REPUBLIC OF PALAU
MINISTRY OF HEALTH

BELAU NATIONAL HOSPITAL
DRUG FORMULARY
2006

PHARMACY DEPARTMENT
BELAU NATIONAL HOSPITAL
Foreword

August 29, 2006

Message from the Minister

A sensible pharmaceutical support is recognized as one of the essential components of primary health care. A list of essential drugs maintained at a sustainable level, dispensed in an appropriate fashion for the right reason is a goal that can achieve positive health outcomes.

The development of a progressive Formulary for Belau National Hospital and the Community Health Centers is a step we hope will complement the outreach programs conducted by Public Health and support the health providers in the various clinical settings.

A lot of work has been done by the Pharmacy and Therapeutics Committee and should be commended for their efforts. But the work does not stop now and we look forward to continued adjustments as the needs of our communities change.

Victor M. Yano, M.D.
Minister of Health
Preface:

The Belau National Hospital pharmacy has been undergoing a gradual facelift in our continuous pursuit of improving and expanding pharmacy services. This improvement has been stimulated by an increasing utilization of technology with the goal of increasing quality of care. Some of the accomplishments to progress the pharmacy include continuing education for pharmacy technicians to receive certification in pharmacy technology, implementing electronic references, upgrading software, and providing medication management consults for all hospital staff. One of our most visible accomplishments was to update the national formulary to meet our patient’s needs. The 2006 Belau National Hospital Formulary is the result of three years of collaboration by the Pharmacy and Therapeutics Committee. New in this edition are a selected drug interactions table, pregnancy categories for D and X listed medications, updated clinical pearls, approximately fifty medication additions, and updated dosage tables. Our next vision is to improve healthcare by implementing electronic prescribing. Electronic prescribing will greatly reduce medication errors, adverse drug events, and ultimately ensure our patient’s safety. Your continuous support, and input, is appreciated and essential to the future developments of the pharmacy.

Biribo Tekanene, R.Ph.

Acknowledgements:

The Pharmacy and Therapeutics Committee of the Belau National Hospital: Biribo Tekanene R.Ph., Dr. Angie Marcil, Dr. Selaima Lalabalavu, Dr. Sylvia Andres-Wally, Dr. Robert Maddison, Dr. Debbie Ngemaes-Maddison. Special acknowledgement to Jason Boyd who worked tirelessly to compile and update the BNH formulary.
Disclaimer:

The 2006 version of the Belau National Hospital Formulary is designed to serve as a guide in selecting appropriate drug therapy. The medications included in this formulary are based on the World Health Organization’s Essential Drug List and the recommendations of the Pharmacy and Therapeutics committee, which consists of Belau National Hospital physicians and pharmacists. The contents of this formulary were prepared by BNH staff independently of the manufacturers. Although great efforts were made to provide the most current and accurate information, BNH cannot be held responsible for continued currency or any inaccuracies. Drug therapies are always changing and the drug manufacturer’s information sheets in addition to current evidence based medicine should be referenced for the most up to date information.
<table>
<thead>
<tr>
<th>Index:</th>
<th>Page number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>5</td>
</tr>
<tr>
<td>Pharmacy and Therapeutics Committee</td>
<td>6</td>
</tr>
<tr>
<td>Prescribing Policy</td>
<td>7</td>
</tr>
<tr>
<td>Narcotic and Psychotropic Drug Prescribing</td>
<td>8</td>
</tr>
<tr>
<td>Guidelines for Dispensing Medications</td>
<td>9</td>
</tr>
<tr>
<td>Guidelines for administering IV and IM medications</td>
<td>10</td>
</tr>
<tr>
<td>Dosage calculations and examples</td>
<td>10</td>
</tr>
<tr>
<td>Drugs in Renal Impairment</td>
<td>13</td>
</tr>
<tr>
<td>Formulary:</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Drugs</td>
<td>14</td>
</tr>
<tr>
<td>Respiratory Drugs</td>
<td>16</td>
</tr>
<tr>
<td>Anti-infectives</td>
<td>18</td>
</tr>
<tr>
<td>Gastrointestinal Drugs</td>
<td>21</td>
</tr>
<tr>
<td>Drugs Affecting Nutrition</td>
<td>22</td>
</tr>
<tr>
<td>Minerals and Electrolytes– Oral</td>
<td>22</td>
</tr>
<tr>
<td>Intravenous Nutritional Therapy</td>
<td>22</td>
</tr>
<tr>
<td>Electrolytes– Injections</td>
<td>22</td>
</tr>
<tr>
<td>Blood Modifiers</td>
<td>23</td>
</tr>
<tr>
<td>Behavioral Health Drugs</td>
<td>24</td>
</tr>
<tr>
<td>Analgesics and other CNS drugs</td>
<td>25</td>
</tr>
<tr>
<td>Drugs for Genito-Urinary Disorders</td>
<td>26</td>
</tr>
<tr>
<td>Drugs used in Anaesthesia</td>
<td>27</td>
</tr>
<tr>
<td>Drugs used in Disorders of Endocrine Systems</td>
<td>28</td>
</tr>
<tr>
<td>Drugs used in Obstetrics and Gynecology</td>
<td>29</td>
</tr>
<tr>
<td>Drugs acting on the skin</td>
<td>29</td>
</tr>
<tr>
<td>Immunological and Vaccines</td>
<td>30</td>
</tr>
<tr>
<td>Disinfectants and Cleansers</td>
<td>31</td>
</tr>
<tr>
<td>Radiological X-Ray agents</td>
<td>31</td>
</tr>
<tr>
<td>Eye/ Ear/ Nose preparations</td>
<td>31</td>
</tr>
<tr>
<td>Poisoning and Antidotes</td>
<td>32</td>
</tr>
<tr>
<td>HIV/ AIDS/ SARS/ Bird Flu (H5N1)</td>
<td>32</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>32</td>
</tr>
<tr>
<td>Pediatric Dosing tables</td>
<td>33</td>
</tr>
<tr>
<td>Intravenous Administration Guide</td>
<td>39</td>
</tr>
<tr>
<td>Drug Interactions Table</td>
<td>42</td>
</tr>
</tbody>
</table>
Pharmacy and Therapeutics Committee

Proposed scope of the Committee

1. Drug Selection and Procurement

   • Maintain the list of drugs (National Formulary) available by the Ministry of Health for the prevention and treatment of disease (according to the principle of the WHO Essential Drug List Concept) within the financial resource available present.
   • Maintain a list of “Individual Patient Usage Drugs” for selected patients who meet certain criteria devised by the committee in terms of need/affordability.
   • Set quality standards for the procurement of Pharmaceuticals by the Ministry of Health.
   • Monitor indicators of the procurement management and budget of the Pharmacy Department.

2. Prescribing, Dispensing, and Use

   • Promote the concept of Rational Drug Prescribing
   • Standardize prescribing policies and assist in the formulation of treatment guidelines
   • Undertake drug utilization review studies
   • Oversee anti-microbial sensitivity patterns and ensure appropriate antibiotic usage
   • Monitor medication and dispensing errors and adverse drug reactions

3. Distribution, Accessibility, and Sustainability

   • Make recommendations and review the current policy of the Ministry of Health regarding the collection of fees for the dispensing of pharmaceuticals.
   • Approve formulary lists for the community health centers, super dispensaries and the field clinics, and monitor indicators for drug supply at these access points.
   • Monitor the barriers to access of pharmaceuticals (cost and access to their supply) and ensure that they are minimized.
   • Ensure that the appropriations from the National Government and/or the collections from the patients are sufficient to maintain the long term sustainability of the pharmaceutical procurement.

4. Narcotic/ Psychotropic

   • Monitor the prescribing of narcotic/ psychotropic drugs and investigate any instances of over prescribing.
   • Identify patients considered to be narcotic dependant, place limitations on the supply of narcotics for these patients with the co-operation of the Behavioral Health Department.
   • Monitor the supply and storage of Narcotics/ Psychotropic within the Ministry of Health and investigate any instances of diversion/missing drugs.
   • Recommend to the competent authority (as recognized by the International Narcotic Control Board) the approval to import narcotics and psychotropic substances into Palau by both public and private pharmacies in Palau.

5. National Drug Policy

   • Spearhead the development of a National Drug Policy for the Republic of Palau and the corresponding legislation and regulations to achieve its aims.
1. All drug sheets/ prescriptions are legal documents and orders must be written in ink, dated, and signed by the Medical Officer.

2. Please write clearly and use BLOCK LETTERS when ordering drugs and the patient’s name to avoid errors.

3. It is the policy of the Ministry of Health that all drug (except combination preparations) shall be ordered by their GENERIC NAME ONLY.

4. Abbreviations to be used for dosage strength are as follows:

   - g = grams, mg = milligrams, cc = cubic centimeter = ml = milliliter,
   - ug = mcg = microgram (it is strongly recommended that microgram be written in full e.g. digoxin 250 microgram)

5. If the dose is a fraction of a whole unit (e.g. 0.3 ml) always precede the decimal point with a zero.

6. When practical, avoid using decimal points and use appropriate strength. e.g. digoxin 250 mcg not 0.25mg

7. Prescriptions must be dated, have the PATIENTS NAME, hospital number, drug (generic), strength, quantity, directions, refills, and prescriber’s signature.

8. All prescriptions for children should have the child’s weight and age written on the script, so that the dosage may be verified by the pharmacy.

9. All controlled medications (narcotics and psychotropic drugs) are to be ordered on separate PINK Narcotic Prescriptions, except for Benztropine which requires a GREEN prescription, and are to have the quantity of drugs specified in words and figures.

10. Prescriptions for oral narcotics (e.g.- Tylenol #3) are to be limited to a maximum of TWENTY tablets per prescription unless exemption is obtained from the Director, Clinical Services.
Narcotic and Psychotropic Drugs Prescribing

1. Prescriptions for narcotic and psychotropic drugs are valid for 3 days from the date of writing.

2. Prescriptions must be hand written and must be on the approved special colored prescription form (narcotic & psychotropics = pink; benztropine = green). The quantity of narcotic drugs must be specified in words and figures.

3. Prescriptions for oral narcotics (e.g.– Tylenol #3) are to be limited to a maximum of TWENTY tablets per prescription unless exemption is obtained from the Clinical Services Director.

4. NO REFILLS for narcotic and psychotropic drugs are allowed.

5. One narcotic or psychotropic drug only may be prescribed per prescription form and the quantity of the narcotic or psychotropic drug must be expressed in words and in figures.

