The NP chooses to give cephalexin every 8 hours based on knowledge of the drug's:
1
.
Propensity to go to the target receptor
2
.
Biological half-life
3
.
Pharmacodynamics
4
.
Safety & side effects
6.
Azithromycin dosing requires that the first day's dosage be twice those of the other 4 days of the prescription. This is considered a loading
dose. A loading dose:
1
.
Rapidly achieves drug levels in the therapeutic range
2
.
Requires four- to five-half-lives to attain
3
.
Is influenced by renal function
4
.
Is directly related to the drug circulating to the target tissues
7.
The point in time on the drug concentration curve that indicates the first sign of a therapeutic effect is the:
1
.
Minimum adverse effect level
2
.
Peak of action
3
.
Onset of action
4
.
Therapeutic range
8.
Phenytoin requires that a trough level be drawn. Peak & trough levels are done:
1
.
When the drug has a wide therapeutic range
2
.
When the drug will be administered for a short time only
3
.
When there is a high correlation between the dose & saturation of receptor sites
4
.
To determine if a drug is in the therapeutic range
9.
A laboratory result indicates that the peak level for a drug is above the minimum toxic concentration. This means that the:
1
.
Concentration will produce therapeutic effects
2
.
Concentration will produce an adverse response

3
.

.
They were given written material, such as pamphlets, about the drugs
4
.
The provider used appropriate medical & pharmacological terms
10.
Patients with psychiatric illnesses have adherence rates to their drug regimen between 35% & 60%. To improve adherence in this
population, prescribe drugs:
1
.
With a longer half-life so that missed doses produce a longer taper on the drug curve
2
.
In oral formulations that are more easily taken
3
.
That do not require frequent monitoring
4
.
Combined with patient education about the need to adhere even when symptoms are absent

11.
Many disorders require multiple drugs to treat them. The more complex the drug regimen, the less likely the patient will adhere to it. Which
of the following interventions will NOT improve adherence?
1
.
Have the patient purchase a pill container with compartments for daily or multiple times-per-day dosing.
2
.
Match the clinic appointment to the next time the drug is to be refilled.
3
.
Write prescriptions for new drugs with shorter times between refills.
4
.
Give the patient a clear drug schedule that the provider devises to fit the characteristic of the drug.
12.
Pharmacologic interventions are costly. Patients for whom the cost/benefit variable is especially important include:
1
.
Older adults & those on fixed incomes
2
.
Patients with chronic illnesses
3
.
Patients with copayments for drugs on their insurance
4
.
Patients on public assistance
13.
Providers have a responsibility for determining the best plan of care, but patients also have responsibilities. Patients the provider can be
assured will carry through on these responsibilities include those who:
1. Are well-educated & affluent
2. Have chronic conditions
3. Self-monitor drug effects on their symptoms
4. None of the above guarantee adherence
14.
Monitoring adherence can take several forms, including:
1. Patient reports from data in a drug diary
2. Pill counts
3. Laboratory reports & other diagnostic markers
4. All of the above
15.
Factors that explain & predict medication adherence include:

Discrimination, cultural barriers, & lack of access to health care
6.
The racial difference in drug pharmacokinetics seen in American Indian or Alaskan Natives are:
1
.
Increased CYP 2D6 activity, leading to rapid metabolism of some drugs
2
.
Largely unknown due to lack of studies of this population
3
.
Rapid metabolism of alcohol, leading to increased tolerance
4
.
Decreased elimination of opioids, leading to increased risk for addiction
7.
Pharmacokinetics among Asians are universal to all the Asian ethnic groups.
1
.
True
2
.
False
8.
Alterations in drug metabolism among Asians may lead to:
1
.
Slower metabolism of antidepressants, requiring lower doses
2
.
Faster metabolism of neuroleptics, requiring higher doses
3
.
Altered metabolism of omeprazole, requiring higher doses
4
.
Slower metabolism of alcohol, requiring higher doses
9.
Asians from Eastern Asia are known to be fast acetylators. Fast acetylators:
1
.
Require acetylization in order to metabolize drugs
2
.
Are unable to tolerate higher doses of some drugs that require acetylization
3
.
May have a toxic reaction to drugs that require acetylization
4
.
Require higher doses of drugs metabolized by acetylization to achieve efficacy
10.
Hispanic native healers (*cur&eras*):
1
.
Are not heavily utilized by Hispanics who immigrate to the United States
2
.
Use herbs & teas in their treatment of illness
3
.
Provide unsafe advice to Hispanics & should not be trusted
4
.
Need to be licensed in their home country in order to practice in the United States

Chapter 8. An Introduction to Pharmacogenomics

1.
Genetic polymorphisms account for differences in metabolism, including:
1. Poor metabolizers, who lack a working enzyme

Traditional Chinese medicine utilizes yin (cooling) versus yang (warming) in assessing & treating disease. Menopause is considered a time
of imbalance, therefore the Chinese herbalist would prescribe:
1
.
Herbs which are yang in nature
2
.
Herbs that are yin in nature
3
.
Ginger
4
.
Golden seal
5.
According to traditional Chinese medicine, if a person who has a fever is given a herb that is yang in nature, such as golden seal, the
patient's illness will:
1
.
Get worse
2
.
Get better
3
.
Not be adequately treated
4
.
Need additional herbs to treat the yang
6.
In Ayurvedic medicine, treatment is based on the patient's dominant dosha, which is referred to as the person's:
1
.
Vata
2
.
Pitta
3
.
Kapha
4
.
Prakriti
7.
Herbs & supplements are regulated by the U.S. Food & Drug Administration.
1
.
True
2
.
False
8.
When melatonin is used to induce sleep, the recommendation is that the patient:
1
.
Take 10 mg 30 minutes before bed nightly
2
.
Take 1 to 5 mg 30 minutes before bed nightly
3
.
Not take melatonin more than three nights a week
4
.
Combine melatonin with zolpidem (Ambien) for the greatest impact on sleep
9.

