OXYGEN

* Used for any suspected cardiopulmonary emergency*
  Used in all ACLS algorithms

Indications: Acute Chest Pain
             Hypoxia
             Cardiopulmonary Arrest
             Pulmonary Edema

Dosage:

<table>
<thead>
<tr>
<th>Device</th>
<th>Flow Rate</th>
<th>02%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasal Cannula</td>
<td>1-6 L/min</td>
<td>22-44</td>
</tr>
<tr>
<td>Venturi Mask</td>
<td>4-8 L/min</td>
<td>24-40</td>
</tr>
<tr>
<td>Non-rebreather</td>
<td>8-12 L/min</td>
<td>80-95</td>
</tr>
<tr>
<td>Bag Value Mask</td>
<td>15 L/min</td>
<td>100</td>
</tr>
</tbody>
</table>

Machanism of Action: Improves tissue oxygenation and hemoglobin saturation when circulation is maintained.

Precautions: Oxygen toxicity > 3-5 Days.
             Rare with short-term use – make sure high flow O2 delivered adequately.

Note: Do not withhold oxygen from patients with COPD if signs of hypoxia are present.
      Be prepared to intubate and assist ventilation.
      O2 adequacy checked by End Tidal CO2 detector & pulse oximeter. Pulse oximetry should be kept > 95%.
EPINEPHRINE

* Used for all pulse-less rhythms*

Indications: Patients in cardiac arrest or Symptomatic Bradycardia.

Dosages:

a. Standard: 1mg IVP (10ml of 1:10,000 soln.) repeat q 3-5 min.
b. Symptomatic Bradycardia: 2-10 mcg/min (1mg in 500 ml) IV drip. Use after Atropine & Pacing.
c. Endotracheal: 2-2 ½ mg & followed by 12-20 ml NS.

Mechanism of Action: $\alpha$ – adrenergic receptor – stimulating properties.

*Increases coronary perfusion pressures
*Increases myocardial & cerebral blood flow
*Increase in SVR – systemic Vascular Resistance (Vasoconstriction & ↑ Blood Pressure)
*Increases electrical activity in the myocardium
*Increases Automaticity

Precautions: High intravenous-dose may exacerbate post resuscitation myocardial dysfunction.
Increases myocardial oxygen demand.
Continuous infusions should be administered by central venous Access to reduce the risk of extravasation.

Algorithms: Vfib
V tach without pulse
Asystole
PEA
Refractory Bradycardia
VASOPRESSIN (ADH)
(Pitressin)

*Naturally occurring antidiuretic hormone*

**Indications:**
Increases coronary perfusion pressure increasing vital organ flow and return of spontaneous circulation.
Effective vasopressor increasing blood pressure.
Increases cerebral oxygen delivery.

**Dosage:**
40 U IVP – One time dose
* Note half life is 10-20 minutes*

**Mechanism of Action:**
In unnaturally high doses it acts as a non-adrenergic peripheral vasoconstrictor.

**Note:**
Vasopressin is recommended for a one time does and may take 10 minutes to see beneficial results. May be useful for hymodynamic support in vasodilatory shock as a continuous infusion if standard therapy is inadequate.

**Algorithms:**
V-Fib
V-Tach no pulse
Asystole
PEA
NOREPINEPHRINE
(LEVOPHED)

*Severe hypotension systolic B/P <70

Indications:
Symptomatic bradycardia
(Syst B/P <70mmHG)
Last resort for management of ischemic
Heart disease and stroke.
Cardiogenic Shock
Increase Cardiac Output & Blood Pressure

Dosage:
0.5-1.0 mcg/min titrate up to 30 mcg/min
(Mix 4 mg in 250ml D5W or D5NS-16mcg/ml)

Mechanisms
Of
Dominant Alpha Activity
Action:
Potent Vasoconstrictor renal & mesenteric.

Precaution:
Increases Oxygen demand
May induce arrhythmia’s
May cause hypotension due to hypovolemia
Causes tissue necrosis if exacerbates.
DOPAMINE
(INTROPIN)

*Significant Hypotension B/P 70-110 and S/S of shock

Indications:  Correct hypotension.
              Cardiogenic Pulmonary Edema
              Symptomatic Bradycardia with hypotension
              Cardiogenic Shock
              Renal Failure

Dosage:

1. 5-10 mcg/kg/min  Cardiac Dose
   ↑force of myocardial contraction & cardiac output.

