

Bipolar Disorder and its New Step Sibling, DMDD

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PAL Conference
Bellingham WA
October 2015

PARTNERSHIP ACCESS LINE



Mental Health Consultation Outreach
for children

UW Medicine



Seattle Children's
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Disclosures

- My DSM-5 companion book will be published in December by American Psychiatric Association Publishing
- I have no other financial interests to disclose
- I will be discussing non-FDA approved use of medications in this presentation, which will be so designated on these slides.

A Patient

- 6 year old boy new to your practice
- ADHD diagnosed at age 4
- On and off stimulants for 2 years
 - methylphenidate and amphetamine
 - works for a while, then no help
 - has always been “moody” and “irritable”
- Struggling at school socially, but “really smart”
- Mom has been told he might be bipolar

A Patient, continued

- Mom says she can't control him at home
 - Behaves a little better for mom's boyfriend
- Mom just got diagnosed as bipolar, and medications have helped her
- She asks you to prescribe “something” to treat his bipolar mood swings.....

What To Do Now?

- What roles would you assume as the primary care provider with this question?
 - Diagnosis?
 - Psychoeducation?
 - Referral?
 - Treatment?

Frequency of Childhood Bipolar

- Controversial
- Some well established clinicians assert there is a very high incidence
 - “The Bipolar Child” by Papolos and Papolos
 - States about 6% of all children are bipolar
 - “Is Your Child Bipolar” by McDonnell and Wozniak
 - Based on their estimates, incidence is 4%.

Child vs Adult Rates

- Adult Lifetime prevalence rates of bipolar disorder are 1 to 2%
- Bipolar disorder is essentially a lifelong diagnosis
- So kids with bad mood swings cannot all have “true” bipolar disorder
- UCLA Child Bipolar Clinic found only 18% referred with a “bipolar” diagnosis actually had a bipolar disorder (Weintraub et al 2014)

Why is Bipolar diagnosis so challenging?

- Symptom overlap
- High rates of co-morbidities
- Developmental issues
- Environmental influences
- “Expert” opinions differ
- Influence of popular media/drug industry
- Non-specific medication impacts
- Extensive history needed to understand patterns

What is Mania?

- >1 week episode of irritable or expansive mood
- At least 3 of the following (4 if *only* irritable mood)
 - **Distractible**
 - **Indiscretions**
 - **Grandiose**
 - **Flight of ideas**
 - increased goal directed **Activities**
 - little need for **Sleep**
 - **Talkative**

What DSM-5 changed about Mania

- Increased the required level of increased energy/activity symptoms
 - Now says this must be present “most of the day, nearly every day”
- Duration criteria are unchanged:
 - Manic symptoms \geq 1 week is Bipolar I
 - Manic symptoms \geq 4 days is Bipolar II
 - No hospitalization or psychosis

The Other DSM-5 Bipolars

- “Other Specified Bipolar” (F31.89) means too few mania symptoms to meet Bipolar II criteria, and the clinician states why
- “Unspecified Bipolar Disorder” (F31.9) is the current term for Bipolar NOS

Some Bipolar child controversies

- Can children with extreme irritability and ADHD-like symptoms be considered bipolar?
- Can children with chronic (rather than episodic) mood symptoms be considered bipolar?
 - Adults with bipolar disorder have EPISODES of mania and depression
- Can children with irritability without elation be considered bipolar?

ADHD vs. Bipolar

- Three bipolar symptoms \approx ADHD symptoms
 - distractibility
 - activity increase
 - talkativeness
 - Just have to add in “expansive mood” and voila, you have a “bipolar” child
 - This interpretation was one trigger for the bipolar diagnosis explosion

Manic symptoms versus ADHD

(Kowatch et al, 2005)

<u>Symptom</u>	<u>ADHD</u>	<u>PBD*</u>
Irritability	72%	98%
Accelerated Speech	82%	97%
Distractibility	96%	94%
Unusual Energy	95%	100%

* Pediatric Bipolar Disorder

Cyclothymic Disorder

- Recurrent episodes of hypomanic symptoms
- Never meet enough criteria to diagnose either hypomania or depression
- Problems persist at least 12 months in children (24 months in adults)
 - Up to 1/2 with this problem are diagnosed with bipolar disorder as adults

Intermittent Explosive Disorder

- Unplanned aggressive impulse dyscontrol
- Now only diagnosable above 6 years of age
- Greater definition of what is required to meet threshold, with alternatives:
 - ODD: Aggression from argument/temper tantrum
 - CD: Some aggression is proactive/predatory
 - DMDD has the persistently negative mood state, should not be diagnosed along with IED
- Best treatment: still poorly defined

“Rapid Cycling” Bipolar Controversy

- 4 or more distinct, full criteria manic, hypomanic, or depressive episodes in < 1 year
 - Rapid cycling pattern is rare in adults
- Kids are naturally more mood reactive, thus may hear a story of “rapid cycling”
 - Rarely fits the actual definition above
- Consider “rapid cycling bipolar” in kids if:
 - Mood episodes are sustained (not labile)
 - No triggers identifiable for mood changes