Valerian tea causes relaxation & can be used to help a patient fall asleep. Overdosage of valerian (more than 2.5 gm/dose) may lead to:
1
.
Cardiac disturbances
2
.
Central nervous system depression
3
.
Respiratory depression
4
.
Skin rashes
10.
The standard dosage of St John's wort for the treatment of mild depression is:
1
.
300 mg daily
2
.
100 mg three times a day
3
.
300 mg three times a day
4
.
600 mg three times a day
11.
Patients need to be instructed regarding the drug interactions with St John's wort, including:
1. MAO inhibitors

2. Serotonin reuptake inhibitors
3. Over-the-counter cough & cold medications
4. All of the above
12.
Ginseng, which is taken to assist with memory, may potentiate:
1
.
Aricept
2
.
Insulin
3
.
Digoxin
4
.
Propranolol
13.
Licorice root is a common treatment for dyspepsia. Drug interactions with licorice include:
1. Antihypertensives, diuretics, & digoxin
2. Antidiarrheals, antihistamines, & omeprazole
3. Penicillin antibiotic class & benzodiazepines
4. None of the above
14.
Patients should be warned about the overuse of topical wintergreen oil to treat muscle strains, as overapplication can lead to:
1
.
Respiratory depression
2
.
Cardiac disturbance
3
.
Salicylates poisoning
4
.

Reduce the chance of tardive dyskinesia
2
.
Potentiate the effects of the drug
3
.
Reduce the tolerance that tends to occur
4
.
Increase central nervous system (CNS) depression
24.
Patients who are prescribed olanzapine (Zyprexa) should be monitored for:
1
.
Insomnia
2
.
Weight gain
3
.
Hypertension
4
.
Galactorrhea
25.
A 19-year-old male was started on risperidone. Monitoring for risperidone includes observing for common side effects, including:
1
.
Bradykinesia, akathisia, & agitation
2
.
Excessive weight gain
3
.
Hypertension
4
.
Potentially fatal agranulocytosis
26.
In choosing a benzodiazepam to treat anxiety the prescriber needs to be aware of the possibility of dependence. The benzodiazepam with
the greatest likelihood of rapidly developing dependence is:
1
.
Chlordiazepoxide (Librium)
2
.
Clonazepam (Klonopin)
3
.
Alprazolam (Xanax)
4
.
Oxazepam (Serax)
27.
A patient with anxiety & depression may respond to:
1
.
Duloxetine (Cymbalta)
2
.
Fluoxetine (Prozac)
3
.
Oxazepam (Serax)
4
.
Buspirone (Buspar) & an SSRI combined

.
Increased contractility
4
.
Edema of the h&s & feet
10.
Patient teaching related to amlodipine includes:
1
.
Increase calcium intake to prevent osteoporosis from a calcium blockade.
2
.
Do not crush the tablet; it must be given in liquid form if the patient has trouble swallowing it.
3
.
Avoid grapefruit juice as it affects the metabolism of this drug.
4
.
Rise slowly from a supine position to reduce orthostatic hypotension.
11.
Vera, age 70, has isolated systolic hypertension. Calcium channel blocker dosages for her should be:
1
.
Started at about half the usual dosage
2
.
Not increased over the usual dosage for an adult
3
.
Given once daily because of memory issues in the older adult
4
.
Withheld if she experiences gastroesophageal reflux
12.
Larry has heart failure, which is being treated with digoxin. He also exhibits:
1. Negative inotropism
2. Positive chronotropism
3. Both 1 & 2
4. Neither 1 nor 2
13.
Furosemide is added to a treatment regimen for heart failure that includes digoxin. Monitoring for this combination includes:
1
.
Hemoglobin
2
.
Serum potassium

3
.
Blood urea nitrogen
4
.
Serum glucose
14.
Which of the following create a higher risk for digoxin toxicity? Both the cause & the reason for it must be correct.
1
.
Older adults because of reduced renal function
2
.
Administration of aldosterone antagonist diuretics because of decreased potassium levels
3
.
Taking an antacid for gastroesophageal reflux disease because it increases the absorption of digoxin

.
Albuterol, a short-acting beta-agonist
4
.
Montelukast, a leukotriene modifier
4.
Long-acting beta-agonists (LTBAs) received a Black Box Warning from the U.S. Food & Drug Administration due to the:
1
.
Risk of life-threatening dermatological reactions
2
.
Increased incidence of cardiac events when LTBAs are used
3
.
Increased risk of asthma-related deaths when LTBAs are used
4
.
Risk for life-threatening alterations in electrolytes
5.
The bronchodilator of choice for patients taking propranolol is:
1
.
Albuterol
2
.
Pirbuterol
3
.
Formoterol
4
.
Ipratropium
6.
James is a 52-year-old overweight smoker taking theophylline for his persistent asthma. He tells his provider he is going to start the Atkin's
diet for weight loss. The appropriate response would be:
1
.
Congratulate him on making a positive change in his life.
2
.
Recommend he try stopping smoking instead of the Atkin's diet.
3
.
Schedule him for regular testing of serum theophylline levels during his diet due
to increased excretion of theophylline.
4
.
Decrease his theophylline dose because a high-protein diet may lead to elevated
theophylline levels.
7.
Li takes theophylline for his persistent asthma & calls the office with a complaint of nausea, vomiting, & headache. The best advice for him
would be to:
1
.
Reassure him this is probably a viral infection & should be better soon
2
.
Have him seen the same day for an assessment & theophylline level
3
.
Schedule him for an appointment in 2 to 3 days, which he can cancel if he is
better
4
.
Order a theophylline level at the laboratory for him