&

2. 10-20 mcg/kg/min  VASOPRESSOR DOSE
   Alpha dominant - ↑SVR Preload & HR

Mechanism of Action:

3. Above 20 mcg/kg/min effects similar to LEVOPHED

Precautions:  Should not be used in:
              Hypotension due to hypovolemia
              Uncorrected tachy-arrhythmia
              Excessive vasoconstriction
              Do not mix with Sodium Bicarb
              Or Alkaline Solutions
              Not to confuse with Dobutamine

Algorithms:

Refractory Bradycardia with hypotension
Hypotension & Shock
DOBUTAMINE
(Dobutrex)

*Used for “pump” problems with Systolic B/P 90-100

Indications: Used for heart pump problems
(CHF, Pulmonary Congestion *
Cardiogenic Pulmonary Edema)

Dosage: 5-20 meg/kg/min IV Infusion
Titrate so heart does not increase greater than 10% from baseline.

Mechanisms
Of Has less cardiac effects than Dopamine
Action: Strong Beta 1 Stimulant ↑myocardial contractility –
↑Blood Pressure & ↑Renal Perfusion
Slight Beta 2
(Some vasodilation ↓ ventricular afterload & ↑HR)

Precautions: Should not be used in:
Uncorrected Tachycardia
Systolic B/P <90
Doses > 40 mcg/kg may be toxic
Signs of myocardial ischemia
Hypovolemia
Not to confuse with Dopemine

Algorithms: Acute Pulmonary Edema, Hypotension & Shock
ATROPINE

Indications: Symptomatic Bradycardia
Bradycardia with PVC’s
Asystole
PEA with rate < 60 after Epinephrine
May be useful in AV Blocks
› 1st Degree AVB
› 2nd Degree type I (Wenchbach)
  * Watch carefully for slowing

Dosage: 0.5 – 1.0 mg IV q 3-5 min for Bradycardia
1.0 mg for Asystole & PEA
  (Total 3-4 mg)

Mechanisms Of Action: Accelerates the HR by blocking parasympathetic nervous system. Enhances sinus node automaticity & AV conduction. Effects of Atropine on the heart is almost entirely to its electrical activity.

Precautions: Increases myocardial ischemia & hypoxia
Use caution in the AMI
Decreases the body’s vagal reflexes
Increases myocardial oxygen demand
Avoid in hypothermia due to increase ischemia

Algorithms: Asystole
Bradycardia with Hypotension
PEA (rate < 60)
AMIODARONE (CORDARONE)

Indications: Antiarhythmic VF and VT no pulse.

Dosage: VT/VF – 300mg rapid in 20-30ml NS or D5W
Atrial & Ventricular Arrhythmia’s – Adults initially
150mg over 10 min. followed by
1mg/min for 6 hours then 0.5mg/min

Mechanism of Action: α & β-adrenergic blocking properties.
Prolongs action potential duration
Decrease AV conduction & sinus node function

Precautions: Hypotension
2nd & 3rd degree AV block
Bradycardia induced syncope
Severe hepatic disease
Caution in thyroid disease

Note: If HR ↓ 60 or B/P ↓ 90 mmHg withhold drug and call physician.
Inform family against photosensitivity to sunlight
Bluish skin color will disappear when drug is discontinued.
Do not use OTC nasal decongestants without physician approval.

Algorithm: VT/VF
PSVT
Atrial Tachycardia
LIDOCAINE

Indications:
- Ventricular Ectopy
- Hemodynamically compromising PVC’s
- Cardiac Arrest VF – Pulseless VT
- Stable VT wide complex tachycardia of uncertain type.

Stable V-tach meds first

Dosage:
- Hemodynamically Stable Initial Treatment
  1.0 – 1.5 mg/kg/IVP
- Max 3mg/kg
- Followed by Maintenance Infusion:
  1 – 4 mg/min
- May be administered endotracheally 2-2 ½ x dose

Mechanisms Of Action:
- Shortens the refractory period (QT Interval) and suppresses automaticity. ↓ irritability.

