

If ventricular rate is >150 beats/min.

(Immediate cardioversion is usually not needed for rates <150)



Check O₂ saturation

Prepare suction, IV, Intubation equipment

Premedicate whenever possible

(Consider anesthesia if readily available: **diazepam, midazolam, barbiturates, etomidate, ketamine, methohexital, propofol**)

⚡ **Synchronized BIPHASIC cardioversion for:**

V-Tach 75J → 120J → 150J → 200J

(Treat polymorphic VT [irregular form & rate] like VF:

120 → 200J Biphasic or 360J Monophasic)

Atrial fibrillation: 30J → 50J → 75J → 120J

PSVT/Atrial flutter: 30J → 50J → 75J → 120J

Sample energies: use energies that are specific to your defibrillator. If delays in synchronization occur and patient is critical, administer immediate unsynchronized shocks.

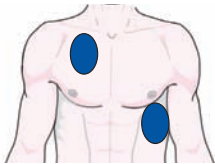
⚡ **Synchronized MONOPHASIC cardioversion for:**

V-Tach 100J → 200J → 300J → 360J

(Treat polymorphic VT [irregular form & rate] like VF:
360J monophasic)

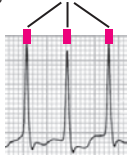
Atrial fibrillation: 100J → 200J → 300J → 360J

PSVT/Atrial Flutter: 50J → 100J → 200J → 300J → 360J



Pad/paddle placement for synchronized cardioversion

Synchronize markers



Synchronize on R wave

Hypothermia

Remove wet clothing and stop heat loss (cover with blankets and insulating equipment). **Keep patient horizontal.** **Move patient gently if possible, do not jostle.** **Monitor core temperature and cardiac rhythm** (ECG may require needle electrodes through the skin) **Check responsiveness, breathing, pulse.**



If Pulse & Breathing

34°C–36°C

(mild hypothermia)
Passive rewarming

30°C–34°C

(moderate hypothermia)
Passive rewarming
Active external rewarming of truncal areas only*
(may use electric or charcoal warming devices, hot water bottles, heating pads, radiant heat sources, and warming beds)

<30°C

(severe hypothermia)
Active internal rewarming sequence*

Warm IV fluids (43°C)
Warm, humid O₂ (42°C–46°C)
Peritoneal lavage (KCl-free)
Extracorporeal rewarming
Esophageal rewarming tubes

Continue rewarming until:

Core temperature >35°C, OR:
Spontaneous Circulation, OR:
Resuscitation efforts cease

No Pulse/Apneic

Start CPR

Defibrillate VF/VT x 1
Biphasic: 120–200J OR:
Monophasic 360 J

Resume CPR Immediately
Intubate, Ventilate with warm, humid oxygen (42°–46°C)*
Start IV, Administer warm normal saline (43°C)*

Is core temperature <30°C?

Continue CPR
Withhold IV medications
Limit shocks for VF/VT to 1
Transport to ED

Is core temperature ≥30°C?

Continue CPR
Give IV meds as indicated (longer than standard intervals)
Repeat defibrillation for VF/VT as core temperature rises

Start Active internal rewarming sequence* (left)

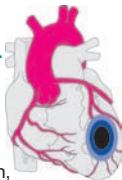
***Many experts think these should be done only in-hospital.**

Stemi Fibrinolytic Protocol

"Time is muscle"

"Door-to-Drug" time should be <30 min.

- S/S: Cx pain >15 min, but <12hrs, not relieved by NTG.
- ECG & other findings consistent with AMI.
- Cardiac risk factors? Hx? CAOx4?
- Age >35 yrs (>40 if female)?
- Give: O₂, NTG, MS, ASA (if no contraindications)
- Start 2 IVs, (but do not delay transport)
- Get Stat 12-lead ECG. (Must show ST elevation, or new LBBB.)
- Systolic/diastolic BP: R arm ____/____ L arm ____/____
- Complete Fibrinolytic Checklist: (all should be "No")
 - Systolic BP >180 mm Hg
 - Diastolic BP >110
 - R arm vs. L arm BP difference >15 mm Hg
 - Hx Structural CNS Disease
 - Head/Facial Trauma w/in 3 months
 - Major trauma, surgery GI bleed w/in 6 weeks
 - On blood thinners; bleeding/clotting problems
 - Pregnancy
 - CPR >10 min.
 - Advanced cancer, severe liver/renal disease



HIGH-RISK PROFILE/INDICATIONS FOR TRANSFER:

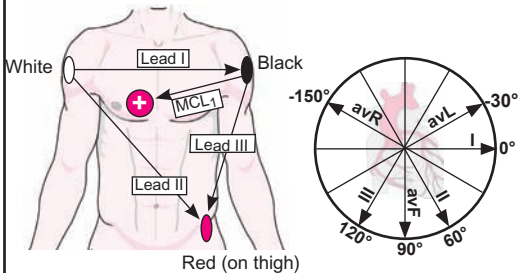
(if any are checked, consider transport to a hospital capable of angiography and revascularization)

- Heart rate ≥ 100 bpm and SBP ≤ 100 mm Hg, or
- Pulmonary edema (rales), or
- Signs of shock
- Contraindications to fibrinolytics

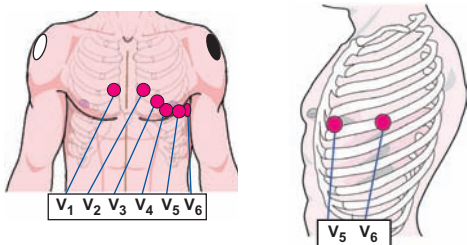
If no contraindications and Dx of AMI is confirmed:

Administer fibrinolytic. Also consider: **antiarrhythmics, anti-coagulants,** and **standard MI treatments.** Signs of reperfusion include: pain relief, ST-segment normalization, reperfusion arrhythmias, resolution of conduction block, early CPK peak.

3 Lead & MCL₁ Electrode Placement



12 Lead Electrode Placement



V₁ 4th interspace, just to the R of the sternum

V₂ 4th interspace, just to the L of the sternum

V₃ halfway between V₂ & V₄

V₄ 5th intercostal space, midclavicular line

V₅ anterior-axillary line, horizontal with V₄

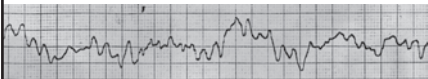
V₆ mid-axillary line, horizontal with V₄

MCL₁ red lead on V₁, black lead on L arm—monitor L III

MCL₆ red lead on V₆, white lead on R arm—monitor L II

MC₄R red lead on 5th ICS R mid-clavicular line, black lead on L arm—monitor L III

Cardiac Arrest Rhythms

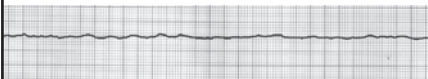


Coarse Ventricular Fibrillation

(Note the chaotic, irregular electrical activity)



Shock

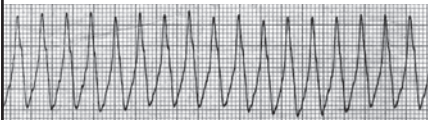


Fine Ventricular Fibrillation

(Note the low-amplitude, irregular electrical activity)



Shock

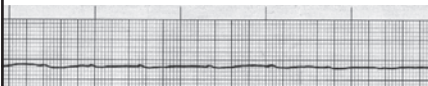


Ventricular Tachycardia

(Note the rapid, wide complexes)



**Shock
if no
pulse**



Asystole

(Note the absence of electrical activity)



CPR



Pulseless Electrical Activity (PEA)

(Any organized ECG rhythm with no pulse)



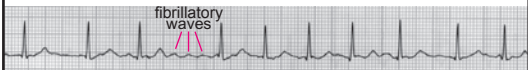
CPR

Other Common ECG Rhythms



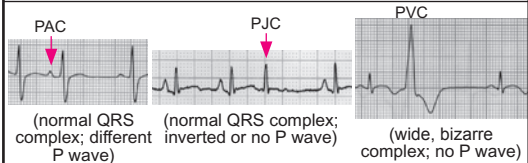
Normal Sinus Rhythm

(Note the regular PQRST cycles)



Atrial Fibrillation

(Note the irregular rate and atrial fibrillatory waves)

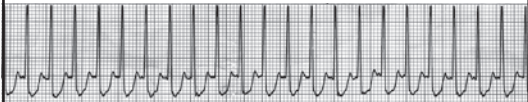


Premature Atrial, Junctional, and Ventricular Complexes



3° (complete) Heart Block

(The P waves are dissociated from the QRS complexes)



Supraventricular Tachycardia (SVT)

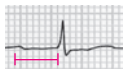
(Note the rapid, narrow QRS complexes)

Other Common ECG Rhythms



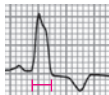
Electronic Ventricular Pacemaker

(Note the pacer spikes before each QRS)



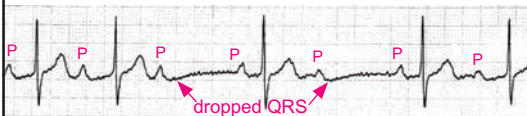
1° AV Block

(Prolonged PR Interval
>.20 sec.)



Bundle Branch Block

(Wide QRS >.12 sec)



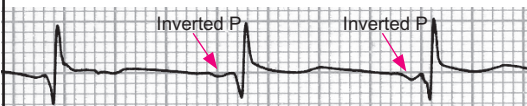
2° Heart Block, Wenckebach

(The PR interval lengthens, resulting in a dropped QRS)



2° Heart Block, Mobitz

(The PR interval does not lengthen; but a QRS is dropped)

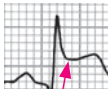
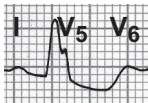


Junctional Rhythm

(Normal QRS complexes; inverted, or no P waves)

Rapid Interpretation—12-Lead ECG

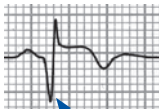
- 1 Identify the rhythm.** If supraventricular (Sinus Rhythm, Atrial Fibrillation, Atrial Tachycardia, Atrial Flutter):
- 2 Rule out LBBB** (QRS >0.12 sec; & R, R' in I, or V₅, or V₆). LBBB confounds the Dx of AMI/ACS, (unless it is new-onset LBBB).
- 3 If no LBBB, check for ST segment elevation, or ST depression with T wave inversion, or pathologic Q waves**



- 4 ST elevation means acute MI**



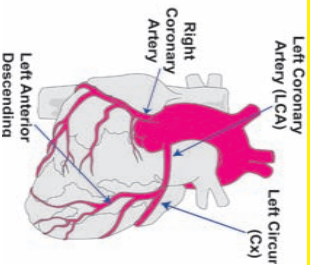
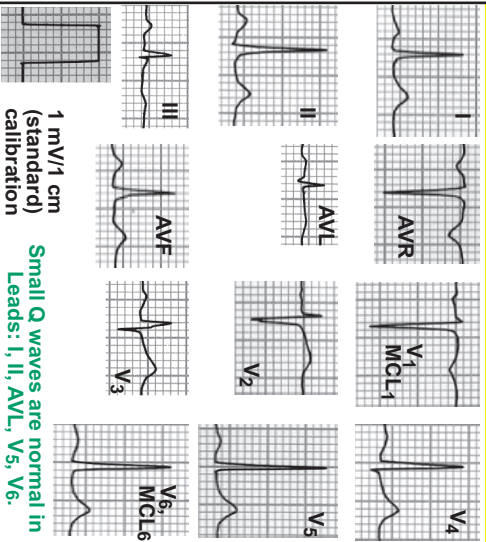
- T wave inversion may mean myocardial ischemia, or impending MI**



- Wide or deep Q waves mean infarction**

- 5 Rule out other confounders:** WPW (mimics infarct, BBB), pericarditis (mimics MI), digoxin (depresses STs), LVH (depresses STs, inverts T)
- 6 Identify location of infarct & consider appropriate treatments** (MONA, PCI [or fibrinolytic], nitrate infusion, heparin, GP IIb, IIIa inhibitor, beta-blockers, anti-arrhythmic, etc.)

Normal 12 Lead ECG



RCA supplies: R atrium & R ventricle, SA & AV nodes, proximal His bundle, posterior hemibundle. **LCA supplies:** L atrium & L ventricle, septum, SA node, His bundle, R & L bundle branches, anterior & posterior hemibundles.

Myocardial Infarction ECG Patterns

(Remember: the ECG may not show changes of AMI for hrs.)

Injury

(ST segments usually elevate within min. of the onset of cardiac chest pain)



Ischemia

(T waves invert fully by 24 hrs.)



Acute Infarction

(pathologic Q waves $\geq .03$ sec or $1/3$ height of QRS begin to form in 1 hr.)



Old Infarction

(ST segments are normal; Q waves remain forever)

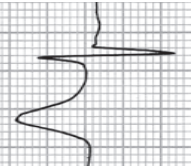


Reciprocal ST Depression

(found in leads away from the infarction)

Non-Q-Wave Infarction

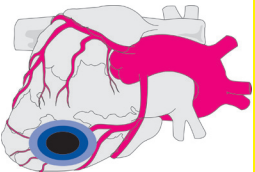
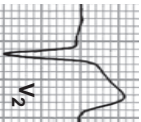
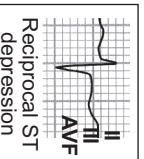
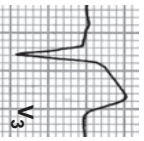
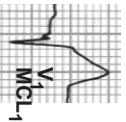
(flat, depressed ST segments in two or more contiguous leads; or may have inverted T waves)



Early reperfusion is the definitive treatment for most AMI patients. The patient can lose 1% of salvageable myocardium for each min. of delay. Remember: "Time is Muscle"

Acute Anterior MI

(ST segment elevation ≥ 0.5 – 1 mm, with or without Q waves in two or more contiguous Leads: V_1 – V_4 . Poor R wave progression* and inverted T waves may also be present. Reciprocal ST depression may be present in: II, III, AVF.)



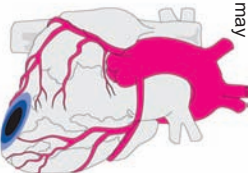
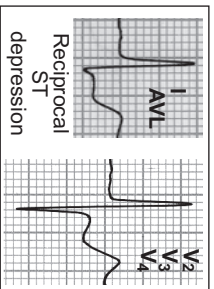
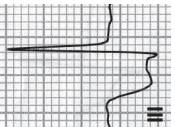
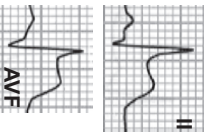
The anterior descending branch of the L coronary artery is occluded. May cause: L anterior hemiblock; R bundle branch block; **2° AV block Mobitz II**, **3° AV block with IVR, pump failure.**

***Note:** LVH also can cause poor R wave progression & Q waves in V_1 – V_2 . Rule it out first.

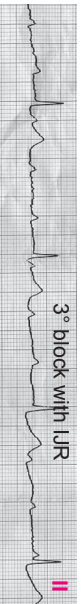


Acute Inferior MI

(ST segment elevation ≥ 0.5 –1 mm in two or more contiguous Leads: II, III, AVF. Q waves and inverted T waves may also be present. Reciprocal ST depression may be present in Leads: I, AVL, V₂–V₄.)



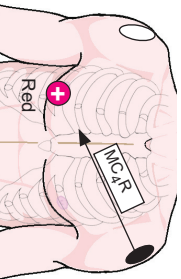
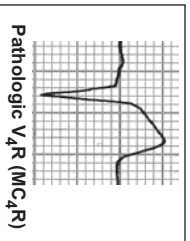
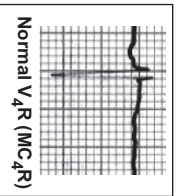
R ventricle AMI accompanies Inferior AMI 30% of the time.
Check Lead V_{4R} for elevated ST segment & Q wave.



The R (or L) coronary artery is occluded.
May cause: L posterior hemiblock; L axis deviation, ↓BP, sinus bradycardia, 1° AV block, 2° AV block Mobitz I (Wenckebach), 3° AV block with 1° AV block.

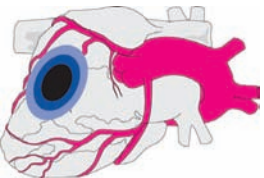
Acute Right Ventricle MI

(ST segment elevation in Lead: V_4R (MC_4R). Q wave and inverted T wave may also be present) Accompanies Inferior MI in 30% of cases.



Black

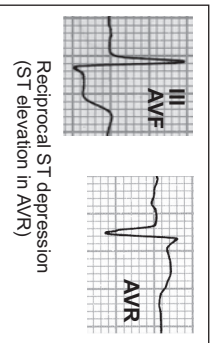
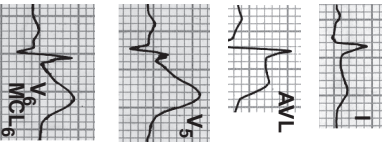
MC_4R Lead Placement: 5th interspace, R mid-clavicular line; monitor L III.



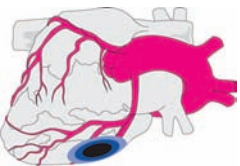
RCA is occluded. May cause:
AV block, A-Fib, A-Flutter,
R heart failure, JVD with
clear lungs, **BP may drop**
if preload is reduced (be
cautious with morphine, NTG,
furosemide). Treat hypo-
tension with IV fluids, pacing.

Acute Lateral MI

(ST segment elevation ≥ 0.5 – 1 mm in Leads: I, AVL, V5, V6.
Q waves and inverted T waves may also be present)



Note: Lateral MI may be a component of a multiple site infarction, including anterior, inferior and/or posterior MI.

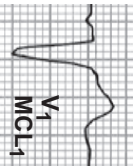
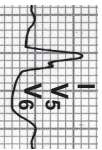


The **circumflex** branch of the L coronary artery is occluded.
May cause: LV dysfunction,
AV nodal block.

Bundle Branch Block

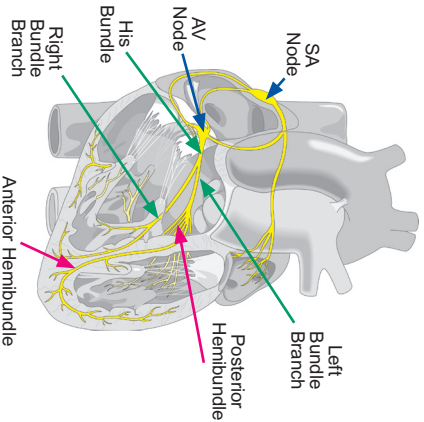
Left BBB

(Notched/slurred R waves in I, or V₅, or V₆. QS in V₁)



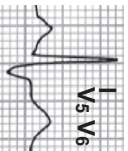
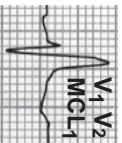
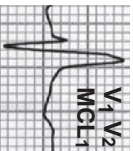
Note: if LBBB is present, do not attempt to diagnose AMI using only ECG criteria.

(QRS ≥ 0.12 second)

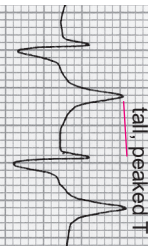


Right BBB

(Notched or two R waves in V₁ or V₂. Large S in I, V₅, V₆)



Electrolyte/Drug Effects



Hyperkalemia

(Tall, peaked T waves; wide QRS and loss of P waves in extreme cases)

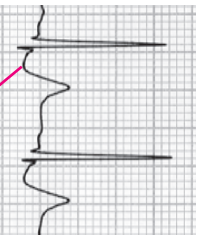
Pt. is at risk for asystole, VF.



Hypokalemia

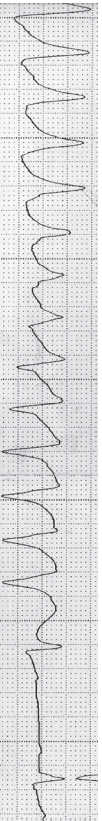
(flat T wave, large U)

Pt. is at risk for Torsades, VF, VT; hypokalemia exacerbates digitalis toxicity



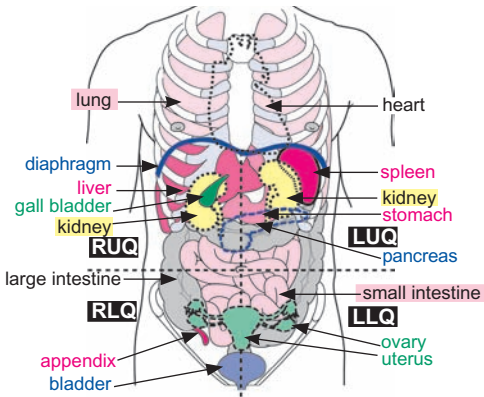
Digitalis Effect

(Depressed ST segments; asymmetrically inverted T)



Torsades de Pointes (2° anything that prolongs the QT interval: bradycardia, digitalis toxicity, quinidine, procainamide, disopyramide, phenothiazines, hypokalemia, hypomagnesemia, hypocalcemia, insecticide poisoning, subarachnoid hemorrhage, TCA OD)

Medical Emergencies



Abdominal Pain—Common Causes

- ❖ **Epigastric:** AMI, gastroenteritis, ulcer, esophageal disease, heartburn.
- ❖ **LLUQ:** gastritis, pancreatitis, AMI, pneumonia.
- ❖ **LLQ:** ruptured ectopic pregnancy, ovarian cyst, PID, kidney stones, diverticulitis, enteritis, abdominal abscess.
- ❖ **RLQ:** appendicitis, ruptured ectopic pregnancy, enteritis, diverticulitis, PID, ovarian cyst, kidney stones, abdominal abscess, strangulated hernia.
- ❖ **RUQ:** gall stones, hepatitis, liver disease, pancreatitis, appendicitis, perforated duodenal ulcer, AMI, pneumonia.
- ❖ **Midline:** bladder infection, aortic aneurysm, uterine disease, intestinal disease, early appendicitis.
- ❖ **Diffuse Pain:** pancreatitis, peritonitis, appendicitis, gastroenteritis, dissecting/rupturing aortic aneurysm, diabetes, ischemic bowel, sickle cell crisis.

Abdominal Pain

HX—Ask **PAIN QUESTIONS & GENERAL HISTORY**.

N&V? (color/quality of emesis) bowel movements, dysuria, menstrual Hx, fever, **postural hypotension**, referred shoulder pain? Is patient pregnant? Which trimester? Consider ectopic pregnancy. Genitourinary, vaginal or rectal bleeding/discharge? Examine all 4 quadrants: **abdominal tenderness, guarding, rigidity**, bowel tones present? Distension, **pulsatile mass**? Record recent intake and GI habits. Vitals (sitting & supine), chemstrip. Peripheral pulses equal?

+ **Position of comfort and NPO. Consider pulse oximetry. O₂, IV (adjusted to vitals), consider ECG for epigastric pain.**

Caution: Consider aortic aneurysm; ectopic pregnancy, DKA. Epigastric abdominal pain may be cardiac.

- **Abdominal Aortic Aneurysm:** severe abdominal pain, pulsatile mass, hypotension.
- **Acute MI:** chest “pressure” or epigastric pain radiating to L arm or jaw; diaphoresis, N&V, SOB, pallor, dysrhythmias.
- **Appendicitis:** N&V, RLQ or periumbilical pain, fv, shock.
- **Bowel Obstruction:** N&V (fecal odor), localized pain.
- **Cholecystitis:** acute onset RUQ pain & tenderness (may be referred to R shoulder/scapula)—may be related to high fat meal; N&V, anorexia, fever. “Female, fat, 40.”
- **Ectopic Pregnancy:** missed period, pelvic pain, abnormal vaginal bleeding, dizziness.
- **Food Poisoning:** N&V, diffuse abdominal pain and cramping, diarrhea, fever, weakness, dizziness. Severe symptoms: descending paralysis, respiratory compromise.
- **Hepatic Failure:** jaundice, confusion/coma, edema, bleeding and bruising, renal failure, fever, anorexia, dehydration.
- **Kidney Stone:** constant or colicky severe flank pain, extreme restlessness, hematuria, N&V.
- **Pancreatitis:** severe, “sharp” or “twisting” epigastric or LUQ pain radiating to back; N&V, diaphoresis, abdominal distention, signs of shock, fever.
- **Ulcer:** “burning,” epigastric pain, N&V, possible hematemesis, hypotension, decreased bowel sounds.

Abuse

Remove the patient from the environment; Transport to hospital; Report possible abuse to police, ED Staff, **Protective Services**, and appropriate authorities. Call for police assistance if needed to protect the patient and remove him/her from the scene. **Don't confront the alleged abuser.** Document your findings, and any statements made by patient, family members, others. Provide medical care as needed. If sexual abuse is suspected, do not allow the patient to wash.

Non-Accidental Trauma Child Maltreatment

Any **unusual MOI**, or one that does not match the child's injury/illness. Parents may accuse the child of hurting himself/herself, or may be vague/contradictory in providing history. There may be a delay in seeking medical care. **The child may not cling to mother.** Fracture in any child <2 y.o.; **multiple injuries in various stages of healing**, or on many parts of the body; obvious cigarette burns or wire marks; **malnutrition**; insect infestation, chronic skin infection, unkempt child. **Head injury is the leading cause of death of abused children.**



Intimate Partner Violence

Repeated ED visits with injuries becoming more severe with each visit; **Minimizing the seriousness** or frequency of the injuries; Seeking treatment one or more days after the injury; **Injuries that are not likely to have been caused by the accident reported**; Overprotective significant other who does not allow the patient to be alone with the health care professional; **Fractures in different stages of healing** according to radiographic findings; History of child abuse to patient or partner.

Older Adult Maltreatment

Fractures or bruises at various stages of healing;

Unexplained bruises or cigarette burns on the torso or extremities; Soft tissue injuries from signs of restraint use; Head injuries; Malnourishment, listlessness, dehydration unexplained. Poor hygiene, inappropriate clothing; Decubitus ulcer, urine and feces on body and clothing; Unusual interaction between caregiver and patient.

Remove the patient from the environment; Transport to hospital; Report possible abuse to police, ED Staff, Protective Services, and appropriate authorities. Call



for police assistance if needed to protect the patient and remove him/her from the scene. **Don't confront the alleged abuser.** Document your findings, and any statements made by patient, family members, others. Provide medical care as needed. If sexual abuse is suspected, do not allow the patient to wash.

Airway Obstruction

See "CHOKING" page 48

Allergic Reaction

HX—Mild reaction? (local swelling only); or serious systemic reaction? (hives, pallor, bronchospasm, wheezing, upper airway obstruction with stridor, swelling of throat, hypotension.

If cardiac arrest, treat per ACLS).



If bee sting, remove stinger (scrape, don't squeeze it).

- For mild local reaction: wash area, apply cold pack.
- For serious reaction: secure airway, ventilate, O₂; large bore IV, titrate to BP >90; ECG; **Epinephrine: 1:1,000 SQ, (Adult: 0.3 mL–0.5 mL); (Pediatric: 0.01 mL/kg; 0.3 mL max).** Consider IV diphenhydramine and steroids for severe reactions.



Caution: Epinephrine may cause arrhythmias or angina.

Altered Mental Status

Consider: CVA/TIA/Stroke, hypoglycemia, postictal, alcohol, drugs, hypovolemia, head injury, hypothermia, **HazMat**, sepsis, shock, cardiogenic, vasovagal.

HX—Ask **PAIN QUESTIONS & GENERAL HISTORY**.

Time of onset: slow or fast? **Seizure activity?** Was patient sitting, standing, lying? Is patient pregnant? (consider ectopic pregnancy). Any recent illness, or trauma? Current level of consciousness? Neurological status and psychological status? Any vomiting (**bloody or coffee-ground**)?

Melena (black tarry stool)? Any signs of recent trauma?

⊕ **General treatment—Protect airway.** Give O₂ PRN, **Be prepared to assist ventilations.** Monitor ECG, vitals.

⊕ **Cardiac: Support ABCs. Vitals, O₂, treat per ACLS.**

⊕ **Coma: (If multiple patients, suspect toxins - protect yourself!)** Any odor at scene?—**Consider HazMat.**

Were there any preceding symptoms or **H/A?** Past Hx: HTN, diabetes? Medications? Check scene for pill bottles or syringes and bring along. Get vitals, LOC & neuro findings, pupils; Any signs of trauma, drug abuse? Skin: color, temperature, rash, welts, facial or extremity asymmetry, Medic Alert™ tag?

Warning: Ensure your safety first, then safety of Pt. & others.

- **Secure airway,** ventilate with 100% O₂, protect C-spine.
- Start IV. Get chemstrip. Consider glucose, naloxone.
- Monitor vital signs, O₂ saturation, & ECG.

Caution: Protect airway, suction as needed.

⊕ **Sepsis/Infection:** O₂, IV, Vitals. IV fluids for hypotension.

⊕ **Syncope:** Position of comfort, O₂, IV, Vitals, ECG.
Consider IV fluids for hypotension.

Caution: Syncope in middle-aged or elderly patients is often cardiac. Occult internal bleeding may cause syncope.

Burns (See Burn Chart, page 9)

HX—Airway burns? (soot in mouth, red mouth, singed nasal hairs, **cough, hoarseness, dyspnea**)?

Was patient in enclosed space? How long? **Did patient lose consciousness?** Was there an explosion? Toxic fumes? Hx cardiac or lung disease? Estimate % of burns & depth. Other trauma?

Significant burns = blistered or charred areas, or burns of the hands, feet, face, airway, genitalia.

+ Stop the burning—extinguish clothing if smouldering.

- Remove clothing if not adhered to skin; remove jewelry.
- Vitals, give high flow O₂, assist ventilations if needed.

Superficial and deep superficial burns: If <20%, apply wet dressings.

Moderate to severe burns: cover with DSD &/or burn sheet. Leave blisters intact. Start large bore IV, treat for shock or % burn. Monitor ECG.

Chemical burns: Brush off any dry chemical then flush with copious amounts of water or saline.

For lime: brush off excess, then flush;

For phosphorus: use alcohol or **copious** amounts of water.

Electrical burns: Apply DSD to entry and exit wounds. Start large bore IV, titrate for shock. Monitor ECG—treat dysrhythmias per ACLS.

Caution: Consider child abuse in pediatric patients.

Do not apply ointments to burns. Avoid starting IV in burned area if possible.

Remember: Burned firefighters may be having an AMI.

Childbirth: (For OB/GYN Emergencies, see page 53)

HX—Timing of contractions? intensity? Does mother have urge to push or to move bowels? Has amniotic sac ruptured? Medications—any medical problems? Vital signs

Check for:

- **Vaginal bleeding** or amniotic fluid; note color of fluid
- **Crowning** (means imminent delivery)
- **Abnormal presentation:** foot, arm, breech, cord, shoulder.

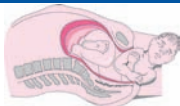
Transport immediately if patient has had previous C-section, known multiple births, any abnormal presentation, excessive bleeding, or if pregnancy is not full-term and child will be premature.

Normal

Control delivery using gloved hand to guide head, suction mouth & nose, deliver, keep infant level with perineum, clamp & cut cord 8–10 in. from infant,

warm & dry infant, stimulate infant by drying with towel, **make sure respirations are adequate.**

Normal vitals are: Pulse: >120, Resp >40, BP 70, Weight 3.5 kg. Give baby to mother to nurse at breast. Get APGAR scores at 1 and 5 min. after birth. **If excessive post-partum bleeding, treat for shock, massage uterus to aid contraction, have mother nurse infant, start large bore IV,** consider oxytocin 10–40 units in 1000 mL NS IV. Transport without waiting for placenta to deliver. Bring it with you to the hospital. Obtain mother's VS, O₂ sat.



Most births are normal—reassure mom & dad.

Breech

Call OLMC. If head will not deliver, consider applying gentle pressure on mother's abdomen. Support legs and buttocks of baby; during contraction pull gently on baby. Encourage mother to pant, not push. If unsuccessful, insert your gloved fingers in vagina; deliver one shoulder, then the other. Do not pull on baby at this stage.

(continued)

Deliver head by supporting baby's chest with your arms and hands. Place your fingers in vagina and find baby's mouth. Grasp the chin and apply gentle upward pressure to head and shoulders. Apply suprapubic pressure as well. If baby will not deliver, place fingers between baby's face and vaginal wall to create airway. **Rapid transport—patient may need emergency C-section.**

Cord Presents

Call OLMC. Place mother in trendelenburg & knee-chest position, hold pressure on baby's head to relieve pressure on cord, check pulses in cord, keep cord moist with saline dressing, O₂, **rapid transport, start IV en route. Patient may require emergency C-section.**

Foot/Leg Presents

Call OLMC. Support presenting part, place mother in trendelenburg & knee-chest position, O₂, **start IV. Rapid transport.**

Cord Around Neck

Unwrap cord from neck and deliver normally, keep face clear, suction mouth & nose, etc.