.
Patients with acute febrile illness
13.
Immune globulin serums:
1
.
Provide active immunity against infectious diseases
2
.
Are contraindicated during pregnancy
3
.
Are heated to above body temperature to kill most hepatitis, HIV, & other viruses such as parvovirus
4
.
Are derived from pooled plasma of adults & contain specific antibodies in proportion to the donor population
14.
Hepatitis B immune globulin is administered to provide passive immunity to:
1. Infants born to HBsAg-positive mothers
2. Household contacts of hepatitis-B virus infected people
3. Persons exposed to blood containing hepatitis B virus
4. All of the above
15.
Rh_o(D) immune globulin (RhoGAM) is given to:

1
.
Infants born to women who are Rh positive
2
.
Sexual partners of Rh-positive women
3
.
Rh-negative women after a birth, miscarriage, or abortion
4
.
Rh-negative women at 28 weeks gestation
16.
Tuberculin purified protein derivative:
1
.
Is administered to patients who are known tuberculin-positive reactors
2
.
May be administered to patients who are on immunosuppressives
3
.
May be administered 2 to 3 weeks after an MMR or varicella vaccine
4
.
May be administered the same day as the MMR &/or varicella vaccine
17.
Diane may benefit from cyclosporine (S&immune). Cyclosporin may be prescribed to:
1
.
Treat rheumatoid arthritis
2
.
Treat patients with corn allergy
3
.
Pregnant patients
4
.
Treat patients with liver dysfunction
18.
Azathioprine has significant adverse drug effects, including:

.
15 to 30 minutes
2
.
60 to 90 minutes
3
.
3 to 4 hours
4
.
6 to 8 hours
7.
Hypoglycemia can result from the action of either insulin or an oral hypoglycemic. Signs & symptoms of hypoglycemia include:
1
.
“Fruity” breath odor & rapid respiration
2
.
Diarrhea, abdominal pain, weight loss, & hypertension
3
.
Dizziness, confusion, diaphoresis, & tachycardia
4
.
Easy bruising, palpitations, cardiac dysrhythmias, & coma
8.
Nonselective beta blockers & alcohol create serious drug interactions with insulin because they:
1
.
Increase blood glucose levels
2
.
Produce unexplained diaphoresis
3
.
Interfere with the ability of the body to metabolize glucose
4
.
Mask the signs & symptoms of altered glucose levels
9.
Lispro is an insulin analogue produced by recombinant DNA technology. Which of the following statements about this form of insulin is
NOT true?
1
.
Optimal time of prepr&ial injection is 15 minutes.
2
.
Duration of action is increased when the dose is increased.
3
.
It is compatible with neutral protamine Hagedorn insulin.
4
.
It has no pronounced peak.
10.
The decision may be made to switch from twice daily neutral protamine Hagedorn (NPH) insulin to insulin glargine to improve glycemia
control throughout the day. If this is done:
1
.
The initial dose of glargine is reduced by 20% to avoid hypoglycemia.
2
.
The initial dose of glargine is 2 to 10 units per day.

3
.

2
.
Advising a monthly pregnancy test for the first 3 months she is taking the
contraceptive
3
.
Advising that she may miss two pills in a row & not be concerned about
pregnancy
4
.
Recommending that her next follow-up visit is in 1 year for a refill & annual
exam
11.
A 19-year-old female is a nasal *Staph aureus* carrier & is placed on 5 days of rifampin for treatment. Her only other medication is combined
oral contraceptives. What education should she receive regarding her medications?
1
.
Separate the oral ingestion of the rifampin & oral contraceptive by at least an
hour.
2
.
Both medications are best tolerated if taken on an empty stomach.
3
.
She should use a back-up method of birth control such as condoms for the rest of
the current pill pack.
4
.
If she gets nauseated with the medications she should call the office for an
antiemetic prescription.
12.
A 56-year-old woman is complaining of vaginal dryness & dyspareunia. To treat her symptoms with the lowest adverse effects she should
be prescribed:
1
.
Low-dose oral estrogen
2
.
A low-dose estrogen/progesterone combination
3
.
A vaginal estradiol ring
4
.
Vaginal progesterone cream
13.
Shana is receiving her first medroxyprogesterone (Depo Provera) injection. Shana will need to be monitored for:
1
.
Depression
2
.
Hypertension

3
.
Weight loss
4
.
Cataracts
14.
When prescribing medroxyprogesterone (Depo Provera) injections, essential education would include advising of the following potential
adverse drug effects:
1
.

