

Preventing Medical Errors
Presented by
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This program was designed to meet the criteria in section 456.013(7), Florida Statutes, which mandates that two hours of continuing education in medical errors prevention is required for licensure renewal in the state of Florida. Participants will be able to identify how to apply a systems approach to identify and reduce the risk for medical errors in the clinical environment to improve patient safety.

Course Objectives

1. Describe why the reporting and analysis of medical errors and adverse conditions are critical to patient safety.
2. Detail the current laws, requirements and regulations relating to patient safety and the prevention of medical errors.
3. Identify factors that impact the occurrence of medical errors and frequently encountered error-prone situations.
4. Understand the terms and definitions commonly used in the field of medical errors.
5. Understand the components of and techniques associated with a successful root cause analysis and corrective action plan.
6. Identify ways in which environmental risk patterns, practice risk patterns and the safety needs of populations at risk for medical errors can be addressed in order to avoid medical errors.

This course has been reviewed and approved by the Florida Department of Health Board of Occupational Therapy.

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MEDICAL ERRORS are one of the nation's leading causes of injury and death!

Medical Errors Cause:

- A loss to the national economy
- Loss of trust in the system
- Psychological and emotional distress
- Diminished satisfaction of care
- Lower levels of the population health status
- "walking wounded"

What is a Medical Error?????

"The failure to complete a planned action as intended or the use of a wrong plan to achieve an aim."

What is an Adverse Event?

An Adverse Event is defined as:

"an injury caused by medical management rather than by the underlying disease or condition of the patient."

Adverse events resulting in medical errors should be preventable

A Cultural Change within the health care environment:

- Shift from character- and people-related flaws to system and process flaws.
- Time to discard the need to blame and to embrace a blameless exploration of systems, processes, and mechanisms that have failed to prevent human error and near misses.

In the Past....

- Healthcare workers reported:
 - non-intentional acts of commission
 - acts of omission
 - other acts that led to an unfavorable outcome

New Paradigm:

- Requires the reporting of:
 - Serious acts of commission
 - Acts of omission
 - Actions that do not achieve their intended effect or outcome
 - NEAR MISSES
 - PROCESS VARIATIONS THAT DO NOT AFFECT THE OUTCOME BUT COULD LEAD TO AN ADVERSE OUTCOME IN THE FUTURE

DEFINITIONS (according to JCAHO)

Error - An unintentional act, either of omission or commission, or an act that does not achieve its intended outcome.

Errors of Omissions - Result when actions are not taken to prevent injury to patient and the injury occurs.

Sentinel Event - An unexpected occurrence involving death or serious physical or psychological injury or the risk thereof.

Near Miss - Any process variation which did not affect the outcome, but for which a recurrence carries a significant chance of a serious adverse outcome.

—Near miss falls within the scope of the definition of a sentinel event

Hazardous Conditions - Any set of circumstances (exclusive of the disease or condition for which the patient is being treated) which significantly increases the likelihood of a serious adverse outcome.

Tool for Prevention and Analysis

●Root Cause Analysis

- The primary technique used to knowledgeably correct faulty systems and to identify opportunities for improvement.
- Aims to identify the multiple underlying factors that have, or could have, contributed to the medical error.
- Is a goal directed and systematic process that uncovers the most basic underlying factors that have contributed to or have the potential to contribute to a sentinel event.
- The purpose is to identify what changes or processes or mechanisms can be initiated or re-engineered to prevent a recurrence of the sentinel event or to reduce the risk of future close calls.

There are two types of Root Cause Analysis:

- Proactive:
- Reactive

Root Causes can be grouped into categories....

Root Cause - Human

Root Cause - Communication

Root Cause - Environment

Root Cause – Supplies & Equipment

Root Cause – Policies & Procedures

So, Why Do People Make Mistakes.....