Infant Not Breathing

Stimulate with dry towel, rub back, flick soles of feet with finger. **Suction mouth and nose. Ventilate with BVM and 100% O₂** (this will revive most infants). **Begin chest compressions if HR <60.** If child does not respond, contact OLMC and reassess quality of ventilation efforts, lung sounds (pneumothorax? obstruction?) O₂ connected? **Intubate & ventilate.** Epinephrine 0.01 mg/kg IV/IO, or 0.1 mg/kg 1:1000 ET; and IV fluids 10mL/kg, glucose 2mL/kg D25%W. **Rapid transport. See Pediatric Arrest—page 89.**

Caution: Failure to respond usually indicates hypoxia—airway management is paramount in neonates.

APGAR Scale

	0 points	1 point	2 points	1 Min	5 Min
Heart rate	Absent	<100	>100		
Resp. Effort	Absent	Slow, Irreg.	Strong cry		
Muscle Tone	Flaccid	Some flex	Act. motion		
Irritability	No response	Some	Vigorous		
Color	Blue, pale	Body: pink Ext. Blue	Fully pink		
TOTAL:					

Infants with scores of 7–10 usually require supportive care only.
A score of 4–6 indicates moderate depression.

Infants with scores of 3 or less require aggressive resuscitation.

Chest Pain

Consider: AMI, CHF, APE, pneumothorax, pneumonia, bronchitis, pulmonary embolus.

HX—Ask **PAIN QUESTIONS & GENERAL HISTORY**. Syncope, dizziness, weakness, diaphoresis? Fever, pallor? Dyspnea?

Past Hx: chest trauma? cardiac or respiratory problems, diabetes, high blood pressure, heart failure? **Lung sounds, JVD?**

Peripheral or pulmonary edema, general appearance?



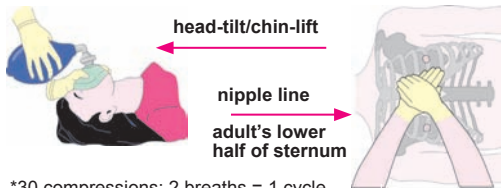
+ Position of comfort, reassure patient, vitals, Give O₂, Monitor ECG, Start IV, Consider nitroglycerine for cardiac chest pain: 0.4 mg SL every 5 min. (max.: 3 doses). Consider aspirin for AMI. **Notify ED if your cardiac patient is a possible fibrinolytic candidate, and transport ASAP.**

Caution: Treat dysrhythmias according to ACLS.

- ❖ **Acute MI:** severe, crushing chest pain, or substernal “pressure,” radiating to the L arm, or jaw. N&V, SOB, diaphoresis, pallor, dysrhythmias, HTN or hypotension.
- ❖ **Aortic Dissection:** sudden onset “tearing” chest or back pain, tachycardia, HTN or hypotension, diaphoresis, possible unequal pulses or unequal BP in extremities.
- ❖ **Cholecystitis:** acute onset RUQ pain & tenderness (may be referred to R shoulder/scapula)—may be related to high fat meal; N&V, anorexia, fever. “Female, fat, 40.”
- ❖ **Hiatal Hernia:** positional epigastric pain.
- ❖ **Musculo-Skeletal:** pain on palpation, respiration; obvious signs of trauma.
- ❖ **Pleurisy:** pain on inspiration, fever, pleural friction rub.
- ❖ **Pneumonia:** fever, shaking, chills, pleuritic chest pain, crackles, productive cough, tachycardia, diaphoresis.
- ❖ **Pulmonary Embolus:** sudden onset SOB, cough, chest pain which is sharp and pleuritic, tachycardia, rapid respirations, O₂ sat <94%, apprehension, diaphoresis, hemoptysis, crackles.
- ❖ **Ulcer:** “burning” epigastric pain, N&V, possible hematemesis, hypotension, decreased bowel sounds.

CPR/Adult, Child, or Infant

- 1 Determine unresponsiveness**
- 2 Call for assistance/get defibrillator/AED** (if child or infant, do CPR x1 min. first)
- 3 Position patient supine** on hard, flat surface
- 4 Open airway:** head-tilt/chin-lift
- 5 Check breathing:** if none: ventilate x 2 (make chest rise)
- 6 Check pulse:** if none: begin chest compressions, 30:2*, push hard & fast - minimize interruptions in CPR
- 7 Attach defibrillator to adult (& child >8 y.o.):** follow voice prompts
- 8 If shockable rhythm (VF or VT), shock x1**
- 9 Resume CPR immediately—do not interrupt CPR!**
- 10 Recheck pulse** after 5 cycles of CPR*; if no pulse
- 11 Continue CPR** and go to **Pulseless Cardiac Arrest** on page 13-14.
- 12 Recheck pulse & rhythm** after every 5 cycles of CPR



*30 compressions: 2 breaths = 1 cycle

CPR	Ratio*	Rate	Depth	Check Pulse
Adult: 1 Person	30:2	100	1-1/2" - 2"	Carotid
Adult: 2 Person	30:2	100	1-1/2" - 2"	Carotid
Child: 1 Person	30:2	100	1/3-1/2 cx	Carotid
Child: 2 Person	15:2	100	1/3-1/2 cx	Carotid
Infant: 1 Person	15:2	100	1/3-1/2 cx	Brachial, Femoral
Infant: 2 Person	15:2	100	1/3-1/2 cx	Brachial, Femoral
Newborn: 2 Person	15:2	100	1/3-1/2 cx	Brachial, Femoral

Note: Once the patient is intubated, ventilate at 8–10/min.

Choking

For Responsive Choking Adult Or Child >1 Year

- 1 If patient can not talk or has stridor, or cyanosis:
- 2 **Perform abdominal thrusts** (use chest thrusts if patient is pregnant or obese) repeat until successful or patient is unconscious:
- 3 **Begin CPR/Call for assistance**
- 4 **Open airway; head tilt-chin lift:** (look and remove object if visible)
- 5 **Ventilate with two breaths**—if unable
- 6 **Reposition head; attempt to ventilate**—if unable:
- 7 Perform chest compressions (30:2)
- 8 **Repeat: inspect mouth → remove object → ventilate chest compressions** until successful
- 9 **Consider laryngoscopy and removal of object by forceps, ET intubation, transtracheal ventilation, cricothyrotomy**
- 10 If Pt. resumes breathing, place in the recovery position.



For Unresponsive Choking Adult Or Child

- 1 **Determine unresponsiveness**
- 2 **Call for assistance**
- 3 Position patient supine on hard, flat surface
- 4 **Open airway**—head-tilt/chin-lift; (look and remove object if visible)
- 5 **Attempt to ventilate**, if unable:
- 6 **Reposition head & chin, attempt to ventilate**, if unable:
- 7 **Begin chest compressions 30:2**
- 8 **Repeat: inspect mouth → remove object → ventilate → chest compressions** until successful
- 9 **Consider laryngoscopy and removal of object by forceps, ET intubation, transtracheal ventilation, cricothyrotomy**
- 10 If Pt. resumes breathing, place in the recovery position.



For Choking Infant

- 1 **Confirm obstruction:** if infant can not make sounds, breathe, cry or is cyanotic
- 2 **Invert infant on arm.** Support head by cupping face in hand. **Perform 5 back blows & 5 chest thrusts** until object is expelled or Pt. becomes unconscious
- 3 **Repeat until successful**
- 4 **If Pt. becomes unconscious, start CPR**
- 5 **Open airway, remove object if visible and ventilate x 2;** if unable;
- 6 **Reposition head & chin, attempt to ventilate again;**
- 7 **Begin chest compressions 30:2**
- 8 **Repeat: inspect mouth → remove object → ventilate chest compressions** until successful.
- 9 **Consider laryngoscopy and removal of object by forceps, ET intubation, transtracheal ventilation, cricothyrotomy**
- 10 **If Pt. resumes breathing, place in the recovery position.**



Drowning & Near Drowning

HX—How long was patient submerged? Fresh or salt water? Cold water (<40°F)? **Diving accident? Immobilize spine.**

S/S—Vitals, pulse oximetry, Neurological status, GCS, Crackles or pulmonary edema with respiratory distress?

Open airway, suction, assist ventilations, start CPR.

C-Spine: stabilize before removing patient from water.

+ O₂, IV, Monitor ECG. If hypothermic: use heated O₂ and follow hypothermia protocols. Conserve heat with blankets.

Caution: All unconscious patients should have C-spine immobilization. All near-drowning patients should be transported. Many deteriorate later and develop pulmonary edema.

Prepare for vomiting; intubate if unconscious.

Hyperglycemia

HX—Slow onset, excessive urination, thirst. When was insulin last taken? Abdominal cramps, N&V? Mental status, high glucose on chemstrip, skin signs, dehydration?

Respirations: deep & rapid? Breath odor: acetone, fruity?

⊕ Secure airway, get vital signs, give O₂, large bore IV fluid challenge (balanced salt solution). Monitor ECG.

Hypoglycemia/Insulin Shock

HX—Sudden onset, low blood glucose on Chemstrip. Last insulin dose? Last meal? Mental status? Diaphoresis, **H/A**, blurred vision, dizziness, tachycardia, tremors, seizures?

Support ABCs, Give O₂, Take vitals, Start IV. Give 50mL

⊕ D50%W if patient comatose (perform chemstrip before and after). Consider glucagon IM if unable to start IV.

Do not give oral glucose if airway is compromised.

Caution: Hypoglycemia can mimic a stroke or intoxication. Seizures, coma, and confusion are common symptoms.

When in doubt about the diagnosis, give glucose IV or PO.

HYPOGLYCEMIA

VS.

HYPERGLYCEMIA

	HYPOGLYCEMIA "Insulin Shock"	HYPERGLYCEMIA "DKA" "Ketoacidosis"
Also known as	HYPOGLYCEMIA "Insulin Shock"	HYPERGLYCEMIA "DKA" "Ketoacidosis"
Incidence	More common	Less common
Blood sugar	Low (≤ 80 mg%)	High (≥ 180 mg%)
Onset	Rapid (min.)	Gradual (days)
Skin	Moist, pale	Dry, warm
Respirations	Normal	Deep or rapid
Pulse	Normal or fast	Rapid, weak
Blood Pressure	Normal or high	Normal or low
Breath odor	Normal	Ketone/Acetone odor
Seizures	Common	Uncommon
Dehydration	No	Yes
Urine Output	Normal	Excessive
Thirst	Normal	Very Thirsty
Mental Status	Disoriented, Coma	Awake, weak, tired
Treatment	Glucose IV or PO	IV Fluids, Insulin, K ⁺
Recovery	Rapid (min.)	Gradual (days)

Hyperthermia/Heat Stroke

HX—Onset? Exercise- or drug- (cocaine) induced? Vitals, temperature, Skin: warm, dry?

Remove from hot environment. Secure airway.

- ⊕ Give O₂. Undress and begin cooling patient. Consider cold packs to groin, armpits.

Evaporation and convection measures work best

(but avoid causing shivering as this may increase Pts. temp.)

Start large bore IV. Consider fluid challenge. Monitor ECG.

Reassess vital signs en route.

Caution: Rapid cooling is key. Don't delay transport.

Hypothermia (See also page 21)

HX—Vital signs, mental status. **Is patient cold? Shivering?**

Evidence of local injury? **Mild hypothermia:** shivering,

↑HR, ↑RR, lethargy, confusion. **Moderate hypothermia:**

↓respirations, ↓HR, rigidity, ↓L.O.C., “J wave” on ECG.

Severe hypothermia: coma, ↓BP, ↓HR, acidosis, VF, asystole.

Secure airway. Remove patient from cold environment.

- ⊕ Give heated O₂. A severely hypothermic patient may breathe slowly. Monitor ECG, large bore IV.

If cardiac arrest: start CPR. Contact OLMC.

Cut wet clothing off (do not pull off) wrap patient with blankets. Record vital signs, including temperature.

Caution: Handle patient gently. Jostling can cause cardiac arrest. If patient is not shivering, do not ambulate.

Stimulating the airway can cause cardiac arrest.

Infectious Diseases

DISEASE	SPREAD BY	RISK TO YOU
AIDS/HIV	IV/Sex/Blood products	↓Immune function, Pneumonias, Cancer
Anthrax	Cutaneous: contact with skin lesions	Infection+ 25% mortality, but much lower if treated
	Ingestion: eating contaminated meat	Infection= high mortality, unless treated with antibiotics
	Pulmonary: inhaled spores	Infection= 95% mortality, but much lower if treated
C-diff	Secretions/ Excretions Hand to nose	C-diff Colonization or infection
Hepatitis A*	Fecal-oral	Acute hepatitis
Hepatitis B*	IV/Sex/Birth/Blood	Acute & chronic hepatitis, ↑Cirrhosis, Liver CA
Hepatitis C	Blood	Chronic hepatitis, Cirrhosis, Liver CA
Hepatitis D	IV/Sex/Birth	Chronic liver disease
Hepatitis E	Fecal-oral	↑Mortality to pregnant women and fetus
Herpes	Skin contact	Skin lesions, shingles
Influenza	Droplet/Airborne	Influenza
MRSA	Secretions/ Excretions Hand to nose	MRSA Colonization or infection
Meningitis*	Nasal secretions	Low risk, acquire bacteria
Norovirus	Fecal to oral Hand to mouth	n/v, diarrhea
Tuberculosis	Sputum/cough/ Airborne	TB, infection

UNIVERSAL PRECAUTIONS

- ✓ Wear gloves for all patient contacts and for all contacts with body fluids.
- ✓ Wash hands after patient contact.
- ✓ Wear a mask for patients who are coughing or sneezing. Place a mask on the patient too.
- ✓ Wear eye shields or goggles when body fluids may splash.
- ✓ Wear gowns when needed.
- ✓ Wear utility gloves for cleaning equipment.
- ✓ Don't recap, cut, or bend needles.
- ✓ *Get vaccinated against Hepatitis A, B, and Meningitis A, C, W, Y.



Report every exposure and get treatment immediately.

OB/GYN Emergencies

- ❖ **Abruptio Placenta:** separation of placenta from uterine wall. Usually occurs >20 weeks gestation. S/S: painful 3rd trimester vaginal bleeding (dark red), hypovolemic shock, hypotension, tachycardia, fetal distress, ↓FHT, ↑fundal height, pale skin, diaphoresis.
Rx: IV, O₂, rapid transport—Pt. may require emergency C-section.
- ❖ **Placenta Previa:** placenta covers cervical os, can occur during 2nd & 3rd trimester. S/S: painless bright red vaginal bleeding, possible hypotension, tachycardia.
Rx: O₂, IV, OB consult; if bleeding is heavy, rapid transport—Pt. may require C-section.
- ❖ **Preclampsia/PIH:** (pregnancy induced hypertension). S/S: HTN, H/A, proteinuria, edema of hands, feet, face & sacrum, weight gain, ↓urine output, visual disturbances, possible ↑liver enzymes, ↑neurologic reflexes, ↑chance of seizures, ↓FHT.
Rx: transport quietly and gently, vitals, IV; treat HTN with apresoline or magnesium sulfate; OB consult; supportive care; Seizure precautions: diazepam, phenytoin, calcium gluconate 10%.

Physiologic Changes of Pregnancy

BP	Pulse	CO	ECG	Respirations	ABG	Blood Work	Other
↓	↑	↑	T Wave changes L II, avF, avL	↑Resp Rate ↑Tidal Volume ↑Vital Capacity ↓Functional residual capacity	↑pH ↑PaO ₂ ↓PaCO ₂ ↓HCO ₃ Respiratory Alkalosis	↓HCT, ↑WBC ↑Fibrinogen ↑Clotting factors, Prone to DIC, ↑Blood Volume	↑NV, aspiration ↑Injury: uterus, pelvis, bladder ↑Falls ↑Peripheral venous pressure

Organ & Tissue Donation

TISSUE	AGE	RESTRICTIONS
Bone	15–75	No IV drug use, no malignancy, no transmissible disease
Eyes	Any age	No systemic infection, no IV drug use, no transmissible disease
Heart valves	NB–55	No IV drug use, no malignancy, no transmissible disease
Organs	NB–70	Brain dead or potential to meet brain death, ventilator-dependent
Skin	15–75	No IV drug use, no malignancy, no transmissible disease

There are very few contraindications to donation.



Organ donor program

Psychiatric Emergencies

HX—Hx recent crisis? Emotional trauma, suicidal, changes in behavior, drug/alcohol abuse? Toxins, head injury, diabetes, sz disorder, sepsis or other illness? Ask about suicidal feelings, intent; does Pt. have a plan? Make judgement about whether patient will act on plan. Vitals, with pupil signs, Mental status, oriented? Any odor on breath? Medic alert tags? Any signs of trauma?

Make sure scene is safe - protect yourself!



Contact OLMC or psychiatric hospital. ABCs, Restrain patient as needed. If Pt. is suicidal do not leave alone. Remove dangerous objects (weapons, pills, etc.). Transport in calm, quiet manner, if possible. Consider: O₂, IV, check blood sugar. If low, consider glucose PO, or IV.

Caution: Always suspect hypoglycemia, and look for other medical causes: ETOH, drugs, sepsis, CVA, etc.

Scene Safety

- **Wait until police secure the scene before entering: intimate partner violence, assault, any shooting or stabbing.**
- **As you approach, scan the area for hazards such as: hostile persons, dogs, uncontrolled traffic, spilled chemicals, gas, oil, down power lines.**
- **Keep your exit routes open.**
- **Any weapons present at the scene should be secured.**
- **Wear protective gear. Call for more resources if needed.**

Scene Safety—Crime Scene

- 1 **Consider the safety of your crew first**
- 2 **Consider staging out of sight until scene is secure**
- 3 Make a mental note of physical and weather conditions
- 4 **Do not park your vehicle over visible tire tracks**
- 5 Limit the number of personnel allowed on scene



Access and Treatment

- 1 **Consult with police regarding best access**
- 2 **To avoid destroying evidence, select a single route to and from the victim**
- 3 When moving the victim, it is important to note:
 - Location of furniture prior to moving
 - Position of victim prior to moving
 - Status of clothing
 - **Location of any weapons or other articles**
 - Name of personnel who moved items
- 4 Consult with police regarding whether to pick up medical debris left over from treatment
- 5 Be conscious of any statements made
- 6 **Do Not cut through any holes in patients' clothing**
- 7 Place victim on a clean sheet for transport. After transport, obtain the sheet, fold it onto itself, & give to the police
- 8 **Write a detailed report regarding your crews actions**

Respiratory Distress

HX—Ask **PAIN QUESTIONS & GENERAL HISTORY**.

Onset of event: was it slow or fast? Fever? Cough? Is cough productive? Recent respiratory infection? Does patient smoke? (how much?) Record patient's medications. **Assess severity of dyspnea** (mild, moderate, severe); & tidal volume. **Single word sentences? Is cyanosis present?** Level of consciousness? Lung sounds: any wheezing, crackles, rhonchi, diminished sounds? Vitals? Pulse oximetry; **Is patient exhausted? Candidate for intubation?** Upper airway obstruction? (stridor, hoarseness, drooling, coughing?) Cx pain? Itching, hives? Numbness of mouth and hands? Signs of CHF: JVD, wet lung sounds (crackles), peripheral edema?

General treatment—Position of comfort (usually upright)
⊕ Give O₂ as needed. **Be prepared to assist ventilations.** Monitor ECG, vitals. Start IV.

Caution: High flow O₂ can depress respirations in a patient with COPD. Prepare to assist respirations.

⊕ **Anaphylaxis**—See **ALLERGIC REACTION, page 40.**

⊕ **Asthma: “Wheezes”** Consider nebulized bronchodilators, and/or epinephrine 1:1,000 SQ (0.3 mg–0.5 mg).

⊕ **COPD: “Wheezes, rhonchi.”** Consider nebulized bronchodilators.

⊕ **Pulmonary edema:** Consider nebulized bronchodilators, furosemide, sublingual nitroglycerine, and morphine.

⊕ **Tension Pneumothorax:** Contact OLMC. Lift occlusive dressing, needle thoracentesis. **Rapid transport.**

Seizures

❖ Consider epilepsy, **hypoxia**, CVA, cardiac origin, ETOH/ drug withdrawal, **hypoglycemia**.

HX—**onset, length of Sz**, type? previous Hx? Sz meds? Compliance? **Recent head trauma?** What was Pt. doing before Sz? Did Pt. fall? Bite tongue? Dysrhythmias? Incontinent? Is Sz drug-induced (antidepressant, cocaine)? Medic Alert™? level of consciousness, Head or oral trauma? Focal neurologic signs? H/A? Respiratory status?

Treatment for Status epilepticus. Keep airway open, consider NPA (do not use EOA/EGTA), O₂, suction, IV, test blood glucose, consider IV glucose. Transport on side, Monitor ECG, vitals.

+ **Caution:** Restrain patient only to prevent injury—protect patient's head. Do not force anything into the mouth. Always check for a pulse after a seizure stops. Most seizures are self-limiting, lasting less than 1–2 minutes.

Shock

HX—Ask **PAIN QUESTIONS & GENERAL HISTORY.**

Onset? Associated symptoms: hives, edema, thirst, weakness, dyspnea, cx pain, dizziness when upright, abdominal pain? **Trauma?** Bloody vomitus or stools? Delayed capillary refill? Tachypnea? Syncope? N&V? **Mental status: confusion, restlessness?** Tachycardia, hypotension? **Skin: pale, sweaty, cool.** Signs of pump failure: JVD while upright, crackles, peripheral edema.

Stop hemorrhage if any, Apply direct pressure to wound.

+ Consider pressure point. Place patient supine, O₂ high flow, assist ventilations as needed, Start large bore IV.

Do not delay transport to start IV. (consider intraosseous infusion if unable to start IV). Prevent heat loss. Try to determine the type of shock (hypovolemic, cardiogenic, anaphylactic, septic, neurogenic, etc.). **If trauma, enter patient in Trauma System.** Assess lung sounds. Monitor ECG, O₂ sat, vitals, level of consciousness.

Caution: Check lung sounds for crackles before giving IV fluids.

Spinal Injury

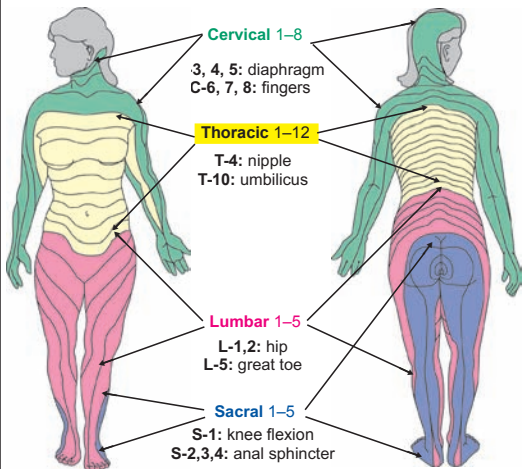
HX—MOI, helmet worn? Suspect C-spine injury with head or neck trauma, and with multi-system trauma, or diving/drowning. Altered mental status? Is there paralysis, weakness, numbness, tingling? Spinal pain with or without movement; point tenderness, deformity, or guarding?

Keep airway open. Consider nasopharyngeal airway.

⊕ Splint neck with C-collar & immobilize the entire spine. Move the patient as a unit and only as necessary. Give O₂. Start large bore IV. Vitals. **Place patient in Trauma System.**

Caution: Be prepared to suction and/or move the patient as a unit while immobilized. Consider internal bleeding.

Spinal Innervation



Stroke/CVA

HX—Ask **PAIN QUESTIONS & GENERAL HISTORY.**

Onset, progression, preceding symptoms (i.e., headache, seizures, confusion, etc.) Past Hx: hypertension? Diabetes? Meds, medic alert tag? **Level of consciousness**, GCS, O₂ sat, chemstrip. Neurological status: paralysis? Pupils, facial droop, unequal hand grips? Slurred speech, difficulty understanding?

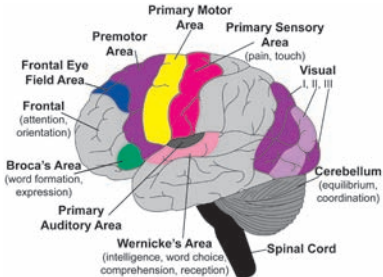
Keep airway open, O₂, assist ventilations if needed.

Start IV. Monitor ECG: CVA may be 2° to cardiac event,

+ Record Glasgow Coma Score, vitals, Consider hypoglycemia and give glucose if indicated. **Patient may be a candidate for fibrinolysis. Consider rapid transport.**

Caution: Keep airway open, suction & ventilate if needed.

Brain Areas



Fibrinolytic Checklist of Ischemic Stroke

All the "YES" boxes and all the "NO" boxes must be checked before fibrinolytic therapy can be given.

INCLUSION CRITERIA (all must be YES)

YES

- Age 18 years or older
- Clinical Dx: ischemic stroke causing measurable neuro deficit
- Time of symptom onset will be <3 hrs. before fibrinolytic treatment begins



EXCLUSION CRITERIA (all must be NO)

NO

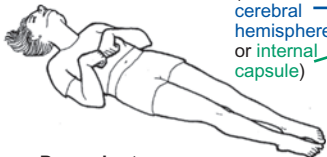
- Intracranial hemorrhage on non-contrast CT
- Clinical suspicion subarachnoid bleed, even with normal CT
- Multilobar infarction on CT >1/3 cerebral hemisphere
- Uncontrolled HTN: systolic BP >185 mm Hg or diastolic BP >110 mm Hg of treatment, using repeated measurements, including manual rechecks
- Hx: intracranial bleed, AV malformation, aneurysm, or neoplasm
- Witnessed seizure at stroke onset
- Active internal bleeding or acute trauma (fracture)
- Known bleeding diathesis, including but not limited to:
- Platelet count <100,000/mm³
- Patient has received heparin within 48 hrs. and had an elevated aPTT (greater than upper limit of normal for lab)
- Current use of anticoagulant (e.g., warfarin sodium) and elevated prothrombin time >15 seconds, or INR >1.7
- Less than three months ago: intracranial or intraspinal surgery, serious head trauma, or previous stroke
- Recent arterial puncture at a non-compressible site.

RELATIVE CONTRADICTIONS (weigh risks vs. benefits)

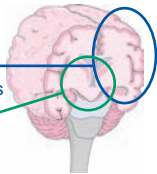
- Only minor or rapidly-improving stroke symptoms
- Within 14 days of major surgery or serious trauma
- Within 21 days of GI or urinary tract hemorrhage
- Recent acute MI or Post-MI pericarditis
- Blood glucose <50 mg% or >400 mg%

Posturing

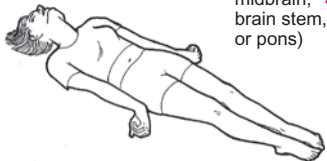
Decorticate:
(abnormal flexion)



(lesion:
cerebral
hemispheres
or **internal
capsule**)



Decerebrate:
(abnormal extension)



(lesion:
midbrain,
brain stem,
or pons)



Vaginal Bleeding

(See OB/GYN Emergencies page 53)

Consider: miscarriage, ectopic pregnancy, CA, trauma.

HX—Ask **PAIN QUESTIONS & GENERAL HISTORY**.

Cramping? Clots, tissue fragments (bring to ER), **dizziness, weakness**, thirst; (painless bleeding with pregnancy suggests placenta previa). Duration, amount; last menstrual period (normal?); if patient is pregnant: due date? **Past Hx:** bleeding problems, pregnancies, medications? Vitals and **orthostatic change?** Fever? Evidence of blood loss; **signs of shock?**

Vasoconstriction, sweating, altered mental status.

+ **General Treatment:** O₂, IV large bore, titrated to vitals, assess vitals, O₂ sat, ECG.

Caution: If miscarriage is suspected, field vaginal exam is generally not indicated.

+ **Postpartum bleeding:** treat for shock, massage uterus to aid contraction, have mother nurse infant, start large bore IV, transport without waiting for placenta to deliver. Bring it with you to the hospital. Get vital signs.

+ **Abruptio Placenta:** painful 3rd trimester bleeding; look for hypovolemic shock; give O₂, start IV, **Rapid transport.**

+ **Placenta previa:** painless 3rd trimester bleeding; start IV, O₂, **Rapid transport.**

Poisons & Overdoses

Please note: this section lists only **some** of the:

- ❖ Common brand[®], [™], & “street names” (AKA)
- ❖ Common Toxic Side Effects (SE:)
- ❖ **Primary Cautions (Caution)**
- ❖ **Prehospital care (Rx:)**
- ❖ **Substance Type**



Before administering treatment, consult your Poison Center, the product label or insert, your protocols, and/or your On-Line Medical Resource.

Acids

•Caustics

AKA—rust remover; metal polish

SE: pain, GI tract chemical burns, lip burns, vomiting.

Rx: Give milk or water, milk of magnesia, egg white, prevent aspiration. Transport patient in sitting position, if possible.

Caution: Do not induce vomiting. Contact Poison Center for more advice.



Acetaminophen

•Analgesic

AKA—Tylenol[®], APAP

SE: there may be no S/Sx, but acetaminophen is toxic to the liver. N&V, anorexia, RUQ pain, pallor, diaphoresis.

Rx: ABCs, O₂, IV, ECG, fluids for hypotension. Activated charcoal 50 – 100 gm orally. Acetylcysteine may be given in ED.

Caution: Contact Poison Center for advice.

Alkalis

•Caustics

AKA—Drano[®]; drain, oven cleaners; bleach

SE: pain, GI tract chemical burns, lip burns, vomiting.

Rx: Give milk or water, prevent aspiration. Transport patient in sitting position, if possible.

Caution: Do not induce vomiting. Call Poison Center.



Amphetamines/Stimulants

•*Stimulant*

AKA—methamphetamine, “speed,” “crank”
SE: anxiety, ↑HR, arrhythmias, diaphoresis, Sz, N&V, H/A, CVA, HTN, hyperthermia, dilated pupils, psychosis, suicidal.

Rx: ABCs, O₂, ECG, IV fluids for hypotension. Activated charcoal 50–100 gm orally. Maintain normal body temp. Benzodiazepine as adjunct.

Caution: Protect yourself against the violent patient.



Aspirin

•*Analgesic*

AKA—Bayer®, ASA, salicylates
SE: GI bleeding, N&V, LUQ pain, pallor, diaphoresis, shock, tinnitus, ↑RR.

Rx: ABCs, O₂, IV, ECG, fluids for hypotension. Activated charcoal 50–100 gm orally.

Caution: Contact Poison Center for advice.



Barbiturates/Sedatives

•*Hypnotic*

AKA—phenobarbital, “barbs,” “downers”
SE: weakness, drowsiness, respiratory depression, apnea, coma, hypotension, bradycardia, hypothermia, APE, death.

Rx: ABCs, O₂, ventilate, IV fluids for hypotension.

Caution: Protect the patient's airway.



Carbon Monoxide

•**Odorless Toxic Gas**

Causes—any source of incomplete combustion, such as: car exhaust, fire suppression, and stoves.

SE: H/A, dizziness, DOE, fatigue, tachycardia, visual disturbances, hallucinations, cherry red skin color, ↓respirations, N&V, cyanosis, altered mental status, coma, blindness, hearing loss, convulsions.

Rx: Remove Pt. from toxic environment, ABCs, 100% O₂, transport. Hyperbaric treatment in severe cases.

Caution: Protect yourself from exposure!

Cocaine

•**Stimulant/Anesthetic**

AKA—“coke,” “snow,” “flake,” “crack”

SE: H/A, N&V, ↓RR, agitation, ↑HR, arrhythmias, cx pain, vasoconstriction, AMI, HTN, Sz, vertigo, euphoria, paranoia, vomiting, hyperthermia, tremors, paralysis, coma, dilated pupils, bradycardia, death. APE with IV use.

Rx: ABCs, O₂, IV, ET intubation. Consider: benzodiazepine for Sz, lidocaine for PVCs, calcium blocker or beta blocker (labetalol) and nitrates for AMI. Control HTN.

Monitor VS and core temp: cool patient if hyperthermic. Minimize sensory stimulation.

Caution: Protect yourself from the violent patient.

A “speedball” is cocaine + heroin.



Ecstasy/MDMA

•**Stimulant/Hallucinogen**

AKA—“XTC,” “X,” “love drug,” “MDMA,” “Empathy”

SE: euphoria, hallucinations, agitation, teeth grinding (use of pacifiers), nausea, hyperthermia, sweating, HTN, tachycardia, renal and heart failure, dilated pupils, seizures, rhabdomyolysis, DIC, APE, CVA, coma, electrolyte imbalance.