Precautions
- Prophylactic use in AMI not recommended
- 3rd Degree AV Block
- Bradycardia related to PVC’s *
- Idioventricular rhythm
- Lidocaine toxicity (can cause VT)

Algorithms:
- Vfib/Vtach no pulse
- Wide Complex Tachycardia
- Stable→Unstable Vtach with pulse
PROCAINAMIDE
(Pronestyl)

Indications:
- Recurrent VT not controlled by Lidocain
- Refractory PSVT
- Refractory VT/Pulse-less VT
- Stable wide-complex tachycardia of unknown origin
- Afib with rapid rate such as WPW

Dosage:
- IV infusion 100mg over 5 minutes (20mg/min)
- Maintenance Infusion 1-4 mg/min
- To prepare infusion: Mix 1 gram/250ml (4mg/ml)
- *End points for stopping IV bolus
  - arrhythmia suppression
  - hypotension
  - QRS widens > 50%

Mechanism of Action:
- Reduces the automaticity of all pacemakers
- Slows intra-ventricular conduction
- Suppresses Ventricular ectopy

Precautions:
- Patient with cardiac or renal dysfunction
- Hypotension with bolus administration
- Should not be used in:
  - Complete AV Block
  - Digitalis toxicity
  - Prolonged QT interval
  - Torsades de Points.

Algorithms:
- VF/VT no pulse
- VT with pulse stable & unstable
- Wide complex Tach stable & unstable
- Afib – A flutter stable
- PEA
ADENOSINE  
(Adenocard)  
*Primary effect is to slow AV conduction*

**Indications:**  
Paroxysmal supraventricular tachycardia (PSVT/SVT)  
Narrow Complex  
Wide complex tachycardia of uncertain type  
Chemical Cardioversion (c/o of CP, N&V, SOB, Flush)  
Can cause temporary asystole

**Dosage:**  
6mg IV slam (1-3 sec)  
After 1-2 minutes if cardioversion doesn’t occur  
12 mg IVP  
May give second  
12 mg IVP

**Mechanisms:**  
Interrupts reentry pathways in the AV node  
Of  
Slows the conduction time through the AV node  
Action:  
restoring NSR.  
Half-line less than 5 seconds.

**Precautions:**  
2nd or 3rd Degree Block – SSS (unless artificial pacer Working)  
Asthmatic may experience bronchospasms.  
Can cause hypotension  
Chest pain  
Prolonged effects in denervated heart transplants

**Drug-Drug Interaction:**  
Tegretol may increase heart block  
Dipridamole potentiates effects of Adenosine  
Theophylline or caffeine may lower adenosine effects.  
Nicotine may increase tachycardia rise

**Algorithms:**  
V-Tach with a pulse  
Narrow complex paroxysmal SVT
DIGOXIN

Indications: Paroxysmal Atrial Tachycardia – Stable
Atrial Fibrillation/Atrial Flutter
Chronic Treatment of CHF

Dosage: Loading: 0.5 – 1.0 mg IV or PO in divided
Doses/24h
Maint. 0.125 – 0.5 mg IV or PO daily
Consider body size & renal function

Therapeutic Range: 0.5 – 2.0 mg/ml
A patient can be dig toxic even with levels below normal
Range due to amount of digitalis glycoside in the
myocardium not the circulating blood levels.
› Digibind can treat serious toxicity

Mechanisms Of Action:
↓ conduction through the AV node
+ inotropic effect
↓ ventricular response in Afib, Aflutter, & PSVT
↑ Cardiac Output

Precautions: Monitor for toxicity more frequent in electrolyte
imbalances.
Calcium used simultaneously with calcium may precipitate
dysrhythmias.
Simultaneous use of verapamil, propranolol, &
procainamide may cause additive cardiac effects.

Signs & Symptoms of Toxicity:
Excessive slowing of heart rate
Dysrhythmias & changes in mental status
N&V, diarrhea, & visual disturbances

Algorithm: Afib and Aflutter Stable
Narrow SVT
MAGNESIUM

Dosage: In recurrent or refractory VF/VT
1-2 grams diluted in 100ml D5W IVP over 1-2 min.
In documented hypomagnesiums:
1-2 grams diluted in 50-100 ml of D5W over 60 min.

Indications: Torsades de Pointes – Drug Induced
Suspected hypomagnesium
Severe recurrent or refractory Vfib

Mechanisms of Action: Plays important role in neurotransmission and muscular excitability.