6. Doctors and Dentists may not prescribe any narcotic and psychotropic drug for self-administration.

7. Pharmacies and Dispensaries are obligated to inform the prescriber of any irregularities in the prescription, prescribing frequencies of the same drugs to the same patient by the same prescriber, and patient’s doctor shopping habits.

8. Patients may only be prescribed narcotic drugs for a continuous period of 2 months.

9. A practitioner may apply to the Clinical Services Director for patients requiring narcotic drug(s) for a period of more than 2 months, stating the patient’s clinical conditions, the reason long term therapy is required, and whether the prescriber considers the patient to be narcotic dependant. A plan of withdrawal must be provided for patients considered narcotic dependent.

10. The Clinical Services Director at his discretion may approve in writing further supplies of narcotic drugs for the patient for an appropriate period before a further application is required by the prescriber. The prescriber must transmit a copy of this authorization to the dispensary where the patient will obtain the narcotic drug(s).
GUIDELINES FOR DISPENSING MEDICATIONS

Step 1.  Determine the Dose and Issue Quantity

1. Correctly perform any calculations of the dose and issue quantity. Confirm that the dose is correct for the patient’s age and weight.
2. Identify any common drug-drug interactions. Find out from the patient the names of other medications that they may be on.
3. Confirm that the patient does not have any other conditions that contraindicate them from receiving the prescribed medication. If the patient is female, determine if they are pregnant or breast feeding. If so, check if the medication chosen is appropriate.

Step 2.  Prepare Items for Issue

1. Select stock container. Read the label at least twice to confirm drug name and strength. DO NOT select the container according to color or location on the shelf.
2. Measure or count quantity from the stock container. Liquids must be measured in clean vessels and should be poured from the stock bottle with the label kept upwards.
3. Immediately after measuring or counting, the stock container lid should be replaced and the stock container label should be rechecked for drug name and strength.

Step 3.  Pack and Label Medicine

1. Label should identify the drug name and strength, and clearly indicate the dose to be used (both the amount and frequency) and quantity dispensed. Add relevant auxiliary label(s).
2. At this point, the dispensed preparation should be checked against the prescription and against the stock containers used.

Step 4.  Record action taken.

1. Enter the details of the prescription and the quantity dispensed into the patients medical file. Initial entry to confirm that it was dispensed.

Step 5.  Issue Medicine to Patient with Clear Instructions and Advise.

1. The medicine must be given to the patient or patient’s representative with clear instructions.
2. Confirm that the patient understands the dose, frequency, length of treatment, and route of administration. Concentrate on:
   - when to take the medicine (particularly in relation to food and other medicines)
   - how to take the medicine—chewed, swallowed whole, taken with plenty of water.
   - how to store and care for the medicine. i.e. in a cool dry place and to store out of reach of children.
GUIDELINES FOR ADMINISTERING IV AND IM MEDICATIONS

1. Check carefully the dose ordered and the drug being used. Check THREE times before administering any dose of medication. Take extra time to prepare and administer IV medications as these drugs are responsible for the majority of serious drug errors and side effects.
2. Be especially careful with Potassium Chloride, Heparin, Insulin, Cardiac drugs, and all IV drugs given to infants.
3. Label all IV solutions with drug amount and time/date added. Discard solutions after 24 hours if any remains.
4. Use single dose containers once and discard remaining amount. These include vials that are marked for single use only and all ampoules.
5. Multi-dose vials should be marked with the date that they were first punctured. All multi-dose vials should be discarded ONE MONTH after the date on which it was first punctured.

DOSAGE CALCULATIONS AND EXAMPLES

1. International system of units

   Units of weight
   - 1 kilogram (kg) = 1000 grams (g)
   - 1 gram (g) = 1000 milligrams (mg)
   - 1 milligram (mg) = 1000 microgram (mcg and sometime µg)

   Units of volume
   - 1 liter (L) = 1000 milliliters (ml) = 1000 cubic centimeter (cc)
   - 1 milliliter (ml) = 1 cubic centimeter (cc)
2. Conversion between units

<table>
<thead>
<tr>
<th>grams to milligrams—<strong>multiply</strong> by 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example:</td>
</tr>
<tr>
<td>1g = 1 X 1000 = 1000 mg</td>
</tr>
<tr>
<td>2g = 2 X 1000 = 2000 mg</td>
</tr>
<tr>
<td>2.358g = 2.358 X 1000 = 2358 mg</td>
</tr>
<tr>
<td>1.74g = 1.740 X 1000 = 1740mg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>milligrams to grams—<strong>divide</strong> by 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g., 2050mg = 2050/1000 = 2.05g</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>liters to milliliters — <strong>multiply</strong> by 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g., 1.7L = 1.7 X 1000 = 1700 ml</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>milliliters to liters—<strong>divide</strong> by 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g., 960ml = 960/1000 = 0.96 l</td>
</tr>
</tbody>
</table>

3. Dose calculations—**Number of tablets, number of mls of liquid required:**

Must use the same unit for calculations, e.g., all milligrams, all grams, or all milliliters

Example 1: How many tablets containing 125 micrograms of digoxin are required for a dose of 0.25mg?

Step 1. convert all figures to the same units i.e. micrograms
   So, 0.25mg = 0.25 X 1000 = 250 micrograms

Step 2. 1 tablet = 125 micrograms
   Dose required = 250 micrograms
   Quantity required = \[
   \frac{\text{dose required}}{\text{dose available}} \times \text{1 tablet} = \frac{250}{125} = 2 \text{ tablets}
   \]

Note: Use commonsense– a dose will rarely be more than 3 or 4 tablets. If the calculation gives an answer of 8 or 10 tablets, it is probably wrong and the dose and calculation should be checked.
Liquid medication: Use similar formula as for tablets
i.e: volume of dose required = \( \frac{dose \text{ required}}{Dose \text{ available}} \times \frac{volume \text{ containing}}{dose \text{ available}} \)

Example 1: An oral dose of 150mg amoxicillin is prescribed. The pharmacy supplies amoxicillin suspension containing 250mg/ 5ml. What volume of the suspension is required to give the 150mg dose?

\[
\frac{dose \text{ required}}{Dose \text{ available}} \times \frac{volume \text{ containing}}{dose \text{ available}}
\]
\[
150 \times 5 = \frac{750}{250} = 3 \text{ ml}
\]

Note: ALWAYS CHECK that the answer makes sense. If the dose ordered is greater than the available mixture strength, then the volume of the dose calculated must also be larger.

4. Calculation of doses from body weights

If required to give a dose of drug based on body weight the patient’s weight must be given or the patient weighed before the dose can be calculated.

Example: Calculate the dose of drug, based on 5mg per kg body weight, required for a patient weighing 70kg.

Dose of drug required = \( \frac{dose \text{ (mg/kg)}}{patient \text{ weight (kg)}} \times patient \text{ weight (kg)} \)
\[
= \frac{5\text{mg/kg}}{} \times 70 \text{ kg}
= 350 \text{ mg}
\]

To convert weight from pounds to kilogram:

1 pound (lb.) = 0.45kg
2.2 pounds (lbs.) = 1 kg

Example 1: A patient weighs 140lbs. How many kilograms?

2.2 lbs. = 1 kg

\[
140 \text{ lbs. patient} = \frac{140}{2.2} \times 1 \text{ kg}
\]

To convert from teaspoonful to ml:

Household measures such as teaspoons vary in size greatly. However, one teaspoonful may be taken approximately equivalent to 5 ml
Some Drugs that Require Dosage Reduction When Renal Function Is Impaired

The use of drugs in patients with reduced renal function can give rise to problems for several reasons:
- failure to excrete the drug or its metabolite may produce toxicity
- sensitivity to some drugs is increased even if elimination is not impaired
- many side effects are poorly tolerated by patients in renal failure
- some drugs cease to be effective when renal function is reduced

Many of these problems can be avoided by reducing the dosage or by using an alternative drug. Reduced drug excretion is of particular clinical importance if renal function is reduced by 50% or more and the drug has a narrow therapeutic index. Examples are:

<table>
<thead>
<tr>
<th>Antibiotics:</th>
<th>Other drugs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acyclovir</td>
<td>Allopurinol</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>Captopril</td>
</tr>
<tr>
<td>Cephalosporins (except Ceftriaxone)</td>
<td>Morphine</td>
</tr>
<tr>
<td>Nitrofurantoin</td>
<td>Digoxin</td>
</tr>
<tr>
<td>Trimethoprim/ Sulfamethoxazole</td>
<td>Famotidine</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>Lithium</td>
</tr>
<tr>
<td></td>
<td>Insulin</td>
</tr>
<tr>
<td></td>
<td>Metformin</td>
</tr>
</tbody>
</table>
1.0 CARDIOVASCULAR DRUGS

HYPERTENSION

1. Non-drug treatment, weight loss, less alcohol and sodium intake, regular exercise and relaxation can improve the effects of drug therapy.

2. Hydrochlorothiazide (low dose) is a good first choice for patients with mild hypertension.

3. Beta-blockers are usually well tolerated for initial treatment, especially in patients with angina and post MI. Beta-blockers should not be used in patients with a history of asthma, obstructive airway disease or peripheral vascular disease. Discontinuation of Beta-blockers should be done gradually over 7-10 days. Sudden cessation of these drugs in high risk patients can precipitate acute myocardial infarction.

4. Calcium Channel Blockers should be considered when beta blockers and diuretics are contraindicated, not tolerated, or fail to control blood pressure. Calcium channel blockers may impair left ventricular function, especially when used with beta blockers, and thus its use should be limited in patients with congestive heart failure.

5. ACE inhibitors may be benificial in patients with underlying disorders such as CHF, asthma and diabetes.

6. Beta-blockers and ACE inhibitors positively influence the prognosis of patients with myocardial infarction.

7. ACE inhibitors, spironolactone and carvedilol have been shown to positively influence the outcome of CHF patients.
1.1 DIURETICS

1.1.1 Thiazides
   Hydrochlorothiazide 25 mg tab

1.1.2 Loop
   Furosemide:
   40 mg tab
   10 mg/1 ml solution
   10 mg/ml inj

1.1.3 Potassium-Sparing
   Spironolactone 25 mg tab

1.1.4 Combinations (Maxide)
   Triamterene 75 mg/
   Hydrochlorothiazide 50 mg tab

1.2 BETA BLOCKERS
   Atenolol 50 mg tab
   Propranolol:
   20 mg tab
   1 mg/mL inj
   Labetolol 5 mg/ml (20mL) inj

1.3 CALCIUM CHANNEL BLOCKERS
   Diltiazem:
   60 mg tab
   90 mg SR caps
   120 mg SR caps
   Nifedipine:
   20 mg PA tab
   10 mg cap
   Verapamil 80 mg tab

1.4 ANGIOTENSIN CONVERTING ENZYME INHIBITORS
   *Preg cat D
   Captopril 25 mg tablet
   Fosinopril:
   10 mg tab
   20 mg tab

1.5 CENTRALLY ACTING DRUGS
   Clonidine:
   0.1 mg tab
   0.3 mg tab
   Methyldopa 250 mg tab

1.6 ALPHA-1 ADRENERGIC BLOCKERS
   Terazosin:
   1 mg caps
   2 mg caps

1.7 VASODILATORS
   Hydralazine:
   25 mg tab
   20 mg/1 mL inj (dissolve
   in 1 mL WFI and then dilute to 10
   mL with NaCl 0.9% - Slow IV
   push)
   Magnesium Sulfate 50% inj 50 ml

1.8 ANTIARRHYTHMIC AGENTS
   1. Patients should not stop these drugs<br>   abruptly. Dosage should be reduced<br>   gradually to prevent arrhythmias.
   2. Antiarrhythmic drugs may also promote<br>   arrhythmias.