- ❖ Fatigue
- ❖ Illegibility
- ❖ Using Past Solutions
- ❖ Inattention/Distracted
- ❖ Communication Gaps
- ❖ Familiarity Causing “Blindness”
- ❖ Equipment Failure
- ❖ Unfamiliar Situations
- ❖ New Problems
- ❖ Equipment Design Flaws
- ❖ Poor Working Conditions
- ❖ Mislabeling/Instructions
- ❖ Rapidly changing technology
- ❖ Failure to maintain Competency through Continuing Professional Education
- ❖ Misinterpretation of Medical Orders

The Florida Statutes

- There is no nationwide regulations for mandatory reporting of medical errors, however, Florida is one of the states that does require it.
- Florida Statutes Title XXIX Public Health, Chapter 395.0197 Hospital Licensing and Regulation, Part I Hospital and Other Licensed Facilities state:
 - (6)(a) Each licensed facility subject to this section shall submit an annual report to the agency summarizing the incident reports that have been filed in the facility for that year.

Florida Statutes: <http://www.leg.state.fl.us/Statutes>

Patient's Right to Know - 2005

The Patient Safety and Quality Improvement Act of 2005

Ethics and Disclosure

Disclosure vs. Nondisclosure

- Medical errors have important implications for trust in the health care professional and institutional integrity
 - A medical error does not necessarily mean improper, negligent or unethical behavior but the failure to disclose the incident may.
- The OT Code of Ethics and Ethical Standards – 2015

Health Literacy and Patient Safety

- JCAHO and AMA have recognized the link between patient safety and communication with patients.
- Health Literacy – The degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.
- Requires a complex group of reading, listening, analytical and decision making skills and the ability to apply these skills to health situations.

Special Populations

Age Specific Considerations

- Children
 - Hospitalized children
 - Medical Errors in Schools
- Elderly patients, patients with diminished cognitive function, Developmental or Learning Disabilities

Psychiatric Patients

- May be unable to fully participate in their medical care or treatment plans.
- Often delusional or depressed and are often under a medical regimen of psychotropic or sedating medications that may impair their perception of reality.

Special Populations

- Chronically ill patients with multiple conditions
- Patients with renal or liver impairment
- Patients with immune system impairment (oncology, AIDS, transplant)

Error-Prone Situations

High Risk Areas for Medical Errors Related to the practice of Occupational Therapy

- Heat/Cold Applications
- Splints/orthotic applications
- Assistive Devices
- Hydrotherapy
- Therapeutic Exercise
- Improper assessment and/or intervention
- Failure to consider and follow Precautions and Contraindications
- Concerns at discharge
- Unpredictable patient/family

High Risk Areas for Medical Errors

- Effective Patient/Client Management
 - Failure to integrate clinical expertise and make a determination of when to treat, when to refer, and when to consult with other healthcare practitioners

FALLS PREVENTION

Medications that may lead to falls and/or impact therapy

- Anti-hypertensives
- Sedatives
- Hypnotics
- Anti-depressants
- Anti-psychotics
- Corticosteroids
- Muscle Relaxers
- Diuretics
- Anticoagulants
- Diabetic Medications

IMPORTANT QUESTIONS

- WHAT medication ? (HOW many?)
 - 3 or more medications increases risk for falls
- WHEN are or were they taken?
- FOR WHAT condition/problem are they taken?
- WHAT are the potential side effects?

Potential Patient Related Safety Issues:

- Cognitive Deficits
- Sensorimotor Deficits
- Family Dynamics
- Socioeconomic Situation
- Cultural or Religious Practices or Beliefs
- Personal Practices or Beliefs

Potential Provider Safety Issues :

- Competency of Provider
- Equipment Safety
- Physical Plant Safety
- Confidentiality & Trust
- Biases & Prejudices
- Level of Fatigue
- Distractions
- Physical Comfort (too hot, cold, pain, etc)
- Anxiety, Fear, Frustration, Boredom

JCAHO = 2016 National Patient Safety Goals

<http://www.jointcommission.org/>

1. Identify patients correctly
2. Improve staff communication
3. Use medicines safely
7. Prevent infections
9. Reduce the risk of patient harm resulting from falls
14. Prevent Bed Sores
15. Identify patient safety risks

Patient's Rights in Preventing Medical Errors

Preventing Medical Errors = Designing Safe Systems

- Leadership
- Changing Organizational Culture
- Respect Human Limits
- Multidisciplinary Teams
- Proactive Approach
- Learning Environment

The Florida Statutes

Section 456.013(7), Florida Statutes

(7) The boards, or the department when there is no board, shall require the completion of a 2-hour course relating to prevention of medical errors as part of the licensure and renewal process. The 2-hour course shall count towards the total number of continuing education hours required for the profession. The course shall be approved by the board or department, as appropriate, and shall include a study of root-cause analysis, error reduction and prevention, and patient safety. In addition, the course approved by the Board of Medicine and the Board of Osteopathic Medicine shall include information relating to the five most misdiagnosed conditions during the previous biennium, as determined by the board. If the course is being offered by a facility licensed pursuant to chapter 395 for its employees, the board may approve up to 1 hour of the 2-hour course to be specifically related to error reduction and prevention methods used in that facility.