Eating a high carbohydrate diet with plenty of fluids
4
.
Small amounts of alcohol are generally tolerated.
11.
All nonsteroidal anti-inflammatory drugs (NSAIDS) have an FDA Black Box Warning regarding:
1
.
Potential for causing life-threatening GI bleeds
2
.
Increased risk of developing systemic arthritis with prolonged use
3
.
Risk of life-threatening rashes, including Stevens-Johnson
4
.
Potential for transient changes in serum glucose
12.
Jamie has fractured his ankle & has received a prescription for acetaminophen & hydrocodone (Vicodin). Education when prescribing
Vicodin includes:
1
.
It is okay to double the dose of Vicodin if the pain is severe.
2
.
Vicodin is not habit-forming.
3
.
He should not take any other acetaminophen-containing medications.
4
.
Vicodin may cause diarrhea; increase his fluid intake.

13.
When prescribing NSAIDS, a complete drug history should be conducted as NSAIDs interact with these drugs:
1
.
Omeprazole, a proton pump inhibitor
2
.
Combined oral contraceptives
3
.
Diphenhydramine, an antihistamine
4
.
Warfarin, an anticoagulant
14.
Josefina is a 2-year-old child with acute otitis media & an upper respiratory infection. Along with an antibiotic she receives a
recommendation to treat the ear pain with ibuprofen. What education would her parent need regarding ibuprofen?
1
.
They can cut an adult ibuprofen tablet in half to give Josefina.
2
.
The ibuprofen dose can be doubled for severe pain.
3
.
Josefina needs to be well-hydrated while taking ibuprofen.
4
.
Ibuprofen is completely safe in children with no known adverse effects.
15.
Henry is 82 years old & takes two aspirin every morning to treat the arthritis pain in his back. He states the aspirin helps him to “get going”

each day. Lately he has had some heartburn from the aspirin. After ruling out an acute GI bleed, what would be an appropriate course of treatment for
Henry?
1
.
Add an H_2 blocker such as ranitidine to his therapy.
2
.
Discontinue the aspirin & switch him to Vicodin for the pain.
3
.
Decrease the aspirin dose to one tablet daily.
4
.
Have Henry take an antacid 15 minutes before taking the aspirin each day.
16.
The trial period to determine effective anti-inflammatory activity aspirin for rheumatoid arthritis is:
1
.
48 hours
2
.
4 to 6 days
3
.
4 weeks
4
.
2 months
17.
Patients prescribed aspirin therapy require education regarding the signs of aspirin toxicity. An early sign of aspirin toxicity is:
1
.
Black tarry stools
2
.
Vomiting
3
.
Tremors
4
.
Tinnitus
18.
Monitoring a patient on a high-dose aspirin level includes:
1. Salicylate level
2. Complete blood count
3. Urine pH
4. All of the above
19.
Patients who are on long-term aspirin therapy should have __ annually.
1
.
Complete blood count
2
.
Salicylate level
3
.
Amylase
4
.
Urine analysis

1.

Obesity
5.
To reduce mortality, all patients with angina, regardless of class, should be on:
1
.
Aspirin 81 to 325 mg/d
2
.
Nitroglycerin sublingually for chest pain
3
.
ACE inhibitors or angiotensin receptor blockers
4
.
Digoxin
6.
Patients who have angina, regardless of class, who are also diabetic, should be on:
1
.
Nitrates
2
.
Beta blockers
3
.
ACE inhibitors
4
.
Calcium channel blockers
7.
Management of all types & grades of angina includes the use of lifestyle modification to reduce risk factors. Which of these modifications
are appropriate for which reason? Both the modification & the reason for it must be true for the answer to be correct.
1
.
Lose at least 10 pounds of body weight. Excessive weight increases cardiac workload.
2
.
Reduce sodium intake to no more than 2,400 mg of sodium. Sodium increases blood volume & cardiac workload.
3
.
Increase potassium intake to at least 100 mEq/d. The heart needs higher levels of potassium to improve contractility & oxygen supply.
4
.
Intake a moderate amount of alcohol. Moderate intake has been shown by research to improve cardiac function.
8.
Nitrates are especially helpful for patients with angina who also have:
1. Heart failure
2. Hypertension
3. Both 1 & 2
4. Neither 1 nor 2
9.
Beta blockers are especially helpful for patients with exertional angina who also have:
1
.
Arrhythmias
2
.
Hypothyroidism
3
.
Hyperlipidemia
4
.

No exacerbations
4
.
Minimal use of inhaled corticosteroids
12.
Medications used in the management of patients with chronic obstructive pulmonary disease(COPD) include:
1. Inhaled beta-2-agonists
2. Inhaled anticholinergics (ipratropium)
3. Inhaled corticosteroids
4. All of the above
13.
Patients with a COPD exacerbation may require:
1
.
Doubling of inhaled corticosteroid dose
2
.
Systemic corticosteroid burst
3
.
Continuous inhaled beta-2-agonists
4
.
Leukotriene therapy
14.
Patients with COPD require monitoring of:
1
.
Beta-2-agonist use
2
.
Serum electrolytes
3
.
Blood pressure
4
.
Neuropsychiatric effects of montelukast
15.
Education of patients with COPD who use inhaled corticosteroids includes:
1
.
Doubling the dose at the first sign of a URI
2
.
Using their inhaled corticosteroid first & then their bronchodilator

3
.
Rinsing their mouth after use
4
.
Abstaining from smoking for at least 30 minutes after using
16.
Education for patients who use an inhaled beta-agonist & an inhaled corticosteroid includes:
1
.
Use the inhaled corticosteroid first, followed by the inhaled beta-agonists.
2
.
Use the inhaled beta-agonist first, followed by the inhaled corticosteroid.
3
.
Increase fluid intake to 3 liters per day.
4
.
Avoid use of aspirin or ibuprofen while using inhaled medications.