Rx: ABCs, O₂, vitals, ECG, IV, cool pt if hyperthermic, intubate if unconscious; benzodiazepine for Sz.

Caution: Do not give beta blockers.

GHB(Gamma Hydroxy Buterate)

•*Depressant*

AKA—"G," "easy lay," "liquid X," "Blue Nitro"

SE: euphoria, sedation, dizziness, myoclonic jerking, N&V, H/A, coma, bradycardia, apnea.

Rx: **ABCs, manage airway, ventilate**

Caution: A common "date rape" drug.

Hallucinogens

•*Alter Perception*

AKA—LSD, psilocybin mushrooms

SE: anxiety, hallucinations, panic, disorientation, N&V.

Rx: **Calm and reassure the patient. Be supportive.**

Caution: Watch for violent & unexpected behavior.

Hydrocarbons

•*Fuels, Oils*

AKA—gasoline, oil, petroleum products

SE: breath odor, SOB, Sz, APE, coma, bronchospasm.

Rx: **ABCs, O₂, gastric lavage.**

Caution: Do not induce vomiting.



Opiates

•*Narcotic Analgesic*

AKA—Dilaudid[®], heroin, morphine, codeine, fentanyl

SE: ↓respirations, apnea, ↓BP, coma, bradycardia, pinpoint pupils, vomiting, diaphoresis.

Rx: **ABCs, O₂, ventilate, intubate, IV fluids for hypotension, naloxone 2 mg IV, IM, SQ, ET, IL.**

Caution: Consider other concurrent overdoses.

Organophosphates

•*Insecticides*

AKA—Malathion[®], Diazinon[®]

SE: SLUDGE (Salivation, lacrimation, urination, defecation, G-I, Emesis), pinpoint pupils, weakness. Bradycardia, sweating, N&V, diarrhea, dyspnea.

Rx: **Extricate patient, ABCs, O₂, Atropine**

1–2 mg IV every 5 min. for bradycardia, hypotension.

Caution: Protect yourself first! Do not become contaminated.



PCP—Phencyclidine

•*Tranquilizer*

AKA—"Peace Pill," "angel dust," "horse tranquilizer"

SE: nystagmus, disorientation, HTN, hallucinations, catatonia, sedation, paralysis, stupor, mania, tachycardia, dilated pupils, status epilepticus.

Rx: ABCs, O₂, vitals, IV, ECG.

Caution: Protect yourself against violent patient.

Examine patient for trauma which may have occurred due to anesthetic effect of PCP.



Tranquilizers (major)

•*Antipsychotic*

AKA—Haldol[®], Navane[®], Thorazine[®], Compazine[®]

SE: EPS, dystonias, painful muscle spasms, resp. depression, hypotension, torsades de pointes.

Rx: 50–100 mg diphenhydramine for EPS.

ABCs, O₂, vitals, ECG. Consider activated charcoal 50–100 gm orally. IV fluids for hypotension.

Consider intubation for the unconscious patient.

Caution: Protect the patient's airway.



Tranquilizers (minor)

•*Anxiolytics*

AKA—Valium[®], Xanax[®], diazepam, midazolam

SE: sedation, weakness, dizziness, tachycardia, hypotension, hypothermia, (↓respirations with IV use)

Rx: ABCs, monitor vitals; Flumazenil IV if no Sz Hx.

Caution: Coma usually means some other substance or cause is also involved. OD is almost always in combination with other drugs. Protect the patient's airway.

Tricyclic

•*Mood Elevators*

AKA—Norpramin[®], Sinequan[®], amitriptyline

SE: hypotension, PVCs, cardiac arrhythmias, QRS complex widening, seizures, coma, death.

Rx: ABCs, O₂, IV, ECG, IV fluids, 1 mEq/kg NaHCO₃ IV, Intubate and ventilate.

Caution: Onset of coma and seizures can be sudden. Do not give ipecac.

Emergency Medications

Please note: this section lists only some of the:

- ❖ Primary Indications **Rx**—
- ❖ **Primary Contraindications (Contra):**
- ❖ **Dosages (bold)**
- ❖ **Common Side Effects (SE:)** and
- ❖ **Drug Type** for these medications

Pediatric doses (Peds) are in italics or on pages 92-93.

For complete information, please consult the drug product insert, or an appropriate medical resource.

Activated Charcoal

•**Adsorbent**

Rx—Poisoning/overdose: 1 gm/kg PO or by NG tube.

(Mix with water to make a slurry)

Contra: do not give before or together with ipecac.

Contact Poison Center for more advice.

SE: constipation.

Adenosine (Adenocard®)

•**Antiarrhythmic**

Rx—PSVT: 6 mg (2 mL) IV rapidly over 1–3 secs.

[flush with 20cc NS bolus; elevate IV arm]

If no effect in 1–2 min, **give 12 mg** over 1–3 sec.

May repeat 12 mg bolus one more time.

Contra: 2° or 3° AV block, VT, sick sinus syndrome.

SE: transient dysrhythmias, facial flushing, dyspnea, chest pressure, hypotension, headache, nausea, bronchospasm.

Note: Adenosine is blocked by theophyllines; but potentiated by dipyridamole, carbamazepine.

Peds: 0.1–0.2 mg/kg IV rapidly, IO up to 6 mg. May double dose if no effect. Max.: 12 mg/dose.

Albuterol 0.5% (Ventolin®)

•**Bronchodilator**

Rx—Bronchospasm 2° COPD, Asthma: 1.25–2.5 mg (0.25–0.5 mL); mixed in 3 mL saline in nebulizer.

Contra: tachydysrhythmias.

SE: tachydysrhythmias, anxiety, nausea & vomiting.

Peds: 0.03 mL/kg nebulized; max.: 1 mL.

Alteplase (Activase® t-PA)•**Fibrinolytic**

Rx—Acute MI (<12 hrs. old): 100 mg IV over 3 hrs.
Mix in 100 mL sterile water for 1 mg/mL.

Accelerated 1.5 hr. infusion:

- Administer **15 mg IV bolus (15 mL) over 2 min.,**
- Then give **0.75 mg/kg (Max.: 50 mg) over next 30 min.,**
- Followed by **0.5 mg/kg (Max.: 35 mg) over next hr.**

Or 3-hr. infusion:

- Administer **10 mg IV bolus (10 mL) over 2 min.,**
- Then give **50 mg (50 mL) over first hr.,**
- Followed by **20 mg/hr (20 mL/hr) the next 2 hrs.**

Rx—Acute Ischemic Stroke (<3 hrs. old):

0.9 mg/kg IV (Max.: 90 mg) over 1 hr.

- Give 10% of the dose as an IV bolus over 1 min.,
- Then give the remaining 90% over the next hr.

Rx—Acute Pulmonary Embolism: 100mg IV over 2 hrs.

Contra: Any within 3 months: stroke, AV malformation, neoplasm, recent trauma, aneurysm, recent surgery. Active internal bleeding w/in 21 days; major surgery or trauma within 14 days, aortic dissection, severe HTN, known bleeding disorders, prolonged CPR with thoracic trauma, LP w/in 7 days, arterial puncture at a non-compressible site. **See page 22 for more contraindications.**
SE: Reperfusion dysrhythmias, bleeding, shock.

Amiodarone (Cordarone®)•**Antiarrhythmic**

Rx—Cardiac Arrest VF/VT: 300 mg IVP. May repeat 150 mg IVP every 3–5 min. Max.: 2,200 mg/24 hrs.

Rx—Stable Wide Complex Tachycardia:

Rapid infusion:

150 mg IV over 10 min. May repeat 150 mg IVP every 10 min. Max. 2,200 mg/24 hrs. (mix 150 mg in 100 mL; run at 10 mL/min or 600 microdrop/min.)

Slow infusion:

360 mg IV over 6 hrs. (mix 1000 mg in 500 mL; run at 30 mL/hr or 30 microdrop/min.)

Maintenance infusion:

540 mg IV over 18 hrs. (mix 1000 mg in 500 mL; run at 15 mL/hr or 15 microdrop/min.)

Contra: cardiogenic shock, bradycardia, 2°, 3° block; do not use with drugs that prolong QT interval.

SE: vasodilation, ↓BP, ↓HR, AV block, hepatotoxicity, ↑QTc, VF, VT. 40 day half-life. *Peds dose: 5 mg/kg IV/IO.*

Amyl Nitrite**•Cyanide Antidote**

Rx—Cyanide poisoning: Administer vapors from crushed inhalant for 30 sec, then administer oxygen for 30 seconds, repeat continuously.

SE: hypotension, H/A, nausea, methemoglobinemia.

Aspirin (ASA)**•Antiplatelet**

Rx—Acute Myocardial Infarction: 160–325 mg P.O. (2–4 chewable children's aspirin tablets).

Contra: allergy. **Use caution with:** asthma, ulcers, GI bleeding, other bleeding disorders.

SE: GI bleeding.

Atenolol (Tenormin®)**•Beta Blocker**

Rx—VT, VF, Atrial fib, Atrial flutter, PSVT, HTN

Rx—Myocardial Salvage for:

- Acute Anterior MI with HTN & Tachycardia
- Large MI <6 hrs. old
- Refractory Cx Pain or Tachycardia 2° excess sympathetic tone:

5 mg IV slowly over 5 min. Wait 10 min., then give another 5 mg IV slowly over 5 min.

Contra: CHF, APE, bronchospasm, Hx asthma, ↓HR, 2° or 3° heart block, cardiogenic shock ↓BP.

SE: ↓BP, CHF, bronchospasm, ↓HR, cx pain, H/A, N&V. Calcium blockers may exacerbate side effects.

Atropine Sulfate**•Vagolytic**

Rx—Asystole, PEA: 1 mg IVP, (2–3 mg ET); every 3–5 min.; up to 0.04 mg/kg total dose.

Rx—Symptomatic Bradycardia: 0.5–1 mg IVP every 3–5 min.; up to 0.04 mg/kg total dose.

Rx—Organophosphate or Carbamate insecticide poisoning: 2–5 mg IV every 15–30 min.

(0.05 mg/kg in children) until vital signs improve.

Rx—Asthma: 0.4–2 mg nebulized in 3 mL saline.

Rx—RSI (pediatric): 0.02mg/kg. Minimum 0.1 mg

Contra: tachycardia, glaucoma.

SE: dilated pupils, ↑HR, VT, VF, H/A, dry mouth.

Calcium Chloride 10%•**Electrolyte**

Rx—Calcium blocker toxicity; Hypocalcemia with tetany; Hyperkalemia; Hypermagnesemia:
500–1000 mg IV over 5–10 min.

Contra: VF, digitalis toxicity, hypercalcemia.

SE: ↓HR, asystole, ↓BP, VF, coronary & cerebral artery spasm, N&V; extravasation causes necrosis.

Note: **Precipitates with NaHCO₃ in IV bag/tubing.**

Peds: 10–20 mg/kg (0.1–0.2 mL/kg) IV, IO slowly.

Dexamethasone (Decadron®)•**Anti-inflammatory**

Rx—Cerebral Edema, Anaphylaxis, COPD, Spinal Trauma: **10–100 mg IV.**

Contra: uncontrolled infections, TB, ulcers.

Peds: 0.25–1 mg/kg IV, IO, IM.

Dextrose 50%•**Nutrient**

Rx—Coma, Hypoglycemia: **25 gm (50 mL) IV.**

SE: tissue necrosis if extravasation occurs.

Contra: intracerebral bleeding, hemorrhagic CVA.

Diazepam (Valium®)•**Anticonvulsant/Sedative**

Rx—Status Epilepticus: **5–10 mg IV slowly.**

Rx—Sedation: **5–15 mg IV slowly.**

(Rectal diazepam: 0.5 mg/kg via 2" rectal catheter.
Flush with 2–3 mL of air after administration.)

Contra: head injury, ↓BP, acute narrow angle glaucoma.

SE: ↓respirations, ↓BP, drowsiness, venous irritation.

Note: **overdose may be reversed with flumazenil.**

Diphenhydramine (Benadryl®)•**Antihistamine**

Rx—Allergic Reaction, EPS: **25–50 mg IV, or deep IM.**

Contra: asthma, pregnant or lactating females.

SE: sedation, blurred vision, anticholinergic effects.

Peds: 1–2 mg/kg IV, IO slowly, or IM.

Diltiazem (Cardizem®)**•Antiarrhythmic**

Rx—PSVT; Rapid Atrial Fibrillation, Atrial Flutter: 0.25 mg/kg slowly IV over 2 min.; if no effect in 15 min.: 0.35 mg/kg IV slowly over 2 min. Drip: 10–15 mg/hr (5 mg/hr for some patients).

Diltiazem (5mg/mL) Bolus Doses in mL	Patient weight in kg					
	50	60	70	80	90	100
1st dose: 0.25 mg/kg →	2.5mL	3mL	3.5mL	4mL	4.5mL	5mL
2nd dose: 0.35 mg/kg →	3.5mL	4.2mL	4.9mL	5.6mL	6.3mL	7mL

[for drip: mix 125 mg (25 mL) in 100 mL IV solution (1 mg/mL) & run

Diltiazem Drip	mg/hr. →	5mg	10 mg	15 mg
	microdrops/min. →	5 gtt	10 gtt	15 gtt

Contra: 2° or 3° block, ↓BP, sick sinus syndrome, VT; WPW or short PR syndrome with atrial fib or atrial flutter. Do not give with oral beta blockers. Do not give with furosemide in same IV line (flush line first).

SE: hypotension, bradycardia, H/A, N&V, CHF, dizziness, weakness. Diltiazem ↑serum digoxin levels.

Dopamine (Intropin®)**•Inotrope**

Rx—Hypotension; Bradycardia: 2–20 mcg/kg/min.

Renal Dose: 2–5 mcg/kg/min.
Inotropic Dose: 5–10 mcg/kg/min.
Pressor Dose: >10 mcg/kg/min.

Mix 400 mg in 250 mL D5W (1600mcg/mL) & run at:

mcg/ kg/min	Patient weight in kg											
	2.5	5	10	20	30	40	50	60	70	80	90	100
2 mcg	*	*	*	1.5	2	3	4	5	5	6	7	8
5 mcg	*	1	2	4	6	8	9	11	13	15	17	19
10 mcg	1	2	4	8	11	15	19	23	26	30	34	38
15 mcg	1.4	3	6	11	17	23	28	34	39	45	51	56
20 mcg	2	4	8	15	23	30	38	45	53	60	68	75

Microdrops per min. (or mL/hr)

Contra: ↑HR, HTN. ↓dose to 1/10th for Pts.s on MAOIs.

SE: tachydysrhythmias, VT, VF, HTN, N & V, H/A, ischemia, AMI.

Extravasation causes tissue necrosis.

Enalaprilat (Vasotec®)

•**ACE Inhibitor/Antihypertensive**

Rx—HTN, Acute MI, CHF: 0.625–1.25 mg IV slowly.
(Use lower dose if patient is on diuretics) Repeat in 1 hr if no response, then 1.25 mg IV every 6 hrs.

Contra: renal impairment, pregnancy, lactation.

SE: H/A, dizziness, fatigue, ↓LOC, dyspnea, ↓BP.

Epinephrine (Adrenalin®)

•**Sympathomimetic**

Rx—Allergic Reaction: 0.3–0.5 mg (0.3–0.5 mL 1:1000) SQ.

Peds: 0.01 mg/kg (0.01 mL/kg) SQ—max. 0.5 mg

Rx—Anaphylaxis: 0.3–0.5 mg (3–5 mL 1:10,000) IV.

Rx—Asthma: 0.3–0.5 mg (0.3–0.5 mL 1:1000) SQ.

Rx—Bradycardia/Hypotension: 2–10 mcg/min IV.

(mix 1 mg in 250 mL D5W):

Epinephrine Drip

mcg/min →	2	3	4	5	6	7	8	9	10
microdrops →	30	45	60	75	90	105	120	135	150

Rx—Cardiac arrest: 1 mg IV every 3–5 min.

Alternative doses for cardiac arrest:

High Dose: 0.2 mg/kg IVP every 3–5 min.

Endotracheal Dose: 2–2.5 mg every 3–5 min.

Continuous Infusion: mix 30 mg in 250 mL NS, or D5W and run at 100 mL/hr (100 microdrops/min.).

Contra: tachydysrhythmias, coronary artery disease

SE: tachydysrhythmias, VT, VF angina, HTN

Etomidate (Amidate®)

•**Sedative/Hypnotic**

Rx—Sedation for RSI: 0.3 mg/kg IV slowly.

Contra: Pt. <10 y.o., pregnancy, do not use with ketamine, immunosuppression, sepsis, transplant patient.

SE: apnea, bradycardia, ↓BP, arrhythmias, N&V.

Fentanyl (Sublimaze®)**•Narcotic Analgesic**

Rx—Analgesia: 2500/mcg/250mL Or 2–20 mcg IV slowly over 2 min.

Contra: MAOI use, asthma, myasthenia gravis.

SE: ↓LOC, ↓BP N & V, bradycardia, apnea.

Peds: 2–10 mcg/kg IV, IO slowly, or IM.

mcg/min	mL/hr	mcg/min	mL/hr
20	2.0	60	6.0
25	2.5	65	6.5
30	3.0	70	7.0
35	3.5	75	7.5
40	4.0	80	8.0
45	4.5	85	8.5
50	5.0	90	9.0
55	5.5	95	9.5

Flumazenil (Romazicon®)**•Antidote**

Rx—Benzodiazepine Overdose: 0.2–0.5 mg IV/IO.

Max. dose: 3 mg in a one hr. period.

Contra: cyclic antidepressant overdose, status epilepticus, ↑ICP, allergy to benzodiazepines.

SE: Sz, N&V, agitation, withdrawal. Watch for re sedation.

Peds: 0.01 mg/kg IV, IO up to 0.2 mg single dose.

Max. total dose: 1 mg.

Furosemide (Lasix®)**•Diuretic**

Rx—CHF with Pulmonary Edema, Hypertensive Crisis: 0.5–1 mg/kg IV slowly. Max: 2 mg/kg.

Contra: dehydration, hypokalemia, hepatic coma.

SE: hypokalemia, hypotension, dehydration.

Peds: 1 mg/kg IV, IO slowly.

Glucagon

• ↑ **Blood Glucose**

Rx—Hypoglycemia: 0.5–1 mg (or Unit) IM, SQ, IV.

Give carbohydrate such as prompt meal, orange juice, D50%, etc., as soon as the patient is alert and can eat.

Rx—Beta-Blocker OD: 3–10 mg IV (50–150 mcg/kg), followed by drip: 1–5 mg/hr..

Peds: 0.1 mg/kg IV, IO, IM, SQ up to 1 mg.

Ibutilide (Corvert®)

• **Antiarrhythmic**

Rx—Atrial Fibrillation, Atrial Flutter: 1 mg IV slowly over 10 min. For patients <60kg give 0.01 mg/kg IV slowly over 10 min. May repeat in 10 min.

Contra: Do not give with class 1a antiarrhythmics such as disopyramide, quinidine, procainamide or class III drugs such as amiodarone, sotalol. Use caution with drugs that prolong the QT interval: phenothiazines, TCAs, and H₁ receptor antagonists.

SE: PVCs, VT, hypotension, heart block, nausea, H/A, tachycardia, QT prolongation, torsades.

Inamrinone (Inacor®)

• **Inotrope/Vasodilator**

Rx—Acute severe, refractory CHF: 0.75 mg/kg IV slowly over 2–5 min (10–5 min. in patients with marginal blood pressure).

May repeat after 30 min. **Maintenance infusion: 2–15 mcg/kg/min.** (mix 3 amps (300 mg) in 240 mL saline = 1 mg/mL.)

mcg/kg/ min.	Patient weight in kg									
	20	30	40	50	60	70	80	90	100	110
2 mcg	2.4	3.6	4.8	6	7.2	8.4	9.6	10.8	12	13.2
5 mcg	6	9	12	15	18	21	24	27	30	33
7.5 mcg	9	14	18	23	27	32	36	41	45	50
10 mcg	12	18	24	30	36	42	48	54	60	66
15 mcg	18	28	36	46	54	64	72	82	90	100

Microdrops per min. or mL/hr.

Contra: hypotension, IHSS, hypovolemia. Do not mix with dextrose solutions or furosemide.

SE: dysrhythmias, ↓BP, N&V, fever, chest pain, myocardial ischemia, hepatotoxicity, thrombocytopenia, burning at infusion site.

Ipratropium .02% (Atrovent®)**•Bronchodilator****Rx—Bronchospasm, COPD, Asthma: 0.5 mg (2.5 mL) nebulized** (with albuterol).**Contra:** glaucoma, allergy to soy products or peanuts.**SE:** dry mouth, H/A, cough.**Peds:** 25 mcg/kg.**Ketamine (Ketalar®)****•Anesthetic/Analgesic****Rx—Anesthesia: 2 mg/kg IV every 10–20 min.,** (or 10 mg/kg IM every 12–25 min.).**Contra:** hypertensive crisis, allergy.**SE:** HTN, respiratory depression, ↑HR, hallucinations.**Ketorolac (Toradol®)****•NSAID Analgesic****Rx—Analgesia: 15–30 mg IV or 30–60 mg IM.****Contra:** allergy to ASA or other NSAIDs. Use caution in kidney or liver disease, COPD, asthma, ulcers, bleeding disorders, coumadin use, elderly, diabetes.**SE:** nausea, GI bleeding, edema.**Labetalol (Normodyne®)****•Antihypertensive****Rx—Severe HTN: 10–20 mg IV over 1–2 min.**May repeat or double dose every 10 min. until a total of 150–300 mg OR start infusion of 2–8 mg/min.**Drip:** Mix 200 mg (40 mL) in 160 mL of D5W for a concentration of 1 mg/mL. Start at 2 mg/min.**Labetalol Drip (1 mg/mL)**

mg/min. →	2 mg	4 mg	6 mg	8 mg
microdrops/min. (mL/hr) →	120 gtt	240 gtt	360 gtt	480 gtt

Contra: asthma, cardiac failure, 2°, 3° block, severe bradycardia, cardiogenic shock, hypotension.**SE:** hypotension, nausea, dizziness, sweating.

Lidocaine 2% (Xylocaine®)**•Antiarrhythmic**

Rx—Cardiac Arrest VT/VF: 1–1.5 mg/kg IVP; May repeat with 0.5 – 0.75 mg/kg IVP every 5–10 mins. Max.: 3 mg/kg. Start drip ASAP. **ET dose: 2–4 mg/kg.**

Rx—VT c Pulse: 1–1.5 mg/kg IVP; then 0.5–0.75 mg/kg every 5–10 min. up to 3 mg/kg. Start drip ASAP.

Rx—PVCs: 0.5–1.5 mg/kg IV then 0.5–1.5 mg/kg every 5–10 min. up to 3 mg/kg. Start drip ASAP.

Rx—Preparalytic (RSI): 1–1.5 mg/kg IV.

Peds: 1.5–2 mg/kg up to 6 y.o.

Drip: 1–4 mg/min. Mix 1 gm in 250 mL D5W & run at:

Lidocaine Drip (4 mg/ml) →	1 mg	2 mg	3 mg	4 mg
microdrops/min. (ml/hr) →	15 gtt	30 gtt	45 gtt	60 gtt

IM dose 300 mg IM (4 mg/kg) of 10% solution.

Contra: 2°, 3° block, hypotension, Stokes-Adams Synd. Reduce maintenance infusion by 50% if Pt. is >70 y.o., has liver disease, or is in CHF or shock.

SE: Sz, slurred speech, altered mental status.

Lisinopril (Prinivil®) •ACE Inhibitor/Antihypertensive

Rx—Hypertension, AMI: 5 mg/day PO. Double dose to 10 mg/day after 48 hrs., and give for 6 wks.

Contra: renal impairment, angioedema, pregnancy, hypovolemia.

SE: H/A, dizziness, fatigue, nausea.

Lorazepam (Ativan®) •Anticonvulsant/Sedative

Rx—Status Epilepticus: 2–4 mg slowly IV*, or IM.

Rx—Anxiety, Sedation: 0.05 mg/kg up to 4 mg IM.

Contra: Acute narrow-angle glaucoma.

SE: Apnea, N&V, drowsiness, restlessness, delirium; be prepared to ventilate patient.

Note: Overdose may be reversed with flumazenil.

Peds: 0.05–0.2 mg/kg IV, IO* slowly, or IM.*

***For IV or IO use, dilute 1:1 in NS, D5%W, or SW.**

Magnesium Sulfate 10%**•Electrolyte****Rx—Cardiac Arrest (Torsades, Hypomagnesemia):****1–2 gm IVP (5–10 gm may be required).****Rx—Torsades with a Pulse: 1–2 gm IV over 5–60 mins.**(mix in 50 mL D5W). **Start drip of 0.5–1 gm/hr and titrate.****Rx—Acute MI: 1–2 gm IV over 5–60 mins.** (mix in 50 mLD5W). **Start drip: 0.5–1 gm/hr; run for up to 24 hrs.****Rx—Seizures 2° Eclampsia: 1–4 gm IV slowly.****Rx—Magnesium Deficiency: 0.5–1 gm/hr.****Contra: renal disease, heart block, hypermagnesemia.****SE: hypotension, asystole, cardiac arrest, respiratory and CNS depression, flushing, sweating.****Peds: 25–50 mg/kg IV, IO over 10–20 min. Max.: 2 gm.****Meperidine (Demerol®)****•Analgesic****Rx—Analgesia: 50–100 mg IM, SQ or slowly IV.****Contra: patients receiving MAO inhibitors.****SE: sedation, apnea, hypotension, ↑ICP, N&V, ↑HR.****Peds: 1 mg/kg IV, IO, IM, SQ.****Methylprednisolone (Solu-Medrol®)****•Steroid****Rx—Asthma: 40–250 mg IV.****Rx—Spinal Cord Trauma: 30 mg/kg IV.****Contra: GI Bleed, diabetes, seizures, systemic fungal infection.****SE: euphoria, peptic ulcer, hyperglycemia, hypokalemia.****Peds: Asthma: 2 mg/kg IV, IO, IM.****Peds: Spinal cord injury: 30 mg/kg IV, IO, IM.**

Metoprolol (Lopressor®)**•Beta Blocker****Rx—VT, VF, Atrial fib, Atrial flutter, PSVT, HTN:****Rx—Myocardial Salvage for:**

- Acute Anterior MI with HTN & Tachycardia
- Large MI <6 hrs. old
- Refractory Cx Pain or Tachycardia 2° excess sympathetic tone:

5 mg IV slowly over 2–5 min., repeated every 5 min. to a total of 15 mg. Then 50 mg orally bid for at least 24 hrs, thereafter increased to 100 mg bid.

Contra: CHF, APE, bronchospasm, bradycardia, hypotension, cardiomegaly, thyrotoxicosis, Hx asthma.

SE: ↓BP, CHF, bronchospasm, ↓HR, cx pain, H/A, N&V.

Calcium blockers may potentiate side effects.

Midazolam (Versed®)**•Sedative**

Rx—Seizures: 5-15 mg IV slowly, titrate to patient response. May repeat in 10-15 minutes.

Rx—Sedation: 1-2 mg IV over 1-2 minutes, titrated to effect. May repeat in 2-5 minutes. Maximum total dose 5 mg.

Contra: acute narrow angle glaucoma, shock.

SE: respiratory depression, apnea, ↓BP, ↓HR, H/A, N&V. May reverse with flumazenil IV.

Peds Seizures: 0.15 mg/kg IV.

Peds Sedation: >6 month old child: 0.05-0.1 mg/kg IV slowly titrated to effect.

Morphine Sulfate**•Analgesic**

Rx—Analgesia; Pulmonary Edema: 2–5 mg IV, IM, SQ. May repeat every 5 min. up to 10 mg.

Contra: head injury, exacerbated COPD, depressed resp. drive, hypotension, acute abdomen, ↓LOC.

Note: Overdose may be reversed with naloxone.

SE: resp. depression, ↓BP, ↓LOC, N & V, ↓HR.

Peds: 0.1–0.2 mg/kg IV, IO, IM, SQ.

Nalmefene (Revex™)**•Opioid Antagonist****Rx—Narcotic Overdose: 0.5 mg/70 kg IV, IM, SQ.**(Single IM dose: 1 mg.) Can give second IV dose in 2–5 min.:
1 mg/70 kg IV. Max. total IV dose is 1.5 mg. (Give over 60 sec. in renal failure.)**Contra:** Use extreme caution if narcotic dependence is suspected. May try 0.1 mg IV to test for withdrawal symptoms**SE:** acute withdrawal s/s, N&V, tachycardia, HTN.**Naloxone (Narcan®)****•Narcotic Antagonist****Rx—Opiate Overdose; Coma: 2 mg IV, IM, SQ, ET.**

Repeat if needed up to 10 mg total dose.

Contra: do not use on a newborn if the mother is addicted to narcotics; may cause withdrawal.**SE:** withdrawal symptoms in the addicted patient.**Nicardipine (Cardene®)****•Calcium Blocker****Rx—HTN: 5–20 mg/1 hr.** Mix 50 mg in 230 mL D5W for 200 mcg/mL. Run at 25–100 mL/hr.**Nicardipine Drip (200 mcg/mL)**

	Nicardipine Drip (200 mcg/mL)			
mg/hr. →	5 mg	10 mg	15 mg	20 mg
mL/hr. (gtt/min.) →	25 ml	50 mL	75 mL	100 mL

Contra: hypotension, aortic stenosis. Caution with renal failure and hepatic dysfunction. Do not mix with RL.**SE:** edema, hypotension, dizziness, H/A, tachycardia, N&V, facial flushing, vein irritation: change IV site every 12 hrs.

Nitrates

•Vasodilators

Rx—ACS; Angina; Hypertension; CHF with APE:

Contra: ↓BP, hypovolemia, intracranial bleeding, aortic stenosis, R ventricle infarction, severe bradycardia or tachycardia, recent use of Viagra®, Cialis® or Levitra®.

SE: HA, hypotension, syncope, tachycardia, flushing.

Nitroglycerin tablets (NITROSTAT®): 0.3–0.4 mg SL,

may repeat in 3–5 min., (max.: 3 doses).

Nitroglycerin paste (NITRO-BID®): 1–2 cm of paste

(6–12 mg) **topically.**

Nitroglycerin spray (NITROLINGUAL®): 1–2 sprays

(0.4–0.8 mg) **under the tongue.**

Nitroglycerin IV (TRIDIL®): 0–20 mcg/min.

Increase by 5–10 mcg/min every 5 min. until desired effect.

Mix 25 mg in 250 mL D5W (100 mcg/mL) & run at:

Dose in (µg/min)	µgtts/minute (or ml/hr)	Dose in (µg/min)	µgtts/minute (or mL/hr)
5 µg	= 3 µgtts/min.	110 µg	= 66 µgtts/min.
10 µg	= 6 µgtts/min.	120 µg	= 72 µgtts/min.
20 µg	= 12 µgtts/min.	130 µg	= 78 µgtts/min.
30 µg	= 18 µgtts/min.	140 µg	= 84 µgtts/min.
40 µg	= 24 µgtts/min.	150 µg	= 90 µgtts/min.
50 µg	= 30 µgtts/min.	160 µg	= 96 µgtts/min.
60 µg	= 36 µgtts/min.	170 µg	= 102 µgtts/min.
70 µg	= 42 µgtts/min.	180 µg	= 108 µgtts/min.
80 µg	= 48 µgtts/min.	190 µg	= 114 µgtts/min.
90 µg	= 54 µgtts/min.	200 µg	= 120 µgtts/min.
100 µg	= 60 µgtts/min.		

Note: use glass IV bottle and non-PVC IV tubing.

Nitrous Oxide (Nitronox®)

•Analgesic

Rx—Analgesia / Sedation: give mask to patient and allow to self-administer.

Contra: ↓LOC, cyanosis, acute abdomen, shock, ↓BP, pneumothorax, cx trauma, Pts who need >50% O₂.

SE: drowsiness, euphoria, apnea.

NOTE: Ventilate patient area during use.

Ondansetron (Zofran®)

•Antinauseant

Rx—Nausea & Vomiting: 4 mg IV slowly, or IM.

Contra: Hypersensitivity to dolasetron, granisetron.

May precipitate with bicarb.

SE: H/A, diarrhea, FV, dizziness, pain, SZ, EPS.

Peds: 0.1 mg/kg slow IV, or IM. Max.: 4 mg.

