Neuropsychotropic Drug Therapy 2020

Prescribing and Deprescribing Medications in Adolescents

Kathy Kroening, PhD, ARNP

Objectives for Learning Outcomes:

1. Discuss adolescent behaviors that create symptoms commonly seen in depression, anxiety, and psychosis.
2. Discuss five medication safety tips for use in teens.
3. Discuss three strategies for tapering teens off medications.

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My Practice and Philosophy

- The Adolescent Center – population and formulary
- Psychopharmacology versus therapy
- Long term use of psychotropic medication in children/teens
- "The price for ignoring or distorting the body's messages is being unable to detect what is truly dangerous or harmful for you and, just as bad, what is safe or nourishing. Self-regulation depends on having a friendly relationship with your body. Without it you have to rely on external regulation-from medication, drugs like alcohol, constant reassurance, or compulsive compliance with the wishes of others." Bessel van der Kolk, M.D. (1)
- "All too often, however, drugs such as Abilify, Zyprexa, and Seroquel, are prescribed instead of teaching people the skills to deal with such distressing physical reactions. Of course, medications only blunt sensations and do nothing to resolve them or transform them from toxic agents into allies." Bessel van der Kolk, M.D. (2)

General Principles

- There is a wide range of "normal"
- Problems may be transient
- Ask about behavior in a variety of settings
- Distinguish behaviors characteristic of developmental phases from psychological problems
- Involve parents/guardians
- Thorough assessment is key to creating a treatment plan that targets ALL aspects of the teen's life including symptom management

Talking to Teens

- Confidentiality – legal/therapeutic relationship
- Respect and validation
- Motivational interviewing
- Honesty
- Parental Involvement
- Allow choices whenever possible
- Pick your battles
- Safety from a behavioral health framework
- Provide factual information and resources

Adolescent Issues that cause symptoms commonly seen in mental illness

- Sleep disruption
- Substance Use
- Gender dysphoria
- Unhealthy relationships/sexuality
- Technology use and social media

Sleep

- Multiple reasons why children, teens in particular, don't sleep well
- Teens need more and get less: natural shifting of sleep/wake cycle, homework, activities, worry, distractions (electronics and social media)
- Sleep Habits and Nighttime Texting Among Adolescents (3)
- Teens are not necessarily accurate historians about their sleep
- Sleep deprivation can cause changes in mood, anxiety, focus, memory, and energy

Sleep

- Intervention: provide education on good sleep hygiene practice and ask teen to use these and keep a sleep log for two weeks
- Good sleep hygiene practices (4)
- If you have reasonable data that these practices are being followed and the teen is continuing to have significant sleep problems and/or you suspect sleep apnea you can refer for sleep study
- Medication should be last resort and of short duration: OTC, melatonin, Trazodone and mertazapine work fine. Never use atypical antipsychotics, TCA's or prescription sleep medications with kids.

Substance Use

- According to the NIH NIDA 2018 Monitoring the Future Survey: High School and Youth Trends: (5)
- There has been a substantial and significant increase in vaping
- Past year use of illicit drugs other than marijuana is holding steady at the lowest level in over two decades
- Misuse of prescription opioids (narcotics other than heroin) dropped significantly over the past 5 years in 12th graders
- Daily, past month, past year, and lifetime marijuana use declined among 8th graders and remains unchanged among 10th and 12 graders compared to 5 years ago

Substance Use

- **As with other vaping measures, marijuana vaping increased significantly from when it was first measured in 2017 to 2018.** While past month marijuana vaping is fairly low—reported by 2.6 percent of 8th graders, 7.0 percent of 10th graders, and 7.5 percent of 12th graders—these numbers represent respective increases of 59.7 percent, 62.7 percent, and 50.6 percent over 2017 rates. Daily marijuana use continues to outpace daily cigarette use across grades, reflecting a steep decline in daily cigarette use and fairly stable daily marijuana use. (6)

Substance Use

- Marijuana may harm developing brains (7)
- Teen Vaping (8)
- Use of substances can cause depression, anxiety, psychosis, disturbed sleep, decreased cognitive functioning, increased risk of physical/sexual assault, and increased risk of accidental overdose.
- Use of substances makes accurate diagnosis of underlying behavioral health issues difficult if not impossible.