Chapter 31. Contraception

1.

.
Increased risk of developing blood clots
3
.
Irregular vaginal bleeding for the first few months
4
.
Increased risk for hypercalcemia
11.
An advantage of using the NuvaRing vaginal ring for contraception is:
1
.
It does not require fitting & is easy to insert.
2
.
It is inserted once a week, eliminating the need to remember to take a daily pill.
3
.
Patients get a level of estrogen & progestin equal to combined oral contraceptives.
4
.
It also provides protection against vaginal infections.
12.
Oral emergency contraception (Plan B) is contraindicated in women who:
1
.
Had intercourse within the past 72 hours
2
.
May be pregnant
3
.
Are taking combined oral contraceptives
4
.
Are using a diaphragm

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Chapter 32. Dermatologic Conditions

1.
When choosing a topical corticosteroid cream to treat diaper dermatitis, the ideal medication would be:
1
.
Intermediate potency corticosteroid ointment (Kenalog)
2
.
A combination of a corticosteroid & an antifungal (Lotrisone)
3
.
A low-potency corticosteroid cream applied sparingly (hydrocortisone 1%)
4
.
A high-potency corticosteroid cream (Diprolene AF)
2.
Topical immunomodulators such as pimecrolimus (Elidel) or tacrolimus (Protopic) are used for:
1
.
Short-term or intermittent treatment of atopic dermatitis
2
.
Topical treatment of fungal infections (*C&ida*)
3
.
Chronic, inflammatory seborrheic dermatitis
4
.
Recalcitrant nodular acne
3.
Long-term treatment of moderate atopic dermatitis includes:

8.
Mild acne may be initially treated with:
1
.
Topical combined antibiotic
2
.
Minocycline
3
.
Topical retinoid
4
.
OTC benzoyl peroxide
9.
Tobie presents to the clinic with moderate acne. He has been using OTC benzoyl peroxide at home with minimal improvement. A topical
antibiotic (clindamycin) & a topical retinoid adapalene (Differin) are prescribed. Education of Tobie would include:
1
.
He should see an improvement in his acne within the first 2 weeks of treatment.
2
.
If there is no response in a week, double the daily application of adapalene
(Differin).
3
.
He may see an initial worsening of his acne that will improve in 6 to 8 weeks.
4
.
Adapalene may cause bleaching of clothing.
10.
Josie has severe cystic acne & is requesting treatment with Accutane. The appropriate treatment for her would be:
1
.
Order a pregnancy test & if it is negative prescribe the isotretinoin (Accutane).
2
.
Order Accutane after educating her on the adverse effects.
3
.
Recommend she try oral antibiotics (minocycline).
4
.
Refer her to a dermatologist for treatment.
11.
The most cost-effective treatment for two or three impetigo lesions on the face is:
1
.
Mupirocin ointment
2
.
Retapamulin (Altabax) ointment
3
.
Topical clindamycin solution
4
.
Oral amoxicillin/clavulanate (Augmentin)
12.
Dwayne has classic tinea capitis. Treatment for tinea on the scalp is:
1
.
Miconazole cream rubbed in well for 4 weeks
2
.
Oral griseofulvin for 6 to 8 weeks
3

4
.
Benzoyl alcohol (Ulesfia)
18.
Rick has male pattern baldness on the vertex of his head & has been using Rogaine for 2 months. He asks how effective minoxidil
(Rogaine) is. Minoxidil:
1
.
Provides a permanent solution to male pattern baldness if used for at least 4 months
2
.
Will show results after 4 months of twice-a-day use
3
.
May not work for Rick’s type of baldness
4
.
Works better if he also uses hydrocortisone cream daily on his scalp

Chapter 33. Diabetes Mellitus

1.
Type 1 diabetes results from autoimmune destruction of the beta cells. Eighty-five to 90% of type 1 diabetics have:
1
.
Autoantibodies to two tyrosine phosphatases
2
.
Mutation of the hepatic transcription factor on chromosome 12
3
.
A defective glucokinase molecule due to a defective gene on chromosome 7p
4
.
Mutation of the insulin promoter factor
2.
Type 2 diabetes is a complex disorder involving:
1
.
Absence of insulin production by the beta cells
2
.
A suboptimal response of insulin-sensitive tissues in the liver
3
.
Increased levels of glucagon-like peptide in the postpr&ial period
4
.
Too much fat uptake in the intestine
3.
Diagnostic criteria for diabetes include:

1
.
Fasting blood glucose greater than 140 mg/dl on two occasions
2
.
Postpr&ial blood glucose greater than 140 mg/dl
3
.
Fasting blood glucose 100 to 125 mg/dl on two occasions
4
.
Symptoms of diabetes plus a casual blood glucose greater than 200 mg/dl
4.
Routine screening of asymptomatic adults for diabetes is appropriate for:
1
.
Individuals who are older than 45 & have a BMI of less than 25 kg/m_2