Precautions: Bradycardia
Hypotension
Dysrhythmias
Paralysis
Cardiac Arrest

Should not be used in:
Heart Block
Caution in renal insufficiency

Algorithm: Vfib & Pulse-less Vtach
CALCIUM CHLORIDE

Indications:
- Acute Hyperkalemia
- Acute Hypocalcemia
- Overdose of a calcium channel blocker
- Multiple infusions of processed blood

Dosage:
- 2-4 mg/kg (10% solution) slow IV push
- May be repeated at ten minute intervals
- * High doses may be detrimental

Mechanisms
  Of
  Action:
  Increases myocardial contractility and maintains cell membrane & capillary permeability

Precautions:
- Bradycardia with rapid infusion
  Should not be used in:
  - Patients with renal calculi
  - Patients receiving digitalis causes toxicity
  - Precipitates with bicarb
## NITROPRUSSIDE
*(Nipride)*

<table>
<thead>
<tr>
<th>Indications:</th>
<th>Hypertension Emergencies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CHF</td>
</tr>
<tr>
<td></td>
<td>Cardiogenic Shock</td>
</tr>
<tr>
<td></td>
<td>AMI if Nitroglycerin not effective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dosage:</th>
<th>0.1 – 5.0 mcg/kg/min IV Infusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared:</td>
<td>50 – 100mg in 250 ml of D5W</td>
</tr>
<tr>
<td>Deteriorates when exposed to light.</td>
<td></td>
</tr>
</tbody>
</table>

| Mechanism Of Action:                   | Potent rapid acting peripheral vasodilator |
|                                       | Reduces peripheral arterial pressure   |
|                                       | (preload & afterload)                  |

| Precautions:                           | Decreases cerebral perfusion          |
|                                       | Causes hypotension especially with hypovolemia |
|                                       | Caution in renal & hepatic disease    |
|                                       | May cause cyanide toxicity – confusion – convulsions |
|                                       | (takes 7 days to get levels back)     |

| Note:                                  | Compatible with NS but best to give in D5W due to sodium |
|                                       | Retention and ↑ B/P. Easier to treat high sugars than sodium. |
**NITROGLYCERIN**

**Indication:** Ischemic Chest Pain
AMI
CHF
Hypertension Emergencies

**Dosage:**
*With Chest Pain:*
0.3 – 0.5 mg SL or Spray
may repeat every 3-5 min. total of 1.2 mg
*In Congestive Heart Failure:*
10-20 mcg/min IV Infusion
Prepared: 50-100 mg in 250ml in D5W

**Mechanisms:**
Smooth muscle relaxant
Of
Reduces cardiac workload (preload)
Action
Dilates coronary arteries
Dilates systemic arteries
(May reduce BP and relieve pain in AMI)

**Precautions:**
Should not be used in:
Cerebral hemorrhage
Hypotension
Suspected tamponade or pericarditis
Avoid with Bradycardia
Avoid with extreme Tachycardias.

**Note:**
May cause throbbing headaches
Reprefusion dysrhythmias
Palpitations

**Algorithms:**
Acute Coronary Syndrome
MORPHINE

Indications: Pulmonary Edema due to CHF
Pain associated with AMI (if NTG not working)
Dilate blood vessels
Emergency treatment of Cardiogenic Pulm. Edema

Dosage: 2-4 mg IVP as often as q 5 minutes

Mechanism
Causes Vasodilation which reduces myocardial
Of Oxygen consumption
Action:
Analgesia
Sedation

Precautions: Respiratory Depression
Hypotension especially with hypovolemia
Bradycardia
Pupil constriction
Seizures (caution in head injury)
DIURETICS

Indications: Circulatory Overload:
Acute pulmonary edema
Congestive Heart Failure
Hypertensive Crisis
Cerebral edema after cardiac arrest
Cardiogenic Pulmonary Edema

Mechanism of Action:
Increase the excretion of water/sodium and other electrolytes via the kidneys. Antihypertensive effect thought to be due to reducing plasma volume or ↓ PVR.

Subclassifications:
Thiazides: Diuril
Zaroxolyn

Potassium Sparing: Aldactone

Loop: Bumex
Edecrin
Lasix

Osmotic: Glycerin
Mannitol
SODIUM BICARBONATE

Indications: Refractory Cardiac Arrest
*Known pre-existing hyperkalemia
*Known pre-existing metabolic acidosis
*Overdoes with tricyclic antidepressants

Dosage: 1 mEq/kg IVP
Dose should be calculated by base deficit.