Our Overlapping Terms Don't Help

- Mood Instability
- Mood Swings
- Emotion Dysregulation
- Affective Dysregulation
- Mood Dysregulation
- Emotion Regulation
- Affective Lability
- Irritability
 - Components of many different disorders

Experts Debate Irritability and Mania

- **Geller:** Irritability has high sensitivity but poor specificity
- **Wozniak:** irritability may be primary mood symptom; episodicity not relevant
- **Hunt/Birmaher:** episodic irritability alone can represent mania; “irritable-only” mania exists but is rare
- **Leibenluft:** episodic irritability more suggestive of bipolar than chronic irritability

A few of the “irritable” disorders

- Bipolar disorder
- Rapid cycling bipolar
- Cyclothymic disorder
- Disruptive mood dysregulation disorder
- Severe mood dysregulation
- ADHD
- Depression
- ODD
- Conduct disorder

Chronic versus Episodic Irritability

- Community sample of 776 children and adolescents interviewed at 3 points in time
- Irritability rating scales used to tease out chronic versus episodic irritability.
- Chronic irritability
 - 2yr later associated with ADHD
 - 7 yr later associated with depression
- Episodic Irritability
 - 2yr later associated with simple phobia
 - 7 yr later associated with mania/bipolar

(Liebenluft et al, 2006)

Chronic vs Episodic Irritability

- Kids with episodes of irritability (rather than chronic) have a greater chance of:
 - elation and/or grandiosity
 - symptoms of mania
 - psychotic symptoms
 - depressive episodes
 - suicidality
 - A parent with Bipolar Disorder

Chronic irritability in youth predicting Major Depressive Disorder

- Chronic irritability at age 14 predicts MDD at age 22
 - OR= 2.29 (1.22-4.31) (Leibenluft et al, 2006)
- Oppositional defiant disorder at age 7 predicts MDD at age 18
 - OR=1.06 (1.01-1.10) (Burke et al, 2005)
- Familial association between MDD and disruptive behavior disorders (Weissman et al, 2005)

Defining that controversial group: “Severe mood dysregulation”

- A research construct from last decade
- Chronic: persistent sx's; no distinct mania
- Irritable: reactivity to negative emotional stimuli
 - > 3x/wk, baseline anger/sadness
- 3 or more ADHD-like “Hyperarousal” symptoms:
 - insomnia, agitation, distractibility, rapid thoughts, pressured speech, and intrusiveness.
- Very impairing

Did SMD lead to Bipolar Disorder?

- Brief answer: no.
 - Follow-up studies of SMD from age 10 to 18 generally show subsequent incidence of MDD at age 18 far more than Bipolar
 - Parental history for Bipolar far greater in Bipolar group (33%) than SMD group (2.7%)
 - Another study showed that after 2.4 years, only 1.2% of SMD patients experienced a manic episode, vs. 62.4% of patients with Bipolar

SMD children in the Great Smoky Mountain Study

- Longitudinal epidemiologic data set (Costello et al)
- N= 1,420, 4 waves, ages 9-18
- Questions
 - What is the prevalence of SMD?
 - Answer: 3.2%
 - What is the diagnostic outcome of children with SMD at the last wave (mean age 18.3 + 2.1 y)?
 - Answer: only major depression was a significantly more likely diagnosis in this group

Severe Mood Dysregulation (SMD)

- “Chronically irritable children whose diagnosis is in doubt.”
- Clinical syndrome, not a diagnosis
- A real problem, confers risk of psychopathology, but NOT for bipolar disorder
- SMD increases risk of depressive disorder and GAD at 20 year follow-up.

Disruptive Mood Dysregulation Disorder (DMDD) (296.99, F34.8)

- The evolution of the SMD label
 - Just removed “hyperarousal” symptom
- Chronic, severe, persistent irritability
 - Temper outbursts
 - grossly out of proportion to the situation
 - developmentally inappropriate
 - Persistently irritable or angry mood in between temper outbursts, present most of the day, nearly every day, and noticed by others

Disruptive Mood Dysregulation Disorder

- Severe temper outbursts
 - > 3 episodes per week
 - Outbursts occur in multiple settings
- Persistently negative mood between outbursts
- Duration > 12 months
 - No remissions of >3 months
- Child is > 6 years old
 - Onset before age 10
- No manic episodes (defined as >1 day) within the year