3
.
Plasma glucose levels are the same for children as adults.
4
.
Conventional therapy has a fasting plasma glucose target between 120 & 150 mg/dl.
15.
Treatment with insulin for type 1 diabetics:
1
.
Starts with a total daily dose of 0.2 to 0.4 units per kg of body weight
2
.
Divides the total doses into three injections based on meal size
3
.
Uses a total daily dose of insulin glargine given once daily with no other insulin required
4
.
Is based on the level of blood glucose
16.
When the total daily insulin dose is split & given twice daily, which of the following rules may be followed?
1
.
Give two-thirds of the total dose in the morning & one-third in the evening.
2
.
Give 0.3 units per kg of premixed 70/30 insulin with one-third in the morning & two-thirds in the evening.
3
.
Give 50% of an insulin glargine dose in the morning & 50% in the evening.
4
.
Give long-acting insulin in the morning & short-acting insulin at bedtime.
17.
Studies have shown that control targets that reduce the HbA1C to less than 7% are associated with fewer long-term complications of
diabetes. Patients who should have such a target include:
1
.
Those with long-st&ing diabetes
2
.
Older adults
3
.
Those with no significant cardiovascular disease

4
.
Young children who are early in their disease
18.
Prevention of conversion from prediabetes to diabetes in young children must take highest priority & should focus on:
1. Aggressive dietary manipulation to prevent obesity
2. Fostering LDL levels less than 100 mg/dl & total cholesterol less than 170 mg/dl to prevent cardiovascular disease
3. Maintaining a blood pressure that is less than 80% based on weight & height to prevent hypertension
4. All of the above
19.
The drugs recommended by the American Academy of Pediatrics for use in children with diabetes (depending upon type of diabetes) are:
1
.

.
Angiotensin-converting enzymeinhibitors & aspirin to reduce risk of cardiovascular events
3
.
Sulfonylureas to decrease cardiovascular mortality
4
.
Pioglitazone to decrease atherosclerotic plaque buildup
25.
All diabetic patients with hyperlipidemia should be treated with:
1 HMG-CoA reductase inhibitors

.
2
.
Fibric acid derivatives
3
.
Nicotinic acid
4
.
Colestipol
26.
Both angiotensin converting enzymeinhibitors & some angiotensin II receptor blockers have been approved in treating:
1. Hypertension in diabetic patients
2. Diabetic nephropathy
3. Both 1 & 2
4. Neither 1 nor 2
27.
Protein restriction helps slow the progression of albuminuria, glomerular filtration rate decline & end stage renal disease in some patients
with diabetes. It is useful for patients who:
1
.
Cannot tolerate angiotensin converting enzyme inhibitors or angiotensin receptorblockers
2
.
Have uncontrolled hypertension
3
.
Have HbA1C levels above 7%
4
.
Show progression of diabetic nephropathy despite optimal glucose & blood pressure control
28.
Diabetic autonomic neuropathy (DAN) is the earliest & most common complication of diabetes. Symptoms associated with DAN include:
1
.
Resting tachycardia, exercise intolerance, & orthostatic hypotension
2
.
Gastroparesis, cold intolerance, & moist skin
3
.
Hyperglycemia, erectile dysfunction, & deficiency of free fatty acids
4
.
Pain, loss of sensation, & muscle weakness
29.
Drugs used to treat diabetic peripheral neuropathy include:
1
.
Metoclopramide

.
Hyperglycemic hyperosmolar syndrome (HHS)
3
.
Infection
4
.
Hypoglycemia
34.
What would one expected assessment finding be for hyperglycemic hyperosmolar syndrome?
1
.
Low hemoglobin
2
.
Ketones in the urine
3
.
Deep, labored breathing
4
.
pH of 7.35
35.
A patient on metformin & glipizide arrives at her 11:30 a.m. clinic appointment diaphoretic & dizzy. She reports taking her medication this
morning & ate a bagel & coffee for breakfast. BP is 110/70 & r&om finger-stick glucose is 64. How should this patient be treated?
1
.
12 oz apple juice with 1 tsp sugar
2
.
10 oz diet soda
3
.
8 oz milk or 4 oz orange juice
4
.
4 cookies & 8 oz chocolate milk

Chapter 34. Gastroesophageal Reflux & Peptic Ulcer Disease

1.
Gastroesophageal reflux disease may be aggravated by the following medication that affects lower esophageal sphincter (LES) tone:
1
.
Calcium carbonate
2
.
Estrogen
3
.
Furosemide
4
.
Metoclopramide
2.
Lifestyle changes are the first step in treatment of gastroesophageal reflux disease (GERD). Food or drink that may aggravate GERD
include:
1
.
Eggs
2
.
Caffeine
3
.
Chocolate
4

.
Soda pop
3.
Metoclopramide improves gastroesophageal reflux disease symptoms by:
1
.
Reducing acid secretion
2
.
Increasing gastric pH
3
.
Increasing lower esophageal tone
4
.
Decreasing lower esophageal tone
4.
Antacids treat gastroesophageal reflux disease by:
1
.
Increasing lower esophageal tone
2
.
Increasing gastric pH
3
.
Inhibiting gastric acid secretion
4
.
Increasing serum calcium level
5.
When treating patients using the “Step-Down” approach the patient with gastroesophageal reflux disease is started on ___ first.
1
.
Antacids
2
.
Histamine$_2$ receptor antagonists
3
.
Prokinetics
4
.
Proton pump inhibitors
6.
If a patient with symptoms of gastroesophageal reflux disease states that he has been self-treating at home with OTC ranitidine daily, the
appropriate treatment would be:
1
.
Prokinetic (metoclopramide) for 4 to 8 weeks
2
.
Proton pump inhibitor (omeprazole) for 12 weeks
3
.
Histamine$_2$ receptor antagonist (ranitidine) for 4 to 8 weeks
4
.
Cytoprotective drug (misoprostol) for 2 weeks
7.
If a patient with gastroesophageal reflux disease who is taking a proton pump inhibitor daily is not improving, the plan of care would be:
1
.
Prokinetic (metoclopramide) for 8 to 12 weeks
2