Oxytocin (Pitocin®)

• ↑Uterine Contractions

Rx—Postpartum Hemorrhage: 10 units IM after placenta delivers. Or mix 10–40 units in 1000 mL balanced salt solution and titrate to control uterine bleeding.

Contra: rule out multiple fetuses before administration.

SE: HTN, dysrhythmias.

Pancuronium (Pavulon®)

•Paralytic

Rx—Paralysis to facilitate tracheal intubation:

0.04–0.1 mg/kg IVP (onset 3 min.; recovery: 30–45 min.).

Maintenance: 0.01 mg/kg every 60 min.

Contra: 1st trimester pregnancy; use reduced dose in newborns, myasthenia gravis.

SE: apnea, prolonged paralysis, tachycardia, PVCs, hypotension, hypertension, bradycardia.

Phenytoin (Dilantin®)**•Anticonvulsant****Rx—Seizures: 15–18 mg/kg** (max. 25–50 mg/min).**Contra:** hypoglycemic seizures (give glucose), ↓HR, 2° & 3° heart block, CHF, ↓respirations, impaired hepatic or renal function, ↓BP, hyperglycemia.**SE:** lethargy, H/A, irritability, restlessness, vertigo, hypotension, bradycardia, anorexia.**Caustic to veins: use central line if possible.***Peds: 15 – 20 mg/kg over 30 min. Max.: 1 gm.***Phenobarbital (Luminal®)****•Anticonvulsant****Rx—Status Epilepticus: 100–250 mg IV slowly, or IM.****Contra:** porphyria, pulmonary or hepatic dysfunction.**SE:** respiratory depression, hypotension, coma, N&V.*Peds: 10–20 mg/kg IV, IO slowly, or IM. May repeat.***Promethazine (Phenergan®)****•Antiemetic/Sedative****Rx—N&V: 12.5–25 mg IV/IM, or 25 mg PO.****Rx—Sedation: 25–50 mg IV/IM/PO.****Contra:** allergy to antihistamines and phenothiazines, lactating females, MAOI use, COPD, HTN, pregnancy.**SE:** Drowsiness, viscous bronchial secretions, urinary urgency.*Peds: N&V: 1 mg/kg PO;**Peds: Sedation: 12.5 –50 mg PO, PR.*

Propranolol (Inderal®)**•Beta Blocker****Rx—VT, VF, Atrial fib, Atrial flutter, PSVT, HTN:****Rx—Myocardial Salvage for:**

- Acute Anterior MI with HTN & Tachycardia
- Large MI <6 hrs. old
- Refractory Cx Pain or Tachycardia 2° excess sympathetic tone:

1–3 mg IV slowly over 2–5 min. Repeat dose after 2 min. to a total of 0.1 mg/kg. Then 180–320 mg/day orally in divided doses.

Contra: CHF, APE, bronchospasm, Hx asthma, COPD, bradycardia, 2° or 3° heart block, hypotension, cardiogenic shock.

SE: hypotension, CHF, bronchospasm, bradycardia, dizziness, cx pain, headache, N & V.

Use of calcium blockers may potentiate side effects.

Retepase (Retavase®)**•Fibrinolytic**

Rx—Acute MI (<12 hrs. old): 10 units IV over 2 min. Repeat dose in 30 min. (Flush with NS before & after).

Contra: active internal bleeding; Any within 3 months: stroke, AV malformation, neoplasm, aneurysm, recent trauma, recent surgery. Bleeding disorders, LP within 7 days.

See page 21-22 for additional contraindications.

SE: dysrhythmias, bleeding, ↓BP, shock, Fv, allergy.

Sodium Bicarbonate 8.4%**•Alkalinizer**

Rx—Cardiac Arrest with Good Ventilation: 1 mEq/kg IV, (1 ml/kg) followed by 0.5 mEq/kg every 10 min.

Rx—Hyperkalemia; OD of: Tricyclic, Phenobarbital, Diphenhydramine, ASA, Cocaine: 1 mEq/kg IV.

SE: metabolic alkalosis, ↓K⁺, fluid overload.

Must ventilate patient after administration.

Streptokinase (Streptase®)**•Fibrinolytic**

Rx—Acute MI (<12 hrs. old): 1,500,000 units infused over 60 min.

Rx—Pulmonary Embolism: 250,000–600,000 units over 30 mins. Follow with infusion of 100,000 units/hr.

Contra: active internal bleeding within 21 days. Surgery or trauma within 14 days. Aortic dissection, severe HTN, bleeding disorders, prolonged CPR with thoracic trauma, lumbar puncture within 7 days, arterial puncture at a noncompressible site. Any within 3 months: stroke, AV malformation, neoplasm, aneurysm, recent trauma, recent surgery. Streptokinase use w/in past 2 yrs.

SE: reperfusion dysrhythmias, bleeding, shock, H/A, hypotension, allergic reaction, chest pain, N&V, Fv.

Succinylcholine (Anectine®)**•Paralytic**

Rx—Paralysis to facilitate ET intubation: 1–2 mg/kg IV. (onset: 1 min.; recovery: 4–6 min.)

[IM dose: 3–4 mg/kg, max.: 150 mg. (onset: 2–3 min)]

Contra: Acute narrow angle glaucoma, penetrating eye injuries, burns >8 hrs, massive crush injury.

SE: Apnea, malignant hyperthermia, dysrhythmias, ↓HR, HTN, ↓BP, arrest, ↑K⁺, ↑intraocular pressure.

Tenecteplase (Tnkase)**•Fibrinolytic**

Rx—Acute MI (<12 hrs. old): 30–50 mg IV.

for bolus: mix 50 mg vial in 10 mL SW (5 mg/mL & give:

Patient weight in kg →	50	60	70	80	90	100
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Bolus dose in mL →	6 mL	7 mL	8 mL	9 mL	10 mL	10 mL
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Contra: previous hemorrhagic stroke; other CVA within 1 year, intracranial CA, internal bleeding, aortic dissection;

See page 21-22 for additional contraindications.

SE: dysrhythmias, bleeding, ↓BP, shock, CHF, APE.

Thiamine (Vitamin B₁)•**Nutrient**

Rx—Co-administration with D50%W in patients suspected of malnutrition or thiamine deficiency (starvation, severe alcoholism): **100mg slow IV or IM.**

Contra: hypersensitivity.

SE: N&V, hypotension.

Vasopressin (Pitressin®)•**Vasopressor**

Rx—Cardiac Arrest (VF/VT): **40 U IVP/IO**

Contra: chronic nephritis with nitrogen retention, migraine, epilepsy, CHF, asthma, CAD, pregnancy, lactation.

SE: IV site pain, stomach cramps, N&V, angina, diarrhea, trembling, eructation, pallor, confusion, hives, wheezing.

Vecuronium (Norcuron®)•**Paralytic**

Rx—Paralysis / ET intubation: **0.1 mg/kg IVP**

(onset: 1 min.; recovery: 45 mins.).

Maintenance: 0.01–0.05 mg/kg.

Contra: newborns, myasthenia gravis.

SE: apnea, weakness.

Peds: 0.1 mg/kg IV, IO.

Verapamil (Isoptin®)•**Antiarrhythmic**

Rx— PSVT, Rapid Atrial Fibrillation, Atrial Flutter:

2.5–5 mg IV slowly. (5–10 mg every 15 min. Max.: 30 mg)

Drip:**Mix 100 mg in 250 mL D5W (0.4 mg/mL.)****mg/hr. →**

	1	2	3	4	5	6	7	8	9	10
microdrops/min. →	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25

Contra: WPW or short PR syndrome with A-Fib or A-Flutter, 2° or 3° block, V-Tach, ↓BP, shock, IV beta blocker use, sick sinus syndrome, CHF, children <12 mos.

SE: hypotension, AV block, bradycardia, asystole.

Peds: 0.1–0.2 mg/kg IV, IO slowly. Max: 10 mg/dose.

IV fluid rates in drops/minute

Drip Set	10	12	15	20	60*
30 ml/hr	5	6	8	10	30
60 mL/hr	10	12	15	20	60
100 mL/hr	17	20	25	33	100
200 mL/hr	33	40	50	67	200
300 mL/hr	50	60	75	100	300
400 mL/hr	67	80	100	133	400
500 mL/hr	83	100	125	167	500
1000 mL/hr	167	200	250	333	1000

*Standard “microdrip” IV tubing has 60 gtt/mL
A normal “TKO” or “KVO” rate is 30–60 cc/hr.
 (Note that with a microdrip IV set, mL/hr = drops/min.)

Pulse Oximetry

RANGES	PREHOSPITAL CARE
Normal: 95–99%	
Mild hypoxia: 91–94%	Give oxygen
Moderate hypoxia: 86–90%	Give 100% oxygen
Severe hypoxia: $\leq 85\%$	100% oxygen, ventilate

- ❖ Falsely low SpO₂ readings may be caused by:
 - Cold extremities
 - Hypothermia
 - Hypovolemia
- ❖ Falsely high SpO₂ readings may be caused by:
 - Anemia
 - Carbon monoxide poisoning
- ❖ All starting readings must be interpreted in ratio to Pt. hemoglobin level.
- ❖ Misleading high SpO₂ readings may be caused by anemia.

In if doubt, give oxygen in spite of a normal SpO₂

O₂ Tank Capacities

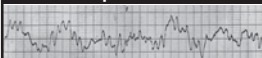
Tank	Capacity	@15 Lpm	10 Lpm	6 Lpm	2 Lpm
C	240 L	16 min.	24 min.	40 min.	2 hr
D	360 L	24 min.	36 min.	1 hr	3 hr
E	625 L	41 min.	1:02 hr.	1:44 hr.	5:12 hr.
M	3,000 L	3:20 hr.	5:00 hr.	8:20 hr.	25 hr.
G	5,300 L	5:53 hr.	8:50 hr.	14:43 hr.	44:10 hr.
H	6,900 L	7:40 hr.	11:30 hr.	19:10 hr.	57:30 hr.

Pediatric Pulseless Arrest

(confirm cardiac rhythm in more than one lead)

Determine pulselessness and **Begin CPR**, Give O₂ Attach ECG

VT or pulseless VT



⚡ Defibrillate 2 J/kg (manual)
or AED >1 y.o.

Continue CPR immediately
(5 cycles of 15:2*)
with 100% oxygen

Secure airway when possible,
ventilate with oxygen;
Obtain IV or IO access

Still VF/VT? ⚡ Defibrillate 4 J/kg
Continue CPR immediately
(5 cycles of 15:2*)

Epinephrine IV/IO: 0.01 mg/kg
(1:10,000, 0.1 mL/kg)
every 3–5 min.

OR

ET: 0.1 mg/kg (1:1,000,
0.1 mL/kg)

Identify and treat causes

Still VF/VT? ⚡ Defibrillate 4 J/kg
Continue CPR immediately
(5 cycles of 15:2*)

Amiodarone 5 mg/kg IV, IO, OR:
Lidocaine 1 mg/kg IV, IO OR
ET, consider: Magnesium 25–50
mg/kg IV, IO (for Torsades,
max.: 2 gms)

Still VF/VT? ⚡ Defibrillate 4 J/kg
Continue CPR immediately
(5 cycles of 15:2*)

Verify: ET tube placement,
paddle position/contact

Asystole/PEA



Continue CPR immediately
(5 cycles of 15:2*)

Secure airway when possible,
ventilate with oxygen;
Obtain IV or IO access

Epinephrine IV/IO: 0.01 mg/kg
(1:10,000, 0.1 mL/kg)
every 3–5 min.

OR

ET: 0.1 mg/kg
(1:1,000, 0.1 mL/kg)

Identify and treat causes

Verify: ET tube placement

Identify and treat causes:

- Severe hypoxemia?
- Severe acidosis?
- Severe hypovolemia?
- Tension pneumothorax?
- Cardiac tamponade?
- Profound hypothermia?
- Electrolyte imbalance?
- Drug overdose?
- Embolism?
- Severe hypoglycemia?
- Trauma?

*After ET intubation, give 8–10 breaths / min during CPR.

Pediatric Bradycardia

(with a pulse, but symptomatic)

Assess & Support ABCs

Secure airway, **Administer 100% oxygen**
Start IV or IO, Assess vital signs, attach ECG

Severe cardiorespiratory compromise?

(poor perfusion, hypotension, respiratory difficulty)

NO

Observe,
Support ABCs,
Consider consult with
expert

YES

Oxygenate, ventilate, intubate!
Do CPR if HR < 60/min. in an
infant/child in spite of good
oxygenation and ventilation

Epinephrine every 3- 5 min.

IV/IO: 0.01 mg/kg (1:10,000, 0.1 mL/kg)*

ET: 0.1 mg/kg (1:1,000, 0.1 mL/kg)*

Repeat every 3-5 min. at the same dose

**Atropine 0.02 mg/kg IV, IO, ET for increased vagal tone
or primary AV block** (minimum dose: 0.1 mg)

(max. single dose: 0.5 mg for child; 1.0 mg for adolescent)

May be repeated once

(max. total dose: child 1 mg; adolescent 2 mg)

Consider Pacing

If arrest develops—See Pediatric Pulseless Arrest (page 89)

* Give atropine first for suspected vagal tone or AV block.

Identify and Treat Causes:

Hypoxemia?

Hypovolemia?

Tension pneumothorax?

Electrolyte imbalance?

Cardiac tamponade?

Acidosis?

Head Injury?

Heart block?

Hypothermia?

Overdose?

Trauma?

Hypoglycemia?

Note: Pediatric bradycardia is usually the result of hypoxia

Pediatric Tachycardia

with Pulse & Poor Perfusion

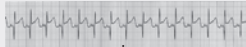
Assess & Support ABCs, Secure Airway, Get IV
(start CPR if no pulse –see **Pulseless Arrest Algorithm**)

Administer oxygen, Attach 12-lead ECG,

Evaluate the tachycardia; Identify and treat causes below*

QRS DURATION?

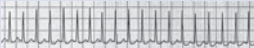
Normal for age (≤ 0.08 sec.)



Probably Sinus Tach if:

- Compatible history?
- Normal P waves?
- HR varies with activity?
- Variable RR with normal PR?
- Infant HR $< 220/\text{min.}$?
- Child HR $< 180/\text{min.}$?

Otherwise, probably SVT



Consider **vagal maneuvers**
(but do not delay cardioversion)

Adenosine 0.1 mg/kg IVP/IO
(6 mg max. dose)

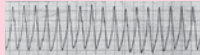
May repeat with 0.2 mg/kg
(12 mg max. dose) **OR**

Synchronized cardioversion
(0.5–1.0 J/kg; may increase to 2 J/kg if initial dose fails. Sedate if possible, but do not delay cardioversion)

Consult expert

Amiodarone 5 mg/kg IV
over 20–60 min., **OR:**
Procainamide 15 mg/kg IV
over 30–60 min.

Wide for age (> 0.08 sec.)



Possible V-Tach
cardioversion STAT
(0.5–1.0 J/kg;

may increase to 2 J/kg if initial dose fails. Sedate if possible, but do not delay cardioversion)

May attempt Adenosine
0.1 mg/kg IVP/IO (6 mg max dose), but do not delay cardioversion

Consult expert

Amiodarone 5 mg/kg IV
over 20–60 min., **OR:**
Procainamide 15 mg/kg IV
over 30–60 minutes

*Identify and treat causes:

- Hypoxemia?
- Hypothermia?
- Hypovolemia?
- Hypoglycemia?
- Acidosis?
- Embolism?
- Cardiac tamponade?
- Tension pneumothorax?
- Toxins/Drugs?
- Electrolyte imbalance?
- Trauma?

Pediatric Medications

	Age	Preterm	Term	6 mos	1 yr	3 yrs	6 yrs	8 yrs	10 yrs	11 yrs	12 yrs	14 yrs
Weight lbs	3 lbs	7.5 lbs	15 lbs	22 lbs	33 lbs	44 lbs	55 lbs	66 lbs	77 lbs	88 lbs	99 lbs	
Weight kg	1.5 kg	3.5 kg	7 kg	10 kg	15 kg	20 kg	25 kg	30 kg	35 kg	40 kg	45 kg	
Length (in)	16"	21"	26"	31"	39"	46"	50"	54"	57"	60"	64"	
Length (cm)	41 cm	53 cm	66 cm	79 cm	99 cm	117 cm	127 cm	137 cm	145 cm	152 cm	163 cm	
Heart Rate	140	125	120	120	110	100	90	90	85	85	80	
Respirations	40-60	40-60	24-36	22-30	20-26	20-24	18-22	18-22	16-22	16-22	14-20	
Systolic BP	50-60	60-70	60-120	65-125	100	100	105	110	110	115	115	
ET Tube Sz (mm)	2.5, 3.0	3.5	3.5	4.0	4.5	5.5	6.0	6.5	6.5	7.0	7.0	
Suction catheter sz	5-6 Fr	8 Fr	8 Fr	8 Fr	8 Fr	10 Fr	10 Fr	10 Fr	10 Fr	10 Fr	10 Fr	
Defibrillation: 2 J/kg. 4 J/kg	3, 6 J	7, 14 J	14, 28	20, 40	30, 60	40, 80	50, 100	60, 120	70, 140	80, 160	90, 180	
Synchron Shock: 0.5-1 J/kg	1-2 J	2-4 J	4-7 J	5-10 J	8-15	10-20	13-25	15-30	18-35	20-40	23-45	
Fluid challenge (LR, NR, NS) 20 mL/kg IV, IO [Neonates-10 mL/kg]	15 mL	35 mL	140 mL	200 mL	300 mL	400 mL	500 mL	600 mL	700 mL	800 mL	900 mL	
Amiodarone (50 mg/ mL) 5 mg/kg IV/IO	0.15 mL	0.35 mL	0.7 mL	1 mL	1.5 mL	2 mL	2.5 mL	3 mL	3.5 mL	4 mL	4.5 mL	
Atropine 0.1 mg/mL 0.02 mg/kg IV, IO	1 mL	1 mL	1.4 mL	2 mL	3 mL	4 mL	5 mL	6 mL	7 mL	8 mL	9 mL	

Age	Preterm	Term	6 mos	1 yr	3 yrs	6 yrs	8 yrs	10 yrs	11 yrs	12 yrs	14 yrs
Dextrose (D50%W) 0.5 gm/kg IV, IO [use D25%W for infant.]	3 mL [D25%]	7 mL [D25%]	14 mL [D25%]	20 mL [D25%]	15 mL	20 mL	25 mL	30 mL	35 mL	40 mL	45 mL
Diazepam (5 mg/mL) 0.1-0.2 mg/kg slow IV, IO	0.03-0.06 mL	0.07-0.14 mL	0.14-0.28 mL	0.2-0.4 mL	0.3-0.6 mL	0.4-0.8 mL	0.5-1 mL	0.6-1.2 mL	0.7-1.4 mL	0.8-1.6 mL	0.9-1.8 mL
Epi 1:10,000 0.01 mg/kg IV IO	0.15 mL	0.35 mL	0.7 mL	1 mL	1.5 mL	2 mL	2.5 mL	3 mL	3.5 mL	4 mL	4.5 mL
ET Epinephrine 1:1000 (1 mg/mL) 0.1 mg/kg ET (& 2nd dose IV/IO)	0.15 mL	0.35 mL	0.71 mL	1 mL	1.5 mL	2 mL	2.5 mL	3 mL	3.5 mL	4 mL	4.5 mL
Etomidate (2 mg/mL) 0.3 mg/kg	0.2 mL	0.5 mL	1 mL	1.5 mL	2.3 mL	3 mL	3.75 mL	4.5 mL	5.25 mL	6 mL	6.75 mL
Morphine (1 mg/mL) 0.1 mg/kg IV/IO/IM	0.15 mL	0.35 mL	0.7 mL	1 mL	1.5 mL	2 mL	2.5 mL	3 mL	3.5 mL	4 mL	4.5 mL
Naloxone (1 mg/mL) 0.1 mg/kg IV, IO, IM, SQ	0.15 mL	0.35 mL	0.7 mL	1 mL	1.5 mL	2 mL	2 mL	2 mL	2 mL	2 mL	2 mL
Succinylcholine (20 mg/mL) 1-1.5 mg/kg IV/IO [Infant: 2 mg/kg]	0.15 mL 2 mg/kg	0.35 mL 2 mg/kg	0.7 mL 2 mg/kg	1 mL 2 mg/kg	0.75-1 mL	1-1.5 mL	1.25-1.9 mL	1.5-2.3 mL	1.75-2.6 mL	2-3 mL	2.25-3.4 mL

Pediatric Trauma Score

	+2	+1	-1	score
Pt. Size	>20 kg	10–20 kg	<10 kg	
Airway		Maintainable without invasive procedures	Not maintainable NEEDS invasive procedures	
CNS	Awake	Obtunded	Comatose	
Systolic BP (or pulse)	>90 (radial)	50–90 (femoral)	<50 mm Hg (no pulse)	
Open wounds	None	Minor	Major or Penetrating	
Skeletal	None	Closed Fx	Open/Multiple Fx	
Total =				

>12 = <1% Mortality, minimal or no injury

4 = Predicts 50% mortality

<8 = Critical injury: transport to Pediatric Trauma Center

<1 = Predicts >98% Mortality

INTRASOSEOUS INFUSION

(most medications, blood products, or solutions that can be given IV, can be given IO)

1 Locate anterior medial (flat) surface of tibia, 2 cm below tibial tuberosity, below growth plate (other sites: distal anterior femur, medial malleolus, iliac crest).

2 Prep area with iodine

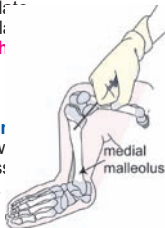
3 Advance IO needle @ 90° angle through skin, fascia, and bone with constant pressure and twisting motion. Direct needle slightly away from epiphyseal plate

4 A popping sensation will occur (& a loss of resistance) when you have reached the marrow space.

5 Attempt to aspirate marrow (you may or may not get marrow).

6 Infuse fluids and check for infiltration
Discontinue if site becomes infiltrated w fluid or medications; apply manual pressure to site followed by a pressure dressing.

7 Secure IO needle, tape in place and attach to IV pump.



Pediatric Emergencies—General Assessment

Airway: Look for obstruction, drooling, trauma.

Breathing: Retractions? Respiratory rate?

Good air movement?

Circulation: heart rate? Capillary refill?

Bradycardia means hypoxia. Ventilate!

Mental Status: is child acting normally?

Get History: of present illness/onset, intake, GI habits.

Perform Exam: Fever? Skin color? Other findings?

+ **Children in shock need aggressive treatment.**

- Ventilate. Reassess the airway, especially during transport.
- IV fluid challenge (20mL/kg—repeat if necessary). Don't wait for BP to drop—hypotension is a late sign.
- Rapid transport to a pediatric intensive care facility.

Not every seizure with fever is a febrile seizure

- ✓ Consider meningitis, especially in children <2 y.o. (check for a rash that doesn't blanch).
- ✓ Early signs of sepsis are subtle: grunting respirations, temperature instability, hypoglycemia, poor feeding, etc.

Croup

HX—Hx of a cold or flu which develops into a “**barking cough**” at night. Relatively slow onset. Low fever.

+ **Cool, moist air; contact OLMC regarding transport.**

Caution: Do not examine the upper airway.

Epiglottitis

HX—Hx of a cold or flu which develops into a high fever at night. Drooling, difficulty swallowing, relatively rapid onset. Inspiratory stidor may be present in severe cases.

+ **Cool, moist air. If airway is completely obstructed, ventilate with BVM & O₂.**

Caution: Do not examine the upper airway. This may cause total airway obstruction.

Metric Conversions

TEMPERATURE		WEIGHT		OTHER
°F	°C	Lbs	Kg	Volume
106	41.1	396	180	1 tsp = 5 mL
105	40.6	374	170	1 tbsp = 15 mL
104	40	352	160	1 fl. oz. = 30 mL
103	39.4	330	150	1 qt = 946 mL
102	38.9	308	140	
101	38.3	286	130	Length
100	37.8	264	120	3/8" = 1 cm
99	37.2	242	110	1" = 2.54 cm
98.6	37	220	100	39.4" = 1 meter
98	36.7	209	95	
97	36.1	198	90	Weight
96	35.6	187	85	1/150 gr = 0.4 mg
95	35	176	80	1/100 gr = 0.6 mg
94	34.4	165	75	1/65 gr = 1 mg
93	33.9	154	70	1 gr = 65 mg
92	33.3	143	65	15 gr = 1 gm
91	32.8	132	60	1 gm = 1000 mg
90	32.2	121	55	1 mg = 1000 mcg
89	31.7	110	50	1 oz. = 28 gm
88	31.1	99	45	1 lb = 454 gm
87	30.6	88	40	2.2 lbs = 1 kg
86	30	77	35	
85	29.4	66	30	Pressure
84	28.9	55	25	1 mm Hg =
83	28.3	44	20	1.36 cm H ₂ O
82	27.8	33	15	
81	27.2	22	10	"3:00AM Rule"
80	26.7	15	7	To convert lbs→Kg,
75	23.8	11	5	divide lbs by 2
70	21.1	7.5	3.5	and subtract 10%.
65	18.3	5	2.3	
32	0	3	1.4	

Common Lab Values

(Adult – blood, plasma, or serum)

Note: Normal values may vary, depending on the lab or methods used.

Acetone: 0.3–2 mg%

Alcohol (ETOH): 0 mg %; Coma: ≥ 400 –500 mg%.

Ammonia: 40–70 mcg %

Amylase: 4–25 U/mL, or 80–180 Somogyi units/100 mL

Bicarbonate (HCO_3^-): 23–29 mEq/L

Bilirubin, direct: 0.1–0.4 mg% (total: 0.3–1.1 mg%)

Calcium: 4.5–5.5 mEq/L. (8.5–11 mg%)

Chloride: 98–109 mEq/L

CO (carbon monoxide): symptoms at $\geq 10\%$ saturation

CO₂ content: 24–30 mEq/L; Infants: 20–26 mEq/L

Creatine phosphokinase (CPK): M: 5–35 U/mL; F: 5–25 U/mL

Creatinine: 0.7–1.4 mg%

Fibrinogen (plasma): 200–400 mg%

Glucose (fasting): 65–110 mg %. Diuresis: ≥ 180 mg%

Hematocrit: M: 47% (40–50%); F: 42% (37–47%)

Hemoglobin (Hgb): M: 14–18 gm%; F: 12–16 gm%;

Child: 12–14 gm%; Newborn: 15–25 gm%.

Iron: 75–175 mg% (less in females)

Lactic dehydrogenase (LDH): 132–240 U/L

Lead: 0–50 mcg%

Lithium: 0.5–1.5 mEq/L (toxicity ≥ 2 mEq/L)

Magnesium: 1.5–2.5 mEq/L (1.8–3.0 mg%)

pCO₂ (arterial): 35–45 torr Newborn: 35–40 torr

pH (arterial): 7.35–7.45 (mean: 7.40)

Platelets: 150,000–350,000/cu mm

pO₂ (arterial): 75–100 torr (avg–room air at sea level)

Potassium: 3.5 - 5.0 mEq/L (14–20 mg%)

Protein: total = 6.0–8.4 gm%

Salicylate: toxicity = ≥ 30 mg%

Sodium: 136–147 mEq/L (313–334 mg%)

Transaminase (SGOT): 9–41 U/L

Urea nitrogen (BUN): 6–23 mg%

Urine (specific gravity): 1.003–1.030

WBC (leukocytes): 5,000–10,000/cu mm

Spanish Translations

("h" is silent; "ll" is pronounced like "y" [yell]; "j" like "h" [ham]; "qu" like "k" [keep], and "ñ" like "nya" [canyon]. An accented vowel [á, ó, etc.] means the syllable that must be stressed.

History & Examination

I am a paramedic
(firefighter; nurse; doctor).

**Soy paramédico (bombero;
enfermera, enfermero; médico).**

I speak a little Spanish.

Hablo un poco de Español

Is there someone here that
speaks English?

**¿Hay alguien aquí que habla
inglés?**

What is your name?

¿Cómo te llamas?

I don't understand.

No entiendo.

Can you speak more slowly
please?

**¿Por favor, puede hablar más
despacio?**

Wake up sir/madam.

Despiértate, señor/señora.

Sit up.

Siéntate por favor.

Listen.

Escúchame.

How are you?

¿Cómo estás?

Do you have neck or back pain?

¿Te duele el cuello o la espalda?

Were you unconscious?

¿Estuviste inconsciente?

Move your fingers and toes.

**Mueva los dedos de las manos
y los pies.**

What day is today?

¿Qué día es hoy?.

Where is this?

¿Dónde está?

Where are you?

¿Dónde estás?

What is your telephone number?
...address?

**¿Cuál es tu número de teléfono?
...domicilio?**

When were you born?

¿Cuándo naciste?

Sit here please.

Siéntate aquí, por favor.

Lie down please.

Acuéstate, por favor.

Do you have pain?	¿Tienes dolor?
Trouble breathing?	dificultad para respirar?
Weakness?	débilidad?
Where?	¿Dónde?
Show me where it hurts with your hand.	Muéstrame con tu mano dónde te duele.
Does the pain increase when you breathe?	¿Te aumenta el dolor cuando respiras?
Breathe deeply through your mouth	Respira profundo por la boca.
Breathe slowly.	Respira despacio.
Have you been drinking?	¿Has estado tomado alcohol?
Have you taken any drugs?	¿Has tomado alguna droga?
Do you have chest pain?	¿Tienes dolor de pecho?
Heart problems?	problemas de corazón?
...diabetes?	...diabétes?
...asthma?	...asma?
...allergies?	...alergias?
When were you born?	¿Cuándo naciste?
Have you had this pain before?	¿En otra ocasión has tenido este dolor?
How long ago?	¿Hace cuánto tiempo?
Are you sick to your stomach?	¿Tienes nausea o asco?
Are you pregnant?	¿Estás embarazada?
Do you need to vomit?	¿Necesitas vomitar?
You will be OK.	Todo estará bien.
It's not serious.	No es serio.
It is serious.	Es serio.

Treatment

Please don't move	Por favor, no te muevas.
What's the matter?	¿Qué pasa?
Do you want to go to the hospital?	¿Quieres ir al hospital?
To which hospital?	¿A cuál hospital?
You must go to the hospital.	Tienes que ir al hospital.
We're going to take you to the hospital.	Te vamos a llevar al hospital.
We are going to give you oxygen.	Te vamos a dar oxígeno.
We are going to apply a C-collar.	Te vamos a poner un collarín.
We are going to give you an IV.	Te vamos a poner un suero.