(Florida Statutes: [Http://www.leg.state.fl.us/Statutes](http://www.leg.state.fl.us/Statutes))

Board of Occupational Therapy Practice
Florida Administrative Code – Chapter 64B11

64B11-5.001 – Requirements for License Renewal of an Active License;
Continuing Education

(5) Medical Errors – Each licensee shall attend and certify attending a Board-approved 2-hour continuing education course relating to the prevention of medical errors. The 2-hour course shall count towards the total number of continuing education hours require for licensure renewal. The course shall include the study of root-cause analysis, error reduction and prevention, patient safety and must include contraindications and indications specific to occupational therapy management including medications and side effects.

MEDICATIONS IMPACTING REHAB

ANTIHYPERTENSIVES

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Metoprolol (Lopressor)	Possible exercise intolerance, depression, GI disturbances	Little to no direct effect on exercise
Atenolol (Tenormin)	Possible exercise intolerance, depression, GI disturbances	Little to no direct effect on exercise
Diltiazem (Cardizem)	Variable—tachycardia, HA, nausea, pedal edema, possible orthostatic hypotension	Little to no direct effect on ex; HA, orthostatic hypotension could impact treatment
Amlodipine (Norvasc)	Variable—tachycardia, HA, nausea, pedal edema, possible orthostatic hypotension	Little to no direct effect on exercise; HA, orthostatic hypotension could impact treatment
Nifedipine (Procardia)	Variable—tachycardia, HA, nausea, pedal edema, possible orthostatic hypotension	Little to no direct effect on exercise; HA, orthostatic hypotension could impact treatment
Losartan (Cozaar)	Dizziness, tachycardia	Little to no direct effect on exercise
Valsartan (Diovan)	Dizziness, tachycardia	Little to no direct effect on exercise
Doxazosin (Cardura)	tachycardia, orthostatic hypotension	Little to no direct effect on exercise; orthostatic hypotension could impact treatment
Benazapril (Lotensin)	Cough, chest pain, dizziness	Little to no direct effect on ex; may have inc RPE; dizziness could impact treatment
Enalapril (Vasotec)	Cough, chest pain, dizziness	Little to no direct effect on exercise; may have inc RPE; dizziness could impact treatment
Lisinopril (Prinivil, Zestril)	Lightheadedness, fainting, chest pain, GI disturbances, lethargy, HA	Little to no direct effect on exercise; tiredness, dizziness, HA could impact SLP treatment

DIURETICS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Bumetadine (Bumex)	Urinary frequency, dizziness, weakness, fatigue, electrolyte imbalance	Little to no effect on exercise except /c pts /c CHF; electrolyte imbalance can cause impaired concentration, attention & overall decreased cognitive-linguistic function; potential for dehydration

Furosemide (Lasix)	Urinary frequency, dizziness, weakness, fatigue, electrolyte imbalance	Little to no effect on exercise except /c pts /c CHF; electrolyte imbalance can cause impaired concentration, attention & overall decreased cognitive-linguistic function; potential for dehydration
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ANTIARRHYTHMIC AGENTS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Digitalis (Digitoxin, Lanoxin)	Toxicity: lethargy, confusion, hallucinations, EKG changes	Increased left ventricular performance and aerobic capacity
Verapamil (Calan, Isoptin)	Arrhythmias (esp 10 min /p stopping act)	Little to no direct effect on exercise
Amiodarone (Cordarone)	Initial increase in arrhythmia, pulmonary & hepatic toxicity	Little to no direct effect on exercise
Lidocaine (Xylocaine)	Arrhythmias	Little to no direct effect on exercise
Disopyramide (Norpace)	Arrhythmias	Little to no direct effect on exercise
Dobutamine—IV (Dobutrex)	Arrhythmias, inc HR, inc BP (used for acute cardiac decompensation)	Would want to hold off on exercise if pt receives this IV
Dopamine—IM (Intropin)	Arrhythmias, inc HR, inc BP (used for acute cardiac decompensation)	Would want to hold off on exercise if pt receives this injection