1.8.1 Group IB
   Lidocaine:
   4% (2 grams) inj
   1% 50 mg/5 mL PFS

1.8.2 Group II
   Propranolol 1 mg/1 mL inj

1.8.3 Group III
   Amiodarone:
   200 mg tab
   50 mg/1 mL inj
   *therapy must be initiated under<br>   supervision, especially in patients with<br>   thyroid or liver disease.
   Bretylium 50 mg/ml inj
1.8.4 Group IV

Verapamil 80mg tab
Verapamil 5 mg/2 mL inj

1.8.5 Other Antiarrhythmics

Adenosine 3mg/ml inj
Digoxin:
125 mcg tab
250 mcg tab

1.9 NITRATES

Tolerance to nitrates may be minimized by creating a dosage schedule allowing for a nitrate free period of 12 hours per day and utilizing low doses.

Isosorbide Dinitrate 10mg tab
Isosorbide MONOnitrate 60 mg tab
Nitroglycerin:
0.4 mg tab
2% topical ung

1.10 VASOPRESSORS

Dobutamine 12.5 mg/ml inj
Dopamine 40mg/1 mL (5mL) inj
Epinephrine:
1 mg/1 mL (1:1,000)(1 mL) inj
0.1 mg/1 mL (1:10,000)(10mL)
PFS
Vasopressin IV 20 u/ml inj
Isoprotenolol 1:50,000

1.11 CARDIAC GLYCOSIDES

Monitor for side effects with renal impairment and the elderly.

Digoxin (lanoxin):
125 mcg (0.125 mg) tab
250 mcg (0.250 mg) tab
50 mcg/mL elixir – for infants and children
250 mcg/mL inj

1.12 ANTIHYPERLIPIDEMIC AGENTS

The statin and fibrate medications may cause muscle toxicities, especially in renal impairment or hypothyroidism. Discontinue if CPK exceeds 3X normal. Drug interactions are common and should be checked in all polypharmacy prescriptions.

Fenofibrate 100 mg tab
Simvastatin:
10 mg tab
20 mg tab
Nicotinic Acid SR 500mg tab
*titrate slowly to prevent flushing and GI side effects

1.13 THROMBOLYTICS

Streptokinase 1.5 MU inj
* Antibodies are produced against SK and subsequent treatment should not be initiated within 1 yr. SK is indicated for use Within 3-24 hours of MI symptom onset.

ASA 81 mg tab
Dipyridamole 25 mg tab
Clopidogrel 75 mg tab
*patient monitoring program

2.0 RESPIRATORY DRUGS

Asthma: Current therapeutic emphasis is on an anti-inflammatory for mild, moderate, or severe asthma. Inhaled corticosteroids are well tolerated and decreases the need for oral steroids. Adjunctive therapy with long acting beta-2 agonists can increase lung function. The overutilization of short acting beta-2 agonists has been associated with increased adverse effects and poorer outcomes in asthmatics

COPD: A non-inflammatory condition and thus no role for any anti-inflammatory medications except during exacerbations. Therapeutic emphasis is on bronchodilators and anticholinergics.
2.1 BRONCHDILATORS

2.1.1 Sympathomimetics

Ipratropium Bromide Neb solution
18mcg

Albuterol:
2 mg tab
4 mg tab
100 mcg inhaler
0.083% unit dose neb
0.5% nebulizer solution
2.5 mg/ 5 mL oral syrup
Salmeterol 25 mcg MDI
Aerochamber

2.2 XANTHINES

Xanthines have high incidences of side effects and drug interactions (e.g.– Cipro and Erythromycin) and requires close monitoring. There is considerable variation in half life in patients who are smokers, hepatic impaired, and heart failure.

Aminophylline 250 mg/ 10 mL inj
Theophylline:
200 mg SR tab
300 mg SR tab
80 mg/ 15 mL syrup

2.3 CORTICOSTEROIDS

Hydrocortisone 100 mg/mL inj
Methylprednisolone 5 mg/mL inj
Dexamethasone 4 mg/mL inj
Beclomethasone 100 mg MDI
Fluticasone 25 mcg MDI
Dexamethasone 4 mg tab
Prednisone:
1 mg tab
5 mg tab
20 mg tab

2.4 COMBINATION (ADRENERGIC + STEROID)

Salmeterol + Fluticasone Inhaler
(Advair, Seretide)

2.5 ANTIHISTAMINES

2.5.1 Sedating antihistamines

Dimenhydrinate 50 mg tab
Diphenhydramine:
25 mg caps
50 mg caps
12.5 mg/ 5 mL syrup
50 mg/ mL inj

Hydroxyzine:
25 mg tab
10 mg/ 5 mL syrup

Promethazine:
25 mg tab
12.5 mg supp
6.25 mg/ 5ml syrup
25 mg/mL inj

2.5.2 Non-sedating antihistamines

Loratadine 10 mg tab
*possible interaction with macrolides

2.6 DECONGESTANTS

Pseudoephedrine can raise blood pressure and blood glucose. Therefore it should be avoided in hypertensive and diabetic patients.

Pseudoephedrine:
30 mg tab
30 mg/ 5 mL syrup

Triprolidine/Pseudoephedrine (Actifed):
2.5 mg/60 mg tab
1.25mg/30 mg in 5 mL syrup
3.0 SYSTEMIC ANTIINFECTIVES

General Principles

1. Is an antimicrobial needed? Much viral and self limiting bacterial disease does not benefit from antibiotics, but places the patient at the risk of adverse effects.

2. When an antimicrobial is indicated, the choice of agent should be based on factors such as spectrum of activity in relation to known or suspected organisms, safety, previous clinical experience, cost and the potential for selection of resistant organisms. A history of allergy or adverse reactions should always be sought.

3. Prophylactic antimicrobial therapy should be restricted to situations in which it has been shown to be effective or where the consequences of infection are disastrous.

4. Antimicrobial therapy directed at specific organisms should include the most effective, least toxic, narrowest spectrum agent available. This limits the problems of selection of resistant organisms and super infection.

5. Oral therapy should be used in preference to parenteral therapy where possible. Parenteral therapy has a greater risk of serious adverse events, additional time and expertise to administer, higher drug cost plus additional equipment e.g. syringes, needle, tubing. Once the parenteral route is commenced, the need for the parenteral route should be reassessed daily, with the aim to convert to oral administration as soon as possible.

6. Topical antimicrobial therapy should be restricted to a few proven indications, e.g. eye infections, because of the capacity of most topical agents to select resistant microorganisms.

7. The practice to prescribe longer acting broad spectrum agents such as Ceftriaxone to treat staphylococcal and streptococcal infections is strongly discouraged. Whilst this may be viewed as convenient to the patient, it exposes the community in general to unnecessary risk of antibiotic resistant community acquired infection.
3.1. PENICILLINS

3.1.1 Natural Penicillins

- Penicillin G, Potassium 2 MU vial inj
- Penicillin G, Benzathine 1.2 MU syr
- Penicillin V 250 mg tab

3.1.1.2 Penicillinase Resistant

- Cloxacillin 250 mg caps
- Nafcillin 1 gm inj

3.1.1.3 Aminopenicillins

- Amoxicillin:
  - 250 mg caps
  - 500 mg caps
  - 250 mg/5 mL syrup
- Ampicillin:
  - 500 mg vial
  - 1 gm vial
- Amoxicillin/Clavulanic Acid (tid dosing):
  - 500-125 mg tab
  - 250-62.5 mg/5 mL susp

3.1.2 Cephalosporin

- Cephalexin:
  - 250 mg caps
  - 500 mg caps
  - 250 mg/5 mL susp
- Cefazoline 1 gm inj
- Ceftriaxone:
  - 250 mg iv/im inj
  - 1 gm iv/im inj

3.1.3 Chloramphenicol

- Chloramphenicol 1 gm inj
- Chloramphenicol 250 mg caps

3.1.4 Tetracyclines

- Do not use in children under 12 or in pregnant or lactating women. Associated with photosensitivity reactions.
- Doxycycline:
  - 100 mg tab
  - 100 mg inj

3.1.5 Quinolones

- Ciprofloxacin 500 mg tab
  * screen for possible drug interactions

3.1.6 Macrolides

- Erythromycin:
  - 250 mg tab
  - 200 mg/5 mL susp
- Azithromycin:
  - 250 mg tab
  - 250 mg/5 mL susp

3.1.7 Vancomycin

- Infuse over at least one hour. Reduce dosage in renal failure.
- Vancomycin 500 mg inj

3.1.8 Aminoglycosides

- Gentamicin 80 mg/2 mL inj
- Neomycin 500 mg tab

3.1.9 Metronidazole

- Excellent absorption from tablets, use IV only in patients unable to swallow or with impaired GI absorption.
- Metronidazole:
  - 250 mg tab
  - 200 mg supp
  - 500 mg/100 mL inj
  - 250 mg/10 mL syrup
  - 200 mg/5 mL susp
- Tinidazole 250 mg tab

3.1.10 Trimethoprim/Sulfonamide

- Septra should only be used for acute exacerbations of chronic bronchitis, UTI’s, and acute otitis media when there is good reason to prefer it due to risk of adverse effects. Patients should drink plenty of fluid with these drugs.
- Trimethoprim/Sulfamethoxazole:
  - 160/800 mg
  - 240 mg/5 mL TMP syrup
3.1.11 Antituberculosis Drugs

Isoniazid:
- 100 mg tab
- 300 mg tab
- 50 mg/5 mL susp
Rifampicin 300 mg tab
Pyrazinamide 500 mg tab
Ethambutol 400 mg tab
Capreomycin 1g inj

Combination Rx: INH 150mg/RIF 300mg

3.1.12 Leprostatics

Clofazimine:
- 50 mg caps
- 100 mg caps
Dapsone:
- 25 mg tab
- 100 mg tab
MDT PB: rifampicin/ dapsone
  - child
  - adult
MDT MB: rif/dap/ clofazimine
  - child
  - Adult

3.2 RESERVE ANTIBIOTICS

Amoxicillin/Clavulanic Acid:
- 625 mg tab
- 375 mg/5 mL syrup
Ceftriazone:
- 250 mg inj
Ciprofloxacin:
- 500 mg tab
- 10 mg/ml inj
Doxycycline: 100 mg inj
  *Preg cat D
Kanamycin 500mg caps
Levofloxacin 250mg tab
Streptomycin 1 g inj
Ticarcillin/Clavulanic Acid 3.1 g vial
Vancomycin 500 mg inj

RESERVE ANTIBIOTICS

Please limit the use of these drugs to patients where other treatments have failed or where the drug is the treatment of choice!!