Proton pump inhibitor bid plus metronidazole plus tetracycline plus bismuth subsalicylate for 14 days
2
.
Test *H. pylori* for resistance to common treatment regimens
3
.
Proton pump inhibitor plus clarithromycin plus amoxicillin for 14 days
4
.
Proton pump inhibitor & levofloxacin for 14 days
14.
After *H. pylori* treatment is completed, the next step in peptic ulcer disease therapy is:
1. Testing for *H. pylori* eradication with a serum ELISA test
2. Endoscopy by a specialist
3. A proton pump inhibitor for 8 to 12 weeks until healing is complete
4. All of the above

Chapter 35. Headaches

1.
Paige has a history of chronic migraines & would benefit from preventative medication. Education regarding migraine preventive medication includes:
1
.
Medication is taken at the beginning of the headache to prevent it from getting worse.
2
.
Medication alone is the best preventative against migraines occurring.
3
.
Medication should not be used more than four times a month.
4
.
The goal of treatment is to reduce migraine occurrence by 50%.
2.
A first-line drug for abortive therapy in simple migraine is:
1
.
Sumatriptan (Imitrex)
2
.
Naproxen (Aleve)
3
.
Butorphanol nasal spray (Stadol NS)
4
.
Butalbital & acetaminophen (Fioricet)
3.
Vicky, age 56 years, comes to the clinic requesting a refill of her Fiorinal (aspirin & butalbital) that she takes for migraines. She has been taking this medication for over 2 years for migraines & states one dose usually works to abort her migraine. What is the best care for her?
1
.
Switch her to sumatriptan (Imitrex) to treat her migraines.
2
.
Assess how often she is using Fiorinal & refill her medication.
3 Switch her to a beta blocker such as propranolol to prevent her migraine.

.
4
.
Request she return to the original prescriber of Fiorinal as you do not prescribe butalbital for migraines.
4.

4. All of the above
13.
James has been diagnosed with cluster headaches. Appropriate acute therapy would be:
1
.
Butalbital & aspirin (Fiorinal)
2
.
Meperidine IM (Demerol)
3
.
Oxygen 100% for 15 to 30 minutes
4
.
Indomethacin (Indocin)
14.
Preventative therapy for cluster headaches includes:
1
.
Massage or relaxation therapy
2
.
Ergotamine nightly before bed
3
.
Intranasal lidocaine four times a day during “clusters” of headaches
4
.
Propranolol (Inderal) daily
15.
When prescribing any headache therapy, appropriate use of medications needs to be discussed to prevent medication-overuse headaches. A
clinical characteristic of medication-overuse headaches is that they:
1
.
Are increasing in frequency
2
.
Are increasing in intensity
3
.
Recur when medication wears off
4
.
Begin to “cluster” into a pattern

Chapter 36. Heart Failure

1.
Angiotensin-converting-enzyme(ACE) inhibitors are a central part of the treatment of heart failure because they have more than one action
to address the pathological changes in this disorder. Which of the following pathological changes in heart failure is NOT addressed by ACE
inhibitors?
1
.
Changes in the structure of the left ventricle so that it dilates, hypertrophies, &
uses energy less efficiently.
2
.
Reduced formation of cross-bridges so that contractile force decreases.

3
.
Activation of the sympathetic nervous system that increases heart rate & preload.
4
.
Decreased renal blood flow that decreases oxygen supply to the kidneys.
2.

2
.
Known cancer mets into the bone
3
.
Persons with advancing renal dysfunction
4
.
Progression of bone loss on oral formulations
18.
What is the established frequency of repeating DEXA imaging after stating bisphosphonates?
1
.
Every 2 years
2
.
Every 5 years

3
.
There is no evidence-based time line for monitoring after the first 2 years
4
.
There need to be annual exams
19.
What is the duration of SERM use for menopausal issues?
1
.
It matches the 5 years for estrogen products
2
.
The bone health impact allows long-term use
3
.
The increased risk of breast cancer encourages tapering as soon as possible
4
.
The abnormal lipid profile contributes to an early termination as soon as hot flashes no longer occur
20.
What are VE/MS generally not ordered for women early into menopause?
1
.
The rapid onset of severe hot flashes can be unbearable.
2
.
The bone remodeling effect results in osteoporosis.
3
.
They tend to induce intermittent spotting.
4
.
They create more risk with breast cancer than they are worth.