Substance Use

- Screening Tools (9)
- Intervention: Referral for substance use disorder evaluation and treatment
- Specialty certification is required to perform this assessment, make treatment recommendations, and provide treatment
- Inpatient and outpatient treatment options are available but harder to access for teens than adults

Gender Identity

- Gender Dysphoria in Adolescence (10)
- Gender Odyssey (11)
- Trans Families (12)
- It's important to ask youth about gender, preferred pronouns, and preferred names
- There are many resources available in the Seattle area including several listed above and in the Where To Turn for Teens booklet – you can access the link in the resources section of this presentation

Relationship Safety

- It's important to talk with teens about healthy relationships including:
- Boundaries
- Respect
- What constitutes emotional, physical, sexual abuse
- Safe sexual practices and how to access birth control
- Resources
- If you have concerns about relationship safety referral for counseling is very appropriate
- Intimate partner homicide of Adolescents (13)

Technology and Social Media

- It is important to discuss technology and social media use with teens:
- What, how, when
- Assess for safe use and potential negative consequences
- Provide education and referral if you have concerns about safety
- Trends in social media use (14)

Medication Safety Tips for Use in Teens

- Start low, go slow
- Monotherapy whenever possible
- Short-term combined with therapy
- Monitor compliance
- Monitor substance use
- Dosing and monitoring recommendations (15)

Pharmacologic Interventions for Major Depression, Dysthymia

- SSRI's first line treatment. Well tolerated with minimal side effects that are annoying but not medically dangerous.
- In my clinic I generally begin with fluoxetine 10mg daily for the first week then increase to 20mg if well tolerated. This is often a therapeutic dose but higher doses may be needed.
- If significant side effects develop or no benefit from adequate trial (4-6 weeks at therapeutic dose) then try second SSRI, then possible SNRI which in my clinic would be venlafaxine

Pharmacologic Interventions for Major Depression, Dysthymia

- If partial response to SSRI but still experiencing poor energy and lack of motivation will add bupropion XL 150mg daily to start and can increase to 300mg daily if needed
- If lack of response to any of above may add or complete separate trial of either a mood stabilizer or atypical antipsychotic (last resort)

Pharmacologic Interventions for Bipolar Disorder

- If acute mania start with atypical antipsychotic at low dose but increase rapidly until significant sedation (patient needs to be able to sleep) – in my clinic first choices are risperidone (Risperdal), ziprasidone (Geodon), olanzapine (Zyprexa). In my clinic aripiprazole (Abilify) requires prior authorization.
- If depression start mood stabilizer – in my clinic either lamotrigine or lithium
- Would add mood stabilizer to acute mania management and when at therapeutic dose gradually taper off atypical antipsychotic if tolerated.

Pharmacologic Interventions for Bipolar Disorder

- Lamotrigine – most significant side effect of concern is Stevens Johnson Syndrome. Following prescribing guideline closely decreases risk. Start at 25mg daily for 14 days, then 50mg daily for 14 days, then can increase by 50mg/week. Target therapeutic dose 200mg daily but have gone up to 300mg occasionally.
- Some individuals with Asian ancestry (specifically Han Chinese) may have gene HLA-B 1502 which increases the risk of developing Stevens Johnson Syndrome and genetic testing is advised

Pharmacologic Interventions for Bipolar Disorder

- Lithium – because of the narrow range between the therapeutic and toxic level, and because it can cause thyroid and kidney damage, it needs to be medically monitored very closely (i.e. reliable administration and monitoring by parent to begin with)
- Patient weight ≥30 kg: Initial: 300 mg 3 times daily; during first week of therapy (midweek), may increase dose by 300 mg/day; then continue to increase dose at weekly intervals in 300 mg/day increments to clinical response and as tolerated (including serum lithium concentration ≤1.4 mEq/L) not to exceed a maximum daily dose of 40 mg/kg/day. For maintenance therapy (long-term), doses titrated to maintain the target serum trough concentration of 0.8 to 1.2 mEq/L as tolerated (16)