Ceftriaxone - meningitis, severe pneumonia, gonorrhea.

Ciprofloxacin - respiratory and urinary tract infections resistant to other agents.

Ticarcillin/Clavulanic acid - serious infections caused by pseudomonas aeruginosa.

Amoxicillin/ Clavulanic acid – otitis media, pharyngitis

3.3 ANTIFUNGALS

Monitor liver function clinically and biochemically for treatment lasting more than 14 days.
Significant drug interactions.

Ketoconazole: 200 mg tab
Nystatin: oral susp
Griseofulvin: 500mg tab
Fluconazole 150mg tab

3.4 ANTIVIRALS

Acyclovir:
- 200 mg caps
- 500 mg inj
*acyclovir is only effective if started at the onset of infection

3.5 ANTIHELMINTHICS

Albendazole 200 mg tab
  *Preg Cat D

3.6 ANTIPROTOZOALS

Treatment of Malaria

Quinine sulfate: 325 mg caps
* Preg Cat X
Chloroquine: 300 mg (base) tab
3.7 AMOEBICIDES

Metronidazole:
  250 mg tab
  500mg IV

4.0 GASTROINTESTINAL DRUGS

The following medications may worsen GERD: NSAIDS, beta-agonists, anticholinergics, calcium channel blockers, caffeine, theophylline, and ethanol. The proton pump inhibitors should be reserved for patients non-responsive to H-2 receptor antagonists.

4.1 ANTACIDS

(Maalox plus) Aluminum/Magnesium hydroxide/Simethicone suspension.
(Maximum dose of 15ml QID)

LIMIT TO HOSPITAL-USE ONLY

4.2 DRUGS ALTERING GUT MOTILITY

Metoclopramide: 10 mg tab
  10 mg/2ml inj

4.3 ULCER HEALING DRUGS

H. pylori eradication:
Amoxicillin 250mg TID for 2 weeks plus Metronidazole 250mg TID for 10 days plus Famotidine 20mg qhs for 6 weeks

4.3.1 H2 antagonists
Ranitidine 50 mg/2 mL inj
Famotidine 20 mg tab

4.3.2 Proton Pump Inhibitors
Omeprazole 20 mg caps
* most effective when taken 30 minutes before first meal of the day.

4.4 ANTIDIARRHEAL DRUGS

First line treatment of acute diarrhea is prevention of fluid and electrolyte loss. See ORS salts.
ORS Sachets
Loperamide 2mg caps (max 8 caps/24 hrs).

4.5 LAXATIVES

4.5.1 Stimulant laxatives
Bisacodyl:
  5mg tab
  10mg supp
* The long term use of stimulant laxatives is discouraged.

4.5.2 Stool softeners
Docusate 100mg caps
Glycerin suppositories, infant

4.5.3 Osmotic
Lactulose 10g/15ml syrup -for hepatic encephalopathy only
Phosphates enema, adult

4.6 PREPARATIONS FOR HEMORRHOIDS

Hemorrhoidal suppositories

4.7 NAUSEA AND VERTIGO DRUGS

Dimenhydrinate 50mg tab
Meclizine 25 mg tab
Metoclopramide:
  10 mg tab
  10 mg/ 2 ml inj
Promethazine:
  25 mg tabs
  12.5 mg supp
  6.25mg/ 5 ml syrup
  25 mg/ ml inj
5.0 DRUGS AFFECTING NUTRITION

5.1 VITAMINS
- Vitamin B1 (Thiamine):
  100mg tab
  100mg/ml inj
  *(IV Thiamine should be administered slowly over at least 10 Min)*
- Vitamin B6 (Pyridoxine):
  50mg tab
  100mg/mL inj
- Vitamin C (Ascorbic acid) 500mg tab
- Vitamin D (Calciferol) 0.25 mcg caps
- Vitamin E (AquasolE) 15u/0.3ml caps

5.2 VITAMIN/ MINERAL COMBINATION
- Multivitamin Prenatal tab
- Multivitamin Adult tab
- Multivitamin Pediatric drops

6.0 MINERALS and ELECTROLYTES—ORAL

6.1 MINERALS
- Calcium
- Cal Carbonate 1250 mg tab (Ca 500)
- Calcium Gluconate 600 mg tab (Ca 1.35 mmol) “chewable”
- Flouride
  1 mg/ 4 drops pediatric`
- Potassium
  Potassium Chloride 600 mg tab (8 mEq)

6.2 ELECTROLYTES
- Oral Rehydration Salts
- ORS packet
- Sodium Bicarbonate 650 mg tab

7.0 INTRAVENOUS NUTRITIONAL THERAPY

7.1 PROTEIN
- Amino acid 3.5% inj (with electrolytes)

7.2 CARBOHYDRATE
- Carbohydrate Dextrose 5%/water
  100mL
  500mL
  1000mL
- Dextrose 10% water 500 ml
- Dextrose 50%/water:
  50ml PFS
  50ml vial

7.3 LIPID
- Fat emulsion 10%, (500ml) infusion

8.0 ELECTROLYTES - INJECTIONS

8.1 CATIONS
- Calcium
- Calcium Chloride 10 PFS
- Calcium Gluconate 10% inj
- Magnesium sulfate 50% inj
- Potassium Chloride 2 mEq inj
- Sodium
- Sodium chloride 0.45% 1000 ml
  0.9% 100 ml
  0.9% 1000 ml
  23.4% 30 ml

8.2 ACID-BASE MODULATORS
- Sodium Bicarbonate 8.4% PFS
- Sodium Bicarbonate 8.4% 50ml
8.3 COMBINED ELECTROLYTE DILUENTS

Dextrose:
- 5%/ Saline 0.9%
- 5%/ Saline 0.2%
- 5%/ Saline 0.45%
Lactated Ringers 1000ml

8.4 INJECTION DILUENTS

Water for injection:
- 30ml bacteriostatic
- 20ml preservative free

Sodium Chloride 0.9%:
- 30 ml bacteriostatic
- 20 ml preservative free

9.0 BLOOD MODIFIERS

9.1 IRON

Ferrous sulfate
- 300mg tab (contain 60mg elemental iron)
- drops 5mg/0.6ml

9.2 IRON WITH VITAMINS

Multivitamin, prenatal tab (contain 60mg elemental iron)

9.3 FOLIC ACID

Folic acid:
- 1 mg tab
- 5mg/ml inj

9.4 VITAMIN B-12

Cyanocobalamin 1mg/ml inj

9.5 VITAMIN K

Phytonadione:
- 1mg/0.5ml inj
- 10mg/ml inj

9.6 ERYTHROPOIETIN

Erythropoietin inj 10,000U - dialysis patients only

9.7 ANTIPLATELET AGENTS

Aspirin:
- 81 mg EC tab
- 325mg EC tab
  *aspirin is contraindicated in children under 12 and in breast feeding.
Dipyridamole 50mg tab
Clopidogrel 75mg tab

9.8 ANTAGOULANTS

Heparin:
- 10u/ml
- 1000u/ml
- 10,000u/ml
  (Heparin overdose can be reversed with protamine sulfate)

Warfarin (Coumadin):
- 1mg tab
- 2 mg tab
- 5mg tab
  *Medication most commonly indicated in significant drug interactions. Initiate dosing in non-sensitive patients at 4-5mg, recheck INR in 3-5 days, and adjust per maintenance guidelines. Preg. Cat. D.

9.9 THROMBOLYTIC ENZYMES

Streptokinase 1,500,00 units inj
  * Must be given less than 3-24 hours after onset of thromboses symptoms. Loading dose is 250,000U over 30 mins, then 100,000U/hr for 24-72 hours.

9.10 HEMOSTATICS, SYSTEMIC

Aminocaproic acid:
- 500mg tab
- 250mg/ml inj

9.11 PLASMA PROTEIN FRACTIONS

Albumin 20% infusion
  * hypovolemic shock and burn therapy only, not for use in hypoproteinemic states.
10.0 BEHAVIORAL HEALTH DRUGS

10.1.1 HYPNOTICS, ANXIOLYTICS, SEDATIVES

10.1.1 Benzodiazepines
* Restricted to short term use for anxiety and insomnia (2-4 weeks). The longer acting BZPs have a smoother offset of action thus minimizing any withdrawal complications. Must be prescribed on a pink prescription form.

Diazepam:
5 mg tab
10mg/ 2ml inj
Lorazepam 1 mg tab

Temazepam 15 mg tab
Clonazepam 0.5mg tab
Clonazepam 2mg tab
Oxazepam 15mg tab

10.1.2 Non benzodiazepine

Zoplicone 7.5mg tab

10.2 ANTIPSYCHOTICS

10.2.1 Phenothiazone

Chlorpromazine:
25 mg tab
50 mg tab
100 mg tab
50 mg/2 mL inj

Fluphenazine:
2 mg tab
5 mg tab
2.5 mg/ mL inj

Fluphenazine Decanoate:
25 mg/mL inj

10.2.3 BUTYROPHENONES

Haloperidol:
1 mg tab
5 mg tab
10 mg tab
5 mg/mll injection
50 mg/mL (decanoate)

10.2.4 Atypical Antipsychotics
Risperdal 1mg tab

10.3 ANTIMANIC DRUGS

These drugs have significant drug interactions, check before prescribing in combination with other drugs, do not prescribe lithium with NSAIDs.