Chapter 39. Hyperlipidemia

1.
The overall goal of treating hyperlipidemia is:
1. Maintain an LDL level of less than 160 mg/dL
2. To reduce atherogenesis
3. Lowering apo B, one of the apoliproteins
4. All of the above
2.
When considering which cholesterol-lowering drug to prescribe, which factor determines the type & intensity of treatment?
1
.
Total LDL
2
.
Fasting HDL

Recurrent episodes of diarrhea several times a day
3
.
Long-term issues of constipation
4
.
Needing to take multiple medications around the clock every 2 hours
18.
What is considered the order of statin strength from lowest effect to highest?
1
.
Lovastatin, Simvastatin, Rosuvastatin
2
.
Rosuvastatin, Lovastatin, Atorvastatin
3
.
Atorvastatin, Rosuvastatin, Simvastatin
4
.
Simvastatin, Atorvastatin, Lovastatin

Chapter 40. Hypertension98
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1.
Because primary hypertension has no identifiable cause, treatment is based on interfering with the physiological mechanisms that regulate
blood pressure. Thiazide diuretics treat hypertension because they:
1
.
Increase renin secretion
2
.
Decrease the production of aldosterone
3
.
Deplete body sodium & reduce fluid volume
4
.
Decrease blood viscosity
2.
Because of its action on various body systems, the patient taking a thiazide or loop diuretic may also need to receive the following
supplement:
1
.
Potassium
2
.
Calcium
3
.
Magnesium
4
.
Phosphates
3.
All patients with hypertension benefit from diuretic therapy, but those who benefit the most are:
1
.
Those with orthostatic hypertension
2
.
African Americans
3
.
Those with stable angina
4
.
Diabetics

4
.
Require additional laboratory tests such as serum creatinine
14.
Lack of adherence to blood pressure management is very common. Reasons for this lack of adherence include:
1. Lifestyle changes are difficult to achieve & maintain.
2. Adverse drug reactions are common & often fall into the categories more
associated with nonadherence.
3. Costs of drugs & monitoring with laboratory tests can be expensive.
4. All of the above
15.
Lifestyle modifications for patients with prehypertension or hypertension include:
1
.
Diet & increase exercise to achieve a BMI greater than 25.
2
.
Drink 4 ounces of red wine at least once per week.
3 Adopt the dietary approaches to stop hypertension (DASH) diet.

.
4
.
Increase potassium intake.
16.
Which diuretic agents typically do not need potassium supplementation?
1
.
The loop diuretics
2
.
The thiazide diuretics
3
.
The aldosterone inhibitors
4
.
They all need supplementation
17.
Aldactone family medications are frequently used when the hypertensive patient also has:
1
.
Hyperkalemia
2
.
Advancing liver dysfunction
3
.
The need for birth control
4
.
Rheumatoid arthritis
18.
Hypertensive African Americans are typically listed as not being as responsive to which drug groups?
1
.
ACE inhibitors
2
.
Calcium channel blockers
3
.
Diuretics
4
.
Bidil (hydralazine family of medications)
19.
What educational points concerning fluid intake must be covered with diuretic prescriptions?
1

Infants with congenital hypothyroidism are treated with:
1
.
Levothyroxine
2
.
Liothyronine
3
.
Liotrix
4
.
Methimazole
10.
When starting a patient with hypothyroidism on thyroid replacement hormones patient education would include:
1
.
They should feel symptomatic improvement in 1 to 2 weeks.
2
.
Drug adverse effects such as lethargy & dry skin may occur.
3
.
It may take 4 to 8 weeks to get to euthyroid symptomatically & by laboratory
testing.
4
.
Because of its short half-life, levothyroxine doses should not be missed.
11.
In hyperthyroid states, what organ system other than CV must be evaluated to establish potential adverse issues?
1
.
The liver
2
.
The nails & skin
3
.
The eye
4
.
The ear
12.
Why are “natural” thyroid products not readily prescribed for most patients?
1. There is no reliability for the amount of hormone per dose.
2. There is higher incidence of allergic reactions.
3. There is a more reliable dose of T3 to T4 per batch.
4. All of the above
13.
What is the desired mixed of T3 to T4 drug levels in newly diagnosed endocrine patients?
1
.
99% of T3 & the rest is T4 to get rapid resolution.
2
.
Most needs to be T4 to mimic natural ratios of hormone.
3
.
The ratio is unimportant.
4
.
The mix needs to be 50-50 at first.
14.
Laboratory values are actually different for TSH when screening for thyroid issues & when used for medication management. Which of the
follow holds true?
1
.

4. All of the above
7.
To improve positive outcomes when prescribing for the elderly the nurse practitioner should:
1. Assess cognitive functioning in the elder
2. Encourage the patient to take a weekly “drug holiday” to keep drug costs down
3. Encourage the patient to cut drugs in half with a knife to lower costs
4. All of the above
8.
When an elderly diabetic patient is constipated the best treatment options include:
1
.
Mineral oil
2
.
Bulk-forming laxatives such as psyllium
3
.
Stimulant laxatives such as senna
4
.
Stool softeners such as docusate
9.
Delta is an 88-year-old patient who has mild low-back pain. What guidelines should be followed when prescribing pain management for
Delta?
1
.
Keep the dose of oxycodone low to prevent development of tolerance.
2
.
Acetaminophen is the first-line drug of choice.
3
.
Avoid prescribing NSAIDs.
4
.
Add in a short-acting benzodiazepine for a synergistic effect on pain.
10.
Robert is complaining of poor sleep. Medications that may contribute to sleep problems in the elderly include:
1
.
Diuretics
2
.
Trazodone
3
.
Clonazepam
4
.
Levodopa
11.
The GFRs for a 91-year-old woman who weighs 93 pounds & is 5'1" with a serum creatinine of 1.1, & for a 202-pound, 25-year-old male
who is 5'9" with the same serum creatinine according to the Cockcroft Gault formula are:
1
.
25ml/ min & 133 mL/min respectively
2
.
25 mL/min & 103 mL/min respectively
3
.
22 ml/min & 133 mL/min respectively
4
.
22 ml/min & 103 mL/min respectively
12.