Mechanisms
Of Reverses acidosis
Action:

Precautions: Lowers serum potassium
CHF
Renal insufficiency

Algorithm: Asystole
Vfib
Vtach no pulse
PEA

Contraindications of Bicarbonate use by clinical data:
›Does not improve the ability to defibrillate
›Can compromise coronary perfusion pressure
›May cause adverse effects due to extracellular alkalosis
   ♦ Including inhibiting the release of oxygen
›May induce hyperosmolarity and hypernatremia
›Produces carbon dioxide contributing to intracellular acidosis
›Exacerbates central venous acidosis
›May inactivate simultaneously administered catecholamines.
MIDAZOLAM
(Versed)

Indications: Conscious sedation for cardioversion
Relieve anxiety and produce amnesia

Dosage: Conscious sedation
Initially up to 2.5 mg IVP in small increments
Total dose rarely >5mg
Elderly up to 1.5 for total of 3.5 mg

Mechanism Of Action: Depressant action at all levels of CNS

Precautions: Severe fluid & electrolyte imbalance
Impaired renal function
CHF
Shock
Acute alcohol intoxication
May cause respiratory depression
May cause hypotension
May increase ventricle irritability in hypoxic patients

Note: Reverse with Romazicon (max dose of 1 mg)
IBUTILIDE
(Convert)

Indications: Short acting antiarrhythmic
Treatment for recent onset Atrial Fibrillation &
Atrial Flutter – 3 hours to 90 days

Dosage: Adults > 60kg – 1 mg over 10 minutes
Adults < 60kg – 0.01 ml/kg over 10 minutes
Second dose may be given in 24 hours

NOTE: STOP INFUSION AS SOON AS RHYTHM
CONVERTS TO SINUS!

Mechanism Of Action:
Decrease the heart rate and AV conduction by
activating a slow inward NA Current.

Precautions:
May cause Vtach, headache, tachycardia, and hypotension.
Patient needs to be hemodynamically stable.
Electrolytes in normal ranges (esp. K+ & Mg+)
EKG with QT interval <440 msec.

NOTE: Patients are placed on monitoring equipment with
emergency equipment close. CHS requires ACLS
personnel at bedside.

Drug Interaction: Anti-arrhythmics such as:
Quinidine, procainamide, norpace, betapace, cordarone
prolong refractoriness.
Other drugs that prolong QT interval:
Phenothiazone, tricyclic antidepressants, antihistamines
seldane & Hismanal.

Algorithm: Afib – A – Flutter sudden onset
BETABLOCKERS

Indications: Effective antiarrhythmic
↓ incidence of VF in post MI patients
May ↓ rate of nonfatal re-infarction
Slows HR & treat rhythm problems
↓ myocardial ischemia by ↓ O2 requirements
↓ Blood pressure

Mechanism
Of α – adrenergic receptor blockade
Action: Anti-dysrhythmic

Precautions: Should be avoided in:
Bradycardia
Second or third-degree AV block
Hypotension
Overt CHF
Lung disease associated with bronchospasm
Can depress pumping function of the heart
Increase airway resistance.

Drug & Dosage:
Atenolol: 5-10 mg IV over 5 min slow
Esmolol: 500 µg/kg over 1min. followed by infusion 50 µg/kg/min over 4 minutes
Metroprolol: 5-10 mg slow IVP at 5 min. intervals a total of 15mg.
Propranolol: Total dose of 0.1 mg/kg slow IVP divided into 3 equal doses.

Algorithms: Acute Coronary Syndrome
Polymorphic VT Stable
A-Fib-A-Flutter
Junctiional Tachycardia
SVT & MAT
ACE INHIBITORS
Angiotensin Converting Enzyme

Indications: HTN & CHF

Mechanism: Prevents conversion of angiotension I to II, a potent vasoconstrictor.

Of Action: Renal Impairment

Precaution: Hypovolemia
Coronary or Cerebral Insufficiency
Watch for Hypotension

♦ Lotensin
♦ Capoten
♦ Inhibase
♦ Vasotec
♦ Monopril
♦ Prinivil
♦ Univase
♦ Aceon
♦ Acupril
♦ Altace
♦ Renor max

Algorithm: Acute Coronary Syndrome in 6 hours or when stable
CALCIUM CHANNEL BLOCKERS

Indications:
- Treatment for essential hypertension
- Prophylaxis of angina pectoris
- Prevent/control SVT & Sinus Tachycardia
- Prevent neurologic damage due to subarachnoid hemorrhage.