*Preg Cat D

Carbamazepine
100mg chewable
200 mg tab
Lithium carbonate 300 mg caps
Sodium Valproate 250 mg caps

10.4 ANTIDEPRESSANTS

10.4.1 Tricyclics

Amitriptylline:
25 mg tab
50 mg tab

Imipramine:
10 mg tab
5 mg tab

Nortriptyline:
10 mg caps
25 mg caps

10.4.2 Tetracyclics

Sinequan 25mg ablet

10.4.3 Selective Serotonin Reuptake Inhibitors

Fluoxetine 20 mg caps
Sertraline 50mg tab

10.4.4 Others

Trazodone 50 mg tab
10.5 ATTENTION DEFICIT DISORDERS

Must be prescribed on a pink prescription form

Methylphenidate:
- 10 mg tab
- 10 mg LA tab

10.6 ANTIPARKINSONIAN DRUGS

Benztropine: (must be written on green prescription)
- 1 mg/mL inj
- 2 mg tab
- Sinemet 25-100 mg tab

10.7 ANTIEPILEPTICS

10.7.1 Barbituates
Must be prescribed on a pink prescription form

Phenobarbital:
- 30 mg tab
- 30 mg/ml inj
- 130 mg/mL inj

10.7.2 Benzodiazepines
* must be written on a pink prescription
Diazepam 10 mg/2 mL inj
Clonazepam:
- 0.5 mg tab
- 2.0 mg tab
Oxazepam 15 mg tab

10.7.3 Hydantoins
*Preg Cat D

Phenytoin:
- 50 mg tab chewable
- 125 mg/5 mL syrup
Phenytoin sodium:
- 100 mg caps
- 250 mg/5 mL inj

10.7.4 Valproates
Sodium Valproate:
- 200 mg tab
- 200 mg/5 mL syrup

10.7.5

Carbamazapine:
- 100 mg chewable tab
- 200 mg tab
- 100 mg/5 mL susp

10.8 DRUGS USED IN SUBSTANCE ABUSE

Clonidine 0.1 mg tab
Disulfiram 250 mg tab
Bupropion (Wellbutrin) 150 mg tab

11.0 ANALGESICS AND OTHER CNS DRUGS

11.1 ACETAMINOPHEN:
- 80 mg chewable tab
- 325 mg tab
- 80 mg/0.8 mL drops
- 120 mg supp
- 650 mg supp

* Does not possess any anti-inflammatory activity. Do not exceed 4g/24 hours in adults, 2g/24 hours in geriatrics, or 5 doses/24 hours for children

11.2 SALICYLATES

Gastric irritation minimized by taking with food, milk, and adequate amounts of water.

Aspirin:
- 325 mg EC tab
- 81 mg EC tab
11.3 NON-STEROIDAL ANTI-INFLAMMATORY DRUGS

1. Caution with patients with peptic ulcer disease, renal insufficiency, CHF, on anticoagulants, or with hypertension.
2. Administration of NSAID and ACE inhibitor in combination may cause acute renal failure and hyperkalemia.
3. NSAIDs can cause bronchospasms in patients with aspirin sensitivity.
4. Gastric irritation minimized by taking with food, milk, and lots of water. Concurrent H-2 antagonists do not prevent NSAID induced gastric ulcers.

   Ibuprofen:
   - 400 mg tab
   - 600 mg tab

   Indomethacin:
   - 25 mg caps
   - 100mg supp

   Piroxicam 10 mg caps
   Mefenamic Acid 250mg caps
   Naprosyn 100mg supp

11.4 NARCOTICS

1. Must be prescribed on a pink prescription form.
2. Morphine remains the drug of choice for severe pain.
3. Meperidine should not be used for continuous pain and with caution in patients with renal insufficiency.

   Meperidine 50 mg/mL inj
   Morphine sulfate 5mg/ml liquid
   Codeine Phosphate 30mg tab

11.4.1 Narcotic Analgesic Combination

   Acetaminophen/Codeine 325 mg/30 mg tab
   Hydrocodone/ Acetaminophen 5/500 mg tab

11.5 OTHER STRONG ANALGESIC

   *must be written on a pink prescription

   Tramadol 50mg tab

11.6 GOUT

1. Check for potential contributing factors (e.g.– low dose aspirin, thiazide, ethanol)
2. Indomethacin 50mg TID is the preferred drug for acute attacks, also consider the use of a steroid.
3. Allopurinol should not be started for 2-3 weeks after an acute attack. Reduce the dose of allopurinol in the elderly and those with renal impairment.
4. No more than 6mg of colchicine should be taken in 24 hours, will cause GI effects.

   Allopurinol 100 mg tab
   Colchicine 0.6 mg tab

11.7 MUSCLE RELAXANT

   Cyclobenzaprine 10mg tab
   Diazepam:
   - 5mg tab
   - 5mg/ml 2ml inj
   *must be written on a pink prescription

11.8 MIGRAINE

   Cafergot
   * for best results, dose at the start of an attack. Max of 6 tablets per attack, 10 tablets/ week
   Propranolol 20mg tab
   *recommended for prophylaxis if 2+ attacks per month. Initiate at lower dose.

12.0 DRUGS FOR GENITO-URINARY DISORDERS

12.1 URINARY RETENTION

   Bethanicol 25 mg tab

12.2 URINARY INCONTINENCE

   Oxybutynin 5 mg tab

12.3 NOCTURNAL ENURESIS

   Imipramine 10 mg tab
12.4 PROSTATE HYPERPLASIA
Terazosin 1 mg tab
Terazosin 2 mg tab

12.5 UROLOGICAL PAIN
Phenazopyridine 100mg tab

12.6 URINARY ALKALINISER
Potassium Citrate 1080 mg (10mEq) tab

13.0 DRUGS USED IN ANAESTHESIA

13.1 BARBITUATES
Thiopental Sodium 2.5 mg inj

13.2 INHALATION ANAESTHETICS
Halothane for inhalation
Isoflurane for inhalation

13.3 INTRAVENOUS ANESTHETICS
Ketamine 50mg/ml inj
Midazolam 1mg/ml inj
Propofol 10mg/ml 50ml vial

13.4 ANTIMUSCARINIC PREMEDICATION
Atropine 400mcg/ml inj

13.5 SEDATIVE AND ANALGESIC PERIOPERATIVE
13.5.1 Benzodiazepine
Diazepam Inj 10mg/2ml

13.6. NARCOTIC ANALGESIA
Fentanyl 50mcg/ml inj 2ml
Meperidine (Pethidine) 50mg/ml inj
Morphine 10mg/ml inj

13.7 MUSCLE RELAXANTS
13.7.1 Non Depolarising Muscle Relaxants
Atracurium 10mg/ml inj
Pancuronium 1mg/ml inj
Vecuronium 10mg/inj

13.7.2 Depolarising Muscle Relaxants
Succinylcholine20mg/ml inj

13.8 ANTICHOLINESTERASES
Neostigmine 1mg/ml inj

13.9 ANTAGONISTS FOR MALIGNANT HYPOTHERMIA
Dantrolene 20mg inj

13.10 LOCAL ANESTHETICS
13.10.1 Injectables
Bupivacaine:
  0.5% inj plain
  0.5% inj heavy (spinal)
Lidocaine:
  1% inj 50ml ( multidose)
  1% w epinephrine 1:100,000

13.10.2 Topical
Lidocaine:
  2% jelly
  2% oral viscous
  10% oral spray
14.0 DRUGS USED IN DISORDERS OF THE ENDOCRINE SYSTEMS

Current therapy guidelines for Diabetes Mellitus recommends a step up approach starting with lifestyle modification and subsequent implementation of monotherapy, combination therapy, and insulin. Metformin is the 1st line agent used, is contraindicated in renal impairment, and patients should be monitored for lactic acidosis. Sulfonylureas are combined with metformin in uncontrolled diabetes or becomes 1st line in metformin intolerance.

14.1 DIABETIC DRUGS

14.1.1 Insulins

- Insulin Regular 100 U/mL
- Insulin Isophane NPH 100 U/mL
- Insulin NPH/Regular 70/30 100 U/mL

14.1.2 Sulfonylureas

- Glyburide 5 mg tab
- Tolbutamide 500 mg tab
  - good with renal impairment

14.1.3 Biguanides

- Metformin 500 mg tab

14.1.4 Hyperglycemic treatment

- Dextrose 50% inj. PFS

14.2 THYROID AND ANTITHYROID DRUGS

14.2.1 Thyroid drugs

- Levothyroxine 100 mcg tab

14.2.2 Anti-thyroid drugs

- Methimazole 10 mg tab

14.3 CORTICOSTEROIDS

1. Whenever possible, use local treatments over systemic treatments
2. Overdose or prolonged use can lead to side effects e.g. hypertension, Na+ and water retention, diabetes, and osteoporosis
3. Keep maintenance doses as low as possible
4. Gradual withdrawal of systemic corticosteroids in patients on more than 40mg a day for prednisone or more than three weeks of treatment.

- Dexamethasone:
  - 4mg tabs
  - 4mg/ml inj
  - 0.5 mg/ml elixir
- Hydrocortisone Inj 100mg/ml inj
- Methylprednisolone Sod Succinate 125mgInj
- Prednisone: 1mg tabs
  - 5mg tabs
  - 20mg tabs
- Triamcinolone Diacetate
  - 40mg/ml Inj IM
  - 10mg/ml Inj IM

14.4 FEMALE SEX HORMONES

Unopposed continuous estrogen therapy is contraindicated in women with a uterus.

14.4.1 Estrogen

- Conj. Estrogen:
  - 0.625 mg tab
  - 0.625 mg/g cream

14.4.2 Progestin

- Medroxyprogesterone:
  - 2.5 mg tab
  - 10mg tab
14.5 OVULATORY INDUCERS
   Clomiphene 50 mg tab

14.6 ANTIESTROGEN/ANTIPROGESTIN
   Danazol 200mg caps
   *Preg Cat X

14.7 OTHER ENDOCRINE DRUGS
   Vasopressin 20mg/ml inj

15.0 DRUGS USED IN OBSTETRICS AND GYNECOLOGY

15.1 DRUGS USED IN OBSTETRICS
15.1.1 Oxytocics
   Oxytocin 10 units/ mL inj
   Methylergonovine maleate 0.2 mg/mL inj

15.2 UTERINE RELAXANTS
   Terbutaline
      5 mg tab
      1 mg/ml inj
   Dinoprostone 0.5mg/ 3g gel syringe
      (Prepedil)

15.3 TREATMENT OF VAGINAL and VULVAL CONDITIONS
15.3.1 Candidiasis
   Nystatin vaginal inserts
   Miconazole 1% vaginal cream

15.3.2 VAGINAL ATROPHY
   Conj. Estrogen cream
   *use the minimal effective amount to prevent estrogen absorption, if used on a long term basis may require oral progestogen for endometrial hyperplasia.
   Methergine
   Premarin 0.625 mg tab

15.4 CONTRACEPTIVES
15.4.1 Oral contraceptives
   Lo-femenal
   Microval
   Ovral
   Primordiol

15.4.2 Injectable
   Medroxyprogesterone 150 mg/mL

15.4.3 Implant
   Levonorgestrol 36 mg

15.4.4 Barriers
   Copper T
   Condoms
   Levonorgestrel (IUD) - Mirena

15.5 Others
   Anti-D Rh-ve

16.0 DRUGS ACTING ON THE SKIN
16.1 EMOLLIENT & BARRIER PREPARATIONS
   Zinc Oxide ointment

16.2 LOCAL ANESTHETICS & ANTIPRURITICS
   Lidocaine 2% jelly
   5% ung
   Calamine lotion
   Crotamiton cream
16.3 TOPICAL CORTICOSTEROIDS
1. Used for inflammatory conditions of the skin other than infection.
2. When treatment is discontinued a rebound exacerbation of the condition may occur.
3. Choice of preparation is the least potent drug that is effective.
4. Apply once or twice a day, more frequent application is not necessary.
5. Use with caution in infants.