ANTI-DEPRESSANTS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Amytriptyline (Elavil)	Sedation, orthostatic hypotension, seizures, arrhythmias, tachycardia, GI disturbances	Can decrease exercise tolerance
Nortriptyline (Pamelor)	Sedation, orthostatic hypotension, seizures, arrhythmias, tachycardia, GI disturbances	Can decrease exercise tolerance
Bupropion (Wellbutrin)	Seizures, arrhythmias, weight loss	Little to no direct effect on exercise
Mirtazapine (Remeron)	Sedation, orthostatic hypotension, seizures, arrhythmias, tachycardia, GI disturbances, abnormal thinking, increased appetite, weight gain	Can decrease exercise tolerance; potential to impact cognitive functioning; decreased ability to sustain attention for speech sessions
Venlafaxine (Effexor)	Sedation, seizures, arrhythmias, tachycardia, GI disturbances	Can decrease exercise tolerance
Fluoxetine (Prozac)	Seizures	Little to no direct effect on

		exercise
Paroxetine (Paxil)	Sedation, seizures, tachycardia, GI disturbances	Can decrease exercise tolerance
Sertraline (Zoloft)	Seizures, anxiety, dizziness, dry mouth, loss of appetite, GI disturbances	Little to no direct effect on exercise; at risk for weight loss, loss of appetite impacts dysphagia treatment
Lorazepam (Ativan)	Clumsiness, drowsiness, dizziness, HA, unsteadiness, weakness	Risk of decreased endurance; decreased exercise tolerance; decreased ability to sustain attention for speech sessions

ANTI-PSYCHOTICS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Haloperidol (Haldol)	Strong extrapyramidal effects (dystonia, shuffling, dyskinesia, restlessness, pacing)	Difficulty /c mobility & exercise
Prochlorperazine (Compazine)	Strong extrapyramidal effects (dystonia, shuffling, dyskinesia, restlessness, pacing)	Difficulty /c mobility & exercise
Chlorpromazine (Thorazine)	Tachycardia, GI disturbances, blurred vision, bronchodilation	Can decrease exercise tolerance
Thoridazine (Mellaril)	Tachycardia, GI disturbances, blurred vision, bronchodilation	Can decrease exercise tolerance
Clozapine (Clozaril)	Strong sedation, tachycardia, GI disturbances, blurred vision, mild extrapyramidal effects	Difficulty /c mobility & exercise
Risperidone (Risperdal)	Extrapyramidal effects, sedation, tachycardia, GI disturbances, blurred vision	Difficulty /c mobility & exercise
Quetiapine (Seroquel)	Dizziness, drowsiness, GI disturbances, weakness, weight gain	SLP may be first to notice uncontrollable muscle movement of the articulators; side effects can impact treatment tolerance for all disciplines

BRONCHODILATORS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Albuterol (Proventil/Ventolin)	Nervousness, restlessness, trembling	Increased exercise capacity
Metaproterenol (Alupent)	Nervousness, restlessness, trembling	Increased exercise capacity
Ipratropium (Atrovent)	Tachycardia, GI disturbances	Increased exercise capacity

NON-STERIODAL ANTI-INFLAMMATORIES (NSAIDS)

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Naproxen sodium (Anaprox, Aleve, Naprosyn)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Diclofenac sodium + Misoprostil (Arthrotec)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Diclofenac potassium (Cataflam, Voltaren)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Celecoxib (Celebrex)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Oxaprozin (Daypro)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Piroxicam (Feldene)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Indomethacin (Indocin, Indocin SR)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Meloxicam (Mobic)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved
Ibuprofen (Motrin, Advil)	Irritation, ulceration, bleeding of stomach and GI tract	Increased activity tolerance due to pain/ inflammation relieved

