**Psychotherapeutic drugs**

Name

Institution

Course

Instructor

Date

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**Fluoxetine**

Fluoxetine is often recommended more than other SSRIs. However, fluoxetine and other medicines in this class function by inhibiting the re-absorption of the neurotransmitter monoamine by neurons. Limiting the reuptake boosts the quantity of monoamine in the synapses, so addressing what is believed to be a serotonin shortage causes depression. Nevertheless, serotonin deficiency cannot be the only cause of depression. Even though serotonin absorption inhibition occurs within hours of medication administration, the patient does not realize symptom improvement until six months of constant therapy have passed. Fluoxetine is licensed to treat OCD, anxiety attacks, and bipolar disorder (Saiardi & Mudge, 2018). Generalized panic conditions, early ejaculation, preventative treatment of migraine migraines, diabetic neuropathy, and fibro are among the off-label uses of fluoxetine. Moreover, 20 mg of fluoxetine per day has proved to be an efficient and safe therapy for early ejaculation.

Fluoxetine has fewer negative impacts than its tricyclic and MAOI counterparts. Sexual problems, vomiting, headache, sleeplessness, and nervousness are the most frequent adverse reactions. Among the significant effects of SSRIs is Serotonin syndrome, which may develop between 2 to 70 hours following medication administration. The manifestations include hyperreflexia, fever, impaired mental state, myoclonus, trembling, and profuse perspiration. Specifically, serotonin syndrome is a potentially fatal medical emergency. It disappears naturally after the medicine is discontinued. The danger of this condition rises when MAOIs are concurrently used with fluoxetine.

Fluoxetine must also not be used with tricyclic antidepressants or lithium since it will raise plasma concentrations of these medicines and, therefore, their harmful effects. Aspirin and warfarin combined may increase the chance of intestinal bleeding. It is known that SSRIs combine with the herbal remedy St. John's Wort, which raises serotonin concentrations, placing the patient at risk for serotonin syndrome. The withdrawal of fluoxetine must be gradual, not sudden. With the addition of serotonin syndrome, the adverse impacts of fluoxetine are often less than those of tricyclic or MAOI antidepressants.

**Nicotine Patch**

Combining smoking cessation drugs has shown to boost quitting results. The medication alleviates nicotine withdrawal problems, allowing the smoker to concentrate on trying new ways of reasoning and living without smoking (Preloading Investigators, 2018). For Joe, nicotine patches may be of considerable assistance. Nicotine patches are utilized to quit smoking because they contain nicotine that is produced and absorbed via the epidermis from the patches. The interaction of emitted nicotine to nicotine receptors reduces nicotine cravings and withdrawal effects related to quitting smoking. This drug gives a steady, low amount of nicotine throughout the day by gradually releasing nicotine. It is available in 7, 14, and 21 mg dosages without a prescription. Patients often begin treatment with the maximum dosage of 21 mg and gradually reduce it over a few weeks.

Nonetheless, the medication has several adverse effects. Among its severe effects are redness, irritation, scorching of the skin, migraine, and sleep problems, including difficulties sleeping and intense nightmares. Users of nicotine patches may also suffer from diarrhoea, vertigo, and headache. Severe adverse impacts may include an irregular pulse or rhythm, problems breathing, convulsions, painful rashes, or inflammation. Each day, the patch position must be changed. Patients should not tear the patch since this leads to nicotine evaporation. Between one-two hour after administration, nicotine concentrations rise, which is significant for highly addicted smokers with acute morning desires. For strong urges, short-acting nicotine replacement therapy (NRT) gum, nose spray, pill, or the inhaler may be administered as required under supervision.

Numerous medicines may combine with these nicotine patches. Among the pharmaceuticals are hypertension medications such as phenylephrine, prazosin, and decongestants. Nicotine patches have no off-label applications since they are FDA-recommended medications that help patients stop smoking. It may be administered daily on its own to manage withdrawal effects, or it can be combined with nicotine gum or lozenges that are taken as required for urges. They contain nicotine, which limits their application in managing nicotine-related disorders.

**Hydrochlorothiazide**

Hydrochlorothiazide (HCTZ) has been a diuretic for over fifty years in therapeutic settings. The medicine has been extensively used worldwide to manage hypertension and is generally safe.

**Mechanism of action**

 Hydrochlorothiazide controls the distal convoluted tubule salt movement. The kidney then excretes more salt with the associated fluid. After an oral dosage, the onset of pharmacological actions occurs within two hours, peaks within four hours, and lasts between six and twelve hours. Most hydrochlorothiazide is not metabolized and is eliminated in the urine. It also causes a loss of potassium and bicarbonate in the body. Moreover, the medication does reduce hypertension when delivered acutely by increasing hydration and lowering plasma volume (Herman & Bashir, 2021). Additionally, hydrochlorothiazide seems to reduce blood pressure by lowering vascular resistance with continuous usage. Like diuretics, a person should check their weight daily and report any significant abnormalities to their medical physician. Patients should also monitor their blood pressure daily to assess their therapy's efficacy. Additionally, electrolytes should be evaluated often because this medication may induce hepatic coma in people with compromised hepatic function.

**Side effects and experience**

HCTZ may induce fluids or electrolyte irregularities, such as hypomagnesemia. Additional side effects comprise fatigue, orthostatic hypotension, sepsis, diarrhoea, upset stomach, sialadenitis, and abdominal cramps. Lastly, I have cared for people taking hydrochlorothiazide. People prefer this medication over loop diuretics like Lasix because they have less urinary frequency and incontinence. Patients who take this drug in the morning are less likely to have dysuria.

**Treatment plan**

Daily dosages of 12-50 mg HCTZ are effective in treating hypertension (Min et al., 2021). Nevertheless, as indicated, the first treatment for African American individuals must include lifestyle modifications and diuretic therapy. If hypertension persists after medication, combined medication should be considered. The patient's medication strategy must consist of nonpharmacological measures, such as salt restriction, exercise, alcohol management, weight management, and quitting smoking.

**References**

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