DMDD is a *mood* diagnosis

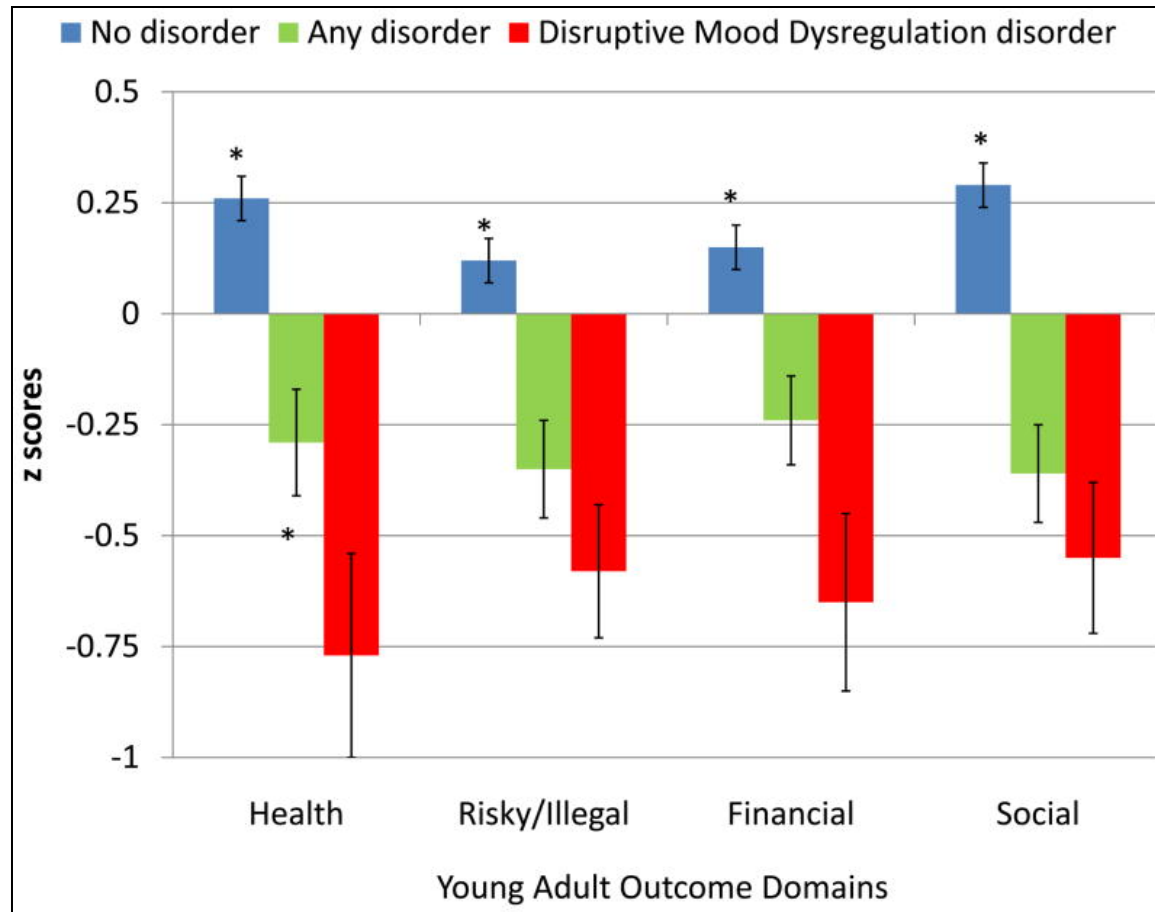
- ODD/Conduct are disruptive behavior diagnoses
 - May help to differentiate
 - If symptoms fit both DMDD and ODD, only diagnose DMDD
- *Clinical course and treatments are not known*
 - Uncommonly persists beyond 2 years
 - Controversies still exist around DMDD
 - *Is this just ODD plus depression?*

DMDD has comorbidities

- 74-81% have comorbid ADHD
- 31-49% had comorbid anxiety
- 17-42% had comorbid depression
- 3-32% had comorbid autism spectrum disorder

- ODD comorbidity rates approached 100%, but recall that DMDD diagnosis trumps ODD

Poor Outcomes if Have DMDD



How Do You Treat DMDD?

- Honestly, no one knows for sure
- Principles we think you should address:
 - Behavior management supports
 - Mood treatments (therapy yes/ meds maybe)

Differential Diagnoses With Mood Dysregulation & Irritability

- Bipolar Disorder
- Depression (esp. kids)
- PTSD
- Anxiety/OCD
- DBD, ODD
- ASD rigidity
- Conduct Disorder
- Substance Use
- Parent-Child Relational Problem
- Attachment Disorder, Borderline Traits