Hydrocortisone:
- 0.5% cream
- 1% cream
Triamcinolone Acetonide 0.1% cream
Betamethasone 0.05% ung

16.4 ANTIPSORIATICS
Coal tar 5% gel
Coal tar/Sal acid/Sulfur
Selenium Sulfide (antifungal),

16.5 WARTS & CALLUSES
Podophyllin solution
Silver Nitrate sticks

16.6 ANTI-INFECTIVE
16.6.1 Antibacterial
- Bactiracin OTC
- Bac/ Poly/ Neo OTC
- Silversulfadiazene (SSD) cream 500 g
16.6.2 Antifungal
- Miconazole 1% cream
- Selenium Sulfide OTC
- Ketoconazole 2% cream
16.6.3 Paracidals
- Crotamiton 10% cream
- Permethrin cream
- Lindane

16.7 IRRIGATING SOLUTIONS
- Sodium Chloride 0.9% 1000ml
- Water for Irrigation 1000ml

17.0 IMMUNOLOGICAL and VACCINES

17.1 IMMUNE SERUMS
- Hep B Ig (HBIG)
- Immunoglobulin IVIG/ IMIG

17.2 BACTERIAL ADULT VACCINES
- Pneumococcal (adult)
- Pneumococcal (child)

17.3 VIRAL
- Influenza vaccine (flu)

17.4 TOXOIDS
- Tetanus-Diptheria (Ad) Td
- Tetanus Toxoid (plain)

17.5 CHILDREN’S VACCINES
17.5.1 Bacterial Vaccines
- Haemaphilus B Influenzae (Hib)
- Dipth/Tetanus/Pertus (DtaP)
- Dipth/Tetanus (ped)(Dt)
(contraindicated in children)
17.5.2 Combined Vaccines
- HepHIB

17.6 VIRAL VACCINES
- Hepatitis B (Inf) Vaccines
- Hepatitis B (Ad) Vaccines
- Polio (IPV)
- Measles/Mumps/Rubella
17.7 DIAGNOSTICS
   Tuberculin PPD 5 units/test

18.0 DISINFECTANTS & CLEANSERS
18.1 ALCOHOL
   Isopropyl Alcohol 70%

18.2 IODINE
   Povidone-Iodine
      7.5% scrub
      10% solution

19.0 RADIOLOGICAL- X RAY AGENTS

19.1 RADIOPAQUE AGENTS
   Diatrizoate meglumine 60%
      (Hypaque 50%) injection
      (Gastrografin 60%) oral
   Iodipamide meglumine 25.7%
      (cholografin)

20.0 EYE/EAR/NOSE

20.1 EYE PREPARATIONS
   1. Patients should be advised not to wear contact lenses when using eye drops.
   2. Eye drops should be discarded one month after opening to prevent contamination.
   3. When two different drugs, or more than one drop is being used, have the patient wait a few minutes between putting in the next drop.

20.1.1 Anesthetic
   Tetracaine 0.5% eye drops

20.1.2 Anti-infective Bacterial
   Erythromycin 0.5% eye ung
   Gentamycin eye/ear drops
   Sulfacetamide 10% eye drops

20.1.3 Anti-infective Viral
   Acyclovir eye ung

20.1.4 Beta-Blockers/Glaucoma
   Levobunolol 0.5% eye drops
   Trusopt— specialist request
   Cosopt — specialist request

20.1.5 Diagnostic
   Fluoresceine 1 mg strips

20.1.6 Mydriatic
   Atropine 1% eye drops
   Cyclopentolate eye drops
   Penylephrine 2.5% eye drops

20.1.7 Miotics
   Pilocarpine 4% eye drops

20.1.8 Allergy
   Cromolyn eye drops

20.1.9 Corticosteroids
   Prednisolone 1% eye drops
   Dexamethasone 0.1 % eye drops

20.2 EAR PREPARATIONS
   The treatment with ototoxic antibiotics is contraindicated with a perforated ear drum
   Gentamycin eye/ear drops
   Ciprofloxacin HC ear drops
   Betadine 1% ear drops
20.3 NOSE PREPARATIONS

Steroid nasal preparations are best used for allergic rhinitis. Inform the patients that the drugs are not effective immediately, but require regular use for up to a week for improvement.

- Beclomethasone nasal spray
- Sodium Chloride 0.9% nose drops

21.0 POISONING and ANTIDOTES

- Acetylcysteine 20% oral solution
- Atropine 400 mcg/ml inj.
- Charcoal, activated 50 g/ 240 ml
- Deferoxamine 500mg inj.
- Ephedrine 50 mg/ ml inj.
- Ipecacuanha syrup 30ml
- Naloxone 0.4 ng/mL inj.
- Naloxone JUNIOR inj.
- Neostigmine 1 mg/ ml inj.
- Pralidoxime mesulate 200 mg / ml
  ( 5 mL ) - order 1 dose
- Physostigmine mesulate 200 mg/ml
- Phytonadione 1 mg/0.5 ml inj.
- Phytonadione 10 mg/ml inj.
- Protamine sulfate 50 mg/5 ml inj.
- Sodium Bicarbonate inj.
- Sodium Bicarbonate tab
- Sodium Polystyrene sulphonate powder

22.0 HIV/AIDS/ SARS/BIRD FLU (H5N1)

* Preg Cat D

- Oseltamivir (Tamiflu) 75 mg caps
- Zidovudine/Lamuvudine (Combivir) 150-300 mg tab
- Nelfinavir 250mg tab
- Azithromycin:
  - 500mg inj
  - 250mg tabs
  - 100mg/ 5ml susp
- Acyclovir 500mg/ 10ml inj
- Varicella Zoster Immunoglobulin (VZI)
Acetaminophen: 10-20 mg/kg/dose every 4 hours  
80mg/0.8 ml drops and 80mg chewable tablets  

Dosage based on 15 mg/kg/dose. Round tablets to nearest half a tab

<table>
<thead>
<tr>
<th>Wt. (lbs.)</th>
<th>Wt. (kg)</th>
<th>Dose (mg)</th>
<th>Drops (ml)</th>
<th>Chew tab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>q4h</td>
<td>q4h</td>
<td>q4h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>35</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>68</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>102</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>137</td>
<td>1.4</td>
<td>1.7</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>171</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>204</td>
<td>2.0</td>
<td>2.6</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>239</td>
<td>2.4</td>
<td>3.0</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>273</td>
<td>2.7</td>
<td>3.4</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>308</td>
<td>3.1</td>
<td>3.8</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>341</td>
<td>3.4</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Albuterol 0.3 mg/kg/24 hours given TID

2mg/5ml solution

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt (kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q8h</td>
<td>Q8h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>0.2</td>
<td>0.6</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>0.5</td>
<td>1.1</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>0.7</td>
<td>1.7</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>0.9</td>
<td>2.3</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>1.1</td>
<td>2.8</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>1.4</td>
<td>3.4</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>1.6</td>
<td>4.0</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>1.8</td>
<td>4.5</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>2.0</td>
<td>5.1</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>2.3</td>
<td>5.7</td>
</tr>
</tbody>
</table>
Amoxicillin: 20-50 mg/kg/24 hours divided by q8h  
250 mg/5ml suspension

Dosage based on 50mg/kg/24 hours. 80mg/kg/24 hours for otitis media

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt (kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q8h</td>
<td>Q8h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>38</td>
<td>0.8</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>76</td>
<td>1.5</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>114</td>
<td>2.3</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>152</td>
<td>3.0</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>189</td>
<td>3.8</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>227</td>
<td>4.5</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>265</td>
<td>5.3</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>303 capsule</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>341 capsule</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>379 capsule</td>
<td></td>
</tr>
</tbody>
</table>

Cephalexin and Penicillin: 25-50mg/kg/24 hours divided by q6h  
250 mg/5ml suspension

Dosage based on 50mg/kg/24 hours. Can be increased to 100mg/kg/24 hours in severe infection

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt (kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q8h</td>
<td>Q8h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>28</td>
<td>0.6</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>57</td>
<td>1.1</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>85</td>
<td>1.7</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>114</td>
<td>2.3</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>142</td>
<td>2.8</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>170</td>
<td>3.4</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>199</td>
<td>4.0</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>227</td>
<td>4.5</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>256</td>
<td>5.1</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>284</td>
<td>5.7</td>
</tr>
</tbody>
</table>
Hydroxyzine: 2mg/kg/24 hours divided by q6h
10mg/ 5ml solution

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt(kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q6h</td>
<td>Q6h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>1.1</td>
<td>0.6</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>2.3</td>
<td>1.1</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>3.4</td>
<td>1.7</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>4.5</td>
<td>2.3</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>5.7</td>
<td>2.8</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>6.8</td>
<td>3.4</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>8.0</td>
<td>4.0</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>9.1</td>
<td>4.5</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>10.2</td>
<td>5.1</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>11.4</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Promethazine 0.25-0.5/kg/dose  Nausea and Vomiting
6.25mg/ 5ml syrup and 12.5mg Suppositories

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt(kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q4-6h</td>
<td>Q4-6h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>2.3</td>
<td>1.8</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>3.4</td>
<td>2.7</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>4.5</td>
<td>3.6</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>5.7</td>
<td>4.5</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>6.8</td>
<td>5.5</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>8.0</td>
<td>6.4</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>9.1</td>
<td>7.3</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>10.2</td>
<td>8.2</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>11.4</td>
<td>9.1</td>
</tr>
</tbody>
</table>
Diphenhydramine: 50mg/kg/24 hours divided by q6h
12.5 mg/5ml solution