Miscellaneous

Thank you	Gracias.	heart	el corazón
Excuse me	Perdóname	to help	ayudar
Hello	Hola	hip	la cadera
Goodbye	Adiós	hypertension	presión alta
Yes	Si	leg	la pierna
No	No	lungs	los pulmonés
abdomen	el abdomen	meds	medicinas
ankle	el tobillo	mouth	la boca
arm	el brazo	neck	el cuello
back	la espalda	penis	el pene
bone	el hueso	stretcher	la camilla
cancer	cáncer	stroke	ataque cerebral
chest	el pecho	throat	la garganta
drugs	droga	vagina	la vagina
ear	el oído	wrist	la muñeca
eye	el ojo		
foot	el pie		
fracture	una fractura		
hand	la mano		
head	la cabeza		

Prescription Drugs

[UPPER CASE = Brand name; lower case = generic name]
(See last pages for abbreviations)

A

- ABELCET** (amphotericin B lipid- based): antifungal, Rx: fungal infections
- ABILIFY** (aripiprazole): antipsychotic, Rx: schizophrenia
- Acarbose** (PRECOSE): oral hypoglycemic, Rx: diabetes
- ACCOLATE** (zafirlukast): bronchospasm inhibitor, Rx: asthma
- ACCUNEB** (albuterol): beta-2 agonist bronchodilator, Rx: asthma, COPD
- ACCUPRIL** (quinapril): ACE inhibitor, Rx: HTN, CHF
- ACCURETIC** (quinapril/HCTZ): ACE inhibitor/diuretic, Rx: HTN
- ACCUTANE** (isotretinoin): anti-inflammatory, Rx: severe acne
- Acebutolol** (SECTRAL): β -blocker, Rx: HTN, angina, dysrhythmias
- ACEON** (perindopril): ACE inhibitor, Rx: HTN, CAD
- Acetaminophen** (TYLENOL): non-narcotic analgesic
- Acetazolamide** (DIAMOX): diuretic/anticonvulsant, Rx: glaucoma, edema in CHF, epilepsy, mountain sickness
- Acetylcysteine** (MUCOMYST): mucolytic, Rx: respiratory diseases
- ACIPHEX** (rabeprazole): inhibits gastric acid secretion, Rx: ulcers, GERD, Zollinger-Ellison syndrome
- ACLOVATE** (alclometasone): topical corticosteroid, Rx: rashes, psoriasis
- ACTICIN** (permethrin): scabicide, Rx: scabies
- ACTIFED** (triprolidine/pseudoephedrine): antihistamine/decongestant, Rx: allergies, hay fever, cold
- ACTIGALL** (ursodiol): bile acid, Rx: gallstones
- ACTIQ** (fentanyl): oral transmucosal narcotic analgesic, Rx: chronic CA pain
- ACTIVELLA** (estradiol/norethindrone): hormones, Rx: menopause
- ACTONEL** (risedronate): reduces bone loss, Rx: osteoporosis, Paget's disease
- ACTOS** (pioglitazone): oral hypoglycemic, Rx: diabetes
- ACULAR OPTH** (ketorolac): NSAID analgesic, Rx: ocular itching or pain
- Acyclovir** (ZOVIRAX): antiviral, Rx: herpes, shingles, chicken pox
- ADALAT, ADALAT CC** (nifedipine): calcium channel blocker, Rx: angina, HTN
- ADDERALL** (amphetamines): CNS stimulant, Rx: ADHD, narcolepsy

ADRENALIN (epinephrine): bronchodilator, vasopressor,

Rx: asthma, life-threatening allergic reactions

ADVAIR DISKUS (fluticasone/salmeterol): inhaled steroid/beta-2 bronchodilator, Rx: asthma, COPD

ADVICOR (niacin/lovastatin): antihyperlipidemic, Rx: hypercholesterolemia

ADVIL (ibuprofen): NSAID analgesic, Rx: pain

AEROBID, AEROBID M (flunisolide): inhaled steroid, Rx: asthma, bronchitis

AGGRENOX (aspirin/dipyridamole): antiplatelet agents, Rx: to reduce the risk of stroke

AGRYLIN (anagrelide): reduces platelet count, Rx: thrombocytopenia, myeloproliferative disorders

ALAMAST OPTH (pemirolast): ophthalmic anti-inflammatory, Rx: allergic conjunctivitis

Albendazole (ALBENZA): anthelmintic, Rx: tapeworm

ALBENZA (albendazole): anthelmintic, Rx: tapeworm

Albuterol (PROVENTIL): β -2 agonist bronchodilator, Rx: asthma, COPD

ALDACTAZIDE (HCTZ/spironolactone): diuretics, Rx: HTN, fluid retention

ALDACTONE (spironolactone): potassium-sparing diuretic, RX: CHF, ESLD, HTN

ALDOMET (methyldopa): centrally acting antihypertensive, Rx: HTN

Alendronate (FOSOMAX): reduces bone loss, Rx: osteoporosis, Paget's disease

ALESSE (levonorgestrel/estradiol): oral contraceptive

ALEVE (naproxen): NSAID analgesic, Rx: pain

ALKERAN (melphalan): anticancer agent, Rx: multiple myeloma, ovarian CA

ALLEGRA (fexofenadine): antihistamine, Rx: allergies

Allopurinol (ZYLOPRIM): reduces serum uric acid, Rx: gout

ALORA (estradiol): transdermal hormone, Rx: menopause

Alosetron (LOTRONEX): antidiarrheal, Rx: irritable bowel

ALPHAGAN P OPTH (brimonidine): alpha adrenergic agonist, Rx: glaucoma, ocular hypertension

Alprazolam (XANAX): benzodiazepine, Rx: anxiety disorders, panic attacks

ALTACE (ramipril): ACE inhibitor, Rx: HTN, CHF post MI

ALUPENT (metaproterenol): β -2 agonist bronchodilator, Rx: asthma, bronchitis, COPD

Amantadine (SYMMETREL): antiviral, antiparkinsonian, Rx: influenza A, Parkinson's disease

AMARYL (glimepiride): oral hypoglycemic, Rx: diabetes mellitus

AMBIEN (zolpidem): sedative, Rx: insomnia

AMBISOME (amphotericin B lipid- based): antifungal

AMERGE (naratriptan): antimigraine, Rx: migraine HA

Amikacin (AMIKIN): aminoglycoside antibiotic

AMIKIN (amikacin): aminoglycoside antibiotic

Amiloride (MIDAMOR): diuretic, Rx: HTN, fluid retention

Amiloride/HCTZ (MODURETIC): diuretics, Rx: HTN, fluid retention

Aminophylline: bronchodilator, Rx: COPD, asthma, bronchitis

Aminosalicylic Acid (PASER): antibacterial, Rx: tuberculosis

Amiodarone (CORDARONE, PACERONE): antiarrhythmic, Rx: dysrhythmias

AMITIZA (lubiprostone): intestinal stimulant, Rx: chronic idiopathic constipation

Amitriptyline: a tricyclic antidepressant, Rx: depression, neuropathic pain

Amlodipine (LOTREL): calcium channel blocker, Rx: HTN, angina

Ammonium Lactate (LAC-HYDRIN): skin hydrating lotion, Rx: dry, scaly skin, xerosis

Amoxapine (ASENDIN): tricyclic antidepressant

Amoxicillin (AMOXIL): penicillin class antibiotic

AMOXIL (amoxicillin): penicillin class antibiotic

Amoxicillin/claculanate (Augmentin): penicillin class antibiotic

Amphetamine (ADDERALL): stimulant, Rx: ADHD

AMPHOGEL (aluminum hydroxide): an antacid, Rx: indigestion

Amphotericin B (FUNGIZONE): antifungal agent

Ampicillin: penicillin class antibiotic

ANAFRANIL (clomipramine): tricyclic antidepressant, Rx: obsessive-compulsive disorder

Anagrelide (Agrylin): reduces platelet count, Rx: thrombocythemia, myeloprol

ANALPRAM HC (hydrocortisone/pramoxine): topical steroid/ anesthetic, Rx: itching, pain

ANAPROX, ANAPROX DS (naproxen): NSAID analgesic, Rx: arthritis, pain

Anastrozole (ARIMIDEX): estrogen inhibitor, antineoplastic, Rx: breast cancer

ANCOBON (flucytosine): antifungal agent, Rx: fungal infections

ANDRODERM (testosterone): testosterone transdermal, Rx: hypogonadism, delayed puberty

ANEXSIA (hydrocodone/APAP): narcotic analgesic compound

ANTABUSE (disulfiram): alcohol-abuse deterrent, Rx: alcohol addiction

ANTIVERT (meclizine): antiemetic, Rx: motion sickness

ANUSOL HC (hydrocortisone): rectal steroid anti-inflammatory Rx: perianal itching/irritation

ANZEMET (dolasetron): antiemetic, Rx: nausea and vomiting caused by chemotherapy, anesthesia, or surgery

APAP (acetaminophen): a non-narcotic analgesic, Rx: mild to moderate pain

APRI (desogestrel/ethinyl estradiol): oral contraceptive

APTIVUS (tipranavir): antiretroviral, Rx: HIV/AIDS

ARALEN (chloroquine): antimalarial agent, Rx: malaria

ARANESP (darbepoetin): increases RBC production, Rx: anemia in renal failure/chemotherapy

ARAVA (leflunomide): immunomodulator agent, Rx: rheumatoid arthritis

ARICEPT (donepezil): cholinergic enhancer, Rx: dementia associated with Alzheimer's

ARIMIDEX (anastrozole): estrogen inhibitor, Rx: breast cancer

ARISTOCORT (triamcinolone): corticosteroid, Rx: arthritis, severe allergies, asthma

ARIXTRA (fondaparinux): anticoagulant, Rx: treatment and prophylaxis for DVT/PE

ARMOUR THYROID: thyroid hormone, Rx: hypothyroidism

AROMASIN (exemestane): decreases estrogen production, Rx: breast CA

ARTHROTEC (diclofenac/misoprostol): NSAID analgesic, antiulcer, Rx: arthritis

Aspirin (acetylsalicylic acid, ASA): NSAID analgesic, Rx: pain

ASACOL (mesalamine): anti-inflammatory agent, Rx: colitis

ASTELIN (azelastine): antihistamine, Rx: allergic rhinitis

ASTRAMORPH PF (morphine): narcotic analgesic, Rx: pain

ATACAND (candesartan): ACE inhibitor, Rx: HTN, CHF

ATARAX (hydroxyzine): antihistamine, Rx: itching caused by allergies, motion sickness, alcohol withdrawal

Atenolol (TENORMIN): beta blocker, Rx: HTN, angina, acute MI

Atenolol/Chlorthalidone (TENORETIC): β -blocker/diuretic, Rx: HTN

ATIVAN (lorazepam): benzodiazepine hypnotic, Rx: anxiety

Atovaquone (MEPRON): antiprotozoal, Rx: prophylaxis & treatment for *P. carinii* pneumonia

ATRIPLA (tenofovir/emtricitabine/efavirenz): antiretrovirals, Rx: HIV/AIDS

ATROVENT (ipratropium): inhaled anticholinergic bronchodilator, Rx: COPD

AUGMENTIN (amoxicillin/clavulanate potassium): penicillin class antibiotic

AURALGAN (benzocaine/antipyrine): otic analgesic, Rx: acute otitis media

AVALIDE (irbesartan/hydrochlorothiazide): angiotensin receptor blocker/diuretic, Rx: HTN

AVANDAMET (rosiglitazone/metformin): oral hypoglycemics, Rx: diabetes

AVANDIA (rosiglitazone): oral hypoglycemic, Rx: diabetes
AVAPRO (irbesartan): angiotensin receptor blocker, Rx: HTN, diabetic nephropathy
AVELOX (moxifloxacin): fluoroquinolone antibiotic, Rx: bronchitis, pneumonia
AVIANE (levonorgestrel/ethinyl estradiol): oral contraceptive
AVINZA (morphine ER): narcotic analgesic, Rx: severe pain
AVODART (dutasteride): androgen inhibitor, Rx: benign prostatic hypertrophy
AVONEX (interferon): immunomodulator, Rx: multiple sclerosis
AXERT (almotriptan): antimigraine, Rx: migraine headaches
AXID (nizatadine): histamine-2 antagonist, inhibits gastric acid secretion, Rx: ulcers
AYGESTIN (norethindrone): hormone, Rx: amenorrhea, endometriosis
AZACTAM (aztreonam): monobactam antibiotic
Azathioprine (IMURAN): immunosuppressant, Rx: organ transplants, lupus, rheumatoid arthritis
Azelastine (OPTIVAR): antihistamine, Rx: hayfever, allergies
AZILECT (rasagiline): MAO-B inhibitor, slows metabolism of dopamine, Rx: Parkinson's disease
Azithromycin (ZITHROMAX): macrolide antibiotic
AZMACORT (triamcinolone): inhaled corticosteroid, Rx: asthma,
AZOPT OPTH (brinzolamide): reduces intraocular pressure, Rx: glaucoma, ocular hypertension
AZT (zidovudine): antiretroviral agent, Rx: HIV
Aztreonam (AZACTAM): monobactam antibiotic
AZULFIDINE-EN (sulfasalazine): anti-inflammatory, Rx: ulcerative colitis, arthritis

B

B & O SUP (belladonna/opium): antispasmodic/analgesic, Rx: ureteral spasm pain
Bacitracin: topical antibiotic, Rx: skin infections
Bacitracin/Neomycin/Polymyxin/HC (Cortisporin): topical antibiotics/steroid, Rx: skin infection/inflammation
Bacitracin/Polymyxin (Polysporin): topical antibiotics, Rx: skin infections
Baclofen: muscle relaxant, Rx: spasm in MS, spinal cord disease
BACTROBAN (mupirocin): topical antibacterial, Rx: skin infection
Balsalazide (COLAZAL): anti-inflammatory, Rx: ulcerative colitis
BARACLUDE (entacavir): antiviral, Rx: hepatitis B
Beclomethasone (QVAR): inhaled corticosteroid, Rx: asthma
BECONASE AQ (beclomethasone): nasal steroid, Rx: allergies
Belladonna alkaloids w/phenobarbital (DONNATAL): antispasmodic, Rx: irritable bowel

BENADRYL (diphenhydramine): antihistamine, Rx: allergies
Benazepril (LOTENSIN): ACE inhibitor, Rx: HTN
Benazepril/HCTZ (LOTENSIN HCT): ACE inhibitor/diuretic, Rx: HTN
BENICAR (olmesartan): angiotensin II receptor antagonist, Rx: HTN
BENTYL (dicyclomine): anticholinergic, Rx: irritable bowel
BENZAMYCIN (erythromycin/benzoyl peroxide): topical antibiotic/keratolytic, Rx: acne
Benzonatate (TESSALON): non-narcotic antitussive, Rx: cough
Benzoyl Peroxide (PANOXYL): topical antibacterial, Rx: acne
Benzphetamine (DIDREX): amphetamine, Rx: obesity
Benztropine (COGENTIN): anticholinergic, Rx: Parkinson's disease, extrapyramidal disorders
BETAGAN OPTH (levobunolol): beta-blocker, lowers intraocular pressure, Rx: glaucoma
Betamethasone (CELESTONE): corticosteroid anti-inflammatory
BETAPACE (sotalol): antiarrhythmic, Rx: dysrhythmias
BETASERON (interferon): immunomodulator, Rx: Multiple Sclerosis
Betaxolol (KERLONE): β -blocker, Rx: HTN
Bethanechol (URECHOLINE): urinary cholinergic, Rx: urinary retention
BETOPTIC OPTH (betaxolol): ophthalmic β -blocker, Rx: glaucoma
BIAXIN (clarithromycin) macrolide antibiotic
BICILLIN (penicillin): penicillin antibiotic
BIDIL (hydralazine/isosorbide dinitrate): vasodilators, Rx: heart failure
Bisacodyl (DULCOLAX): laxative, Rx: constipation
Bismuth (PEPTO-BISMOL): gastrointestinal, Rx: indigestion, diarrhea
Bisoprolol (Zebeta): β -blocker, Rx: HTN
Bisoprolol/HCTZ (ZIAC): β -blocker/diuretic, Rx: HTN
Bleomycin: antineoplastic, Rx: lymphomas, pleural effusions
BLEPHAMIDE (sulfacetamide/prednisolone): antibiotic/steroid, Rx: eye infection/inflammation
BONIVA (ibandronate): osteoclast inhibitor, Rx: osteoporosis
BONTRIL PDM, BONTRIL Slow Release (phendimetrazine): stimulant, appetite suppressant, Rx: obesity
BRETHINE (terbutaline): β -2 agonist bronchodilator, Rx: COPD, asthma
BREVICON: (ethinyl estradiol/norethindrone) oral contraceptive
Brimonidine OPHT (ALPHAGAN): alpha agonist, Rx: glaucoma, ocular hypertension
Brinzolamide OPHT (AZOPT): alpha adrenergic agonist, Rx: glaucoma, ocular hypertension
Bromocriptine (PARLODEL): dopamine agonist, Rx: Parkinson's disease, hyperprolactinemia, acromegaly

BROVANA (arformoterol): I_2 -2 agonist bronchodilator, Rx: COPD
Brompheniramine (BROMFED): antihistamine, Rx: allergies
Budesonide (RHINOCORT, PULMICORT): nasal, inhaled corticosteroid, Rx: allergic rhinitis, asthma
Bumetanide (BUMEX): diuretic, Rx: edema, CHF
Buprenorphine: opioid partial agonist-antagonist, Rx: opioid dependence
Bupropion (WELLBUTRIN, ZYBAN): antidepressant, Rx: depression, smoking cessation
Buspiron (BUSPAR): antianxiety agent, Rx: anxiety disorders
Busulfan (MYLERAN): anticancer agent, Rx: chronic myelogenous leukemia
Butalbital/Acetaminophen/Caffeine (FIORICET/ESGIC): sedative analgesic, Rx: tension headaches
Butalbital/Aspirin/Caffeine (FIORINAL): sedative analgesic, Rx: tension headache
Butenafine (MENTAX): topical antifungal, Rx: fungal skin infections
Butoconazole (MYCELEX-3): antifungal, Rx: vaginal candidiasis
Butorphanol (STADOL): opioid analgesic, Rx: pain
BYETTA (exenatide): enhances insulin secretion, Rx: Type II diabetes
BYSTOLIC (nebivolol): β -1 blocker, Rx: HTN

C

CADUET (amlodipine/atorvastatin): calcium channel blocker/antihyperlipidemic
CAFERGOT (ergotamine/caffeine): vasoconstrictors, Rx: migraine/tension HA
CALAN, CALAN SR (verapamil): calcium channel blocker, Rx: angina, hypertension, prophylaxis headache, dysrhythmias
CALCIFEROL (ergocalciferol): vitamin D, Rx: hypocalcemia, hypoparathyroidism, rickets, osteodystrophy
CALCIJEX (calcitriol): vitamin D supplement, Rx: hypocalcemia in renal disease, hypoparathyroidism, bone disease
Calcipotriene (DOVONEX): vitamin D agonist, Rx: psoriasis
Calcitonin-Salmon (MIACALCIN): bone resorption inhibitor hormone, Rx: hypercalcemia, Paget's disease, osteoporosis
Calcitriol (CALCIJEX, ROCALTROL): vitamin D supplement, Rx: hypocalcemia in renal disease, hypoparathyroidism, bone disease
CALDOLOR (ibuprofen): injectable NSAID analgesic, Rx: pain, fever
CAMILA (norethindrone): oral contraceptive
CAMPRAL (acamprosate): reduces alcohol withdrawal symptoms, Rx: alcohol dependence
Candesartan (ATACAND): ACE inhibitor, Rx: HTN, CHF
CAPITAL w/Codeine (APAP/codeine): narcotic analgesic, Rx: mild to moderate pain

CAPOTEN (captopril): ACE inhibitor, Rx: CHF, HTN, diabetic nephropathy

Capsaicin (ZOSTRIX): topical analgesic, Rx: muscle/joint pain including arthritis

Captopril (CAPOTEN): ACE inhibitor, Rx: HTN, CHF, diabetic nephropathy

CARAFATE (sucralfate): gastrointestinal agent, Rx: duodenal ulcer

Carbamazepine (CARBATROL, TEGRETOL): anticonvulsant, Rx: seizures, trigeminal neuralgia, bipolar disorder

CARBATROL (carbamazepine): anticonvulsant, Rx: seizures, trigeminal neuralgia, bipolar disorder

Carbidopa/Levodopa (SINEMET, PARCOPA): dopamine precursors, Rx: Parkinson's Disease

CARDIZEM (diltiazem): Ca channel blocker, Rx: angina, HTN

CARDURA (doxazosin): alpha blocker, Rx: HTN, benign prostatic hypertrophy

Carisoprodol (SOMA): muscle relaxant, Rx: musculoskeletal pain

CARTIA XT (diltiazem): Ca channel blocker, Rx: angina, HTN

Carvedilol (COREG): beta & alpha blocker, Rx: angina, heart failure, HTN

CASODEX (bicalutamide): antiandrogen, Rx: prostate cancer

Caspofungin (CANCIDAS): antifungal agent

CATAPRES, CATAPRES TTS (clonidine): centrally acting alpha agonist, Rx: HTN

CECLOR (cefaclor): cephalosporin antibiotic

CEDAX (ceftibuten): cephalosporin antibiotic,

Cefaclor (CECLOR): cephalosporin antibiotic

Cefadroxil (DURICEF): cephalosporin antibiotic

Cefazolin (ANCEF): cephalosporin antibiotic

Cefdinir (OMNICEF): cephalosporin antibiotic

Cefepime (MAXIPIME): cephalosporin antibiotic

Cefixime (SUPRAX): cephalosporin antibiotic

CEFIZOX (ceftizoxime): cephalosporin antibiotic

Cefotaxime (CLAFORAN): cephalosporin antibiotic

Cefotetan (CEFOTAN): cephalosporin antibiotic

Cefoxitin (MEFOXIN): cephalosporin antibiotic

Cefpodoxime (VANTIN): cephalosporin antibiotic

Cefprozil (CEFZIL): cephalosporin antibiotic

Ceftazidime (FORTAZ): cephalosporin antibiotic

Ceftibuten (CEDAX): cephalosporin antibiotic,

CEFTIN (cefuroxime): cephalosporin antibiotic

Ceftizoxime (CEFIZOX): cephalosporin antibiotic

Ceftriaxone (ROCEPHIN): cephalosporin antibiotic

Cefuroxime (CEFTIN): cephalosporin antibiotic

CEFZIL (cefprozil): cephalosporin antibiotic

CELEBREX (celecoxib): NSAID, Rx: arthritis, acute pain
CELEXA (citalopram): SSRI, Rx: depression
CELLCEPT (mycophenolate): immunosuppressant, Rx: organ transplants
CELONTIN (methsuximide): anticonvulsant, Rx: absence Sz
Cephalexin (KEFLEX): cephalosporin antibiotic
CEREBYX (fosphenytoin): anticonvulsant, Rx: epilepsy
Cetirizine (ZYRTEC): antihistamine, Rx: allergic rhinitis, urticaria
CHANTIX (varenicline): nicotine receptor stimulator, Rx: smoking cessation
Chloral Hydrate: sedative/hypnotic, Rx: insomnia, pain, alcohol withdrawal
Chlorambucil (LEUKERAN): alkylating agent, Rx: leukemia, lymphomas, Hodgkin's disease
Chlordiazepoxide (LIBRIUM): benzodiazepine, Rx: anxiety, agitation from alcohol withdrawal
Chlorhexidine (PERIDEX): antimicrobial rinse, Rx: gingivitis
Chloroquine (ARALEN): antimalarial, amebicidal agent, Rx: malaria
Chlorothiazide (DIURIL): diuretic, Rx: fluid retention in CHF, renal failure, HTN
Chlorpheniramine (CHLOR-TRIMETON): antihistamine, Rx: colds, allergies
Chlorpromazine (THORAZINE): antipsychotic, Rx: schizophrenia
Chlorthalidone (HYGROTON): diuretic, Rx: fluid retention in CHF, renal failure, HTN
Chlorzoxazone (PARAFON FORTE): skeletal muscle relaxant
Cholestyramine (QUESTRAN): bile acid sequestrant, Rx: antihyperlipidemic
CIALIS (tadalafil): vasodilator, Rx: male erectile dysfunction
Ciclopirox (LOPROX): antifungal, Rx: ringworm, candida
Cidofovir (VISTIDE): antiviral, Rx: cytomegalovirus in AIDS
Cilostazol (PLETAL): vasodilator, platelet inhibitor, Rx: leg cramps
Dimetidine (TAGAMET): histamine-2 blocker, inhibits gastric acid secretion, Rx: ulcers
CIPRO (ciprofloxacin): fluoroquinolone antibiotic
CIPRODEX (ciprofloxacin/dexamethasone): antibiotic/steroid, Rx: ear infection
Ciprofloxacin (CIPRO): fluoroquinolone antibiotic
Cisplatin (PLATINOL AQ): antineoplastic, Rx: ovarian/testicular/bladder CA
Citalopram (CELEXA): SSRI, Rx: depression
Cladribine (LEUSTATIN): antineoplastic, Rx: leukemias
CLAFORAN (cefotaxime): cephalosporin antibiotic
CLARINEX (desloratadine): antihistamine, Rx: urticaria, allergies
Clarithromycin (BIAXIN): macrolide antibiotic
CLEVIPREX (clevidipine): calcium channel blocker, Rx: HTN

CLIMARA (estradiol): transdermal estrogen, Rx: symptoms of menopause

Clindamycin (CLEOCIN): antibiotic

CLINORIL (sulindac): NSAID analgesic, Rx: arthritis, acute pain

Clobetasol (TEMOVATE): topical steroid anti-inflammatory, Rx: dermatoses

Clomipramine (ANAFRANIL): tricyclic compound, Rx: obsessive compulsive disorder

Clonazepam (KLONOPIN): anticonvulsant, Rx: seizures, panic disorders

Clonidine (CATAPRES): centrally acting alpha agonist, Rx: HTN

Clopidogrel (PLAVIX): antiplatelet, Rx: ACS, AMI, stroke

Clorazepate (TRANXENE): benzodiazepine, Rx: anxiety/Sz

Clotrimazole (MYCELEX, LOTRIMIN AF): antifungal

Clotrimazole/betamethasone (LOTRISONE): topical antifungal/corticosteroid

Clozapine (CLOZARIL): antipsychotic, Rx: schizophrenia

CLOZARIL (clozapine): antipsychotic, Rx: schizophrenia

Codeine: narcotic analgesic/antitussive

COGENTIN (benztropine): anticholinergic, Rx: Parkinson's disease, extrapyramidal disorders

COGNEX (tacrine): cholinesterase inhibitor, Rx: Alzheimer's disease

COLACE (docusate): stool softener, Rx: constipation

COLAZAL (balsalazide): anti-inflammatory, Rx: ulcerative colitis

Colchicine: anti-inflammatory, Rx: gout

Colesevelam (WELCHOL): bile acid sequestrant, Rx: hyperlipidemia

COLESTID (colestipol): bile acid sequestrant, Rx: hyperlipidemia

Colestipol (COLESTID): bile acid sequestrant, Rx: hyperlipidemia

COMBIPATCH (estradiol/norethindrone): hormones, Rx: menopause symptoms

COMBIVENT (albuterol/ipratropium): bronchodilators, Rx: asthma, COPD

COMBIVIR (lamivudine/zidovudine): antiretrovirals, Rx: HIV

COMPazine (prochlorperazine): a phenothiazine antiemetic

COMTAN (entacapone): COMT inhibitor, Rx: Parkinson's disease

CONCERTA (methylphenidate): stimulant, Rx: ADHD, narcolepsy

CONDYLOX (podofilox): antimitotic, Rx: anogenital warts

COPAXONE (glatiramer): immunomodulator, Rx: MS

COPEGUS (ribavirin): antiviral, Rx: Hepatitis C

CORDARONE (amiodarone): antiarrhythmic, Rx: dysrhythmias

CORDRAN (flurandrenolide): topical steroid anti-inflammatory, Rx: dermatoses

COREG (carvedilol): β & alpha blocker, Rx: HTN, CHF, angina

CORGARD (nadolol): β -blocker, Rx: HTN, angina

CORTEF (hydroxycortisone): steroid anti-inflammatory, Rx: arthritis, colitis, allergies, asthma

CORTIC Ear Drops (chloroxylenol/pramoxine/hydrocortisone): antiseptic/antifungal/steroid anti-inflammatory
CORTIFOAM (hydrocortisone): steroid anti-inflammatory, Rx: proctitis, various skin conditions
CORTISOL (hydrocortisone): steroid anti-inflammatory, Rx: arthritis, allergies, asthma
CORTISPORIN (neomycin/polymyxin/hydrocortisone): antibiotic/steroid anti-inflammatory, Rx: ear, eye, and skin infections
CORVERT (ibutilide): antiarrhythmic, Rx: atrial fibrillation, flutter
COSOPT OPTH (timolol/dorzolamide): decreases intraocular pressure, Rx: glaucoma
COUMADIN (warfarin): an anticoagulant, Rx: thrombosis prophylaxis
COVERA HS (verapamil): calcium channel blocker, Rx: HTN, angina, dysrhythmias
COZAAR (losartan): angiotensin receptor blocker, Rx: HTN, diabetic nephropathy
CREON, CREON 5, CREON 10, CREON 20 (pancrelipase): pancreatic enzyme replacement
CRESTOR (rosuvastatin): statin, Rx: hyperlipidemia
CRIVAN (indinavir): protease inhibitor antiretroviral, Rx: HIV
Cromolyn (INTAL): anti-inflammatory agent, Rx: asthma prophylaxis, allergies
CUBICIN (daptomycin): lipopeptide antibiotic
CUTIVATE (fluticasone): topical corticosteroid anti-inflammatory, Rx: dermatoses
Cyanocobalamin (vitamin B-12): Rx: anemia
CYCLESSA (desogestrel/estradiol): oral contraceptive
Cyclobenzaprine (FLEXERIL): skeletal muscle relaxant
CYCLOCORT TOPICAL (amcinonide): steroid anti-inflammatory, Rx: pruritus, dermatitis
Cyclosporine (GENGRAF, NEORAL, SANDIMMUNE): immunosuppressant agent, Rx: organ transplants
CYMBALTA (duloxetine): SSRI, Rx: depression, diabetic neuropathy
Cyproheptadine (PERIACTIN): antihistamine
CYTOMEL (liothyronine): thyroid hormone, Rx: hypothyroidism
CYTOTEC (misoprostol): prevents gastric ulcers from NSAIDs
CYTOVENE (ganciclovir): antiviral, Rx: CMV disease

D

d4T Stavudine (ZERIT): antiretroviral, Rx: HIV
DALMANE (flurazepam): benzodiazepine, Rx: insomnia
Danazol: sex hormone, Rx: endometriosis
DANTRIUM (dantrolene): skeletal muscle antispasmodic, Rx: spasm, malignant hyperthermia

Dantrolene (DANTRIUM): skeletal muscle antispasmodic, Rx: spasm, malignant hyperthermia

Dapsone: antibacterial drug, Rx: leprosy, PCP prophylaxis

DARAPRIM (pyrimethamine): antiparasitic, Rx: malaria, toxoplasmosis

DARVOCET-N (propoxyphene/APAP): narcotic analgesic, Rx: mild to moderate pain

DARVON (propoxyphene): narcotic analgesic, Rx: mild to moderate pain

DAYPRO (oxaprozin): NSAID, Rx: arthritis

DAYTRANA (methylphenidate): stimulant patch, Rx: ADHD

DDAVP (desmopressin): antidiuretic hormone, Rx: nocturia, diabetes insipidus

DECADRON (dexamethasone): steroid anti-inflammatory, Rx: neoplastic disorders, allergies, GI diseases, endocrine disorders

DECLOMYCIN (demeclocycline): tetracycline antibiotic, Rx: SIADH

Deferoxamine (DEFERAL): iron-chelator, Rx: iron toxicity

Delavirdine (RESCRIPTOR): antiretroviral, Rx: HIV

Deltasone (prednisone): steroid anti-inflammatory

DEMADEX (torsemide): loop diuretic, Rx: HTN, edema in CHF, kidney disease, liver disease

Demeclocycline (DECLOMYCIN): tetracycline antibiotic, Rx: SIADH

DEMEROL (meperidine): opioid analgesic, Rx: moderate to severe pain

DENAVIR (penciclovir): topical antiviral, Rx: herpes, cold sores

DEPACON (divalproex): anticonvulsant, Rx: seizures, bipolar disorder, migraine

DEPAKENE (valproic acid): anticonvulsant, Rx: seizures

DEPAKOTE, DEPAKOTE ER (divalproex): anticonvulsant, antimigraine, Rx: migraine headache, seizures

DEPO-MEDROL (methylprednisolone): corticosteroid anti-inflammatory

DEPO-PROVERA (medroxyprogesterone): progesterone, Rx: endometrial or renal CA

Desipramine (NORPRAMIN): tricyclic antidepressant

Desmopressin (DDAVP): antidiuretic hormone, Rx: nocturia, diabetes insipidus

DESOGEN (desogestrel/estradiol): oral contraceptive

Desonide (DESOWEN): topical corticosteroid, Rx: dermatoses

Desoximetasone (TOPICORT): topical corticosteroid, Rx: dermatoses

DESOXYN (methamphetamine): amphetamine, Rx: ADHD, obesity

DETROL (tolterodine): urinary bladder antispasmodic, Rx: overactive bladder

Dexamethasone (DECADRON): steroid anti-inflammatory, Rx: neoplastic disorders, allergies, GI diseases, endocrine disorders

DEXEDRINE (dextroamphetamine): amphetamine, Rx: ADHD, narcolepsy

Dextroamphetamine (DEXEDRINE): amphetamine, Rx: ADHD, narcolepsy

Dextroamphetamine/Amphetamine (ADDERALL): amphetamines, Rx: ADHD, narcolepsy

Dextromethorphan (DELSYM, ROBITUSSIN): non-narcotic antitussive

DIABETA (glyburide): oral hypoglycemic, Rx: diabetes

DIAMOX (acetazolamide): diuretic/anticonvulsant, Rx: glaucoma, CHF, epilepsy, mountain sickness

Diazepam (VALIUM): benzodiazepine anxiolytic, Rx: anxiety, seizures, panic disorder

Diclofenac (VOLTAREN): NSAID, analgesic, Rx: arthritis, post-op. ocular inflammation