CORTICOSTEROIDS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Prednisone (Deltasone)	Fluid retention, moodiness, depression, HTN, bruise easily, inc appetite, GI irritation, muscle weakness and cramping, joint pain, osteoporosis, inc risk of infection	Decreased exercise/activity tolerance due to weakness, pain
Prednisolone (Prelone)	Fluid retention, moodiness, depression, HTN, bruise easily, inc appetite, GI irritation, muscle weakness and cramping, joint pain, osteoporosis, inc risk of infection	Decreased exercise/activity tolerance due to weakness, pain
Methyl-prednisolone (Medrol)	Fluid retention, moodiness, depression, HTN, bruise easily, inc appetite, GI irritation, muscle weakness and cramping, joint pain, osteoporosis, inc risk of infection	Decreased exercise/activity tolerance due to weakness, pain
Fluticasone (Flovent)	Oral thrush, cough, hoarseness	Increased exercise capacity; side effects could impact SLP treatment
Flunisolide (Aerobid)	Oral thrush, cough, hoarseness	Increased exercise capacity; side effects could impact SLP treatment

Triamcinolone (Azmacort)	Oral thrush, cough, hoarseness	Increased exercise capacity; side effects could impact SLP treatment
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NARCOTIC PAIN MEDICATIONS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Acetaminophen /c codeine (Tylenol #3)	Some addiction potential, liver toxicity	Possible increased exercise tolerance /c pain relief
Acetaminophen /c hydrocodone (Vicodin, Lorcet)	Some addiction potential, liver toxicity	Possible increased exercise tolerance /c pain relief
Acetaminophen /c propoxyphene (Darvocet)	Some addiction potential, liver toxicity	Possible increased exercise tolerance /c pain relief
Aspirin /c propoxyphene (Darvon)	Some addiction potential, GI irritation	Possible increased exercise tolerance /c pain relief
Acetaminophen /c oxycodone (Percoset)	Significant addiction potential, liver toxicity, withdrawal risk	Possible increased exercise tolerance /c pain relief
Aspirin /c oxycodone (Percodan)	Significant addiction potential, GI irritation, withdrawal risk	Possible increased exercise tolerance /c pain relief
Hydromorphone tablet (Dilaudid)	High addiction potential, mental clouding, respiratory depression, withdrawal risk	Possible cognitive issues; possible increased exercise tolerance /c pain relief
Fentanyl patch (Duragesic)	High addiction potential, mental clouding, respiratory depression, withdrawal risk	Possible cognitive issues; possible increased exercise tolerance /c pain relief
Oxycodone—slow release tablet (Oxycontin)	High addiction potential, mental clouding, respiratory depression, withdrawal risk	Possible cognitive issues; possible increased exercise tolerance /c pain relief
Oxycodone—fast release tablet (Oxy-IR)	High addiction potential, mental clouding, respiratory depression, withdrawal risk	Possible cognitive issues; possible increased exercise tolerance /c pain relief
Meperidine (Demerol)	High addiction potential, mental clouding, respiratory depression, withdrawal risk	Possible cognitive issues; possible increased exercise tolerance /c pain relief
Morphine—slow release tablet (MS Contin)	High addiction potential, mental clouding, respiratory depression, withdrawal risk	Possible cognitive issues; possible increased exercise tolerance /c pain relief

MUSCLE RELAXERS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Metaxalone (Skelaxin)	Dizziness, lethargy, headache, nervousness, irritability	May have difficulty /c activity/exercise, especially if intense; dizziness, lethargy and HA can impact treatment
Carisoprodol (Soma, Rela, Vanadom)	Dizziness, lethargy, nausea and vomiting, trembling, unsteadiness, headache	May have difficulty /c activity/exercise, especially if intense; dizziness, lethargy and HA can impact treatment
Cyclobenzaprine (Flexeril)	Dizziness, lethargy, confusion, nausea, insomnia, tachycardia	May have difficulty /c activity/exercise, especially if intense; dizziness, lethargy and confusion can impact treatment
Methocarbamol (Robaxin)	Lethargy, lightheadedness, nausea and vomiting, bradycardia, confusion	May have difficulty /c activity/exercise, especially if intense' dizziness, lethargy and confusion can impact treatment
Tizanidine (Zanaflex)	Drowsiness, weakness, blurred vision, nausea and vomiting, low BP, dizziness	May have difficulty /c activity/exercise, especially if intense

