

Substance Use Disorder

Scripture and Science

New drug treatments, drugs in development, and a review of past drugs for addictions
alcohol, opioids, nicotine, cocaine

by

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- introduction
- Bible verses
 - I Corinthians 6:19-20 - What? Know ye not that your body is the temple of the Holy Ghost which is in you, which ye have of God, and ye are not your own? For ye are bought with a price: therefore glorify God in your body, and in your spirit, which are God's.
 - Philippians 4:13 - I can do all things through Christ which strengtheneth me.
 - Ephesians 6:10-11 - Finally, my brethren, be strong in the Lord, and in the power of his might. Put on the whole armour of God, that ye may be able to stand against the wiles of the devil.
 - I Peter 5:8 – Be sober, be vigilant; because your adversary the devil, as a roaring lion, walketh about, seeking whom he may devour:
- general information – the following is general information for possible discussion with a medical doctor. No direct drug recommendation or dosage is intended.
 - 7.9% of the population have a life-time prevalence of alcohol dependency.
 - 4.4% have a life-time prevalence of drug dependency.
 - 9.2% of high school seniors have illicit use of non-heroin narcotics (hydrocodone, etc.)

- 338,000 USA heroin users in 2006; 1 in 20 USA seniors has tried oxycodone
- Tobacco use is the most important preventable risk to human health.
- Substance abuse often coexists with:
 - depressive disorders
 - anxiety disorders
 - bipolar disorders
 - high stressors
 - increasing age
- non-biologic treatments of addiction – a review of the literature
 - alcoholics anonymous
 - psychotherapy
 - other peer support groups
 - hospitalization
 - residential treatment programs
 - church
 - the Bible
 - education
- alcohol dependency Rx's – a review of the literature
 - 1970's – desulfiram (Antabuse); 500mg/day
 - 1994 – naltrexone (Revia); 50mg/day 12 month treatment; side effects include nausea and rare increased liver enzymes; an opioid antagonist – alcohol involved in opioid system.
 - 2006 (April) – naltrexone IM (Vivাত্রol) 380mg IM at 1 time per month; no alcohol 1 week prior to first injection may be helpful; treat at least 3 months; side effects include – injection site reactions; IM gluteal injection with 1.5 inch needle specific for this procedure; with naltrexone, time to first drink was 41 days versus 12 days for placebo.

- 2004 – acamprosate (Campral); few side effects with 10% GI diarrhea; do not use with patients with kidney problems.
- opioid addiction Rx's – a review of the literature
 - 1959 – methadone (Methadone); a opioid agonist for detoxification and opioid maintenance
 - 2002 (October) – Suboxone (buprenorphine puls naloxone); combins on opioid agonist (buprenorphine) with an opioid antagonist (naltrexone)
 - 2003 buprenorphine (Subutex); test dose 2-4mg; first day total maximum dose of 8mg and 16mg on day 2.
 - past – naltrexone for opioid blockade
 - past – clonidine for opioid detoxification
 - past – LAAM (L-acetylmethadol); opioid agonist taken off market in 2004
 - 2006 – naltrexone IM (Vivatro); opioid antagonist; 60% - 68% retention at 8 weeks
 - bupronorphine depot that can last 6 months is in preparation
 - placebo – 39% retention at 8 weeks
- nicotine addiction Rx's – a review of the literature
 - NRT (nicotine-replacement therapy)
 - nicotine patch; place on upper arm deltoid muscle for 24 hours; treatment for 8 weeks or greater
 - nicotine gum; 2 mg for regular smokers; 4mg for heavy smokers; maximum of 20 per day; treatment duration 3-6 months
 - nicotine lozenge; 2 mg and 4mg doses; 1 lozenge every 2-3 hours for 6 weeks with gradual increase in intervals between dosages
 - nicotine inhaler; when inhaled it gives off nicotine vapor

- nicotine nasal spray; prescription required; quickest delivery; treatment duration 3 to 6 months
 - support groups for nicotine withdrawal
 - 1997 – bupropion (Wellbutrin/Zyban); a SNRI; a AchN antagonist; approved by FDA for smoking cessation in 1997; at 7 week treatment 27% want to smoke versus 56% on placebo; treatment duration of several months; starting dose 150mg per day for 1 week then 300mg per day; bupropion doubles the chance of quitting smoking after 3 months
 - 2006 – (May) – varenicline (Chantix); partial agonist of L4 B₂ AchN receptor; 12 week trial followed by another 12 weeks; more effective than placebo or nicotine replacement therapies or bupropion; after 1 year – placebo 10%, bupropion 15%, varenicline 23%; side effects more common are nausea, headaches, insomnia, bad tremors; side-effects less common are suicidal ideations, mania, and psychosis; health risks of smoking may outweigh risks of varenicline.
- cocaine – Rx’s tried – a review of the literature
 - CBT
 - 12 step program
 - alprazolam (Xanax);for anxiety (withdrawal)
 - clonidine (Catapres); for withdrawal anxiety
 - Provigil (modafanil); for fatigue and to decrease withdrawal
 - Norpramine (desipramine); decrease cravings
 - carbamazepine (Tegretol); decrease cravings
 - bupropion (Wellbutrin)
 - fluoxetine (Prozac); doubtful benefit
 - propranolol (Inderal); decrease withdrawal
 - disulfiram (Antabuse); decrease cravings
 - baclofen (Lioresal); decrease cravings

- tigabine (Gabitril); decrease cravings
- topirmate (Topamax); decrease cravings
- cocaine vaccine
- Prometa program for alcohol and stimulant dependency- integrated programs
 - psychotherapy
 - nutrition
 - flumazenil (Mazicon); benzodiazemine antagonist
 - hydralazine; antihypertensive, a vasodilator, 50mg
- conclusion
- Bible verses
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