Pharmacologic Interventions for Bipolar Disorder

- Renal function including BUN and SrCr (baseline, every 2 to 3 months during the first 6 months of treatment, then once a year in stable patients or as clinically indicated); pediatric patients may require more frequent checks); serum electrolytes (baseline, then periodically), serum calcium (baseline, 2 to 6 weeks after initiation, then every 6 to 12 months; repeat as clinically indicated) (Broome 2011); thyroid (baseline, 1 to 2 times with in the first 6 months of treatment, then once a year in stable patients or as clinically indicated); beta-hCG pregnancy test for all females not known to be sterile (baseline); ECG with rhythm strip (baseline for all patients over 40 years, repeat as clinical indicated) – for detection of Abnormal T waves on ECG, bradycardia, cardiac arrhythmia; CBC with differential (baseline, repeat as clinically indicated); serum lithium levels (twice weekly until both patient's clinical status and levels are stable, then repeat levels every 1 to 3 months or as clinically indicated); weight (baseline, then periodically) (APA 2002). (16)

Pharmacologic Interventions for Bipolar Disorder

- Atypical antipsychotics – I would generally start with risperidone
- **Bipolar mania (monotherapy or as an adjunct to lithium or divalproex):** Children and Adolescents 10 to 17 years of age: *Oral:* Initial: 0.5 mg once daily; dose may be adjusted in increments of 0.5 to 1 mg daily at intervals ≥24 hours to a dose of 1 to 2.5 mg daily. Doses ranging from 0.5 to 6 mg daily have been evaluated; however doses >2.5 mg daily do not confer additional benefit and are associated with increased adverse events. Patients experiencing persistent somnolence may benefit from dividing the dosage into twice-daily doses. (16)

Pharmacologic Interventions for Bipolar Disorder

- Medical monitoring of atypical antipsychotics
- If possible baseline CBC, CMP, Hemoglobin A1C, lipid panel, EKG
- Then after 3 months and once stabilized every 6 months or when symptoms present
- AIMS (abnormal involuntary movement scale) with long term use

Pharmacologic Interventions for Anxiety Disorders

- SSRI's – fluoxetine by far the most effective but may need doses as high as 80mg daily
- Buspirone – limited effectiveness in my experience: 5mg BID to start and increasing by 5mg BID weekly up to 30mg BID
- Benzodiazepines – should only be used in rare situations and for very short term use – clonazepam has longer half life so theoretically less addictive potential
- By far the most effective long term treatment is CBT

Pharmacologic Interventions for ADHD

- Stimulants most effective and generally well tolerated – in my clinic our choices for long-acting are Adderall XR and Concerta.
- For kids still in school (middle through high school) I generally start with long-acting
- College age patients can often get by with short-acting and enjoy the flexibility it allows

Pharmacologic Interventions for ADHD

- Baseline height, weight, blood pressure and pulse which should be monitored at subsequent visits. Once on stable dose if no complications can monitor every 6 months.
- If personal or family history of arrhythmia I most often get baseline EKG
- Cardiac history is not necessarily a deterrent to use of simulant medication

Pharmacologic Interventions for ADHD

- Concerta trial – 18mg daily for one week then increase by 18mg weekly until good symptom control with minimal side effects. Max recommended daily dose is 90mg
- Adderall XR trial – 10mg daily for one week then increase by 10mg weekly until good symptom control with minimal side effects. Max recommended daily dose is 40mg daily (although some people go as high as 60mg)

Pharmacologic Interventions for ADHD

- Methylphenidate trial – 5mg 1-3 times daily then increase by 5mg to max daily dose of 60mg
- Adderall trial – 5mg 1-3 times daily then increase by 5mg to max daily dose of 40mg daily (although some people go as high as 60mg)

