

Basic Pharmacology Overview

Any chemical that affects the physiologic processes of a living organism can be defined as a drug.

The study or science of drugs as known as pharmacology

Pharmacology includes:

Absorption

Biochemical effects

Biotransformation (metabolism)

Distribution

Drug history

Drug origin

Drug receipt mechanisms

Excretion

Mechanisms of action

Physical and chemical properties

Physical effects

Therapeutic (beneficial) effects

Toxic (harmful) effects

A massage therapist needs to understand the reason a patient is taking a medication and the action of that medication to determine the potential interaction of the drug with physiologic effect of massage

Drug Name

Reason patient is taking drug

What does the medicine do?

When and how is the medication taken?

What are possible side effects (reactions of the body)?

Will the medicine react with any other medicines, food, or drinks?

Should any activities be avoided?

Are there any signs indicating that the medicine is working?

The patient may be able to supply information, and supervising medical personnel also can explain the actions of medications.

Common Medications and Possible Implications for Massage

Cardiovascular Medications

Vasodilators

Examples Nitro-Dur, Nitrostat, Isordil, Monoket

Causes blood vessels to dilate.

Used in treatment of angina, hypertension, heart failure and diseases characterized by poor circulation.

Nitrates increase amount of oxygen that reaches heart muscle.

Implications for Massage

Action of medications may increase effect of the massage.

May result in dizziness after the massage.

Have client contract and relax the leg muscles for 1-2 minutes before getting off massage table.

Beta Blockers

Examples Tenormin, Zebeta, Coreg, Normodyne, Trandate, Lopressor, Toprol-XL, Inderal

Block nerve stimulation of heart and blood vessels

Slows heart rate

Reduces blood pressure

Implications for Massage

May distort expected effects of massage

Caution is warranted

Watch for any exaggerated effects

Client may be susceptible to cold

Massage may help with constipation that is side effect of drugs

May result in dizziness after the massage.

Have client contract and relax the leg muscles for 1-2 minutes before getting off massage table.

Calcium Channel Blockers

Examples Norvasc, Cardizem LA, Tiazac, Adalat CC, Procardia XL, Calan, Verelan, Covera HS

Blocks or slows calcium flow into muscle cells, resulting in greater oxygen delivery to heart muscle.

Implications for Massage

May distort expected effects of massage

Watch for any exaggerated effects

Client may be susceptible to cold

Massage may help with constipation that is side effect of drugs

May result in dizziness after the massage.

Have client contract and relax the leg muscles for 1-2 minutes before getting off massage table.

Antiarrhythmics

Examples Cordarone, Pacerone, Lanoxin, Multaq, Rythmol, Betapace,

Prescribe when heart does not beat rhythmically or smoothly

Implications for Massage

Client may complain of joint/muscle pain, swelling in extremities. If occurs, refer to physician

Massage may help with constipation that is side effect of drugs

May result in dizziness after the massage.

Have client contract and relax the leg muscles for 1-2 minutes before getting off massage table.

Antihypertensives and Diuretics

Examples : Antihypertensives: Beta blockers, calcium channel blockers, ACE inhibitors, Angiotensin receptor blockers, prazosin, terazosin, clonidine, and minoxidil

Diuretics: Chlorthalidone, chlorthalidone, hydrochlorothiazide, bumetanide, furosemide, torsemide

Potassium sparing diuretics: Spironolactone, triamterene, amiloride

Antihypertensives are commonly prescribe a combination of two + diuretic

Implications for Massage

Expected effect of massage may be distorted. Watch for exaggerated effects.

May result in dizziness after the massage.

Have client contract and relax the leg muscles for 1-2 minutes before getting off massage table.

Effects of massage may effect dosage, so have clients closely monitor.

May increase fluid movement and enhance diuretic effect temporarily.