Dicloxacillin: penicillin class antibiotic

Dicyclomine (BENTYL): anticholinergic, Rx: irritable bowel syndrome

Didanosine, ddi (VIDEX): antiretroviral, Rx: HIV

DIDREX (benzphetamine): amphetamine, Rx: obesity

DIDRONEL (etidronate): bone metabolism regulator, Rx: Paget's disease, total hip replacement

Diflorasone (PSORCON): topical corticosteroid, Rx: dermatoses

DIFLUCAN (fluconazole): antifungal

Diflunisal (DOLOBID): NSAID analgesic, Rx: arthritis

DIGITEK (digoxin): cardiac glycoside, Rx: CHF, atrial fibrillation

Digoxin (LANOXIN): cardiac glycoside, Rx: CHF, atrial fibrillation

Dihydroergotamine (D.H.E.): vasoconstrictor, Rx: migraine HA

DILANTIN (phenytoin): anticonvulsant, Rx: seizures

DILATRATE SR (isosorbide): long-acting nitrate, Rx: angina

DILAUDID (hydromorphone): opioid analgesic, Rx: moderate to severe pain

Diltiazem (CARDIZEM): calcium channel blocker, Rx: angina, HTN, PSVT

Dimenhydrinate (DRAMAMINE): antihistamine, Rx: motion sickness

DIOVAN (valsartan): angiotensin II receptor inhibitor, Rx: HTN, CHF, post MI

DIOVAN HCT (valsartan/HCTZ): angiotensin II receptor inhibitor/diuretic, Rx: HTN

DIPENTUM (olsalazine): anti-inflammatory agent, Rx: ulcerative colitis

Diphenhydramine (BENADRYL): antihistamine, Rx: allergies

Diphenoxylate/Atropine (LOMOTIL): opioid congener, Rx: diarrhea

DIPROLENE, DIPROLENE AF (betamethasone): topical corticosteroid, Rx: dermatoses

Dipyridamole (PERSANTINE): antiplatelet, Rx: lowers risk of postoperative thromboembolic complications after heart valve replacement

Disopyramide (NORPACE): antiarrhythmic, Rx: ventricular dysrhythmias

Disulfiram (ANTABUSE): alcohol-abuse deterrent, Rx: alcohol abuse

DITROPAN XL (oxybutynin): anticholinergic/antispasmodic, Rx: urinary frequency, incontinence, dysuria

DIURIL (chlorothiazide): diuretic, Rx: fluid retention in CHF, renal failure, HTN

Divalproex (DEPAKOTE): anticonvulsant, Rx: seizures, bipolar disorder, migraines

Docusate (COLACE): stool softener, Rx: constipation

Dolasetron (ANZEMET): antiemetic, Rx: nausea and vomiting

DOLOBID (diflunisal): NSAID analgesic, Rx: arthritis

DOLOPHINE (methadone): Opioid analgesic, Rx: pain, opiate withdrawal symptoms

Donepezil (ARICEPT): cholinergic, Rx: dementia associated with Alzheimer's disease

DONNATAL (phenobarbital/belladonna alkaloids): barbiturate sedative/antispasmodic, Rx: irritable bowel syndrome

DORIBAX (doripenem): carbapenem antibiotic

Dornase Alfa (PULMOZYME): lytic enzyme that dissolves infected lung secretions, Rx: cystic fibrosis

Dorzolamide OPTH (TRUSOPT): decreases intraocular pressure, Rx: glaucoma

Dorzolamide/Timolol OPTH (COSOPT): decreases intraocular pressure, Rx: glaucoma

DOVONEX (calcipotriene): vitamin D analog, Rx: psoriasis

Doxazosin (CARDURA): alpha blocker, Rx: HTN, benign prostatic hypertrophy

Doxepin (SINEQUAN): tricyclic antidepressant, Rx: depression, anxiety

DOXIL (doxorubicin): antineoplastic, Rx: AIDS-related tumors

Doxorubicin (DOXIL): antineoplastic, Rx: AIDS-related tumors, cancer, leukemia

Doxycycline (VIBRAMYCIN): tetracycline antibiotic

Doxylamine (UNISOM): antihistamine sedative, Rx: insomnia

DRAMAMINE (dimenhydrinate): antihistamine, Rx: motion sickness

Dronabinol (MARINOL): appetite stimulant, Rx: weight loss in cancer, AIDS

DUONEB (ipratropium/albuterol): bronchodilators, Rx: asthma, COPD

DURAGESIC (fentanyl): transdermal opioid analgesic, Rx: chronic pain

DURAMORPH (morphine): opioid analgesic, Rx: moderate to severe pain

DYAZIDE (HCTZ/triamterene): diuretics, Rx: HTN

DYNACIRC CR (isradipine): calcium channel blocker, Rx: HTN

DYRENIUM (triamterene): potassium-sparing diuretic, Rx: edema in CHF/ESLD/nephrotic syndrome

E

Econazole (SPECTAZOLE): topical antifungal

EDECIN (ethacrynic acid): diuretic, Rx: CHF, pulmonary edema

EES (erythromycin): macrolide antibiotic

Efavirenz (SUSTIVA): antiviral, Rx: HIV-1 infection

EFFEXOR, EFFEXOR XR (venlafaxine): antidepressant, Rx: depression, anxiety, panic disorder

ELDEPRYL (selegiline): MAO inhibitor, Rx: Parkinson's disease

ELIDEL (pimecrolimus): topical immunomodulator, Rx: atopic dermatitis

ELIMITE (permethrin): parasiticide, Rx: scabies, lice

ELOCON (mometasone): topical corticosteroid, Rx: dermatoses

EMGEL (erythromycin): topical antibiotic, Rx: acne

EMSAM Patch (selegiline): MAO inhibitor, Rx: depression

EMTRIVA (emtricitabine): antiretroviral, Rx: HIV

ENABLEX (darifenacin): anticholinergic, Rx: overactive bladder

Enalapril, Enalaprilat (VASOTEC): ACE inhibitor, Rx: HTN, CHF

Enalapril/HCTZ (VASORETIC): ACE inhibitor/diuretic, Rx: HTN

ENBREL (etanercept): immunomodulator, Rx: arthritis, psoriasis

ENDOCET (oxycodone/acetaminophen): opioid analgesic, Rx: moderate to severe pain

ENJUVIA (conjugated estrogens): hormone, Rx: menopause symptoms

Entacapone (COMTAN): COMT inhibitor, Rx: Parkinson's disease

ENTEREG (alvimopan): GI opioid antagonist, Rx: postoperative ileus

ENTOCORT EC (budesonide): corticosteroid, Rx: Crohn's disease

EPIFOAM (hydrocortisone/pramoxine): topical corticosteroid/anti-inflammatory/local anesthetic, Rx: dermatoses

EPIPEN (epinephrine): bronchodilator/vasoconstrictor, Rx: allergic reaction

EPIVIR, EPIVIR HBV (lamivudine): antiretroviral, Rx: HIV, Hepatitis B

Epoetin Alfa (EPOGEN): increases RBC production, Rx: anemia

EPOGEN (epoetin alfa): increases RBC production, Rx: anemia

EPZICOM (abacavir/lamivudine): antiretroviral, Rx: HIV

EQUETRO (carbamazepine): anticonvulsant, Rx: bipolar disorder

ERBITUX (cetuximab): antineoplastic, Rx: colorectal cancer, CA of head and neck

Ergocalciferol (CALCIFEROL): vitamin D, Rx: hypocalcemia, hypoparathyroidism, rickets, osteodystrophy
ERRIN (norethindrone): oral contraceptive
ERYGEL (erythromycin): topical antibiotic, Rx: acne
ERYPED (erythromycin): macrolide antibiotic
ERY-TAB (erythromycin): macrolide antibiotic
Erythromycin (EES): macrolide antibiotic
ESGIC, ESGIC-PLUS (APAP/cafeine/butalbital): analgesic/muscle relaxant/antianxiety compound, Rx: headache
ESKALITH, ESKALITH CR (lithium): antipsychotic, Rx: bipolar disorder
Estazolam (PROSOM): benzodiazepine sedative/hypnotic, Rx: insomnia
ESTRACE (estradiol): estrogen, Rx: symptoms of menopause
ESTRADERM (estradiol): transdermal estrogen, Rx: symptoms of menopause
ESTRATEST (estrogens/methyltestosterone), Rx: symptoms of menopause
Estropipate (OGEN): estrogens, Rx: symptoms of menopause
ESTROSTEP FE (norethindrone/ethinyl estradiol/iron): oral contraceptive
Ethacrynate (EDECIN): diuretic, Rx: pulmonary edema, CHF
Ethambutol (MYAMBUTOL): Rx: pulmonary tuberculosis
Ethosuximide (ZARONTIN): anticonvulsant, Rx: absence Sz
Etidronate (DIDRONEL): bone metabolism regulator, Rx: Paget's disease, total hip replacement
Etodolac (LODINE): NSAID analgesic, Rx: arthritis
Etoposide (VEPESID): antineoplastic, Rx: testicular cancer, lung CA
EULEXIN (flutamide): antiandrogen, Rx: prostate cancer
EVISTA (raloxifene): estrogen modulator, Rx: osteoporosis, breast CA prevention
EXELON (rivastigmine): cholinesterase inhibitor, Rx: dementia in Alzheimer's and Parkinson's disease
EXTENDRYL (phenylephrine/methscopolamine/chlorpheniramine): antihistamine/decongestant, Rx: allergies

F

FACTIVE (gemifloxacin): fluoroquinolone antibiotic
Famciclovir (FAMVIR): antiviral, Rx: herpes
Famotidine (PEPCID): H-2 blocker, inhibits gastric acid, Rx: ulcers
FAMVIR (famciclovir): antiviral, Rx: herpes
FARESTON (toremifene): antiestrogen, Rx: breast cancer
FAZACLO (clozapine): antipsychotic, Rx: schizophrenia
FELBATOL (felbamate): antiepileptic, Rx: seizures

FELDENE (piroxicam): NSAID analgesic, Rx: arthritis
Felodipine (PLENDIL): calcium blocker blocker, Rx: HTN
FEMARA (letrozole): estrogen inhibitor, Rx: breast cancer
FEMHRT (norethindrone/ethinyl estradiol): hormones, Rx: symptoms of menopause
Fenofibrate (TRICOR): lipid regulator, Rx: hyperlipidemia
Fentanyl (DURAGESIC): opioid analgesic, Rx: moderate to severe pain
FERRLECIT (sodium ferric gluconate): hematinic, Rx: iron deficiency anemia in hemodialysis
Fexofenadine (ALLEGRA): antihistamine, Rx: allergies
FIBERCON (polycarbophil): bulk-producing laxative, Rx: constipation
Finasteride (PROSCAR, PROPECIA): antiandrogen, Rx: hair loss, BPH
FIORICET (butalbital/APAP/caffeine): sedative, analgesic, Rx: tension HA
FIORINAL (butalbital/ASA/caffeine): sedative analgesic, Rx: tension HA
FLAGYL (metronidazole): antibiotic
Flecainide (TAMBOCOR): antiarrhythmic, Rx: PSVT, paroxysmal atrial fibrillation
FLEXERIL (cyclobenzaprine): skeletal muscle relaxant
FLOLAN (epoprostenol): vasodilator, platelet inhibitor, Rx: pulmonary hypertension
FLOMAX (tamsulosin): alpha-1 blocker, Rx: BPH
FLOINASE (fluticasone): nasal corticosteroid, Rx: allergic rhinitis
FLORINEF (fludrocortisone): mineralocorticoid, Rx: adrenal insufficiency
FLOVENT (fluticasone): inhaled corticosteroid, Rx: asthma
FLOXIN (ofloxacin): fluoroquinolone antibiotic
Fluconazole (DIFLUCAN): antifungal
Flucytosine (ANCOBON): antifungal, Rx: candida, cryptococcus infection
FLUDARA (fludarabine): antineoplastic, Rx: lymphocytic leukemia
Fludarabine (FLUDARA): antineoplastic, Rx: lymphocytic Leukemia
Fludrocortisone (FLORINEF): mineralocorticoid, Rx: adrenal insufficiency
FLUMADINE (rimantadine): antiviral, Rx: influenza A virus
Flumazenil (ROMAZICON): antidote, Rx: benzodiazepine overdose
Flunisolide (AEROBID): inhaled corticosteroid, Rx: asthma
Flunisolide (NASAREL): nasal corticosteroid, Rx: allergic rhinitis
Fluocinolone (SYNALAR): topical corticosteroid, Rx: dermatoses
Fluocinonide (LIDEX): topical corticosteroid, Rx: dermatoses
Fluorouracil (ADRUCIL, EFUDEX): antineoplastic, Rx: solar keratosis carcinomas

Fluoxetine (PROZAC): antidepressant, Rx: depression, obsessive-compulsive disorder, bulimia
Fluphenazine: antipsychotic, Rx: schizophrenia
Flurazepam (DALMANE): benzodiazepine, Rx: insomnia
Flurbiprofen (ANSAID): NSAID analgesic, Rx: arthritis
Flutamide (EULEXIN): antiandrogenic, Rx: prostate cancer
Fluticasone (CUTIVATE): topical corticosteroid, Rx: dermatoses
Fluvastatin (LESCOL): statin, Rx: hypercholesterolemia
Fluvoxamine (LUVOX): SSRI, Rx: obsessive compulsive disorder, anxiety
FOCALIN (dexamethylphenidate): stimulant, Rx: ADHD
Folic Acid: vitamin coenzyme, Rx: megaloblastic anemia
FORADIL (formoterol): long acting β -2 agonist bronchodilator, Rx: asthma, COPD
FORTAZ (ceftazidime): cephalosporin antibiotic
FOSAMAX (alendronate): reduces bone loss, Rx: osteoporosis, Paget's disease
Foscarnet (FOSCAVIR): antiviral, Rx: cytomegalovirus
FOSCAVIR (foscarnet): antiviral, Rx: cytomegalovirus
Fosinopril (MONOPRIL): ACE inhibitor, Rx: HTN, CHF
Fosphenytoin (CEREBYX): anticonvulsant, Rx: seizures
FOSRENOL (lanthanum): phosphate binder, Rx: hyperphosphatemia in ESRD
FRAGMIN (daltaparin): LMWH, Rx: prophylaxis/tx DVT/PE, ACS
FROVA (frovatriptan): serotonin receptor agonist, Rx: migraine headaches
Furosemide (LASIX): loop diuretic, Rx: CHF, hypertension
FUZEON (enfuvirtide): antiretroviral, Rx: HIV

G

Gabapentin (NEURONTIN): anticonvulsant, Rx: seizures, postherpetic neuralgia
GABITRIL (tiagabine): anticonvulsant, Rx: partial seizures
Galantamine (RAZADYNE): cholinergic enhancer, Rx: Alzheimer's disease
Ganciclovir (CYTOVENE): antiviral, Rx: cytomegalovirus
Gemfibrozil (LOPID): antihyperlipidemic, Rx: hypertriglyceridemia
GEMZAR (gemcitabine): antineoplastic, Rx: lung, breast, pancreatic CA
GENGRAF (cyclosporine): immunosuppressive, Rx: rheumatoid arthritis, psoriasis, prevention of transplant rejection
Gentamicin (GARAMYCIN): aminoglycoside antibiotic
GEODON (ziprasidone): antipsychotic, Rx: schizophrenia
GLEEVEC (imatinib): antineoplastic, Rx: leukemia, gastrointestinal CA

GLIADEL WAFER (carmustine): antineoplastic, Rx: malignant glioma, lymphomas

Glimepiride (AMARYL): oral hypoglycemic, Rx: diabetes

Glipizide (GLUCOTROL): oral hypoglycemic, Rx: diabetes

Glucagon: hormone, mobilizes glucose, Rx: hypoglycemia

GLUCOPHAGE (metformin): oral hypoglycemic, Rx: diabetes

GLUCOTROL (glipizide): oral hypoglycemic, Rx: diabetes

GLUCOVANCE (glyburide/metformin): oral hypoglycemic, Rx: diabetes

Glyburide (DIABETA, GLYNASE): oral hypoglycemic, Rx: diabetes

Glycopyrrolate (ROBINUL): anticholinergic, Rx: peptic ulcers

GLYNASE (glyburide): oral hypoglycemic, Rx: diabetes

GLYSET (miglitol): oral hypoglycemic, Rx: diabetes

Granisetron (KYTRIL): antiemetic, Rx: chemotherapy induced nausea/vomiting

GRIFULVIN V (griseofulvin): antifungal, Rx: ringworm, onychomycosis

Griseofulvin (GRIFULVIN V): antifungal, Rx: ringworm, onychomycosis

Guaifenesin (HUMIBID, MUCINEX): expectorant, Rx: loosen bronchial secretions

Guanfacine (TENEX): antihypertensive, Rx: HTN

GYNODIOL (estradiol): hormone, Rx: vaginitis, menopause, breast cancer, osteoporosis

H

HALCION (triazolam): benzodiazepine hypnotic, Rx: insomnia

HALDOL (haloperidol): antipsychotic, Rx: psychotic disorders

Halobetasol (ULTRAVATE): topical corticosteroid, Rx: dermatoses

Haloperidol (HALDOL): antipsychotic, Rx: psychotic disorders

HCT, HCTZ (hydrochlorothiazide): diuretic, Rx: HTN, water retention

HECTOROL (doxercalciferol): vitamin D supplement, Rx: hypocalcemia in renal disease, hypoparathyroidism

HEXALEN (altretamine): antineoplastic, Rx: ovarian cancer

HUMALOG (insulin lispro): hypoglycemic, Rx: diabetes

HUMIBID (guaifenesin): expectorant, Rx: loosen bronchial secretions

HUMIRA (adalimumab): immunomodulator, Rx: rheumatoid and psoriatic arthritis, ankylosing spondylitis, Crohn's disease

HUMULIN R (regular insulin): hypoglycemic, Rx: diabetes

HYCAMTIN (topotecan): antineoplastic, Rx: lung CA

HYCODAN (hydrocodone/homatropine): narcotic antitussive

HYCOTUSS (hydrocodone/guaifenesin): narcotic antitussive/expectorant

Hydralazine (APRESOLINE): vasodilator, Rx: HTN, CHF
Hydrochlorothiazide (HCTZ): thiazide diuretic, Rx: HTN, water retention
Hydrocodone/APAP (NORCO, LORTAB, VICODIN): narcotic analgesic compound, Rx: moderate to severe pain
Hydrocortisone (CORTEF): topical corticosteroid, Rx: dermatoses
HYDRODIURIL (HCTZ): diuretic, Rx: HTN, water retention
Hydromorphone (DILAUDID): opioid analgesic, Rx: moderate to severe pain
Hydroxychloroquine (PLAQUENIL): antimalarial, Rx: malaria, lupus, rheumatoid arthritis
Hydroxyurea (DROXIA, HYDREA): antineoplastic, elastogenic, Rx: melanoma, leukemia, ovarian CA, sickle cell anemia
Hydroxyzine (ATARAX, VISTARIL): antihistamine, Rx: allergies, anxiety, sedation
Hyoscyamine (LEVSIN): antispasmodic, Rx: lower urinary tract and GI tract spasm/secretions
HYTRIN (terazosin): alpha blocker, Rx: BPH, HTN
HYZAAR (losartan/HCTZ): angiotensin receptor blocker, Rx: HTN

I

Ibuprofen (ADVIL, MOTRIN): NSAID analgesic, Rx: arthritis, mild to moderate pain
Ibutilide (CORVERT): antiarrhythmic, Rx: Atrial Fib, Atrial Flutter
Idarubicin (IDAMYCIN): antineoplastic, Rx: AML
Ifosfamide (IFEX): antineoplastic, Rx: testicular CA
IMDUR (isosorbide mononitrate): vasodilator long acting nitrate, Rx: angina
Imipenem/Cilastatin (PRIMAXIN): carbapenem antibiotic
Imipramine (TOFRANIL): tricyclic antidepressant, Rx: depression, bed wetting
IMITREX (sumatriptan): selective serotonin receptor agonist, Rx: migraine H/A
IMODIUM (loperamide): slows peristalsis, Rx: diarrhea
IMURAN (azathioprine): immunosuppressant, Rx: organ transplants, lupus, rheumatoid arthritis
Indapamide (LOZOL): diuretic, Rx: HTN, edema in CHF
INDERAL, INDERAL LA (propranolol): beta blocker, Rx: HTN, angina, cardiac dysrhythmias, AML, migraine H/A
INDOCIN, INDOCIN SR (indomethacin): NSAID, Rx: arthritis
Indomethacin (INDOCIN): NSAID analgesic, Rx: arthritis
INFED (iron dextran): Rx: iron deficiency
INFERGEN (interferon alfacon-1): antiviral, Rx: Hepatitis C

Infliximab (REMICADE): neutralizes tumor necrosis factor, Rx: Crohn's disease

INH (isoniazid): antibiotic, Rx: tuberculosis

INSPIRA (eplerenone): aldosterone blocker, Rx: HTN, CHF

INTAL (cromolyn): anti-inflammatory, Rx: asthma

INTELENCE (etravirine): antiretroviral, Rx: HIV

INTRON A (interferon alpha-2B): antiviral/immunomodulator, Rx: AIDS Kaposi sarcoma, Hepatitis B/C, leukemia, lymphoma

INVEGA (paliperidone): antipsychotic, Rx: schizophrenia

INVIRASE (saquinavir): protease inhibitor antiretroviral, Rx: HIV

Irinotecan (CAMPTOSAR): antineoplastic, Rx: colon and rectal CA

IONAMIN (phentermine): anorexiant stimulant, Rx: obesity

Ipecac: detoxification agent, Rx: overdose/poisoning

Ipratropium (ATROVENT): bronchodilator, Rx: COPD

ISENTRESS (raltegravir): antiretroviral, Rx: HIV

ISMO (isosorbide mononitrate): vasodilator, Rx: angina

Isoniazid: antibiotic, Rx: tuberculosis

Isoproterenol: β -bronchodilator, Rx: asthma, COPD

ISOPTIN SR (verapamil): calcium channel blocker, Rx: angina, HTN, PSVT prophylaxis, headache

ISOPTO CARPINE OPTH (pilocarpine): cholinergic miotic, Rx: glaucoma

Isosorbide dinitrate (ISORDIL): nitrate vasodilator, Rx: angina

Isosorbide mononitrate (IMDUR, ISMO, MONOKET): long-acting nitrate, Rx: angina

Isradipine (DYNACIRC): calcium channel blocker, Rx: HTN

Itraconazole (SPORANOX): antifungal

J

JANUMET (sitagliptin/metformin): oral hypoglycemics, Rx: diabetes

JANUVIA (sitagliptin): oral hypoglycemic, Rx: diabetes

JOLIVETTE (norethindrone): oral contraceptive

JUNEL (norethindrone/estradiol): oral contraceptive

K

KADIAN (morphine ER): opioid analgesic, Rx: severe pain

KALETRA (lopinavir/ritonavir): antiretrovirals, Rx: HIV

KAOPECTATE (bismuth): gastrointestinal, Rx: indigestion, diarrhea

Kanamycin (KANTREX): aminoglycoside antibiotic

KAPIDEX (dexlansoprazole): proton pump inhibitor, Rx: GERD, erosive esophagitis

KAYEXALATE (sodium polystyrene sulfonate): Na/K exchange resin, Rx: hyperkalemia
K-DUR (potassium): electrolyte, Rx: hypokalemia
KEFLEX (cephalexin): cephalosporin antibiotic
KEPPRA (levetiracetam): anticonvulsant, Rx: seizures
KERLONE (betaxolol): beta-1 blocker, Rx: HTN
KETEK (telithromycin): ketolide antibiotic, Rx: community acquired PNA
Ketoconazole (NIZORAL): antifungal agent
Ketoprofen: NSAID analgesic, Rx: arthritis
Ketorolac (TORADOL): NSAID analgesic, Rx: acute pain
Ketotifen OPTH (ZADITOR): antihistamine, anti-inflammatory, Rx: allergic conjunctivitis
Kineret (anakinra): immunomodulator, Rx: rheumatoid arthritis
KLONOPIN (clonazepam): benzodiazepine hypnotic, Rx: seizures, panic disorder
KLOR-CON (potassium): electrolyte, Rx: hypokalemia
KONSYL (psyllium): bulk-forming laxative, Rx: constipation
KUTRASE (pancreatin): pancreatic enzymes replacement in CF, chronic pancreatitis
KWELL (lindane): parasiticide, Rx: lice, scabies
KYTRIL (granisetron): antiemetic, Rx: chemotherapy induced nausea/vomiting

L

Labetalol (TRANDATE): beta blocker, Rx: HTN
LAC-HYDRIN (ammonium lactate): emollient, Rx: dry, itchy skin
LACRI-LUBE OPTH (white petrolatum/mineral oil): Rx: ophthalmic lubrication
LACRISERT (Hydroxypropyl): ophthalmic lubricant, Rx: dry eyes
Lactulose (CEPHULAC): hyperosmotic laxative, Rx: constipation, encephalopathy
LAMICTAL (lamotrigine): anticonvulsant, Rx: seizures, bipolar disorder
LAMISIL (terbinafine): antifungal
Lamivudine (EPIVIR): antiviral, Rx: HIV
Lamotrigine (LAMICTAL): anticonvulsant, Rx: seizures, bipolar disorder
LANOXIN (digoxin): cardiac glycoside, Rx: CHF, atrial fibrillation
Lansoprazole (PREVACID): gastric acid pump inhibitor, Rx: ulcers, GERD
LANTUS (insulin glargine): hypoglycemic, Rx: diabetes
LARIAM (mefloquine): antimalarial agent
LASIX (furosemide): loop diuretic, Rx: HTN, CHF
Leflunomide (ARAVA): immunomodulator, anti-inflammatory, Rx: rheumatoid arthritis

LESCOL (fluvastatin): statin, Rx: hypercholesterolemia
LEUKERAN (chlorambucil): antineoplastic, Rx: leukemia, lymphoma, Hodgkin's disease
Leucovorin: vitamin, Rx: methotrexate toxicity, megaloblastic anemia
Leuprolide (LUPRON): hormone, Rx: endometriosis, advanced prostate CA
Levalbuterol (XOPENEX): inhaled β -2 bronchodilator, Rx: COPD, asthma
Levamisole (ERGAMISOLE): immunostimulant, Rx: colon CA
LEVAQUIN (levofloxacin): antibiotic, Rx: pneumonia, COPD, UTI
Levetiracetam (KEPPRA): anticonvulsant, Rx: seizures
LEVATOL (penbutolol): beta blocker, Rx: hypertension
LEVEMIR (insulin detemir): hypoglycemic, Rx: diabetes
LEVITRA (vardenafil): vasodilator, Rx: erectile dysfunction
LEVLEN (ethinyl estradiol/levonorgestrel): oral contraceptive
Levobunolol OPTH (BETAGAN): β -blocker, Rx: glaucoma
Levodopa/carbidopa (SINEMET): dopamine precursor, Rx: Parkinson's disease
Levofloxacin (LEVAQUIN): fluoroquinolone antibiotic
LEVORA (levonorgestrel/estradiol): oral contraceptive
LEVOTHROID (levothyroxine): thyroid hormone, Rx: Hypothyroidism
Levothyroxine (LEVOTHROID, LEVOXYL, SYNTHROID): thyroid hormone, Rx: Hypothyroidism
LEVOXYL (levothyroxine): thyroid hormone, Rx: Hypothyroidism
LEVSIN, LEVSINEX (hyoscyamine): antispasmodic, Rx: lower urinary tract and GI tract spasm/secretions
LEXAPRO (escitalopram): SSRI antidepressant, Rx: depression, anxiety disorder
LEXIVA (fosamprenavir): antiretroviral, Rx: HIV
LIBRIUM (chlordiazepoxide): benzodiazepine, Rx: anxiety, alcohol withdrawal
LIDEX (fluocinonide): topical corticosteroid, Rx: dermatoses
LIDODERM (lidocaine) topical local anesthetic, Rx: postherpetic neuralgia
Lindane (KWELL): parasiticide, Rx: scabies, lice
Liothyronine (CYTOMEL): thyroid hormone, Rx: Hypothyroidism
Liotrix (THYROLAR): thyroid hormone, Rx: hypothyroidism
LIPITOR (atorvastatin): statin, Rx: hypercholesterolemia, CHD
LIPRAM UL (pancrelipase): pancreatic enzymes replacement, Rx: chronic pancreatitis, cystic fibrosis
Lisinopril (PRINIVIL, ZESTRIL): ACE inhibitor, Rx: HTN, CHF, AMI
Lisinopril/HCTZ (ZESTORETIC): ACE inhibitor, Rx: HTN, CHF, AMI
Lithium (LITHOBID): antipsychotic, Rx: bipolar disorder

LITHIUM (lithium): antipsychotic, Rx: bipolar disorder
LOCOID (hydrocortisone): topical corticosteroid, Rx: dermatoses, seborrheic dermatitis
LODRANE 12D (brompheniramine/pseudoephedrine): antihistamine/decongestant, Rx: allergies, common cold
LOESTRIN (ethinyl estradiol/norethindrone): oral contraceptive
LOMOTIL (diphenoxylate/atropine): opioid congener, Rx: diarrhea
LONOX (diphenoxylate/atropine): opioid congener, Rx: diarrhea
LO/OVRAL (ethinyl estradiol/norgestrel): oral contraceptive
Loperamide (IMODIUM): slows peristalsis, Rx: diarrhea
LOPID (gemfibrozil): antihyperlipidemic, Rx: hypertriglyceridemia
Lopinavir (KALETRA): antiviral, Rx: HIV, AIDS
LOPRESSOR (metoprolol): beta-1 blocker, Rx: hypertension
LOPROX (ciclopirox): antifungal, Rx: ringworm, candida
Loratadine (CLARITIN): antihistamine, Rx: allergies
Lorazepam (ATIVAN): benzodiazepine hypnotic, Rx: anxiety, status epilepticus
LORCET 10/650, LORCET HD, LORCET PLUS (hydrocodone/APAP): opioid analgesic compound, Rx: mild to moderate pain
LORTAB (hydrocodone/APAP): narcotic analgesic, Rx: mild to moderate pain
Losartan (COZAAR): angiotensin receptor blocker, Rx: HTN, diabetic nephropathy
LOTENSIN (benazepril): ACE inhibitor, Rx: HTN, CHF
LOTENSIN HCT (benazepril/HCTZ): ACE inhibitor/diuretic, Rx: HTN
LOTREL (amlodipine/benazepril): calcium channel blocker/ACE inhibitor, Rx: HTN
LOTRIMIN (clotrimazole): topical antifungal agent
LOTRISONE (clotrimazole/betamethasone): topical antifungal/corticosteroid
LOTRONEX (alosectron): antidiarrheal, Rx: irritable bowel syndrome
Lovastatin (MEVACOR): statin, Rx: hypercholesterolemia, CHD
LOVENOX (enoxaparin): LMWH, Rx: prophylaxis/tx DVT/PE, ACS
LOW-OGESTREL 28 (norgestrel/ethinyl estradiol): oral contraceptive
Loxapine (LOXITANE): antipsychotic, Rx: schizophrenia
LOXITANE (loxapine): antipsychotic, Rx: schizophrenia
LOZOL (indapamide): diuretic, Rx: HTN, edema in CHF
LUCENTIS (ranibizumab): blood vessel growth inhibitor, Rx: macular degeneration
LUMIGAN OPTH (bimatoprost): lowers intraocular pressure, Rx: glaucoma

LUNESTA (eszopiclone): sedative, Rx: insomnia
LUPRON DEPOT (leuprolide): hormone, Rx: endometriosis, prostate CA
LUVOX (fluvoxamine): SSRI antidepressant, Rx: obsessive compulsive disorder, anxiety
LYRICA (pregabalin): anticonvulsant, Rx: partial seizures, neuropathic pain