Mechanism
- Inhibit the flow of Ca+ across the cell membrane
- Relax arterial smooth muscle

Action:
- Slow rate of SA node & AV node conduction
- Prevents reentry arrhythmia’s
- Slow HR & decrease myocardial O2 demand

Precautions:
- Renal or hepatic dysfunction
- Heart Block
- Hypotension
- Extreme bradycardia/SSS
- Aortic Stenosis
- Discontinuation should be gradual

Drugs
- Cardizem: 20-25 mg IV bolus; 5-15 mg/hr IV Infusion
- Cardene: 60-120 mg/day PO
- Procardia: 30-60 mg/day PO/SL
- Nimotop: 60 mg q4h x 3 weeks PO/SL
- Verapamil: 5-10 mg IV max

Algorithms: Atrial Tachycardias
FIBROLYYTIC AGENTS

Indications: Lysis of thrombi obstructing coronary arteries in acute MI. Ideally within the first 6 hours of onset of symptoms. Re-establish blood flow to infarct related artery. Goal door to drug <30 min. Acute Ischemic Stroke within 3 hours of onset of symptoms.

Mechanism: Activate both soluble plasminogen and surface bound plasminogen to plasmin where generated close to fibrin clot. Action: Digest fibrin and dissolves the clot.

Precautions: Absolute contraindications
Activate bleeding disorder (past 3 weeks)
Suspected aortic aneurysm or acute pericarditis
Recent Trauma or surgery (2 weeks)
Intracranial neoplasm
Prolonged CPR > 10 minutes.
History of recent CVA or TIA (6 months)
Pregnancy
Previous Allergic reaction
Diabetic hemorrhagic retinopathy
Excessive hypertension

Agents: Thrombolytic agents currently available in the US
APSAC, Streptokinase, t-PA, Urokinase, Alteplase, Reteplase (all lyse existing clots)

Antiplatelets:
ReoPro, Aspirin, Persantine, & Ticlid
(Primarily ↓ risk arterial thromboembolism)

Anticoagulants:
Fragmin, Lovenox, Heparin, & Coumadin
(Primarily ↓ risk of venous thromboembolism)
FIBRINOLYTIC THERAPY

♦ Alteplase
♦ Tenecteplase
♦ TPA
♦ Reteplase
♦ Streptokinase
♦ APSAC

Mechanism of Action:
Thrombolytic Enzymes – Binds to fibrin, converts Plasminogen to plasmin initiating local fibrinolysis.

Indications:
Lysis of thrombi obstructing coronary arteries in Acute MI
Acute Ischemic Stroke
Pulmonary Embolism

♦ Heparin

Mechanism of Action:
Anticoagulant – Accelerates formation of Antithrombin III- thrombin complex & deactivates thrombin preventing conversion of fibrinogen to fibrin

Indications:
DVT
MI
Pulmonary Embolism

♦ ASA

Mechanism of Action:
Impedes clotting by blocking prostaglandin synthesis preventing thromboxane A2.

Indications:
MI

♦ Aggrastat
♦ ReoPro

Mechanism of Action:
Binds to glycoprotein IIb/IIIa receptor inhibiting platelet aggregation.

Indications:
Acute Coronary Syndrome
MISCELLANEOUS

Not approved by FDA for IV use

♦ Solotol (Betapace)
  Indication: Ventricular & Supraventricular arrhythmia’s
  Mechanism: Non selective beta blocker that depresses sinus heart rate, slows AV conduction, decreases cardiac output & lowers systolic and diastolic Blood Pressure.
  Action: Decreases cardiac output & lowers systolic and diastolic Blood Pressure.
  Dosage: 1-1.5 mg/kg at a rate of 10mg/min (slow)
  Precautions: Bradycardia, hypotension and torsades de pointes

♦ Flecainide (tambocor)
♦ Propafenone (Rhythmol)
  Indication: Ventricular & Supraventricular arrhythmia’s (Wolfe-Parkinson White Syndrome)
  Mechanism: Potent sodium channel blocker with significant conduction-slowing effects.
  Action: Slowing effects.
  Dosage: 2mg/kg at 10mg/min (slow)
  Precautions: Bradycardia, hypotension, neurological symptoms and avoid in patients with LV dysfunction.

♦ Isoproterenol (Isuprel)
  Indications: Temporary measure before pacing for torsades de pointes
  Refractory Symptomatic Bradycardia
  Low dose chronotropic effect
  Mechanism: Pure β-adrenergic agonist with potent inotropic and chronotropic effects.
  Action: Chronotropic effects.
  Dosage: 2 to 10 mcg/min add 1mg to 500ml of D5W
  Precautions: Higher doses will increase myocardial oxygen consumption, increase infarct size and exacerbate ischemia & arrhythmias.

♦ Phenytoin (Dilantin)
  Indications: Stable Ventricular Tachycardia with wide baseline QT