Cardiac Glycosides (Digitalis Glycosides)

Examples : Lanoxin

Slows heart rate/ increases contraction force

Regulates irregular heart rhythm, increasing volume of blood pumped by heart and medicating congestive heart failure

Implications for Massage

Monitor heart rate; if rate falls below 50 beats/minute, stop massage and refer to physician immediately

Have client monitor dose carefully with physician

Anticoagulants/ RX Inhibits Platelets

Examples : Coumadin, Jantoven, Pradaxa, Brilinta, Plavis, Lovenox, Fragmin

Prevent blood clotting

Used in stroke, heart disease, blood clots and abnormal clotting

Implications for Massage

Massage may interact with dosage by reducing body stress

Avoid any methods that may cause bruising, including compression, friction, tapotement and skin rolling

Do not massage injection site

Joint swelling and aching may result from medication -- refer client with these symptoms to physician

Antihyperlipidemics

Examples : Questran, Lipitor, Zocor, Pravachol, Crestor, Lovaza

Reduce cholesterol

Some bind the bile acids in gastrointestinal tract

Implications for Massage

Refer any client with joint pain to physician

Massage may help constipation

Some people experience occasional dizziness. Watch carefully as client gets up from table

Gastrointestinal Medications

Anticholinergics

Examples : Bentyl, Levsin, Levbid, NuLev, Symax, Lomotil, Lonox

Slow or block nerve impulses at parasympathic nerve ending, preventing muscle contraction and glandular secretion.

Antispasmodic of the bowel

Alleviates diarrhea

Implications for Massage

Client's response to relaxation effects may be altered as a result of alteration of parasympathetic action

Antiulcer

Examples : Tagamet, Pepcid, Zantac, Prilosec, Prevacid, Carafate

Heal gastrointestinal ulcers

Relieve stomach acid reflux

Suppresses production of excess stomach acid

Implications for Massage

May enhance effectiveness of medications

Hormones

Antidiabetic Medications

Examples : Glipizide, Glyburide

Oral medications used for treatment of type 2 diabetes

Implications for Massage

May effect dosage needs. Client physician should monitor.

No vigorous massage due to stress on system

Avoid any injection or infusion site

Sex Hormones

Examples : Estradiol, Premarin, Cenestin, Provera,
Testosterone, Androgel

Estrogens used as replacement therapy

Testosterone stimulates cells that produce, replaces hormone,
stimulates red blood cells and suppresses estrogen

Implications for Massage

Watch for bruising and adjust pressure as need

Refer to physician if any blood clots are observed

May temporarily reduce swelling due to medication side effects

Massage helps to even out mood and promote sense of well being that offsets medication use

Steroids

Examples : Decadron, Medrol, Orpred, Triamcinolone, Hydrocortisone

Used to treat inflammatory diseases, i.e. arthritis, poison ivy, hay fever, insect bites, etc.

Implications for Massage

Change in stress levels may affect dose. Physician should monitor if massage used on a regular basis.

Avoid methods that may create inflammation such as friction, skin rolling or stretching methods



Thyroid Medications

Thyroid Medications

Examples : Synthroid, Levoxyl, Levoxine, Bio-throid

Implications for Massage

Change in stress levels may affect dose. Physician should monitor if massage used on a regular basis.

AntiInfective Medications

Antibiotics

Examples : Erythromycin, Clarithromycin, Azithromycin, Penicillins, Tetracyclines

Treat a wide variety of bacterial infections.

Do not destroy viruses

Antifungels

Examples : Diflucan, Sporanox, Nizoral

Treats fungal skin infections, i.e. athlete's foot, groin itch

Pediculicides and Scabicides

Examples : Elimite, Pronto Plus, Ulesfia, Natroba

Treat lice and/or scabies infections

Implications for Massage

Avoid oversteering system of client

Do not expose client to any contagious disease

Postpone appointment

May calm gastrointestinal side effects of medication

Antineoplastic Medications

Antineoplastics

Examples : Nolvadex, Gleevec, Spryced, Sutent, Tarceva, Votrient

Used in treatment of cancer.

Prevents growth and division of cancer cells

Extremely toxic with side effects

Implications for Massage

Work gently and under the supervision of a physician

Implications for Massage

Change in stress levels may affect dose. Physician should monitor if massage used on a regular basis.