ANTICOAGULANTS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Warfarin (Coumadin)	Hemorrhage—including rectal bleeding and coughing up blood, bruising	Risk of bleeding with aggressive therapy or falls if dosage not therapeutic (target INR 2.0-3.0); SLP/dietary dept need to be aware of diet restrictions—green leafy vegetables, broccoli, & liver may be restricted; cranberry products & juice are forbidden
Heparin—IV or SubQ injection	Heparin-induced thrombocytopenia (HIT syndrome), hemorrhage	Risk of bleeding with aggressive therapy or falls if dosage not therapeutic (target INR 2.0-3.0); SLP/dietary dept need to be aware of diet restrictions—green leafy vegetables, broccoli, & liver may be restricted; cranberry products & juice are forbidden
Low Molecular Weight Heparin (Lovenox)—SubQ injection	Smaller risk of HIT syndrome and hemorrhage as compared to heparin	Does not require monitoring of PT/PTT or INR

DIABETIC MEDICATIONS

DRUG	SIDE EFFECTS	IMPACT ON THERAPY
Pioglitazone (Actos)	Headache, hypoglycemia, muscle aches, respiratory tract infection, sinus inflammation, swelling	Increased risk of hypoglycemia /c excessive exercise
Glimepiride (Amaryl)	Anemia, blurred vision, hypoglycemia, dizziness, headache, liver problems, nausea and vomiting, sensitivity to light	Increased risk of hypoglycemia /c excessive exercise
Rosiglitazone (Avandia)	Back pain, fatigue, hyper- or hypoglycemia, resp tract infection, sinus inflammation, swelling	Increased risk of hypoglycemia /c excessive exercise
Rosiglitazone /c glimepiride (Avandaryl)	Hypoglycemia, dizziness	Increased risk of hypoglycemia /c excessive exercise
Glipizide/Sulfonylurea (Glucotrol)	Headache, dizziness, hypoglycemia, sensitivity to light, diarrhea, constipation	Increased risk of hypoglycemia /c excessive exercise
Metformin (Glucophage)	**lactic acidosis—dizziness, weakness, dec body temp, slow or irregular heartbeat, rapid or trouble breathing; abdominal discomfort, diarrhea, headache, nausea	Increased risk of hypoglycemia /c excessive exercise
Sitagliptin phosphate (Januvia)	Headache, respiratory infection, sinus inflammation/rhinitis, hypoglycemia (when combined /c sulfonylurea)	Increased risk of hypoglycemia /c excessive exercise
Repaglinide (Prandin, Metaglip)	**lactic acidosis—dizziness, weakness, dec body temp, slow or irregular heartbeat, rapid or trouble breathing; Abdominal pain, diarrhea, dizziness, high BP, hypoglycemia, respiratory infection, muscle pain	Increased risk of hypoglycemia /c excessive exercise

OTHER

DRUG	DIAGNOSIS	SIDE EFFECTS	IMPACT ON THERAPY
Donepezil (Aricept)	Alzheimers	Nausea, ulcers, anorexia, diarrhea, dizziness, loss of appetite, weight loss, muscle cramping, lethargy	Cognitive issues (e.g., following commands, carry-over, etc.); at risk for weight loss; loss of appetite impacts dysphagia treatment
Tacrine (Cognex)	Alzheimers	Nausea, vomiting, hepatotoxicity	Cognitive issues (e.g., following commands, carry-over, etc.)
Carbidopa-Levodopa (Sinemet)	Parkinson's	GI disturbances, dyskinesias, behavioral issues	Becomes less effective the longer the pt takes it
Nitroglycerin	Angina/ CAD	Tachycardia, headaches, dizziness	Increased exercise capacity

Pantoprazole (Protonix)	GERD or Zollinger- Ellison syndrome	Dizrrhea, stomach pain, HA, nausea and vomiting	Risk of dehydration
Levothyroxine (Synthroid, Levoxyl)	Hypothyroid, goiters	Anxiety, mood swings, muscle weakness, lethargy, GI disturbances, insomnia	Anxiety can impact attention and concentration; potential for weight loss and dehydration