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt(kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q6h</td>
<td>Q6h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>2.8</td>
<td>1.1</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>5.7</td>
<td>2.3</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>8.5</td>
<td>3.4</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>11.4</td>
<td>4.5</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>14.2</td>
<td>5.7</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>17.0</td>
<td>6.8</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>19.9</td>
<td>8.0</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>22.7</td>
<td>9.1</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>25.6</td>
<td>10.2</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>28.4</td>
<td>11.4</td>
</tr>
</tbody>
</table>

Erythromycin: 30-50 mg/kg/24 hours divided by q6h
200 mg/5ml Suspension

Dosage based on 50mg/kg/24 hours

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt(kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q4-6h</td>
<td>Q4-6h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>28</td>
<td>0.7</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>57</td>
<td>1.4</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>85</td>
<td>2.1</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>114</td>
<td>2.8</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>142</td>
<td>3.6</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>170</td>
<td>4.3</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>199</td>
<td>5.0</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>227</td>
<td>5.7</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>256</td>
<td>6.4</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>284</td>
<td>7.1</td>
</tr>
</tbody>
</table>
## Pseudoephedrine: 4mg/kg/24 hours divided by q6h
30 mg/ 5mL Solution

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt(kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q6h</td>
<td>Q6h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>2.5</td>
<td>0.4</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>4.5</td>
<td>0.8</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>6.8</td>
<td>1.1</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>9.1</td>
<td>1.5</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>11.4</td>
<td>1.9</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>13.6</td>
<td>2.3</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>15.9</td>
<td>2.7</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>18.2</td>
<td>3.0</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>20.5</td>
<td>3.4</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>22.7</td>
<td>3.8</td>
</tr>
</tbody>
</table>

## Sulfamethoxazole/ Trimethoprim: 10mg/kg/day TMP divided by q12h
200/40mg/5ml suspension

<table>
<thead>
<tr>
<th>Wt (lbs.)</th>
<th>Wt(kg)</th>
<th>Dose (mg)</th>
<th>Dose (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q12h</td>
<td>Q12h</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>11.4</td>
<td>1.4</td>
</tr>
<tr>
<td>10</td>
<td>4.5</td>
<td>22.7</td>
<td>2.8</td>
</tr>
<tr>
<td>15</td>
<td>6.8</td>
<td>34.1</td>
<td>4.3</td>
</tr>
<tr>
<td>20</td>
<td>9.1</td>
<td>45.5</td>
<td>5.7</td>
</tr>
<tr>
<td>25</td>
<td>11.4</td>
<td>56.8</td>
<td>7.1</td>
</tr>
<tr>
<td>30</td>
<td>13.6</td>
<td>68.2</td>
<td>8.5</td>
</tr>
<tr>
<td>35</td>
<td>15.9</td>
<td>79.5</td>
<td>9.9</td>
</tr>
<tr>
<td>40</td>
<td>18.2</td>
<td>90.9</td>
<td>11.4</td>
</tr>
<tr>
<td>45</td>
<td>20.5</td>
<td>102.3</td>
<td>12.8</td>
</tr>
<tr>
<td>50</td>
<td>22.7</td>
<td>113.6</td>
<td>14.2</td>
</tr>
</tbody>
</table>
Miscellaneous Drugs

**Actifed Syrup**: (Triprolidine/ Pseudoephedrine 1.25/30mg/5mL)

<table>
<thead>
<tr>
<th>Age</th>
<th>Dose (mL) q6-8h</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 months – 2 years</td>
<td>1.25</td>
</tr>
<tr>
<td>2 years – 5 years</td>
<td>2.5</td>
</tr>
<tr>
<td>6 years – 12 years</td>
<td>5</td>
</tr>
</tbody>
</table>

**Ferrous Sulfate** (0.6mL = 15mg of elemental iron)

- Iron Deficiency Anemia: 3-6 mg elemental iron/kg/24 hours (divided by qd to tid)
- Prophylaxis: 1-2 mg elemental iron/kg/24 hours (divided by qd to tid)

**Metronidazole** (200mg/ 5mL Suspension)

- Amebiasis: 35-50 mg/kg/24 hours (given q8h for 10 days)
- Giardiasis: 15mg/kg/24 hours (given q8h for 10 days)
## Intravenous Administration Guide: Antibiotics

<table>
<thead>
<tr>
<th>Drug</th>
<th>Reconstitute</th>
<th>Dilute Further</th>
<th>Compatible Fluids</th>
<th>Maximum Concentration</th>
<th>Recommended Injection Rate</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampicillin</td>
<td>WFI</td>
<td>Yes</td>
<td>NS, D5W, LR, D5NS</td>
<td>For 2g+ NS, D5W, LR, D5NS</td>
<td>IV push 50mg/ml; IV infuse 20mg/ml</td>
<td>IV push over 3-5 min; IV infuse over 30 min; Administer immediately after reconstitution; Avoid extravasation</td>
</tr>
<tr>
<td>Cefazolin</td>
<td>WFI</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push 138mg/ml; IV infuse over 30-60 min</td>
<td>IV push over 5-10 mins; IV infuse over 30-60 min</td>
<td>Do not infuse over 60 minutes; Avoid extravasation; Serious cardiac S/E reported following rapid infusion; Doses over 800mg given by infusion (as ticcarine)</td>
</tr>
<tr>
<td>Ceftriaxone</td>
<td>WFI</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push 100mg/ml; IV infuse 20mg/ml</td>
<td>IV push over 3-5 min; IV infuse over 15-30 min</td>
<td>Immediate after reconstitution</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>Not required</td>
<td>Infuse only</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push over 3-5 min; IV infuse over 30 min</td>
<td>IV push over 5-10 mins; IV infuse over 15-30 min</td>
<td>Doses over 80mg given by infusion; Avoid extravasation</td>
</tr>
<tr>
<td>Metronidazole</td>
<td>WFI, NS</td>
<td>Yes</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV infuse 10mg/ml; Max 15mg/min</td>
<td>IV push over 1-4 hours; IV infuse over 60 min</td>
<td>Serum concentrations can be increased by rapid infusion; Doses over 500mg given by infusion</td>
</tr>
<tr>
<td>Nafcillin</td>
<td>WFI, NS</td>
<td>Yes</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 65mg/ml; IV infuse: 40mg/ml</td>
<td>IV push over 5-10 mins; IV infuse over 30-60 min; Avoid extravasation</td>
<td>Do not infuse over 30 min; Avoid extravasation</td>
</tr>
<tr>
<td>Doxycycline</td>
<td>WFI, NS</td>
<td>Yes</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV infuse 1mg/ml</td>
<td>IV infuse over 1-4 hours; Avoid extravasation</td>
<td></td>
</tr>
<tr>
<td>Ticarcillin/Clavulanic Acid</td>
<td>WFI</td>
<td>Yes</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV infuse: 60mg/ml</td>
<td>IV infuse over 30 minutes</td>
<td>Immediate after reconstitution; Avoid extravasation; Do not infuse over 60 min; Doses over 800mg given by infusion (as Ticarcallin)</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>Not required</td>
<td>No</td>
<td>NS, D5W, LR</td>
<td>IV infuse: 5mg/mL</td>
<td>IV infuse over 60 min; Do not infuse over less than 60 min.</td>
<td>Serious cardiac S/E reported following rapid infusion; Avoid extravasation</td>
</tr>
</tbody>
</table>

---

### Intravenous Administration Guide: Antibiotics

- **Drug**: Various antibiotics such as Ampicillin, Cefazolin, Ceftriaxone, Gentamicin, Metronidazole, Nafcillin, Doxycycline, Ticarcillin/Clavulanic Acid, and Vancomycin.
- **Reconstitute**: WFI (Water for Injection), NS (Normal Saline), D5W, LR, D5NS.
- **Dilute Further**: Yes or No.
- **Compatible Fluids**: NS (Normal Saline), D5W, LR, D5NS.
- **Maximum Concentration**: Various concentrations for each drug.
- **Recommended Injection Rate**: IV push or IV infuse over specified time periods.
- **Comments**: Various precautions and administration details for each antibiotic.
<table>
<thead>
<tr>
<th>Drug</th>
<th>Concentration</th>
<th>Recommended Injection Rate</th>
<th>Maximum Concentration</th>
<th>Compatible Fluids</th>
<th>Further Dilution</th>
<th>Reconstitute</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulin, Regular</td>
<td>No</td>
<td>Yes</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 100 U/mL</td>
<td>IV infuse: 4-6 U/hr</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Isoproterenol</td>
<td>No</td>
<td>Yes</td>
<td>D5W, D5NS</td>
<td>IV infuse: 2mcg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Magnesium Sulfate</td>
<td>No</td>
<td>Yes</td>
<td>D5W</td>
<td>IV push: 20mg/mL</td>
<td>IV infuse: 0.4mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Mannitol</td>
<td>Yes</td>
<td>No</td>
<td>D5W, LR, NS</td>
<td>IV push: 250mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Meperidine</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 10mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Methylprednisolone</td>
<td>Yes</td>
<td>Yes</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 62.5mg/mL</td>
<td>IV infuse: 62.5mg/mL</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Morphine</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 10mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Oxytocin</td>
<td>No</td>
<td>No</td>
<td>D5W, NS, D5W, LR, NS</td>
<td>IV push: 1mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Phenobarbital</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 4mg/mL</td>
<td>IV infuse: 4mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Phenytoin</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 100mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Procaine</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 20mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Prostaglandin E1</td>
<td>Yes</td>
<td>Yes</td>
<td>D5W</td>
<td>IV load: 200mg/ml</td>
<td>IV push: 200mg/ml</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Propofol</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 1mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Quinidine</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 20mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Ractopamine</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 1mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Remifentanil</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 0.5mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Risperidone</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 1mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sildenafil</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 20mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sulfadiazine</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 100mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Thyrotropin</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 1mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Tranexamic Acid</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 20mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Tranquilizer</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 10mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Tropicamide</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 5mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Tryptophan</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 1mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Urokinase</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 100mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Warfarin</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 1mg/mL</td>
<td>IV infuse: 1mg/mL</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Xylocaine</td>
<td>No</td>
<td>No</td>
<td>NS, D5W, LR, D5NS</td>
<td>IV push: 20mg/mL</td>
<td></td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

*Intravenous Administration Guide - Other Injectibles (cont)*
### Stability of Reconstituted Antibiotics