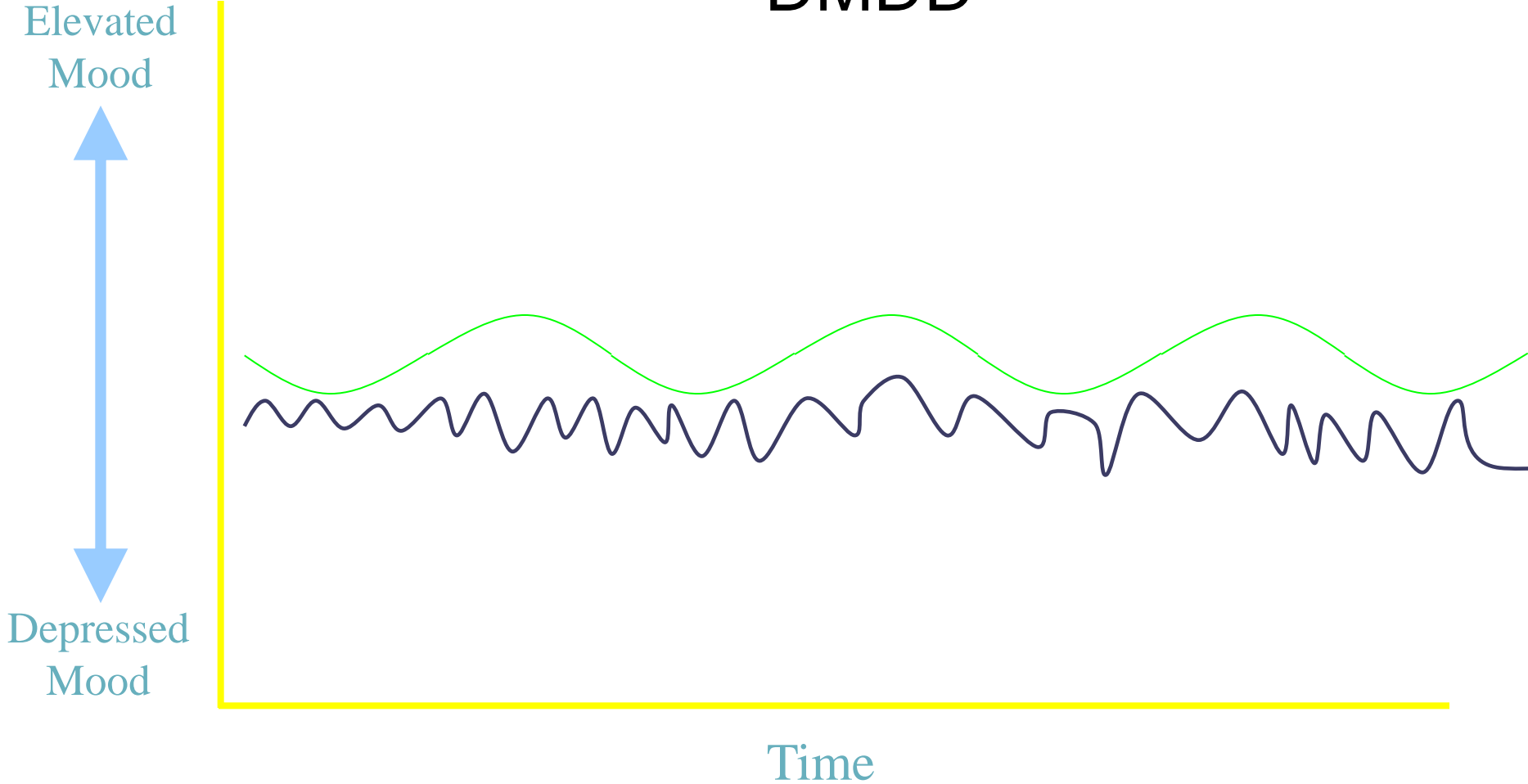


Our Bipolar NOS Problem

- Now “Bipolar Disorder Unspecified”
- Used as broad catch-all
- Sounds better than “I don’t know”
- Used to justify medication treatment