M

MAFENIDE (sulfamylon): topical antimicrobial, Rx: burn wounds
MACROBID (nitrofurantoin): nitrofurantoin antibiotic, Rx: UTI
MACRODANTIN (nitrofurantoin): nitrofurantoin antibiotic, Rx: UTI
MALARONE (atovaquone/proguanil): antimalarial agents, Rx: malaria prevention/tx
Malathion (OVIDE): organophosphate insecticide, Rx: head lice
Mannitol (OSMITROL): osmotic diuretic, Rx: cerebral edema, IOP
Maprotiline (LUDIOMIL): tetracyclic antidepressant, Rx: depression, bipolar disorder, anxiety
MARINOL (dronabinol): appetite stimulant, Rx: weight loss in cancer, AIDS
MAVIK (trandolapril): ACE inhibitor, Rx: HTN, CHF post MI
MAXAIR (pirbuterol): inhaled beta-2 agonist, Rx: asthma, COPD
MAXALT (rizatriptan): selective serotonin receptor agonist, Rx: migraine headaches
MAXIDEX OPTH (dexamethasone): corticosteroid, Rx: corneal injury, allergic conjunctivitis
MAXITROL OPTH (neomycin/polymyxin/dexamethasone): antibiotics/steroid, Rx: eye infection/inflammation
MAXZIDE (triamterene/HCTZ): diuretics, Rx: HTN, water retention
MEBARAL (mephobarbital): barbiturate sedative, Rx: epilepsy, anxiety
Mebendazole (VERMOX): anthelmintic, Rx: intestinal worms
Meclizine (ANTIVERT): antinauseant, Rx: motion sickness
Meclofenamate: NSAID analgesic, Rx: arthritis, acute pain
MEDROL (methylprednisolone): glucocorticoid, Rx: adrenal insufficiency, allergies, RA
Medroxyprogesterone (PROVERA): progestin hormone, Rx: endometriosis, amenorrhea, uterine bleeding, contraception
MEFOXIN (cefoxitin): cephalosporin antibiotic
Mefloquine (LARIAM): antimalarial, Rx: prevention and treatment of malaria
Megestrol (MEGACE): progestin, appetite stimulant, Rx: anorexia with AIDS; antineoplastic, Rx: breast, endometrial CA

Meloxicam (MOBIC): NSAID analgesic, Rx: arthritis
MENTAX (butenafine): topical antifungal, Rx: ringworm, athlete's foot
Meperidine (DEMEROL): opioid analgesic, Rx: moderate to severe pain
MEPHYTON (vitamin K-1): Rx: coagulation disorders
MEPRON (atovaquone): antiprotozoal, Rx: prophylaxis & treatment for pneumocystic carinii pneumonia in AIDS
MERIDIA (sibutramine): stimulant, Rx: obesity
MERREM (meropenem): carbapenem antibiotic, Rx: bacterial infections
Mesalamine (ASACOL, PENTASA): anti-inflammatory agent, Rx: ulcerative colitis
MESTINON (pyridostigmine): anticholinesterase, Rx: myasthenia gravis
METADATE CD, ER (methylphenidate): stimulant, Rx: ADHD, narcolepsy
METAGLIP (glipizide/metformin): oral hypoglycemics, Rx: diabetes
Metaproterenol (ALUPENT): β -2 agonist bronchodilator, Rx: COPD, asthma
Metformin (GLUCOPHAGE): oral hypoglycemic, Rx: diabetes
Methadone (DOLOPHINE): opioid analgesic, Rx: moderate to severe pain, opiate withdrawal
METHADOSE (methadone): opioid analgesic, Rx: detoxification of opioid addiction
Methenamine (URISED, UREX): antibiotic, Rx: UTI prophylaxis
METHERGINE (methylegonovine): increases uterine contractions, Rx: uterine contraction/bleeding
Methimazole (TAPAZOLE): Rx: antithyroid; Rx: hyperthyroidism
Methocarbamol (ROBAXIN): skeletal muscle relaxant
Methotrexate: antineoplastic, Rx: psoriasis, cancer, rheumatoid arthritis
Methsuximide (CELONTIN): anticonvulsant, Rx: absence Sz
Methyldopa (ALDOMET): centrally acting antihypertensive, Rx: HTN
Methylphenidate (RITALIN): stimulant, Rx: ADHD, narcolepsy
Methylprednisolone (MEDROL): glucocorticoid, Rx: adrenal insufficiency, allergies, RA
Metoclopramide (REGLAN): improves gastric emptying, Rx: heartburn, diabetic gastroparesis
Metolazone (ZAROXOLYN): thiazide diuretic, Rx: HTN, fluid retention
Metoprolol (LOPRESSOR, TOPROL-XL): β -1 blocker, Rx: HTN, angina, dysrhythmias
Metronidazole (FLAGYL): antibiotic,
MEVACOR (lovastatin): statin, Rx: hypercholesterolemia, CHD

Mexiletine (MEXITIL): antiarrhythmic, Rx: ventricular dysrhythmias
MEXITIL (mexiletine): antiarrhythmic, Rx: ventricular dysrhythmias
MIACALCIN (calcitonin-salmon): bone resorption inhibitor
hormone, Rx: hypercalcemia, Paget's disease, osteoporosis
MICARDIS (telmisartan): Angiotensin II receptor antagonist,
Rx: HTN
Miconazole (MONISTAT): antifungal
MICRO-K (potassium): electrolyte, Rx: hypokalemia
MICROZIDE (HCTZ): thiazide diuretic, Rx: HTN, water retention
MIDAMOR (amiloride): potassium-sparing diuretic, Rx: HTN, CHF
Midazolam: benzodiazepine hypnotic, Rx: anxiety before surgery
Midodrine (PROAMATINE): vasopressor, Rx: orthostatic
hypotension
MIDRIN (isometheptene, dichloralphenazone, APAP):
vasoconstrictor/sedative/analgesic, Rx: migraines
MINIPRESS (prazosin): alpha-1 blocker, Rx: hypertension
MINITRAN (transdermal nitroglycerin): nitrate, Rx: angina
MINOCIN (minocycline): tetracycline antibiotic, Rx: bacterial
infections, acne
Minocycline (MINOCIN): tetracycline antibiotic, Rx: bacterial
infections, acne
Minoxidil: vasodilator, Rx: severe HTN
MIRALAX (polyethylene glycol): osmotic laxative, Rx: constipation
MIRAPEX (pramipexole): dopamine agonist, Rx: Parkinson's
disease, restless legs syndrome
MIRCERA (methoxypolyethyleneglycol-epoetin): increases RBC
production, Rx: anemia in chronic renal failure
Mirtazapine (REMERON): antidepressant, Rx: depression
Misoprostol (CYTOTEC): antiulcer, Rx: NSAID-induced gastric
ulcers
MOBIC (meloxicam): NSAID analgesic, Rx: arthritis
Modafinil (PROVIGIL): wakefulness-promoting agent,
Rx: narcolepsy, daytime sleepiness
MODURETIC (amiloride/HCTZ): diuretics, Rx: HTN, fluid retention
Moexipril (UNIVASC): ACE inhibitor, Rx: HTN
Mometasone (ELOCON): topical corticosteroid, Rx: dermatoses
MONOKET (isosorbide mononitrate): long acting nitrate, Rx: angina
MONOPRIL (fosinopril): ACE inhibitor, Rx: HTN, CHF
MONUROL (fosfomycin): antibiotic, Rx: UTI
Morphine sulfate: opioid analgesic, Rx: moderate to severe pain
MOTOFEN (difenoxylin/atropine): decreases intestinal motility,
Rx: diarrhea
Moxifloxacin (AVELOX): fluoroquinolone antibiotic
MUCINEX (guaifenesin): expectorant, Rx: loosen bronchial
secretions

Mupirocin (BACTROBAN): topical antibiotic, Rx: bacterial infections
MS CONTIN (morphine ER): narcotic analgesic, Rx: moderate to severe pain
MYCELEX 3 (butoconazole): vaginal antifungal, Rx: yeast infection
MYCOBUTIN (rifabutin): antibiotic, Rx: mycobacterium avium complex in HIV
Mycophenolate (CELLCEPT): immunosuppressant, Rx: organ transplants
MYCOSTATIN (nystatin): antifungal
MYLERAN (busulfan): alkylating agent, Rx: leukemia
MYSOLINE (primidone): anticonvulsant, Rx: seizures

N

Nabumetone (RELAFEN): NSAID analgesic, Rx: arthritis
Nadolol (CORGARD): β -blocker, Rx: HTN, angina
Nafcillin: penicillin class antibiotic
Naftifine (NAFTIN): topical antifungal
NAFTIN (naftifine): topical antifungal
Nalbuphine (NUBAIN): opioid agonist-antagonist analgesic, Rx: pain relief, pruritis
Naltrexone (REVIA): narcotic antagonist, Rx: narcotic or alcohol addiction
NAMENDA (memantine): NMDA antagonist, Rx: Alzheimer's disease
Naphazoline OPTH (NAPHCON): vasoconstrictor, Rx: relief of eye redness, irritation
NAPHCON OPTH (naphazoline): vasoconstrictor, Rx: relief of eye redness, irritation
NAPROSYN (naproxen): NSAID analgesic, Rx: arthritis, pain, inflammation, H/A
NARDIL (phenelzine): MAO inhibitor, Rx: depression, bulimia
NASACORT AQ (triamcinolone): nasal corticosteroid, Rx: allergic rhinitis
NASALCROM (cromolyn): nasal anti-inflammatory agent, Rx: allergic rhinitis
NASAREL (flunisolide): nasal corticosteroid, Rx: allergic rhinitis
NASONEX (mometasone): nasal corticosteroid, Rx: allergic rhinitis
NATRECOR (nesiritide): b-type natriuretic peptide vasodilator, Rx: CHF
NAVANE (thiothixene): antipsychotic, Rx: schizophrenia
Nefazodone (SERZONE): antidepressant, Rx: depression
Nelfinavir (VIRACEPT): protease inhibitor antiretroviral, Rx: HIV
NEMBUTAL (pentobarbital): barbiturate, Rx: insomnia, sleep induction, status epilepticus
Neomycin: aminoglycoside antibiotic, Rx: pre-op bowel preparation, encephalopathy

NEOPROFEN (ibuprofen lysine): Rx: closure patent ductus arteriosus in premature infants

NEORAL (cyclosporine): immunosuppressant, Rx: organ transplant

NEOSPORIN (neomycin/polymyxin/bacitracin): topical antibiotic compound, Rx: topical infections

NEPHROCAPS (vitamins): vitamin supplement, Rx: uremia, renal failure

NEULASTA (pegfilgrastim): colony stimulating factor, Rx: myelosuppressive chemotherapy

NEURONTIN (gabapentin): anticonvulsant, Rx: seizures, postherpetic neuralgia

NEUPOGEN (filgrastim): white blood cell stimulator, Rx: chemotherapy, bone marrow transplant

Nevirapine (VIRAMUNE): antiretroviral, Rx: HIV

NEXIUM (esomeprazole): proton pump inhibitor, Rx: esophagitis, GERD, ulcers

Niacin (vitamin B-3): nicotinic acid, Rx: hypercholesterolemia, hypertriglyceridemia

NIACOR (niacin): vitamin B-3, Rx: hypercholesterolemia, hypertriglyceridemia

NIASPAN (niacin slow release): vitamin B-3, Rx: hypercholesterolemia, hypertriglyceridemia

Nicardipine (CARDENE): calcium channel blocker, Rx: angina, HTN

NICODERM (transdermal nicotine): Rx: smoking cessation

Nicotinic Acid (niacin): vitamin B-3, Rx: hypercholesterolemia, hypertriglyceridemia

NICOTROL Inhaler (nicotine): Rx: smoking cessation

NICOTROL NS (nicotine): Rx: smoking cessation

Nifedipine (PROCARDIA, ADALAT): calcium channel blocker, Rx: angina, HTN

NIFEREX, NIFEREX-150 (iron): mineral, Rx: anemia

NILANDRON (nilutamide): antiandrogen, Rx: prostate CA

Nimodipine (NIMOTOP): calcium channel blocker, Rx: tx of vasospasm after subarachnoid hemorrhage

NIMOTOP (nimodipine): calcium channel blocker, Rx: tx of vasospasm after subarachnoid hemorrhage

Nisoldipine (SULAR): calcium channel blocker, Rx: HTN

NITRO-DUR (nitroglycerin): transdermal nitrate, Rx: angina

Nitrofurantoin (macrochantin): antibacterial agent, Rx: UTI

Nitroglycerin (NITROSTAT): vasodilator, Rx: angina

NITROLINGUAL SPRAY (nitroglycerin): nitrate, Rx: angina

NITROMIST (nitroglycerin): vasodilator lingual spray, Rx: angina

NITROSTAT (nitroglycerin): vasodilator, Rx: angina

NIX (permethrin): parasiticide, Rx: head lice

Nizatidine (AXID): histamine-2 antagonist, Rx: ulcers, GERD

NIZORAL (ketoconazole): antifungal agent
NORCO (hydrocodone/APAP): narcotic analgesic compound, Rx: moderate to severe pain
NORDETTE (ethinyl estradiol/levonorgestrel): oral contraceptive
NORFLEX (orphenadrine): skeletal muscle relaxant
Norfloxacin (NOROXIN): fluoroquinolone antibiotic
NORGESIC (orphenadrine): skeletal muscle relaxant
NOROXIN (norfloxacin): fluoroquinolone antibiotic
NORPACE, NORPACE CR (disopyramide): antiarrhythmic, Rx: ventricular dysrhythmias
NORPRAMIN (desipramine): a tricyclic antidepressant, Rx: depression
NOR-QD (norethindrone): oral contraceptive
NORTREL 1/35 (ethinyl estradiol/norethindrone): oral contraceptive
Nortriptyline (PAMELOR): a tricyclic antidepressant
NORVASC (amlodipine): calcium blocker, Rx: HTN, angina
NORVIR (ritonavir): protease inhibitor antiretroviral, Rx: HIV
NOVANTRONE (mitoxantrone): antineoplastic, Rx: prostate cancer, leukemia, MS
NOVOLIN R (regular insulin): hypoglycemic, Rx: diabetes
NOVOLOG (insulin aspart): hypoglycemic, Rx: diabetes
NOVOLOG MIX 70/30 (insulin mixture): hypoglycemic, Rx: diabetes
NUBAIN (nalbuphine): opioid agonist-antagonist analgesic, Rx: pain relief, pruritis
NUVIGIL (armodafinil): CNS stimulant, Rx: narcolepsy, shift-work sleep disorder
Nystatin (MYCOSTATIN): antifungal, Rx: candidiasis
NYSTOP (nystatin): antifungal, Rx: candidiasis

O

Octreotide (SANDOSTATIN): antidiarrheal, growth inhibitor, Rx: acromegaly, diarrhea associated with carcinoid & intestinal tumors
OCUFLOX OPTH (ofloxacin): fluoroquinolone antibiotic, Rx: conjunctivitis, corneal ulcers
Ofloxacin (FLOXIN): fluoroquinolone antibiotic
Olanzapine (ZYPREXA): antipsychotic, Rx: schizophrenia, bipolar disorder
Olopatadine (PATANOL): antihistamine, Rx: allergic conjunctivitis
Olsalazine (DIPENTUM): salicylate, Rx: ulcerative colitis
Omeprazole (PRILOSEC): suppresses gastric acid secretion, Rx: ulcers, esophagitis, GERD
OMNARIS (ciclesonide): intranasal steroid, Rx: allergic rhinitis
OMNICEF (cefdinir): cephalosporin antibiotic

OMNIHIST LA (chlorpheniramine/phenylephrine/methscopolamine): antihistamine/decongestant, Rx: rhinitis, colds

Ondansetron (ZOFTRAN): antiemetic, Rx: N&V secondary to chemotherapy, radiation, and surgery

OPANA (oxycodone): opioid analgesic, Rx: moderate to severe pain

Opium Tincture (morphine): opioid analgesic, Rx: diarrhea

OPTIVAR OPTH (azelastine): antihistamine, Rx: allergic conjunctivitis

ORAMORPH SR (morphine sulfate SR): opioid analgesic, Rx: moderate to severe pain

ORENCIA (abatacept): immunomodulator, Rx: rheumatoid arthritis

ORINASE (tolbutamide): oral hypoglycemic, Rx: diabetes

Orphenadrine (NORFLEX): skeletal muscle relaxant

ORTHO EVRA (norgestromin/ethinyl estradiol): contraceptive patch

ORTHO TRI-CYCLEN (norgestimate/ethinyl estradiol): oral contraceptive

ORTHO-CEPT 21, 28 (desogestrel/ethinyl estradiol): oral contraceptive

ORTHO-CYCLEN-21 (norgestimate/ethinyl estradiol): oral contraceptive

ORTHO-EST (estropipate): estrogen, Rx: menopause, osteoporosis

ORTHO-NOVUM (norethindrone/ethinyl estradiol): oral contraceptive

OVCON (norethindrone/ethinyl estradiol): oral contraceptive

OVIDE (malathion): head lice

OVRAL (norgestrel/ethinyl estradiol): oral contraceptive

Oxacillin: penicillin class antibiotic

Oxandrolone (OXANDRIN): anabolic steroid, Rx: osteoporosis, promotes weight gain

Oxaprozin (DAYPRO): NSAID analgesic, Rx: arthritis

Oxazepam (SERAX): benzodiazepine hypnotic, Rx: anxiety, alcohol withdrawal

Oxcarbazepine (TRILEPTAL): anticonvulsant, Rx: partial seizures

Oxiconazole (OXISTAT): topical antifungal

OXISTAT (oxiconazole): topical antifungal

Oxybutynin (DITROPAN): anticholinergic, antispasmodic, Rx: overactive bladder

Oxycodone (ROXICODNE, OXYCONTIN): opioid analgesic, Rx: moderate to severe pain

Oxycodone/ASA (PERCODAN): opioid analgesic/aspirin, Rx: moderate to severe pain

Oxycodone w/APAP (ENDOCET, PERCOCET, TYLOX): opioid analgesic/APAP, Rx: moderate to severe pain

OXYCONTIN (oxycodone SR): opioid analgesic, Rx: moderate to severe pain

OXYFAST (oxycodone): opioid analgesic, Rx: moderate to severe pain

Oxymetazoline (AFRIN): nasal decongestant, Rx: sinusitis, cold

Oxymetholone (ANADROL-50): anabolic steroid/androgen, Rx: anemia

Oxytocin (PITOCIN): stimulates uterine contractions, Rx: induction of labor

OXYTROL (oxybutynin): transdermal anticholinergic, antispasmodic, Rx: overactive bladder

P

PACERONE (amiodarone): antiarrhythmic, Rx: dysrhythmias

Paclitaxel (TAXOL): antineoplastic, Rx: ovarian CA, breast CA, Kaposi's sarcoma

Palivizumab (SYNAGIS): antiviral antibody, Rx: respiratory syncytial virus prevention

PAMELOR (nortriptyline): tricyclic antidepressant, Rx: depression

PANCREASE, PANCREASE MT (pancrelipase): pancreatic enzymes replacement, Rx: chronic pancreatitis, cystic fibrosis

Pancrelipase (CREON 5, PANCREASE): pancreatic enzymes replacement, Rx: chronic pancreatitis, cystic fibrosis

PANGESTYME (pancrelipase): pancreatic enzymes replacement, Rx: chronic pancreatitis, cystic fibrosis

Pantoprazole (PROTONIX): suppresses gastric acid, Rx: ulcers, GERD

PARAPLATIN (carboplatin): antineoplastic, Rx: ovarian CA

PARCOPA (carbidopa/levodopa): dopamine precursors, Rx: Parkinson's Disease

PAREGORIC (morphine): opioid analgesic, Rx: diarrhea

Paricalcitol (ZEMPLAR): vitamin D, Rx: hyperparathyroidism in chronic kidney disease

PARNATE (tranylcypromine): MAO inhibitor, Rx: depression

Paroxetine (PAXIL): SSRI antidepressant, Rx: depression, OCD, anxiety, PTSD

PASER (aminosalicylic acid): antibacterial, Rx: tuberculosis

PATANASE (olopatadine): nasal antihistamine, Rx: allergic rhinitis

PATANOL OPTH (olopatadine): antihistamine, Rx: allergic conjunctivitis

PAXIL (paroxetine): SSRI antidepressant, Rx: depression, OCD, anxiety, PTSD

PEDIAFLOR (fluoride): mineral, Rx: osteoporosis, dental caries

PEDIAPRED (prednisolone): glucocorticoid, Rx: allergies, arthritis, MS

PEDI-DRI (nystatin): topical antifungal antibiotic, Rx: fungal infection

PEGANONE (ethotoin): anticonvulsant, Rx: seizures

PEGASYS (peginterferon alfa-2a): antiviral, Rx: chronic hepatitis B&C

PEG-INTRON (peginterferon alpha-2b): antiviral, Rx: chronic hepatitis C

Pemirolast OPTH (ALAMAST): anti-inflammatory, Rx: allergic conjunctivitis

Pemoline (CYLERT): stimulant, Rx: ADHD

Penbutolol (LEVATOL): beta blocker, Rx: HTN

Penciclovir (DENAVER): topical antiviral, Rx: herpes, cold sores

Penicillamine (CUPRIMINE, DEPEN): chelator, antirheumatic, Rx: heavy metal poisoning, Wilson's disease, arthritis, cystinuria

Penicillin (VEETIDS): penicillin antibiotic

Pentamidine (PENTAM 300): antiprotozoal, Rx: P. carinii pneumonia

PENTASA (mesalamine): anti-inflammatory, Rx: ulcerative colitis

Pentazocine (TALWIN): opioid agonist-antagonist analgesic, Rx: moderate to severe pain

Pentazocine/Naloxone (TALWIN NX): opioid analgesic compound, Rx: pain

Pentazocine/APAP (TALACEN): opioid analgesic/APAP compound

Pentobarbital (NEMBUTAL): barbiturate hypnotic, Rx: insomnia, status epilepticus

Pentostatin (NIPENT): antineoplastic, Rx: hairy cell leukemia

Pentoxifylline (TRENTAL): reduces blood viscosity, Rx: intermittent claudication

PEPCID, PEPCID AC (famotidine): Histamine-2 blocker reduces gastric acid, Rx: ulcers, GERD

PERCOCET (oxycodone/APAP): opioid analgesic, Rx: moderate to severe pain

PERCODAN (oxycodone/aspirin): opioid analgesic, Rx: moderate to severe pain

PERFOROMIST (formoterol): long acting β -2 agonist bronchodilator, Rx: asthma, COPD

PERIACTIN (cyproheptadine): antihistamine, Rx: allergies

PERI-COLACE (docusate/senna): stool softener/laxative, Rx: constipation

Perindopril (ACEON): ACE inhibitor, Rx: HTN, CAD

Permethrin (ELIMITE, ACTICIN, NIX): parasiticide, Rx: head lice, scabies

Perphenazine (TRILAFON): antipsychotic, Rx: schizophrenia, hiccoughs

PERSANTINE (dipyridamole): platelet inhibitor, Rx: blood clots after heart valve replacement

Phenazopyridine (PYRIDIUM): urinary tract analgesic, Rx: relief of pain on urination

Phenelzine (NARDIL): MAO inhibitor, Rx: depression
PHENERGAN (promethazine): sedative/antiemetic, Rx: rhinitis, urticaria, N&V
Phenobarbital: barbiturate sedative, Rx: sedative, anticonvulsant
Phentermine (ADIPEX-P): amphetamine, Rx: obesity
Phenyl Salicylate/methenamine (PROSED/DS, UROGESIC BLUE): analgesic, Rx: urinary tract discomfort, cystitis, urethritis
Phenylephrine (NEO-SYNEPHRINE, SUDAFED PE): decongestant, Rx: colds, allergies
Phenytoin (DILANTIN): anticonvulsant, Rx: epilepsy
PHISOHEX (hexachlorophene): bacteriostatic skin cleanser
PhosLo (calcium): phosphate binder, Rx: hyperphosphatemia in ESRD
PHRENILIN, PHRENILIN FORTE (butalbital/acetaminophen): barbiturate sedative, analgesic, Rx: tension HA
Phytonadione (AQUAMEPHYTON): vitamin K1, Rx: coagulation disorders
Pilocarpine (SALAGEN): cholinergic, Rx: dry mouth, Sjogren's Syndrome
Pilocarpine OPTH (ISOPTO CARPINE, PILOCAR): cholinergic miotic, Rx: glaucoma
PIMA (potassium iodide): expectorant, Rx: asthma, bronchitis
Pindolol (VISKEN): beta blocker, Rx: HTN
Pioglitazone (ACTOS): oral hypoglycemic, Rx: diabetes
Piperacillin (PIPRACIL): penicillin class antibiotic
Pirbuterol (MAXAIR): beta bronchodilator, Rx: asthma, COPD
Piroxicam (FELDENE): NSAID analgesic, Rx: arthritis
PLAQUENIL (hydroxychloroquine): antimalarial agent, Rx: malaria, rheumatoid arthritis, lupus
PLAVIX (clopidogrel): platelet inhibitor, Rx: MI, stroke, atherosclerosis
PLETAL (cilostazol): platelet inhibitor, Rx: intermittent claudication
PNEUMOTUSSIN (guaifenesin/hydrocodone): expectorant/opioid antitussive, Rx: cough
PODOCON-25 (podophyllin): cytotoxic, Rx: genital warts
Podofilox (CONDYLOX): destroys warts, Rx: anogenital warts
Podophyllin (PODOCON-25): cytotoxic agent, Rx: genital warts
Polyethylene glycol (MIRALAX): osmotic laxative, Rx: constipation
POLYTRIM OPTH (trimethoprim/polymyxin): antibiotic compound, Rx: eye infections
PONSTEL (mefenamic acid): NSAID analgesic, Rx: mild to moderate pain
Posaconazole (NOXAFIL): antifungal
Potassium Citrate (UROCIT-K): urinary alkalinizer, Rx: kidney stones

Potassium iodide (PIMA): expectorant, Rx: asthma, bronchitis

Pramipexole (MIRAPEX): dopamine agonist, Rx: Parkinson's Disease, restless leg syndrome

PRAMOSONE (hydrocortisone/pramoxine): topical corticosteroid/ anesthetic compound, Rx: dermatoses

Pramoxine (PRAX, SARNA): topical anesthetic, Rx: relief of itching, pain

PRANDIMET (repaglinide/metformin): oral hypoglycemics, Rx: diabetes

PRANDIN (repaglinide): oral hypoglycemia, Rx: diabetes

PRAVACHOL (pravastatin): statin, Rx: hypercholesterolemia, CAD

Pravastatin (PRAVACHOL): statin, Rx: hypercholesterolemia, CAD

PRAX (pramoxine): topical anesthetic, Rx: relief of itching, pain

Prazosin (MINIPRESS): alpha-1 blocker, vasodilator, Rx: HTN

PRECOSE (acarbose): delays carbohydrate digestion, Rx: diabetes

Prednisolone (ORAPRED, PRELONE): glucocorticoid, Rx: adrenal insufficiency, allergies, RA, lupus, COPD

Prednisone (DELTASONE): glucocorticoid, Rx: adrenal insufficiency, allergies, RA, lupus, COPD

PRELONE (prednisolone): glucocorticoid, Rx: adrenal insufficiency, allergies, RA, lupus, COPD

PREMARIN (conjugated estrogens): hormones, Rx: menopause

PREMPRO (estrogens/progesterone): hormones, Rx: menopause

PREVACID (lansoprazole): gastric acid pump inhibitor, Rx: ulcers, esophagitis, GERD

PREVPAC (lansoprazole/amoxicillin/clarithromycin): H. Pylori treatment, Rx: duodenal ulcers

PREZISTA (darunavir): protease inhibitor antiretroviral, Rx: HIV

PRICARA (tapentadol): opioid analgesic, Rx: moderate to severe acute pain

PRIFTIN (rifapentine): antibiotic, Rx: tuberculosis

PRIOSEC (omeprazole): gastric acid pump inhibitor, Rx: ulcers, esophagitis, GERD

Primaquine: antimalarial agent, Rx: malaria

PRIMATENE MIST (epinephrine): bronchodilator, Rx: asthma

PRIMATENE ASTHMA (ephedrine/guaifenesin): decongestant/ expectorant, Rx: sinusitis/cough, bronchitis, asthma

PRIMAXIN (imipenem/cilastatin): carbapenem antibiotic, Rx: bacterial infections

Primidone (MYSOLINE): anticonvulsant, Rx: seizures

PRINIVIL (lisinopril): ACE inhibitor, Rx: HTN, CHF

PRINZIDE (lisinopril/HCTZ): ACE inhibitor/diuretic, Rx: HTN

PRISTIQ (desvenlafaxine): antidepressant, Rx: depression

PROAMATINE (midodrine): vasopressor, Rx: orthostatic hypotension

PRO-BANTHINE (propantheline): anticholinergic, inhibits gastric acid secretion, Rx: peptic ulcers

Probenecid: increases uric acid secretion, Rx: gout

Procainamide (PROCANBID): antiarrhythmic, Rx: dysrhythmias

PROCANBID (procainamide): antiarrhythmic, Rx: dysrhythmias

Procarbazine (MATULANE): antineoplastic, Rx: Hodgkin's disease

PROCARDIA, PROCARDIA XL (nifedipine): calcium channel blocker, Rx: angina, HTN

Prochlorperazine (COMPAZINE): phenothiazine antiemetic, Rx: N/V, anxiety

PROCRIT (epoetin alfa): stimulates red blood cell production, Rx: anemia in renal failure, HIV, and chemotherapy

PROCTOCORT (hydrocortisone): rectal corticosteroid, Rx: ulcerative colitis

PROCTOCREAM-HC (hydrocortisone/pramoxine): topical corticosteroid/anesthetic compound, Rx: dermatoses

PROCTOFOAM-HC (hydrocortisone): steroid anti-inflammatory, Rx: inflammation, itching

Progesterone (PROMETRIUM): Progestin, Rx: endometrial hyperplasia, secondary amenorrhea

PROGRAF (tacrolimus): immunosuppressant, Rx: transplant

PROPECIA (finasteride): Rx: male pattern hair loss

Promethazine (PHENERGAN): phenothiazine, Rx: rhinitis, allergic conjunctivitis, sedation, N/V

PROMETRIUM (progesterone): Progestin, Rx: endometrial hyperplasia, secondary amenorrhea

Propafenone (RYTHMOL): beta blocker, antiarrhythmic, Rx: PSVT, paroxysmal atrial fibrillation

Propantheline: anticholinergic, inhibits gastric acid secretion, Rx: peptic ulcers

Propoxyphene (DARVON): opioid analgesic, Rx: mild to moderate pain

Propoxyphene/APAP (DARVOCET): opioid analgesic/APAP, Rx: mild to moderate pain

Propranolol (INDERAL): beta blocker, Rx: HTN, prophylaxis of: angina, cardiac dysrhythmias, AMI, migraine H/A

Propylthiouracil: antithyroid, Rx: hyperthyroidism

PROSCAR (finasteride): antiandrogen, Rx: benign prostatic hypertrophy

PROSED/DS (methenamine/phenyl salicylate/methylene blue/benzoic acid/hyoscyamine): bactericidal, analgesic, antiseptic, Rx: urinary tract infections

PROSOM (estazolam): benzodiazepine hypnotic, Rx: insomnia

PROTONIX (pantoprazole): proton pump inhibitor, Rx: ulcers, GERD

PROTOPAM (pralidoxime): anticholinergic, Rx: organophosphate poisoning

PSORVENTIL, PROVENTIL HFA (albuterol): beta-2 agonist bronchodilator, Rx: COPD, asthma

PROVERA (medroxyprogesterone): hormone, Rx: amenorrhea, irregular vaginal bleeding

PROVIGIL (modafinil): stimulant, Rx: narcolepsy, daytime sleepiness

PROZAC (fluoxetine): a heterocyclic antidepressant

Pseudoephedrine (SUDAFED): decongestant, Rx: colds, allergies

PSORCON E (diflorasone): topical corticosteroid, Rx: dermatoses

Psyllium (KONSYL, METAMUCIL): fiber laxative, Rx: constipation

PULMICORT (budesonide): inhaled corticosteroid, Rx: asthma

PULMOZYME (dornase alfa): lytic enzyme, dissolves lung secretions, Rx: cystic fibrosis

Pyrazinamide: antibacterial, Rx: tuberculosis

PYRIDIUM (phenazopyridine): urinary tract analgesic, Rx: relief of pain on urination

Pyridostigmine (MESTINON): anticholinesterase, Rx: Myasthenia Gravis

Pyridoxine (vitamin B6): vitamin

Pyrimethamine (DARAPRIM): antiparasitic, Rx: toxoplasmosis, malaria

Q

QUALAQUIN (quinine): antimalarial, Rx: malaria

QUESTRAN (cholestyramine): bile acid sequestrant, Rx: antihyperlipidemic

Quetiapine (SEROQUEL): antipsychotic, Rx: schizophrenia, bipolar disorder

Quinapril (ACCUPRIL): ACE inhibitor, Rx: HTN, CHF

Quinapril/HCTZ (QUINARETIC, ACCURETIC): ACE inhibitor/diuretic, Rx: HTN

QUINARETIC (quinapril/HCTZ): ACE inhibitor/diuretic, Rx: HTN

Quinidine: antiarrhythmic, Rx: atrial fibrillation/flutter, malaria

Quinine: antimalarial, Rx: malaria

Quinupristin/Dalfopristin (SYNERCID): streptogramin antibiotic

QUIXIN OPTH (levofloxacin): fluoroquinolone, Rx: conjunctivitis

QVAR (beclomethasone): inhaled corticosteroid, Rx: asthma

R

Raloxifene (EVISTA): estrogen modulator, Rx: osteoporosis, breast CA prevention

Ramipril (ALTACE): ACE inhibitor, Rx: HTN, CHF post MI

RANEXA (ranolazine): anti-ischemic, Rx: chronic angina
Ranitidine (ZANTAC): histamine-2 blocker, Rx: ulcers, GERD, esophagitis