Central Nervous System Medications

Antianxiety Drugs/ Sedatives

Examples : Valium, Ativan, Xanax, Restoril, Buspar, Unisom, Atarax, Sonata, Ambien, Lunesta, Phenobarbital, Secobarbital

Treatment of anxiety, panic disorder and insomnia

Selectively reduce activity of certain chemicals in the brain

Implications for Massage

Massage may increase/decrease effect of medications, depending on whether massage is meant to stimulate or depress

Dosage needs to be carefully monitored when in conjunction with massage

Watch for excessive drowsiness

Work in conjunction with prescribing physician

Amphetamines and Stimulants

Examples : Ritalin, Concerta, Metadate, Daytrana, Focalin, Adderall

Treats ADD and anorectics.

Temporarily quiet part of brain that controls hunger

Keep persons awake, speed up heart and raise blood pressure.

Opposite effect of stimulation on hyperkinetic persons -- activity is reduced

Implications for Massage

Massage may increase/decrease effect of medications, depending on whether massage is meant to stimulate or depress

Dosage needs to be carefully monitored when in conjunction with massage

Massage may help with constipations side effect

Work in conjunction with prescribing physician

Antidepressants

Examples : Amitriptyline, Prozac, Sarafem, Zoloft, Paxil, Effexor

Combat depression

Preventative measure for migraines, PMS and neuropathic pain

Implications for Massage

Watch for any increase/decrease in effect of medication

Massage may help with constipations side effect

Work in conjunction with prescribing physician

Anticonvulsants

Examples : Dilantin, Tegretol, Lamicta, Keppra Depakote, Neurontin, Lyrica

Control seizures and other symptoms of epilepsy

Reduce excessive stimulation in brain

Mood stabilizers for bipolar illness

Implications for Massage

Watch for any increase/decrease in effect of medication

Work in conjunction with prescribing physician

Antiparkinsonism Agents

Examples : Sinemet, Parlodel, Cogentin, Mirapex, Comtan

Correct chemical imbalance; relieve symptoms

Relieve tremors

Implications for Massage

Watch for any increase/decrease in effect of medication

Watch for excessive drowsiness

Work in conjunction with prescribing physician

Analgesics

Examples : Aspirin, Acetaminophen, Ibuprofen

May contain codeine or other narcotics

Implications for Massage

Feedback needed as pain perception may be altered

Watch for bruising

May help with constipation

Have Client relax and contract muscles of legs before getting off table to ensure no dizziness

AntiInflammatory Medications

Antiinflammatories

Examples : Analgesics, Steroids: prednisone, methylprednisolone, prednisolone, dexamethasone

Implications for Massage

No techniques that create inflammation or damage tissue

Reduce intensity of massage

Reduce but not remove protective muscle spasms

Ask client if taking OTC anti-inflammatory medication

Respiratory Medications

Antitussives

Examples : Dextromethorphan, Codeine, Hydrocodeine

Control coughs

Available OTC and via RX

Expectorants

Examples : Guaifenesin

Change a nonproductive cough to a productive one

Increase amount of mucous produced

Bronchodilators

Examples : Theophylline, Aminophylline, Albuteral, Salmeterol, Formoterol

Relaxes smooth muscle and improves breathing

Antihistamines

Examples : Claritin, Allegra Zyrtec, Benadryl, Tavist-1, Dramamine

Used for mild skin or respiratory allergies

May be used to prevent motion sickness

Implications for Massage

Heat hydrotherapy should be avoided due to sympathetic nerve stimulation

Client may not be able to relax or may be dizzy after massage

Massage may help with associated constipation

Make sure to ask about OTC medications.

*Vitamins, Minerals,
Dietary Supplements and Herbs*

Vitamins and Minerals

Necessary to compare effects of vitamins/minerals with type of massage application to determine whether the two together are inhibitory or synergistic.

Dietary Supplements and Herbs

Actions may be similar to pharmaceutical medications

Necessary to compare effects of vitamins/minerals with type of massage application to determine whether the two together are inhibitory or synergistic.

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