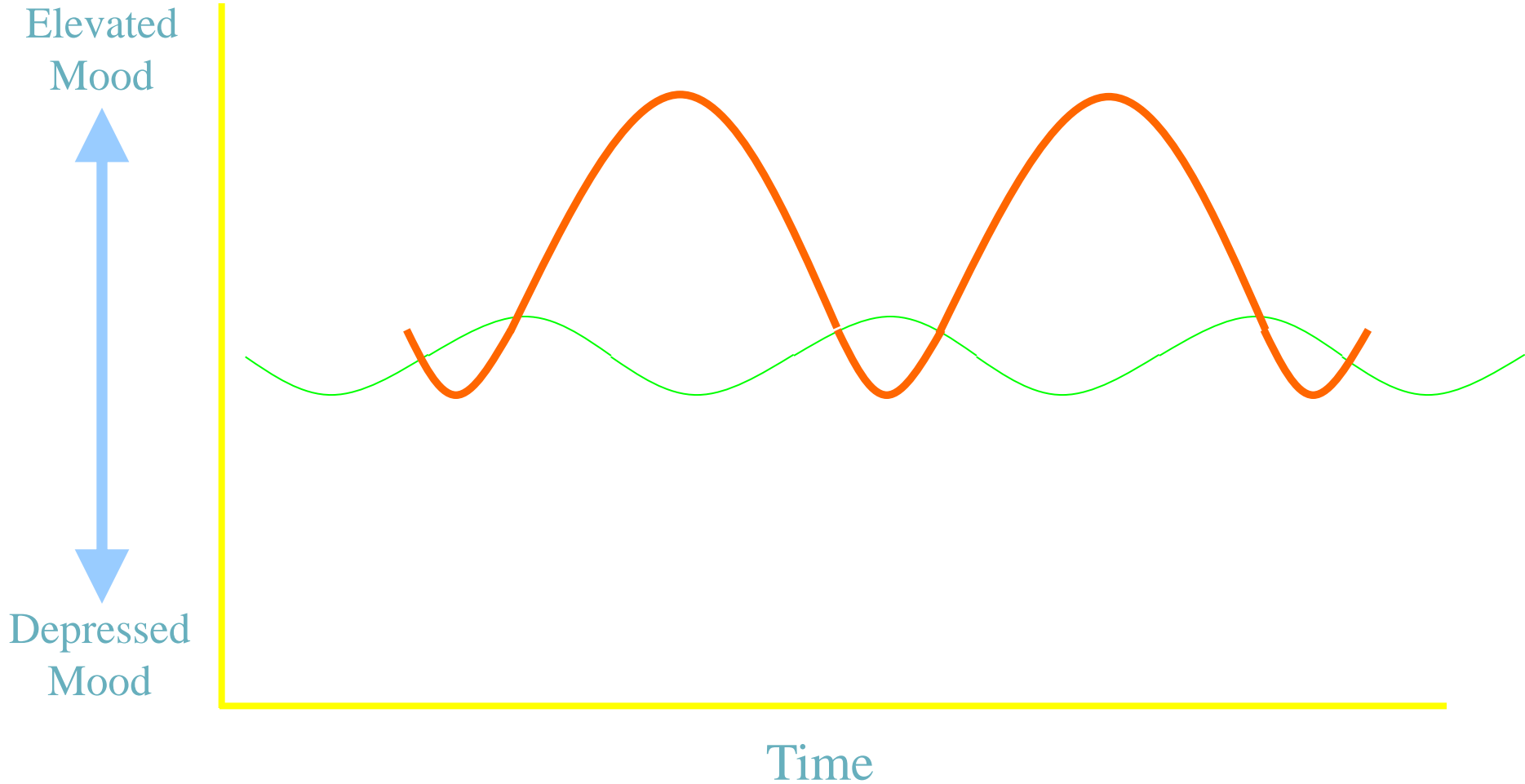
Mood Spectrum:

DMDD



Mood Spectrum:


Mania



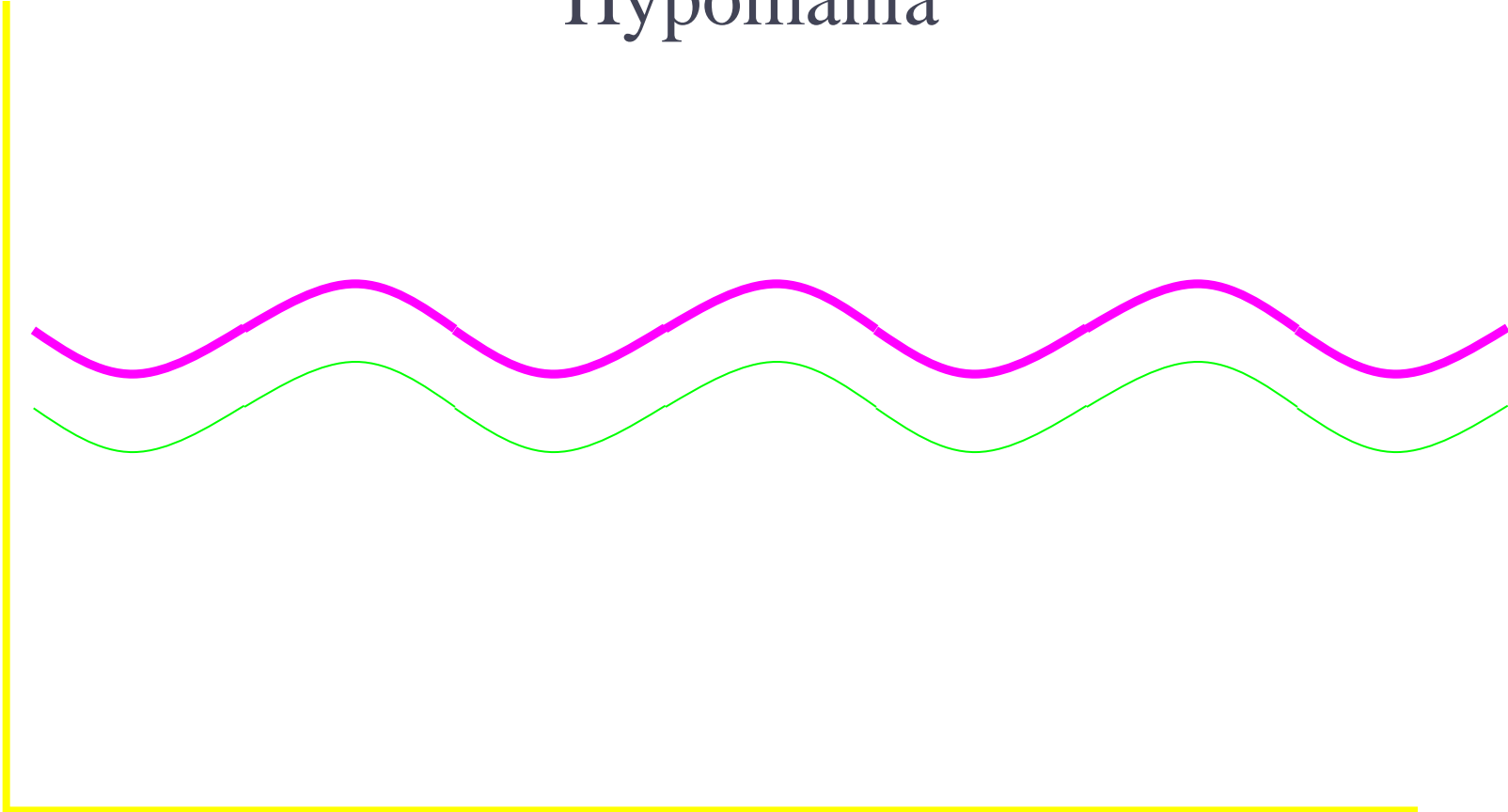
Mood Spectrum:

Hypomania

Elevated Mood



Depressed Mood

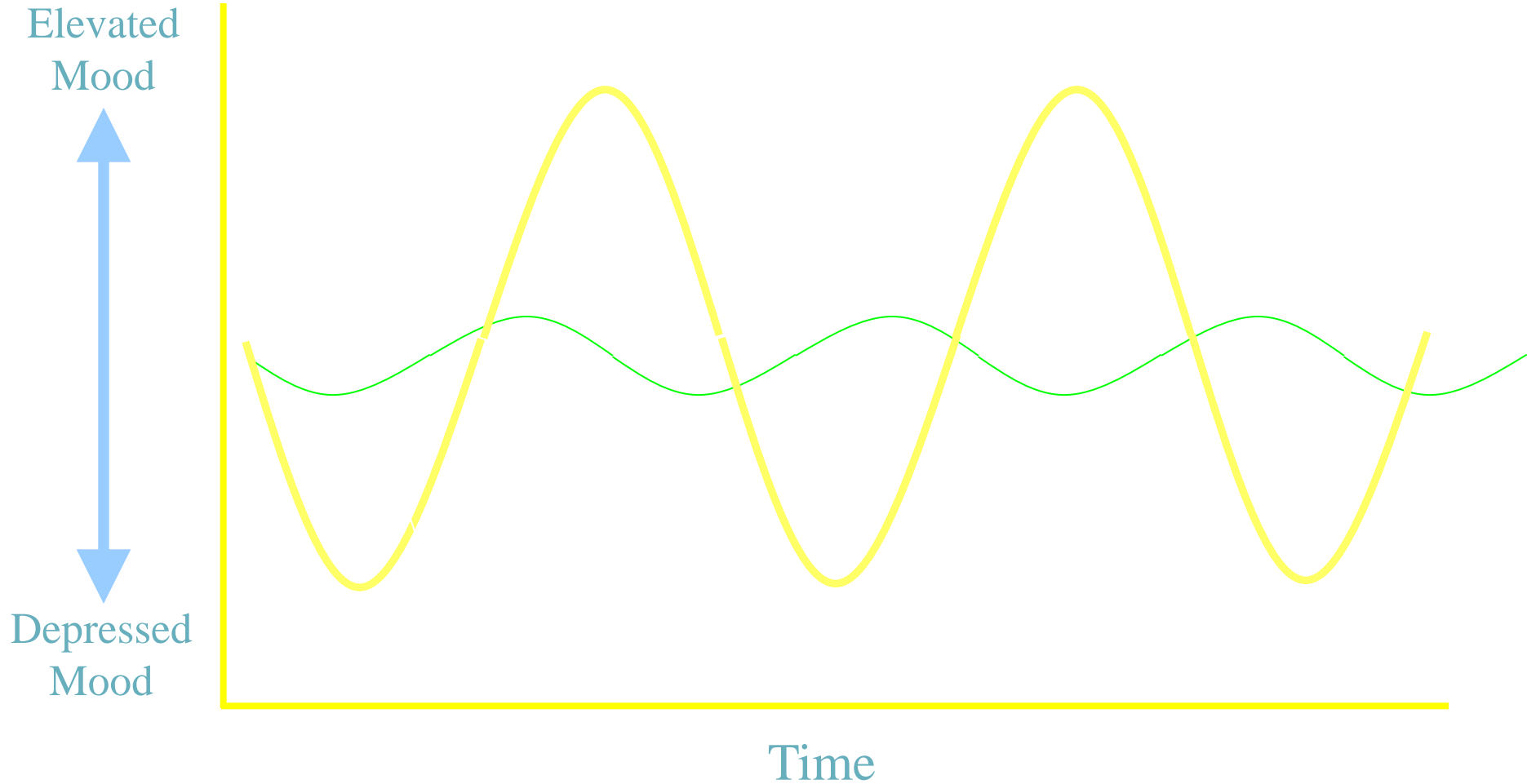


Time

Mood Spectrum:

PAL Conference
Bellingham, WA - 2015

Bipolar Disorder



Bipolar “Hallmark” Symptoms

- Increase our diagnostic specificity
- More likely bipolar disorder if...
 - Elation
 - Hyperactivity
 - Grandiosity
 - Hypersexuality
 - Decreased need for sleep

Mania Diagnostic Perspective

- Compare child to the prototypic “manic” patient
 - Pressured speech -- not just talkative
 - Clearly grandiose ideas with impaired reality testing/lack of insight
 - Thought process is fast and jumping around
 - Episodes last days (not minutes or hours)
 - Little need for sleep (versus poor sleep.)

Return to the Case

(6 yr old irritable and moody boy)

- 1) Decide if he just has under-treated ADHD
- 2) Look for depression, anxiety, ODD
- 3) Ask for more details beyond his being “moody” and “irritable”
 - How is his mood most of the day?
 - What causes (if anything) his mood to change?
 - When not upset, what does he look like?
 - Can he “pull out of it”
 - Does he “listen” when he is asked to do something he wants to do?

Parent's Answers in this case

- Mom says he “never listens to me” especially when asked to do chore/homework/go to bed.
- Goes into rages when doesn't get his way
- Throws things at mom, hits her. Says “I hate you.”
- Tried “everything,” even spanking, taking away the X-box.
- With dad or other adults he behaves better. Some talking back, but manageable. Knows he needs to cool it or he going to get in trouble.

Symptoms At School

- In 2nd grade, teacher said he was not listening well in beginning of year, is better now
- In kindergarten he didn't follow rules well
- Performing at grade level
- Not having rages at school
- Generally more of a problem at home more than at school

Social History and Development

- Mom is primary caregiver.
- 1 younger brother, mom thinks she might be pregnant.
- No contact with dad. Left before he was born.
- Mom has few supports.
- Developmental milestones were OK
- Read early. Very verbal. Reads “anything about history” and “remembers everything.”
- No in utero drug exposure identified.

How to answer Mom's Question if this is Bipolar Disorder?

- Probably not
- Pattern doesn't fit
- Lack of hallmark symptoms
 - Difficult diagnosis (no "tests")
- Bipolar diagnosis best made "over time"
 - Down side of labeling too early

Bipolar Rating Scales?

- Rating Scales
 - Young Mania Rating Scale
 - Useful for monitoring symptoms over time
 - Not a diagnostic tool (very low specificity)
 - DISC or KSADS
 - Used in research, have flaws
 - Impractical for your office practice
- Rating scales are too misleading to recommend for diagnostic use
 - intentionally excluded from the PAL guide.

What about Family History?

- Avoid overcalling a positive family history
 - many adults who call themselves bipolar may not have that illness
 - first degree bipolar relative increases OR by 5
 - second degree bipolar relative, increase OR by 2.5
 - given a generous prevalence of 2% bipolar in the population, most children of a bipolar parent (~90%) will not have bipolar disorder

Looking back from adult bipolar....

- Bipolar adults look back and note symptoms became bipolar-like in their teen years (50-66%)
- Many bipolar adults had major depression episodes as children
- The younger the child's first major depression, the more likely bipolar disorder is in the future

What if a “Bipolar” Child Really is Bipolar?

What if a “Bipolar” Child Really is Bipolar?

- Though rare in a PCP practice, becomes more likely the older the child.
- Assemble a team. Real deal bipolar disorder is a big problem and requires multi-modal treatment

Course Of True Bipolar Disorder

- Suicidalilty
 - up to 15% eventually complete suicide
- Substance Abuse in up to 60%
- Anxiety disorders in up to 50%
- Psychotic features in up to 50%
- Relationship Disruptions
- Work Disruptions
- Hospitalizations

Bipolar Treatment

- If clear manic episodes, strongly recommend referral to child psychiatrist
- Management difficult because:
 - High rate of substance abuse
 - High rate of medication non-compliance
 - Even with medication, recurrences happen
 - High rates of family disruption from the illness
 - Suicidal behavior is common

If No Child Psychiatrist Can Assume Care, Then What?