Pharmacologic Interventions for ADHD

- Atomoxetine (Strattera) – non-stimulant specifically for ADHD – have seen limited benefit in my clinical practice and side effects of nausea and irritability. Can also cause some change in liver function which in rare cases causes damage
- Children and adolescents weighing ≤70 kg: Initially, approximately 0.5 mg/kg daily. Increase dosage after ≥3 days to target dosage of approximately 1.2 mg/kg daily (do not exceed 100 mg daily).
- Children and adolescents weighing >70 kg: Initially, 40 mg daily. Increase dosage after ≥3 days to target dosage of approximately 80 mg daily. If optimum response has not been achieved after 2–4 additional weeks of therapy, may increase dosage to maximum of 100 mg daily. (16)

Pharmacologic Interventions for ADHD

- Guanfacine – adjunct therapy particularly for hyperactivity/impulsivity and can decrease tics: immediate release 0.5mg daily then may add afternoon and evening dose then increase by 0.5mg per dose per week. Need to caution against stopping abruptly which can lead to hypertension: extended release (Intuniv) 1mg daily and can increase by 1mg daily each week to max dose of 7mg. (16)

Pharmacologic Interventions for ADHD

- Clonidine: *Immediate release* (off-label indication; Pliszka 2007):
- Children ≤45 kg: Initial: 0.05 mg at bedtime; sequentially increase every 3 to 7 days by 0.05 mg increments as twice daily, then 3 times daily, then 4 times daily; maximum daily dose: 0.2 mg/day for patients weighing 27 to 40.5 kg; 0.3 mg/day for patients weighing 40.5 to 45 kg. When discontinuing therapy, taper gradually over 1 to 2 weeks.
- Children >45 kg: Initial: 0.1 mg at bedtime; sequentially increase every 3 to 7 days by 0.1 mg increments as twice daily, then 3 times daily, then 4 times daily; maximum daily dose: 0.4 mg/day. When discontinuing therapy, taper gradually over 1 to 2 weeks.
- *Extended release (Kapvay):* Children ≥6 years: Initial: 0.1 mg at bedtime; increase in 0.1 mg/day increments every 7 days until desired response, doses should be administered twice daily in the morning and at bedtime (either split equally or with the higher split dosage given at bedtime); maximum daily dose: 0.4 mg/day. Note: When discontinuing therapy, taper daily dose by ≤0.1 mg every 3 to 7 days. (16)

Strategies for Tapering Teens Off Meds

- Collect significant history of medication use including date started, highest does, length of treatment, compliance, use of substances, side effects, efficacy, non-pharmacological skills acquired, and environmental stressors
- Create a detailed plan with teen and parents/guardians
- Provide education to teen and parents/guardians regarding what to expect and how to manage feelings and symptoms that may arise
- Extremely helpful to have patient engaged in therapy for added support

One Woman's Story

- Laura Delano's Story (17)

Resources

- Children's Crisis Outreach Response System (CCORS)
  https://www.kingcounty.gov/depts/community-human-services/mental-health-substance-abuse/services/Youth/CrisisOutreach.aspx
- At Risk Youth Program (ARY)
  https://www.kingcounty.gov/courts/superior-court/becca/ary.aspx
- Where to Turn for Teens – Teen Link
  https://www.crisisconnections.org/wp-content/uploads/2019/08/WTTFT-2019-2020.pdf
- Tips for Teens – Marijuana
  https://store.samhsa.gov/product/Tips-for-Teens-The-Truth-About-Marijuana/PEP19-05

Resources

- Youth Eastside Services (YES)
  https://www.youtheastsideservices.org/teens/
- Hanging Out or Hooking Up?
  https://www.futureswithoutviolence.org/hanging-out-or-hooking-up-teen-safety-card/
- The Q Card Project
  http://www.qcardproject.com/about
- Washington State Coalition Against Domestic Violence (WASCADV)
  https://wscadv.org/washington-domestic-violence-programs/

Resources

- Distracted Driving
  https://jamanetwork.com/journals/jamapediatrics/fullarticle/1745570
- Youthcare Seattle
  https://youthcare.org/
- School Based Health Centers
  https://www.kingcounty.gov/depts/health/child-teen-health/school-health.aspx
- https://www.kingcounty.gov/depts/community-human-services/mental-health-substance-abuse/services/crisis-services.aspx
- https://suicidepreventionlifeline.org/wp-content/uploads/2016/08/Brown_StanleySafetyPlanTemplate.pdf
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