RAPAFLO (silodosin): alpha receptor agonist, Rx: benign prostatic hyperplasia

RAPAMUNE (sirolimus): immunosuppressive, Rx: renal transplant

RAZADYNE (galantamine): acetylcholinesterase inhibitor, Rx: Alzheimer disease

REBETOL (ribavirin): antiviral, Rx: Hepatitis C

REBETRON (interferon alfa/ribavirin): antivirals, Rx: Hepatitis C

Rebif (interferon-beta-1a): immunomodulator, Rx: multiple sclerosis

REFLUDAN (lepirudin): anticoagulant, Rx: heparin induced thrombocytopenia

REGLAN (metoclopramide): improves gastric emptying, Rx: heartburn, diabetic gastroparesis

RELAFEN (nabumetone): NSAID analgesic, Rx: arthritis

RELENZA (zanamivir): antiviral, Rx: influenza

RELISTOR (methylnaltrexone): GI tract opioid antagonist, Rx: opioid induced constipation

RELPAK (eletriptan): serotonin receptor agonist, Rx: migraine headaches

REMERON (mirtazapine): antidepressant, Rx: depression

REMICADE (infliximab): neutralizes tumor necrosis factor, Rx: Crohn's disease, arthritis, ulcerative colitis, psoriasis

RENAGEL (sevelamer): phosphate binder, Rx: hyperphosphatemia in renal disease

REQUIP (ropinirole): dopaminergic, Rx: Parkinson's disease, restless legs syndrome

RESCRIPTOR (delavirdine): antiretroviral, Rx: HIV

RESTASIS OPTH (cyclosporine): immunomodulator, Rx: increases tear production

RESTORIL (temazepam): benzodiazepine hypnotic, Rx: insomnia

RETEVASE (reteplase): thrombolytic, Rx: AMI

RETIN A (tretinoin): retinoid, Rx: acne

RETROVIR (zidovudine): antiretroviral agent, Rx: HIV

REVATIO (sildenafil): vasodilator, Rx: pulmonary artery hypertension

REYATAZ (atazanavir): antiretroviral, Rx: HIV

RHINOCORT (budesonide): nasal corticosteroid, Rx: allergic rhinitis

Ribavirin (REBETOL): antiviral, Rx: Hepatitis C

RIFADIN (rifampin): antibiotic, Rx: tuberculosis, prophylaxis for N. meningitidis

RIFAMATE (rifampin/isoniazid): antibiotics, Rx: tuberculosis

Rifampin (RIFADIN): antibiotic, Rx: tuberculosis, prophylaxis for N. meningitidis

Rifapentine (PRIFTIN): antibiotic, Rx: tuberculosis

RIFATER (isoniazid/rifampin/pyrazinamide): antibiotics, Rx: tuberculosis

Rifaximin (XIFAXAN): antibiotic, Rx: traveler's diarrhea, hepatic encephalopathy

Rimantadine (FLUMADINE): antiviral, Rx: influenza A virus

RIOMET (metformin): oral hypoglycemic, Rx: diabetes

Risedronate (ACTONEL): bone stabilizer, Rx: Paget's disease, osteoporosis

RISPERDAL (risperidone): antipsychotic, Rx: schizophrenia, autism, bipolar disorder

Risperidone (RISPERDAL): antipsychotic, Rx: schizophrenia, autism, bipolar disorder

RITALIN (methylphenidate): stimulant, Rx: attention deficit hyperactivity disorder in children, narcolepsy

Ritonavir (NORVIR): antiretroviral, Rx: HIV

RITUXAN (rituximab): antineoplastic, Rx: non-hodgkin lymphoma, RA

Rivastigmine (EXELON): cholinesterase inhibitor, Rx: dementia in Alzheimer's disease and Parkinson's disease

ROBAXIN (methocarbamol): skeletal muscle relaxant

ROBINUL, ROBINUL FORTE (glycopyrrolate): anticholinergic, Rx: peptic ulcers

ROBITUSSIN (guaifenesin): expectorant

ROCALTROL (calcitrol): vitamin D analog, Rx: hypocalcemia in renal disease, hypoparathyroidism, bone disease

ROCEPHIN (ceftriaxone): cephalosporin antibiotic

RONDEC- DM (dextromethorphan/brompheniramine/pseudoephedrine): antitussive/antihistamine/decongestant, Rx: cough

Ropinirole (REQUIP): dopaminergic, Rx: Parkinson's disease, restless leg syndrome

Rosiglitazone (AVANDIA): oral hypoglycemic, Rx: diabetes

ROWASA (mesalamine): anti-inflammatory, Rx: colitis, proctitis

ROXANOL (morphine): opioid analgesic, Rx: moderate to severe pain

ROXICET (oxycodone/APAP): opioid analgesic, Rx: moderate to severe pain

ROXICODONE (oxycodone): opioid analgesic, Rx: moderate to severe pain

ROZEREM (ramelteon): melatonin agonist, Rx: insomnia

RYNATAN (phenylephrine/chlorpheniramine/pyrilamine): antihistamine/decongestant compound, Rx: common cold

RYNATUSS: antitussive/decongestant/antihistamine, Rx: common cold

RYTHMOL SR (propafenone): antiarrhythmic,
Rx: PSVT, paroxysmal atrial fibrillation

S

SALAGEN (pilocarpine): cholinergic, Rx: dry mouth

SALIVART: saliva substitute, Rx: dry mouth

Salmeterol (SEREVENT): inhaled β -2 bronchodilator, Rx: asthma, COPD

Salsalate: NSAID analgesic, Rx: arthritis

SANDIMMUNE (cyclosporine): immunosuppressant agent, Rx: organ transplants

SANDOSTATIN (octreotide): antidiarrheal, growth inhibitor, Rx: acromegaly, diarrhea associated with carcinoid & intestinal tumors

Saquinavir (INVIRASE): antiretroviral, Rx: HIV

SARAFEM (fluoxetine): antidepressant, Rx: premenstrual dysphoric disorder

SAVELLA (milnacipran): selective serotonin/norepinephrine inhibitor, Rx: fibromyalgia

Scopolamine: anticholinergic, Rx: motion sickness, IBS, diverticulitis

SECONAL (secobarbital): barbiturate hypnotic, Rx: insomnia

SECTRAL (acebutolol): β -blocker, Rx: HTN, angina, dysrhythmias

Selegiline (ELDEPRYL): MAO inhibitor, Rx: Parkinson's disease

SEMPREX-D (acrivastine/pseudoephedrine): antihistamine/decongestant, Rx: allergic rhinitis

Senna Extract (SENOKOT): laxative, Rx: constipation

SENNAS, SENOKOT-S (senna/docusate): laxative/stool softener, Rx: constipation

SENOKOT, SENOKOT XTRA (senna): laxative, Rx: constipation

SENSIPAR (cinacalcet): reduces PTH levels, Rx: 2nd hyperparathyroidism in dialysis patients

SEPTRA, SEPTRA DS (trimethoprim/sulfamethoxazole): sulfa antibacterial compound

SEREVENT (salmeterol): inhaled β -2 bronchodilator, Rx: asthma, COPD

SEROQUEL (quetiapine): antipsychotic, Rx: schizophrenia, bipolar disorder

SEROSTIM (somatropin): hormone, Rx: AIDS wasting

Sertraline (ZOLOFT): antidepressant, Rx: depression, panic disorder, obsessive-compulsive disorder, premenstrual dysphoric disorder

SERZONE (nefazodone): antidepressant, Rx: depression

SILVADENE (silver sulfadiazine): topical antimicrobial agent, Rx: burn wounds

SIMCOR (niacin/simvastatin): cholesterol reducers, Rx: hypercholesterolemia, hypertriglyceridemia

Simethicone (MYLICON): Rx: relief of excess gas in GI tract

SIMPLY COUGH LIQUID (dextromethorphan): antitussive, Rx: cough

Simvastatin (Zocor): statin, Rx: hypercholesterolemia, CAD

SINEMET CR (carbidopa/levodopa): dopamine precursors, Rx: Parkinson's disease

SINEQUAN (doxepin): tricyclic antidepressant, Rx: depression, anxiety

SINGULAIR (montelukast): leukotriene receptor antagonist Rx: asthma, allergic rhinitis

SINUVENT (phenylephrine/guaifenesin): decongestant/expectorant, Rx: sinusitis, rhinitis

Sirolimus (RAPAMUNE): immunosuppressive, Rx: renal transplant

SKELAXIN (metaxalone): skeletal muscle relaxant

SLO-NIACIN (niacin CR): Rx: hypercholesterolemia, hypertriglyceridemia

Sodium Polystyrene Sulfonate (KAYEXALATE): Na/K exchange resin, Rx: hyperkalemia

SOMA (carisoprodol): muscle relaxant, Rx: muscle spasm

SONATA (zaleplon): hypnotic, Rx: insomnia

Sotalol (BETAPACE): antiarrhythmic, Rx: dysrhythmias

SPECTAZOLE (econazole): topical antifungal agent

SPECTRACEF (cefditoren): cephalosporin antibiotic

SPIRIVA (tiotropium): inhaled anticholinergic bronchodilator, Rx: COPD

Spirolactone (ALDACTONE): potassium-sparing diuretic, Rx: hyperaldosteronism, HTN, CHF

SPORANOX (itraconazole): antifungal

SSKI (potassium iodide): expectorant, Rx: asthma, bronchitis

STADOL NS (butorphanol): opioid agonist/antagonist analgesic, Rx: pain

STALEVO (levodopa/carbidopa/entacapone): dopamine precursors, Rx: Parkinson's disease

STARLIX (nateglinide): oral hypoglycemic, Rx: diabetes

Stavudine d4T (ZERIT): antiretroviral, Rx: HIV

STELAZINE (trifluoperazine): antipsychotic, Rx: schizophrenia

STRATTERA (atomoxetine): psychotherapeutic agent, Rx: ADHD

Streptomycin: aminoglycoside antibiotic, Rx: tuberculosis

STROMEKTOL (ivermectin): anti-parasite, Rx: intestinal nematodes

SUBOXONE (buprenorphine/naloxone): opioid analgesic/antagonist, Rx: opiate addiction

SUBUTEX (buprenorphine): narcotic analgesic, Rx: opiate addiction
Sucralfate (CARAFATE): anti-ulcer agent, Rx: duodenal ulcers
SULAR (nisoldipine): calcium channel blocker, Rx: HTN
Sulfacetamide OPTH (BLEPH-10): antibiotic, Rx: ocular infections
Sulfamethoxazole (SEPTRA): sulfa antibiotic
Sulfamylon (MAFENIDE): topical antibiotic, Rx: burn wounds
Sulfasalazine (AZULFIDINE): anti-inflammatory, Rx: ulcerative colitis, rheumatoid arthritis
Sulfisoxazole (GANTRISIN): sulfonamide antibiotic
Sulindac (CLINORIL): NSAID analgesic, Rx: arthritis
Sumatriptan (IMITREX): selective serotonin receptor agonist, Rx: migraine H/A
SUPRAX (cefixime): cephalosporin antibiotic
SURVANTA (beractant): lung surfactant in premature infants
SUSTIVA (efavirenz): antiretroviral, Rx: HIV
SYMBICORT (budesonide/formoterol): inhaled corticosteroid/ β -2 agonist, Rx: asthma, COPD
SYMBYAX (olanzapine/fluoxetine) antipsychotic/SSRI, Rx: bipolar disorder, resistant depression
SYMMETREL (amantadine): antiparkinson/antiviral, Rx: influenza A, Parkinson's disease
SYNAREL (naferelin): nasal gonadotropin-releasing hormone, Rx: endometriosis, precocious puberty
SYNERCID (quinupristin/dalfopristin): streptogramin antibiotic, Rx: bacterial infections
SYNTHROID (levothyroxine): thyroid hormone, Rx: Hypothyroidism

T

TAGAMET (cimetidine): inhibits gastric acid secretion, Rx: ulcers
TALACEN (pentazocine/APAP): opioid agonist/antagonist analgesic/APAP, Rx: pain
TALWIN NX (pentazocine/naloxone): opioid agonist/antagonist analgesic, Rx: pain
TAMBOCOR (flecainide): antiarrhythmic, Rx: PSVT, paroxysmal atrial fibrillation
TAMIFLU (oseltamivir): antiviral, Rx: influenza
Tamoxifen: antiestrogen, Rx: breast CA
TAPAZOLE (methimazole): antithyroid, Rx: hyperthyroidism
TARKA (trandolapril/verapamil): ACE inhibitor/calcium channel blocker, Rx: HTN
TEGRETOL, TEGRETOL XR (carbamazepine): anticonvulsant, Rx: seizures, trigeminal neuralgia
TEKTURNA (Aliskeren): direct renin inhibitor, Rx: HTN

telmisartan (MICARDIS): angiotensin II receptor agonist, Rx: HTN
Temazepam (RESTORIL): benzodiazepine hypnotic, Rx: insomnia
TEMOVATE (clobetasol): topical steroid anti-inflammatory, Rx: dermatoses
TENEX (guanfacine): centrally acting alpha agonist, Rx: HTN
TENORETIC (atenolol/Chlorthalidone): β -blocker/diuretic, Rx: HTN
TENORMIN (atenolol): β -1 blocker, Rx: HTN, angina, CAD
TENUATE (diethylpropion): stimulant, appetite suppressant, Rx: obesity
Terazosin (HYTRIN): alpha-1 blocker, Rx: HTN, benign prostatic hyperplasia
Terbinafine (LAMISIL): antifungal, Rx: nail fungus, ringworm
Terbutaline (BRETHINE): β -2 agonist bronchodilator, Rx: asthma, COPD
Terconazole (TERAZOL): antifungal, Rx: vaginal candidiasis
TESSALON (benzonatate): antitussive, Rx: cough
Testosterone (ANDRODERM, DEPO-TESTOSTERONE): androgen, Rx: hypogonadism
TESTRED (methyltestosterone): androgen, Rx: hypogonadism
Tetracycline (SUMYCIN): tetracycline antibiotic
TEVETEN (eprosartan): angiotensin II receptor inhibitor, Rx: HTN
Thalidomide (THALOMID): immunosuppressant, Rx: HIV, leprosy
THALOMID (thalidomide): immunosuppressant, Rx: HIV, leprosy
THEO-24 (theophylline): bronchodilator, Rx: asthma, COPD
THEOCRON (theophylline): bronchodilator, Rx: asthma, COPD
Theophylline (THEO-24, UNIPHYL): bronchodilator, Rx: asthma, COPD
THERA-GESIC (salicylate): topical NSAID analgesic, Rx: arthritis
Thiamin: vitamin B1, Rx: thiamin deficiency
Thioridazine: antipsychotic, Rx: schizophrenia
Thiothixene (NAVANE): antipsychotic, Rx: schizophrenia
THORAZINE (chlorpromazine): antipsychotic, Rx: schizophrenia
Thyroid (ARMOUR THYROID): thyroid hormone, Rx: hypothyroidism
THYROLAR (liotrix): thyroid hormone, Rx: Hypothyroidism
Tiagabine (GABITRIL): anticonvulsant, Rx: partial seizures
TIAZAC (diltiazem): calcium channel blocker, Rx: HTN, angina
Ticarcillin/clavulanate (TIMENTIN): penicillin class antibiotic
TICLID (ticlopidine): platelet inhibitor, Rx: stroke prophylaxis
Ticlodipine (TICLID): platelet inhibitor, Rx: stroke prophylaxis
TIGAN (trimethobenzamide): antiemetic, Rx: postoperative N/V
TIKOSYN (dofetilide): antiarrhythmic, Rx: atrial fibrillation
TIMENTIN (ticarcillin/clavulanate): penicillin class antibiotic
Timolol (BLOCADREN): β -blocker, Rx: HTN, MI, migraine
TIMOPTIC OPTH (timolol): β -blocker, Rx: glaucoma

TINACTIN (tolnaftate): topical antifungal, Rx: athlete's foot, jock itch

Tizanidine (ZANAFLEX): skeletal muscle relaxant

TOBI Solution Inhalation (tobramycin): aminoglycoside antibiotic, Rx: cystic fibrosis

TOBRADEX OPTH (tobramycin/dexamethasone): antibiotic/steroid, Rx: eye infection/inflammation

Tobramycin: aminoglycoside antibiotic

TOBREX OPTH (tobramycin): aminoglycoside antibiotic, Rx: ocular infections

TOFRANIL, TOFRANIL PM (imipramine): tricyclic antidepressant, Rx: depression, anxiety

Tolazamide: oral hypoglycemic, Rx: diabetes

Tolbutamide: oral hypoglycemic, Rx: diabetes

Tolmetin: NSAID analgesic, Rx: arthritis

Tolnaftate (TINACTIN): topical antifungal, Rx: athlete's foot, jock itch

Tolterodine (DETROL): urinary bladder antispasmodic,

Rx: overactive bladder

TOPAMAX (topiramate): anticonvulsant, Rx: seizures, migraine

TOPROL-XL (metoprolol): cardioselective beta blocker, Rx: HTN, angina, CHF

TORADOL (ketorolac): NSAID analgesic, Rx: acute pain

Torsemide (DEMADEX): loop diuretic, Rx: HTN, edema in CHF, kidney disease, liver disease

TOVIAZ (fesoterodine): anticholinergic, Rx: overactive bladder

Tramadol (ULTRAM): opioid analgesic, Rx: moderate to severe pain

TRANDATE (labetalol): beta blocker, Rx: hypertension

Trandolapril (MAVIK): ACE inhibitor, Rx: HTN, CHF post MI

TRANSDERM-SCOP (scopolamine): anticholinergic antiemetic, Rx: motion sickness prophylaxis

TRANXENE (clorazepate): benzodiazepine hypnotic, Rx: anxiety, seizures

TRAVATAN OPTH (travoprost): prostaglandin agonist, Rx: glaucoma

Trazodone: antidepressant, Rx: depression, insomnia

TRECTOR (ethionamide): antibiotic, Rx: tuberculosis

TRENTAL (pentoxifylline): reduces blood viscosity, Rx: intermittent claudication

Triamcinolone (KENALOG): topical corticosteroid, Rx: dermatoses

Triamcinolone (AZMACORT): inhaled corticosteroid, Rx: asthma

Triamterene/HCTZ (DYAZIDE, Maxzide): diuretics, Rx: HTN, water retention

Triazolam (HALCION): benzodiazepine hypnotic, Rx: insomnia

TRICOR (fenofibrate): lipid regulator, Rx: hyperlipidemia

Trifluoperazine (STELAZINE): antipsychotic, Rx: schizophrenia

TRIGLIDE (fenofibrate): lipid reducer, Rx: hyperlipidemia

Trihexyphenidyl (ARTANE): anticholinergic, Rx: Parkinson's disease

TRILEPTAL (oxcarbazepine): anticonvulsant, Rx: partial seizures

Trimethoprim: antibiotic, Rx: UTI

Trimethoprim/Sulfamethoxazole (BACTRIM, SEPTRA): sulfa antibiotic compound

TRIZIVIR (abacavir/lamivudine/zidovudine): antiretrovirals, Rx: HIV infection, hepatitis B

TRUSOPT OPTH (dorzolamide): decreases intraocular pressure
Rx: glaucoma

TRUVADA (emtricitabine/tenofovir): antiretrovirals, Rx: HIV

TUSSAFED HC (hydrocodone/phenylephrine/guaifenesin): opioid antitussive/decongestant/expectorant

TUSSI-ORGANIDIN (guaifenesin/codeine): expectorant/opioid antitussive, Rx: cough

TUSSIONEX (hydrocodone/chlorpheniramine): opioid antitussive/antihistamine, Rx: coughs, allergies, cold

TYGACIL (tigecycline): glycyclcline antibiotic

TYLENOL w/Codeine (APAP, codeine): opioid with APAP analgesic, Rx: mild to moderate pain

TYLENOL SINUS CONGESTION (phenylephrine/guaifenesin/APAP): decongestant/expectorant/analgesic, Rx: sinusitis, rhinitis, colds

TYZEKA (telbivudine): antiviral, Rx: Hepatitis B

U

ULORIC (febuxostat): xanthine oxidase inhibitor, Rx: gout

ULTRACET (tramadol/APAP): opioid analgesic compound, Rx: acute pain

ULTRAM (tramadol): opioid analgesic, Rx: moderate to severe pain

ULTRASE, ULTRASE MT (pancrelipase): pancreatic enzymes replacement, Rx: chronic pancreatitis, cystic fibrosis

ULTRAVATE (halobetasol): topical corticosteroid, Rx: dermatoses

UNIPHYL (theophylline): bronchodilator, Rx: asthma, COPD

UNIRETIC (moexepiril/HCTZ): ACE inhibitor/diuretic, Rx: HTN

UNISOM (doxylamine): antihistamine sedative, Rx: insomnia

UNIVASC (moexipril): ACE inhibitor, Rx: HTN

URECHOLINE (bethanechol): cholinergic, Rx: urinary retention

URIMAX (methenamine/salicylate/methylene blue/hyoscyamine): bactericidal, analgesic, antispasmodic, Rx: urinary tract infections

UROXATRAL (alfuzosin): smooth muscle relaxant, Rx: BPH

UROCIT-K (potassium citrate): urinary alkalizer, Rx: kidney stones

Ursodiol (ACTIGALL): bile acid, Rx: gallstones

- Valacyclovir (VALTREX):** antiviral, Rx: herpes, shingles
- VALCYTE (valganciclovir):** antiviral, Rx: cytomegalovirus
- VALIUM (diazepam):** benzodiazepine hypnotic, Rx: anxiety, muscle spasms, seizures, alcohol withdrawal
- Valproic acid (DEPAKENE):** anticonvulsant, Rx: seizures, migraines, mania
- Valrubicin (VALSTAR):** antineoplastic, Rx: bladder cancer
- Valsartan (DIOVAN):** angiotensin II receptor inhibitor, Rx: HTN, CHF, post-MI
- VALTREX (valacyclovir):** antiviral, Rx: herpes, shingles
- VANCOGIN (vancomycin):** antibiotic
- Vancomycin (VANCOGIN):** antibiotic
- VANTIN (cefepodoxime):** cephalosporin antibiotic, Rx: bacterial infections
- VAPRISOL (conivaptan):** increased water excretion, Rx: hyponatremia
- VASERETIC (enalapril/HCTZ):** ACE inhibitor/diuretic, Rx: HTN
- VASOTEC (enalaprilat):** ACE inhibitor, Rx: HTN, CHF
- Venlafaxine (EFFEXOR):** antidepressant, Rx: depression, anxiety, panic disorder
- VENOFER (iron sucrose):** Rx: iron deficiency anemia in chronic kidney disease and dialysis
- VENTOLIN (albuterol):** β -2 agonist bronchodilator, Rx: asthma, COPD
- Verapamil (CALAN, COVERA-HS, ISOPTIN):** calcium channel blocker, Rx: angina, PSVT, HTN
- VERELAN, VERELAN PM (verapamil):** calcium blocker, Rx: angina, hypertension, PSVT
- VERMOX (mebendazole):** anthelmintic, Rx: intestinal worms
- VESICARE (solifenacin):** anticholinergic, Rx: overactive bladder
- VFEND (voriconazole):** antifungal
- VIAGRA (sildenafil):** vasodilator, Rx: male erectile dysfunction
- VIBRAMYCIN (doxycycline):** tetracycline antibiotic,
- VICODIN, VICODIN ES (hydrocodone/APAP):** narcotic analgesic compound, Rx: moderate to severe pain
- VIDEX (didanosine):** antiretroviral, Rx: HIV
- VIGAMOX OPTH (moxifloxacin):** fluoroquinolone antibiotic, Rx: bacterial conjunctivitis
- VIMPAT (lacosamide):** anticonvulsant, Rx: partial onset Sz
- VIKASE (pancrelipase):** pancreatic enzymes replacement, Rx: chronic pancreatitis, cystic fibrosis
- VIRACEPT (nelfinavir):** antiretroviral, Rx: HIV
- VIRAMUNE (nevirapine):** antiretroviral, Rx: HIV

VIREAD (tenofovir): antiretroviral, Rx: HIV, hepatitis B

VISKEN (pindolol): beta blocker, Rx: HTN

VISTARIL (hydroxyzine): antihistamine, Rx: pruritis, sedation, anxiety

VIVELLE (estradiol): transdermal estrogen, Rx: symptoms of menopause

VOLTAREN (diclofenac): NSAID analgesic, Rx: arthritis, pain

VYTORIN (ezetimibe/simvastatin): antihyperlipidemics, Rx: high cholesterol

W

Warfarin (COUMADIN): anticoagulant, Rx: A-Fib, thrombosis

WELCHOL (colesevelam): bile acid sequestrant, Rx: hyperlipidemia

WELLBUTRIN (bupropion): antidepressant, Rx: depression

X

XALATAN OPTH (latanoprost): reduces intraocular pressure, Rx: glaucoma

XANAX, XANAX XR (alprazolam): benzodiazepine, Rx: anxiety disorder, panic attacks

XELODA (capecitabine): antineoplastic, Rx: breast cancer, colorectal cancer

XENICAL (orlistat): lipase inhibitor, Rx: obesity

XIFAXAN (rifaximin): antibiotic, Rx: traveler's diarrhea, hepatic encephalopathy

XOPENEX (levalbuterol): inhaled β -2 bronchodilator, Rx: asthma, COP

Y

YASMIN 28 (drospirenone/estradiol): oral contraceptive

YAZ (drospirenone/estradiol): oral contraceptive

YODOXIN (iodoquinol): amebicide, Rx: intestinal amebiasis

Z

ZADITOR OPTH (ketotifen): antihistamine, Rx: allergic conjunctivitis

Zaleplon (SONATA): hypnotic, Rx: insomnia

ZANAFLEX (tizanidine): skeletal muscle relaxant

ZARONTIN (ethosuximide): anticonvulsant, Rx: absence Sz

ZAROXOLYN (metolazone): thiazide diuretic, Rx: HTN, fluid retention

ZEBETA (bisoprolol): β -blocker, Rx: HTN

ZEGERID (omeprazole/sodium bicarbonate): proton pump inhibitor compound, Rx: stress ulcer, ulcers, GERD

ZEMPLAR (paricalcitol): vitamin D analog, Rx: hyperparathyroidism in chronic kidney disease
ZERIT (stavudine d4T): antiretroviral, Rx: HIV
ZESTORETIC (lisinopril/HCTZ): ACE inhibitor/diuretic, Rx: HTN
ZESTRIL (lisinopril): ACE inhibitor, Rx: HTN, CHF
ZETIA (ezetimibe): antihyperlipidemic, Rx: hypercholesterolemia
ZIAC (bisoprolol/HCTZ): beta blocker/diuretic, Rx: HTN
ZIAGEN (abacavir): antiretroviral, Rx: HIV
Zidovudine (AZT, RETROVIR): antiretroviral, Rx: HIV
ZINACEF (cefuroxime): cephalosporin antibiotic
Zinc oxide: topical protectant, Rx: diaper rash
ZITHROMAX (azithromycin): macrolide antibiotic
ZOCOR (simvastatin): statin, Rx: hypercholesterolemia, CAD
ZOFRAN (ondansetron): 5-HT3 receptor agonist, Rx: N/V due to chemotherapy, radiation and surgery
ZOLADEX (goserelin): gonadotropin-releasing hormone agonist, Rx: endometriosis, prostate CA, breast CA
ZOLOFT (sertraline): antidepressant, Rx: depression, OCD, social anxiety disorder
Zolpidem (AMBIEM): hypnotic, Rx: insomnia
ZOMETA (zoledronic acid): bisphosphonate, Rx: hypercalcemia of malignancy
ZOMIG (zolmitriptan): serotonin receptor agonist, Rx: migraine headache
ZONEGRAN (zonisamide): anticonvulsant, Rx: partial seizures
Zonisamide (ZONEGRAN): anticonvulsant, Rx: partial seizures
ZOSYN (piperacillin/tazobactam): penicillin class antibiotic
ZOVIRAX (acyclovir): antiviral, Rx: herpes, shingles, chickenpox
ZYBAN (bupropion): antidepressant, Rx: smoking cessation
ZYFLO (zileuton): bronchospasm inhibitor, Rx: asthma
ZYLOPRIM (allopurinol): xanthine oxidase inhibitor, Rx: gout
ZYMAR OPTH (gatifloxacin): fluoroquinolone, Rx: bacterial conjunctivitis
ZYPREXA, ZYPREXA ZYDIS (olanzapine) antipsychotic, Rx: schizophrenia, bipolar disorder
ZYRTEC (cetirizine): antihistamine, Rx: allergy, hives, asthma
ZYRTEC D (cetirizine/pseudoephedrine): antihistamine/decongestant, Rx: allergic rhinitis
ZYVOX (linezolid): oxazolidinone antibiotic

Abbreviations

1°	primary, first degree	DMARD	Disease-Modifying Antirheumatic Drug
2°	secondary, second degree		Dx
3°	tertiary, third degree	EPS	Extra Pyramidal Symptoms (dystonias, akathisia, etc.)
≤	less than; less than or equal to		Fem ♀
≥	greater than; greater than or equal to	Fx	fracture
≅	approximately equal to	g, gm	gram
α	alpha	GI	gastrointestinal
a	before	gr	grain
abd	abdomen	gtt	drop
ACE	angiotensin-converting enzyme	GU	genitourinary
ADD	Attention Deficit Disorder	H/A	headache
AIDS	acquired immune deficiency syndrome	HCTZ	hydrochlorothiazide
AMI	acute myocardial infarction	HIV	human immunodeficiency virus
APAP	acetaminophen	HTN	hypertension
APE	acute pulmonary edema	Hx	history
ARC	AIDS Related Complex	ICP	intracranial pressure
ASA	acetylsalicylic acid (aspirin)	IHSS	idiopathic hypertrophic subaortic stenosis
β	beta	IM	intramuscular
ċ	with	IO	intraosseous
c/o	complaining of	*∕	*unapproved abbreviation: write out "International Units"
CA	cancer	IV	intravenous
CAO	conscious, alert, oriented	IVP	IV push
CHF	congestive heart failure	KCl	potassium chloride
COPD	chronic obstructive pulmonary disease	kg	kilogram (1000 grams; 2.2 pounds)
cx	chest	L	liter
D₅W	Dextrose 5% in Water	LOC	level of consciousness
dL	deciliter (1/10 of 1 liter; 100 mL)	M ♂	male

MAOI	monoamine oxidase inhibitor	̄	without
mcg	microgram (1/1,000,000 of 1 gram)	s/s	signs and symptoms
mEq	milliequivalent	SL	sublingual
mg	milligram (1/1,000 of 1 gram)	SQ	subcutaneous
MI	myocardial infarction	SW	sterile water
min	minute(s)	Sz	seizure
mL	millileter (1/1,000 of 1 liter; 1 mL)	TB	tuberculosis
ms	write out morphine	TCA	tricyclic antidepressant
MgSO₄	write out magnesium sulfate	Torr	millimeters mercury (mm Hg.)
MSO₄	write out morphine sulfate	*X	*write out "unit"
N&V, N/V	nausea and vomiting	URI	upper respiratory infection
NAD	no acute distress, no apparent distress	UTI	urinary tract infection
NG	nasogastric	UV	umbilical vein, ultraviolet
NR	Normosol-R	VF	ventricular fibrillation
NS	Normal Saline (0.9% NaCl)	VT	ventricular tachycardia
NSAID	Non-Steroidal Anti- Inflammatory Drug	WPW	Wolff-Parkinson-White (syndrome)
NTG	nitroglycerin	↓	decreased
̄p	after	↑	increased
PO	by mouth, orally	μ	micro (1/1,000,000)
prn	as needed	Δ	change (delta)
PR	per rectum; rectally	⊖	no, none, null
PSVT	paroxysmal supra- ventricular tachycardia		
̄q	every		
RL	Ringer's lactate		
Rx	prescribed for, used for		



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