<table>
<thead>
<tr>
<th>Drug</th>
<th>Stability</th>
<th>Compatibility</th>
<th>Route</th>
<th>Volume</th>
<th>Concentration</th>
<th>Rate</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampicillin</td>
<td>1 hour after reconstitution</td>
<td>Keep refrigerated</td>
<td>IV</td>
<td>20mL</td>
<td>250 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Ceftriaxone</td>
<td>10 days</td>
<td>Keep refrigerated</td>
<td>IV</td>
<td>50mL</td>
<td>250 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Cefazolin</td>
<td>10 days</td>
<td>Keep refrigerated</td>
<td>IV</td>
<td>50mL</td>
<td>100 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>Discard unused portion</td>
<td></td>
<td>IV</td>
<td>20mL</td>
<td>1000 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Nafcillin</td>
<td>7 days</td>
<td>Keep refrigerated</td>
<td>IV</td>
<td>50mL</td>
<td>250 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Penicillin</td>
<td>7 days</td>
<td>Keep refrigerated</td>
<td>IV</td>
<td>100mL</td>
<td>250 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Ticarcillin/Clavulanic Acid</td>
<td>7 days</td>
<td>Keep refrigerated</td>
<td>IV</td>
<td>100mL</td>
<td>250 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>4 days</td>
<td>Keep refrigerated</td>
<td>IV</td>
<td>20mL</td>
<td>500 mg/mL</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

### Drug Reconstitute Dilute

<table>
<thead>
<tr>
<th>Drug</th>
<th>Maximum Concentration</th>
<th>Recommended Injection Rate</th>
<th>Further Injection Rate</th>
<th>Reconstitute Injection Rate</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenytoin</td>
<td>50 mg/mL</td>
<td>IV push: 2.5 mg/mL</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Procainamide</td>
<td>20 mg/mL</td>
<td>IV (load): 20 mg/mL</td>
<td>IV (maint): 2 mg/mL</td>
<td>IV (maint): 2-6 mg/mL</td>
<td>None</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>40 mEq/1000mL</td>
<td>IV infuse: 4-8 hours</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Promethazine</td>
<td>25 mg/mL</td>
<td>IV push: 25 mg/mL</td>
<td>2 mg/mL</td>
<td>2-6 mg/mL</td>
<td>None</td>
</tr>
<tr>
<td>Sodium Bicarbonate</td>
<td>1 mEq/mL</td>
<td>IV push: over 1 min</td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Verapamil</td>
<td>2.5 mg/mL</td>
<td>IV push: 2.5 mg/mL</td>
<td>2 mg/mL</td>
<td>2-6 mg/mL</td>
<td>None</td>
</tr>
</tbody>
</table>

### Intravenous Administration Guide - Other Injectibles (cont.)
Overview of Selected Serious Drug Interactions

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Potential effect</th>
<th>Time to effect</th>
<th>Recommendations and comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warfarin (Coumadin) plus ciprofloxacin (Cipro), clarithromycin (Biaxin),</td>
<td>Increased effect of warfarin</td>
<td>Generally within 1 week</td>
<td>Select alternative antibiotic.</td>
</tr>
<tr>
<td>erythromycin, metronidazole (Flagyl) or trimethoprim-sulfamethoxazole (Bactrim,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Septra)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warfarin plus acetaminophen</td>
<td>Increased bleeding, increased INR</td>
<td>Any time</td>
<td>Use lowest possible acetaminophen dosage and monitor INR.</td>
</tr>
<tr>
<td>Warfarin plus acetylsalicylic acid (aspirin)</td>
<td>Increased bleeding, increased INR</td>
<td>Any time</td>
<td>Limit aspirin dosage to 100 mg per day and monitor INR.</td>
</tr>
<tr>
<td>Warfarin plus NSAID</td>
<td>Increased bleeding, increased INR</td>
<td>Any time</td>
<td>Avoid concomitant use if possible; if coadministration is necessary, use a cyclooxygenase-2 inhibitor and monitor INR.</td>
</tr>
<tr>
<td>Fluoroquinolone plus divalent/trivalent cations or sucralfate (Carafate)</td>
<td>Decreased absorption of fluoroquinolone</td>
<td>Any time</td>
<td>Space administration by 2 to 4 hours.</td>
</tr>
<tr>
<td>Carbamazepine (Tegretol) plus cimetidine (Tagamet), erythromycin,</td>
<td>Increased carbamazepine levels</td>
<td>Generally within 1 week</td>
<td>Monitor carbamazepine levels.</td>
</tr>
<tr>
<td>clarithromycin or fluconazole (Diflucan)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenytoin (Dilantin) plus cimetidine, erythromycin, clarithromycin or</td>
<td>Increased phenytoin levels</td>
<td>Generally within 1 week</td>
<td>Monitor phenytoin levels.</td>
</tr>
<tr>
<td>fluconazole</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenobarbital plus cimetidine, erythromycin, clarithromycin or fluconazole</td>
<td>Increased phenobarbital levels</td>
<td>Generally within 1 week</td>
<td>Clinical significance has not been established. Monitor phenobarbital levels.</td>
</tr>
<tr>
<td>Phenytoin plus rifampin (Rifadin)</td>
<td>Decreased phenytoin levels</td>
<td>Generally within 1 week</td>
<td>Clinical significance has not been established. Monitor phenytoin levels.</td>
</tr>
<tr>
<td>Phenobarbital plus rifampin</td>
<td>Decreased phenobarbital levels</td>
<td>Generally within 1 week</td>
<td>Monitor phenobarbital levels.</td>
</tr>
<tr>
<td>Combination</td>
<td>Effect</td>
<td>Timing</td>
<td>Clinical Significance</td>
</tr>
<tr>
<td>-------------</td>
<td>--------</td>
<td>--------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Carbamazepine plus rifampin</td>
<td>Decreased carbamazepine levels</td>
<td>Generally within 1 week</td>
<td>Clinical significance has not been established. Monitor carbamazepine levels.</td>
</tr>
<tr>
<td>Lithium plus NSAID or diuretic</td>
<td>Increased lithium levels</td>
<td>Any time</td>
<td>Decrease lithium dosage by 50% and monitor lithium levels.</td>
</tr>
<tr>
<td>Oral contraceptive pills plus rifampin</td>
<td>Decreased effectiveness of oral contraception</td>
<td>Any time</td>
<td>Avoid if possible. If combination therapy is necessary, have the patient take an oral contraceptive pill with a higher estrogen content (&gt;35 µg of ethinyl estradiol) or recommend alternative method of contraception.</td>
</tr>
<tr>
<td>Oral contraceptive pills plus antibiotics</td>
<td>Decreased effectiveness of oral contraception</td>
<td>Any time</td>
<td>Avoid if possible. If combination therapy is necessary, recommend use of alternative contraceptive method during cycle.</td>
</tr>
<tr>
<td>Oral contraceptive pills plus troglitazone (Rezulin)</td>
<td>Decreased effectiveness of oral contraception</td>
<td>Any time</td>
<td>Have the patient take an oral contraceptive pill with a higher estrogen content or recommend alternative method of contraception.</td>
</tr>
<tr>
<td>Cisapride (Propulsid) plus erythromycin, clarithromycin, fluconazole, itraconazole (Sporanox), ketoconazole (Nizoral), nefazodone (Serzone), indinavir (Crixivan) or ritonavir (Norvir)</td>
<td>Prolongation of QT interval along with arrhythmias secondary to inhibited cisapride metabolism</td>
<td>Generally within 1 week</td>
<td>Avoid. Consider whether metoclopromide (Reglan) therapy is appropriate for the patient.</td>
</tr>
<tr>
<td>Cisapride plus class IA or class III antiarrhythmic agents, tricyclic antidepressants or phenothiazine</td>
<td>Prolongation of QT interval along with arrhythmias</td>
<td>Any time</td>
<td>Avoid. Consider whether metoclopromide therapy is appropriate for the patient.</td>
</tr>
<tr>
<td>Sildenafil (Viagra) plus nitrates</td>
<td>Dramatic hypotension</td>
<td>Soon after taking sildenafil</td>
<td>Absolute contraindication.</td>
</tr>
<tr>
<td>Sildenafil plus cimetidine, erythromycin, itraconazole or ketoconazole</td>
<td>Increased sildenafil levels</td>
<td>Any time</td>
<td>Initiate sildenafil at a 25-mg dose.</td>
</tr>
<tr>
<td>HMG-CoA reductase inhibitor plus niacin, gemfibrozil (Lopid), erythromycin or itraconazole</td>
<td>Possible rhabdomyolysis</td>
<td>Any time</td>
<td>Avoid if possible. If combination therapy is necessary, monitor the patient for toxicity.</td>
</tr>
<tr>
<td>Lovastatin (Mevacor) plus warfarin</td>
<td>Increased effect of warfarin</td>
<td>Any time</td>
<td>Monitor INR.</td>
</tr>
<tr>
<td>Combination</td>
<td>Potential Effect</td>
<td>Time of Appearance</td>
<td>Management</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------------------------------</td>
<td>------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>SSRI plus tricyclic antidepressant</td>
<td>Increased tricyclic antidepressant level</td>
<td>Any time</td>
<td>Monitor for anticholinergic excess and consider lower dosage of tricyclic antidepressant.</td>
</tr>
<tr>
<td>SSRI plus selegiline (Eldepryl) or nonselective monoamine oxidase inhibitor</td>
<td>Hypertensive crisis</td>
<td>Soon after initiation</td>
<td>Avoid.</td>
</tr>
<tr>
<td>SSRI plus tramadol (Ultram)</td>
<td>Increased potential for seizures; serotonin syndrome</td>
<td>Any time</td>
<td>Monitor the patient for signs and symptoms of serotonin syndrome.</td>
</tr>
<tr>
<td>SSRI plus St. John's wort</td>
<td>Serotonin syndrome</td>
<td>Any time</td>
<td>Avoid.</td>
</tr>
<tr>
<td>SSRI plus naratriptan (Amerge), rizatriptan (Mazalt), sumatriptan (Imitrex) or zolmitriptan (Zomig)</td>
<td>Serotonin syndrome</td>
<td>Possibly after initial dose</td>
<td>Avoid if possible. If combination therapy is necessary, monitor the patient for signs and symptoms of serotonin syndrome.</td>
</tr>
</tbody>
</table>

INR = International Normalized Ratio; NSAID = nonsteroidal anti-inflammatory drug; HMG-CoA = 3-hydroxy-3-methylglutarylcoenzyme A reductase inhibitor; SSRI = selective serotonin reuptake inhibitor.

Adapted from the American Family Physician. March 15, 2000
References:


