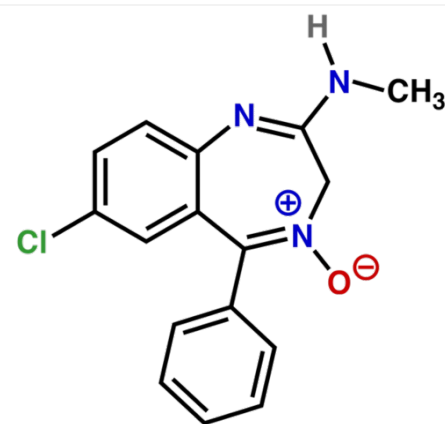


1. what is clifelter syndrome?	when puberty is delayed till 17 years old
2. what is addiction?	when you use drugs, and become dependent on drugs, even with adverse consequences, specifically to keep away withdrawal.
3. what is the APA definition with addiction?	preoccupation loss of control tolerance withdraw continued use as medication attempts to control use accidental intoxication reduced social/occupation or recreational experiences continued use in spite of adverse consequences (legal/health/losing job)
4. what is recovery?	the experience through which individuals, families and communities impacted by severe alcohol and other drug uses, and related problems mobilize internal and external resources to voluntarily resolve these problems, heal the wounds inflicted by these problems, actively continue to manage their vulnerability to such problems, and develop a healthy, meaningful and productive life.
5. who is Dean Martin?	he was an alcoholic on the Rat Pack and gave image that drinking was ok (not really alcoholic in real life)
6. what are 3 likely outcomes of drug addiction?	end up in psychiatric hospital break law and go to prison die premature death from overdose or suicide
7. Minor tranquilizers are also called...	"antianxiety agents"
8. what are tranquilizers used for?	-Useful to calm anxious patients before surgery -For people who have neuroses and fear some of life's "normal" situations -For insomniacs who are so tense that they cannot function or sleep normally
9. what kind of drug would you use for people who have neuroses and fear some of life's "normal" situations?	Tranquilizers

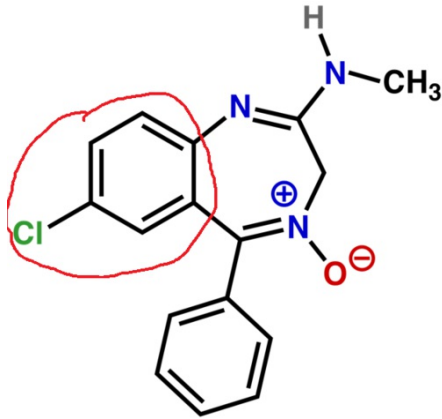
10. what is a BDA?	"benzodiazepines"
11. what type of drug is benzodiazepines?	its a tranquilizer type of drug
12. what kind of chemical structure is a benzodiazepine?	structure-have benzene ring (benzo) and an attached 7-membered ring containing 2 N atoms (diaz)
13. what are some common drug types for tranquilizers for daytime use?	Xanax, Librium, Valium, Ativan
14. what are some common drug types for tranquilizers for sleeping aid use?	Restoril, Halcion
15. what is Restoril, Halcion for?	sleeping aids (tranquilizer)
16. how was librium discovered?	by accident - Dr. Leo Sternbach 1954, was examining a series of compounds he had studied previously as a PDF in Poland in the 1930's Had them all screened for activity Had tranquillizing effects, but not as strong as major tranquillizers Made available as Librium in 1960

17. Librium



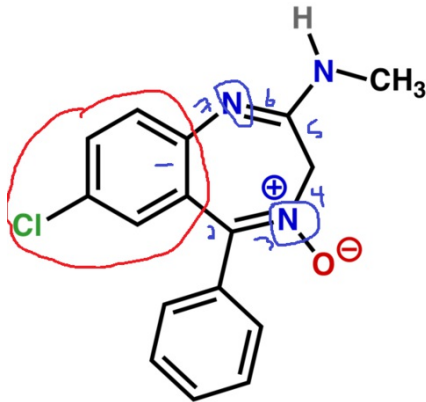
what is this?

18. **Benzo**



red?

19. **Diazapine**
(image)



Blue?

20. **what has 7 member ring, and 2 nitrogines?**

Diazapine

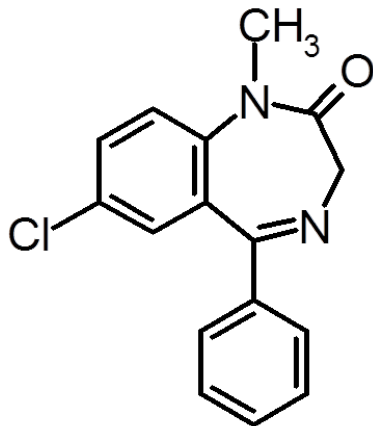
21. **what came first? valium or Librium?**

Librium came first

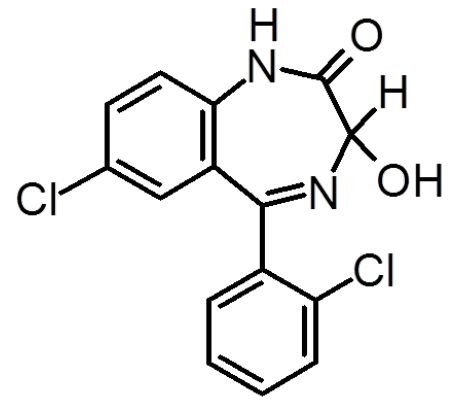
22. **what type of drug is Valium?**

Benzodiazepines (BDA's) (tranquilizer)

23. **valium**



24. **Lorazepam**



25. **what is another word for valium?**

Diazepam

26. **what is another name for Lorazepam?**

Ativan

27. **what structure does lorazepam have**

a seven sided ring with 2 nitrogen, like diazepam

28. **what are GABA enhancers?**

4 carbon acid, with an imuno function
Gamma Amino Butyric Acid

29. **gaba has how many subtuic acid in it?**

4

30. **what does an imuno function look like?**

NH lower 2

31. **what does Gaba Do?**

- Inhibits neurotransmission in the brain
- Blocks the arousal of "higher" brain centres
- GABA receptor is a macromolecular complex
- In addition to binding GABA, it has binding sites for drugs such as the BDA's

32. **does GABA slow things down?**

yes, by inhibiting neurotransmitters in the brain

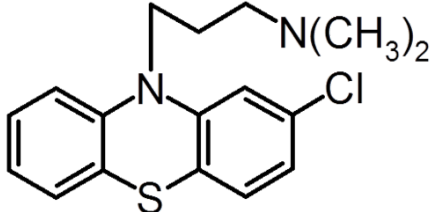
33. **How does BDA affect GABA?**

- BDA's make the GABA receptor site more efficient
- Open up the Cl⁻ channel
- Results in increased chloride ion concentration in the post synaptic neuron
- Makes this neuron "less excitable"

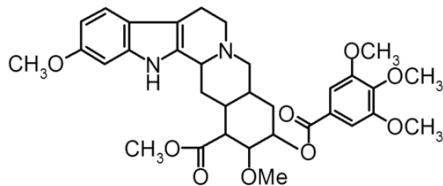
34. **simpler, how does BDA affect GABA?**

it makes it less excitable

35. what are the reactions from taking GABA?	Decreased excitation of many nerve systems, reduced anxiety, diminished alertness and an increase in the threshold of convulsion
36. what are some older types of Tranquilizers?	Equanil, Miltown
37. Equanil, Miltown have what type of structure?	These have a propanediol / carbamate type structure
38. Why have people stopped using Equanil and Miltown, in favour of BDA's?	They have lower therapeutic indices than BDA's.
39. are Equanil and Miltown still available?	No, they are out of the market in Canada
40. what Ti do DBA's have?	about 100, which is pretty good (alcohol is 10, cocaine is 15, Heroin is 6)
41. what is Ti?	Therapeutic index
42. what's safer, alcohol or Heroin?	alcohol, only because heroin may be mixed or bad quality, otherwise it would be heroin
43. where are the receptors for BDA's?	in the brain, thus calm down thought process
44. Do BDA's affect the heart or skeletal muscles?	no, because its receptors are in the brain only
45. what is the half time for valium?	1-3 days
46. What is Halcion?	a sleep drug
47. what is the half life of Halcion?	about 3 hours, which can be a problem (rebound insomnia)
48. what causes rebound insomnia?	its when someone becomes dependent on a drug for sleeping, that has a short half life, so they end up sleeping worse then they were before
49. what are some problems with Halcion?	Adverse effects: amnesia, suicidal behaviour, agitation, Also "rebound insomnia" can occur with drugs having short half lives User can be worse off than before treatment and will take higher doses and become dependent on the drug
50. what is another name for Halcion?	Trizolam (generic)

51. can you use Halcion with alcohol?	no, is extremely dangerous (all tranquilizers with alcohol = exasperated effects)
52. Ambien and Lunestar are what type of drugs?	Sleep inducing drugs
53. what are some withdrawl issues with BDA's?	-Anxiety, restlessness, tremors, nausea, cramps,..... -Also paranoia and disorganized irrational thinking !!!if it's ended too quickly, it is very dangerous.
54. how do you get off valium?	decrease of 2mg or less per week, under supervision (can take a long time... if someone is on 40mg/day)
55. how did fish react to BDA?	it made them excited (rather than calming them down)
56. what is tryclosan?	an antibacterial soap - tryclorinated compound that does not degrade in the environment, and acts like estrogine...
57. what is an estrogine mimic?	something the body treats like estrogine, such as antibacterial soaps (which have tryclosan)
58. what might be causing breast cancer?	estrogen mimics like tryclosan
59. what was developed first, major or minor tranquilizers?	major tranquilizers were developed first
60. what are some examples of uses of major tranquilizers?	Include antipsychotics, drugs for manic depression, treating acute alcoholism or geriatric agitation
61. what was Chlorpromazine used for?	Revolutionized the treatment of these types of mental illness (psychoticism/alcoholism/geriatric agitation, depression)
62. what type of drug is Chlorpromazine?	it's a major tranquilizer
63. chlorpromazine	

64. **reserpine**



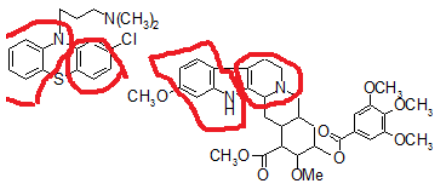
65. **what was reserpine and chlorpromazine used for?**

Antipsychotics for schizophrenia

66. **which culture began using Reserpine first?**

Known by ancient Hindus of India for treatment of insanity and hypertension

67. **structural similarity to BNAs.**



68. **what is chlorpromazine?**

Used as an anesthetic booster in intravenous doses of 50-100mg on surgery patients
Found to be "the best drug to date" in calming and reducing shock
also used for manic depressive patients

69. **how was chlorpromazine discovered?**

1933 French Pharmaceutical Company Rhone-Poulenc began to look for new antihistamines
1947, synthesis of promethazine-found to be a strong sedative as well as an antihistamine
A series of related compounds was made by Paul Charpentier and the most effective one, with the least side effects identified in 1950

70. **what drug worked well on ptsd?**

chlorpromazine

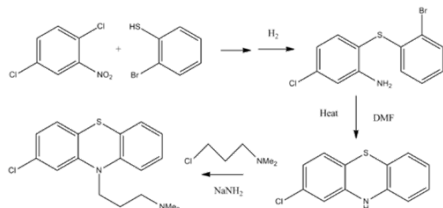
71. **what is the normal dose of chlorpromazine?**

75-100mg /day

72. **Why is chlorpromazine important?**

replaced electroconvulsive therapy and lobotomies, and resulted in the deinstitutionalization of ~ 500,000 in USA alone

73. **Synthesis of chlorpromazine**



74. **what is the "benchmark" drug in the treatment of schizophrenia (effective, but not perfect)**

chlorpromazine

75. **what is the acronym for 'chlorpromazine Equivalents'?**

CPZE's

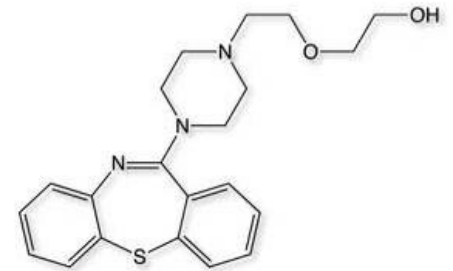
76. **How is CPZE used?**

it measures drugs against chlorpromazine to see how effective it is in comparison

77. **what is another antipsychotic drug?**

Seroquel

78. **Seroquel**



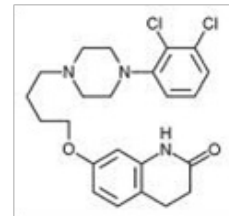
79. **what are structure activity relationships?**

SAR's - means when there are common structures and try them for the same problems

80. **what is Abilify?**

Not a phenothiazine (no S in it), but some related structural features! Also antipsychotic

81. **Abilify**



82. **how much did the USA spend on prescription drugs in 2010?**

307B, so 1000 in prescription drugs per person (average)

83. **what's the highest selling drug in usa in 2010?**

Lipitor-Cholesterol lowering statin 7.2B

84. **what drug do we use a lot in USA but not in Africa?**

Nexium-antacid (vs acid reflux) - USA has bad diet thus need, comparatively

85. How do major tranquilizers work?	Evidence supports antipsychotic agents acting on the cortex of the brain, at the cortical synapses, where dopamine is the neurotransmitter	96. what is the generic name for Zyprexa?	olanzapine
86. what does Dopamine do?	it is a stimulant - if you have a dopamine blocker, it's a depressant (like tranquilizers) Phenothiazines such as chlorpromazine block the dopamine receptors thus preventing the stimulating action of dopamine	97. Formerly known as "manic depression"...	bipolar affected disorder (BAD)
87. simple terms, what do major tranquilizers do?	blocks dopamine, thus, a depressant	98. what is Lithium used for?	its used for Bipolar
88. what is thought to be a cause of Schizophrenia ?	abnormally high amounts of dopamine in the brain, hence this mode of action is consistent with the action of antipsychotic drugs to reduce the symptoms that schizophrenics experience	99. How does Lithium work?	Treats the manic phase-does not cure BAD , but stabilizes the mood swings Effective for ~ 70% of BAD patients For other 30%, treatment with a sodium salt can be helpful
89. how fast are antipsychotics?	Antipsychotic effect is slow to develop-often need several weeks before results are noticed	100. What do bipolar people have problems with?	Their uric acid levels... Found that the urine (contains uric acid) of the manic patients was toxic to guinea pigs, and higher amounts increased its toxicity
90. how long do antipsychotics remain in the body?	Similarly, after therapy is ceased, some amounts of these drugs remains in the body, due to the high lipophilicity (fat soluble nature) of these substances	101. what is Li₂CO₃?	Lithium Salts
91. what are side effects of antipsychotics?	Some involuntary movements of facial, mouth and oral cavity-sucking and smacking of lips Chiefly affects elderly patients and is due to dopamine deficiency Medical term "tardive dyskinesia"	102. does Lithium Salts work on mania, schizophrenia and depression?	Dramatic effects on patients with mania, none on the other 2 groups
92. what is "tardive dyskinesia"	involuntary movements of facial	103. does Lithium Salts have a high or low TI?	low, so you have to be careful
93. what are more common side effects of antipsychotics?	common -Restlessness, postural hypotension (feeling of dizziness when suddenly standing , from a reclining position-caused by low blood pressure), dry mouth, urinary retention Sensitization to sunlight: can occur after prolonged treatment with high doses of chlorpromazine. Skin reddens and becomes inflamed after brief exposure to sun	104. what is a side effect of lithium drugs?	Suggested that it may lower serum calcium levels: frequent blood monitoring needed Drugs such as calcium lactate and vitamin D increase serum calcium levels, and thus increase the severity of manic attacks
94. about how many antipsychotics are on the market?	20	105. Li and Na (lithium and sodium) are both...	in group I (alkali metals)
95. what is Zyprexa?	Antipsychotic drug- used to treat schizophrenia	106. should lithium salt be used as a substitute for table salt?	no, and if you don't take regular salt intake with diet, don't take at all
		107. how effective is lithium for bipolar?	70%
		108. Lithium and Risperdal :	prevent both manic and depressive reoccurrence
		109. what is the dose of lithium?	1.6grams/day
		110. what are some alternatives to lithium?	Risperdal (Risperidone), Divalproex, Seroquel, Abilify

111.	Divaloprex (Depakote):	is approved for acute mania only
112.	what's the biggest risk for bipolar?	genetics