- Get collateral information to help establish correct diagnosis
 - This may require separate/designated appointment(s) with caregivers and/or patient to get sufficient history
- Seek consultant advice (PAL)
- Advocate for multimodal care
 - Specialist for medication management
 - Parent/caregiver involvement
 - School support (IEP if attendance/performance impacted)
 - Individual support

Bipolar Treatments

(for when you are left holding the bag)

- Medication management
- Safety monitoring and crisis planning
- Individual Support (symptom management, coping skills, adherence monitoring, psychoeducation)
- Family support (psycho-education, risk assessment/response, adherence/relapse prevention)
- Lifestyle coaching and support (sleep hygiene, stress mitigation, drug/alcohol risks, exercise, social rhythm therapy)

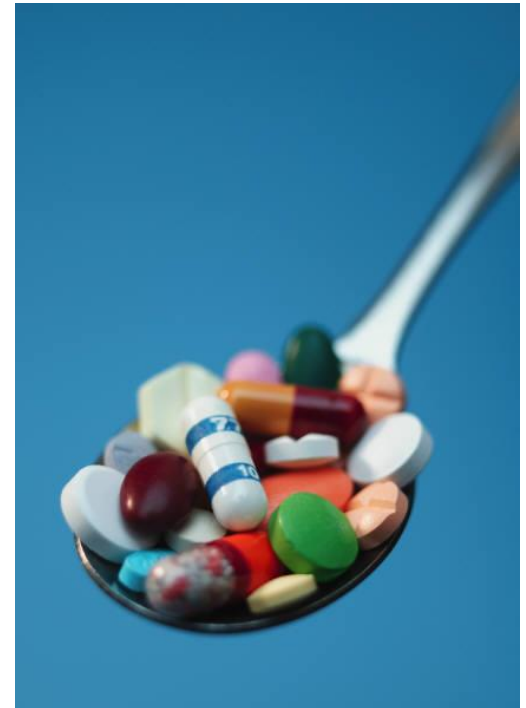
Bipolar Medications



Classes of Bipolar Medication

- “Mood Stabilizers”
 - Antipsychotic Medications
 - Anti convulsants (AEDs)
- Depression Medications (SSRIs, SNRI)
 - Avoid unless already on a “mood stabilizer”
- Sleep Aides

Antipsychotics



Antipsychotics

- Ideal world
 - mental health specialists handle all prescribing
- Real world
 - primary care pressured to originate or continue these meds

Antipsychotics- What do we really know with kids?

- Treat psychosis, but also benefits in:
 - Mania/bipolar disorder
 - Tic and Tourette's disorder
 - Irritability associated with autism
 - Impulsive aggression of conduct disorder/ODD
 - Explosive affect & impulsive aggression

Atypical Antipsychotics (2nd gen.)

- Aripiprazole (Abilify)
- Olanzapine (Zyprexa)
- Quetiapine (Seroquel)
- Risperidone (Risperdal, Invega)
- Ziprasidone (Geodon)
 - Asenapine (Saphris)
 - Clozapine (Clozaril, FazaClo)
 - Lurasidone (Latuda)
 - Iloperidone (Fanapt)

Atypical Antipsychotics

- 99% of antipsychotic prescriptions for children are atypicals
- Big business for big pharma
- Atypical hallmark is serotonin receptor antagonism in addition to D2 activity
 - lower extra pyramidal symptoms
 - lower tardive dyskinesia risks

Time of Onset of Effects

- All atypical antipsychotics studied have shown benefit over baseline in bipolar
- Adolescent schizophrenia time to onset of effect
 - risperidone took 8 days vs placebo (PANSS)
 - olanzapine took 2 weeks vs placebo (BPRS-C)
 - aripiprazole took 4 weeks vs placebo (PANSS)
- The few trials comparing two antipsychotics found no difference (except clozapine)

Antipsychotics for Pediatric Bipolar Disorder

- Studies of the following all showed benefit
 - olanzapine
 - risperidone
 - quetiapine
 - aripiprazole
 - asenapine
- Roughly similar effect sizes
- So choose one based on onset time, side effects

Risperidone (Risperdal)

- 1/2 life 20 hours
- available liquid, dissolving tab, tabs, depot
- doses over 6mg per day behave like 1st generation antipsychotic in adults
- for mood or aggression treatment, usually don't need doses greater than 2mg
- TD incidence reported less than 0.5%

- The usual 1st line choice antipsychotic
 - Relatively predictable benefits
 - Lots of research in kids for different indications

Quetiapine (Seroquel)

- 1/2 life 6 hours
- some prescribe just as sleep aide
 - Risking permanent TD from a childhood sleep aide is not reasonable
 - However sleep aide AND bipolar treatment is worthwhile
- lower potency, may be experienced as “milder”
- Need generous doses for the anti-mania effect (i.e. 400mg a day)

Aripiprazole (Abilify)

- 1/2 life 75 hours
- Pills, IM form available
- Novel: mixed agonist/antagonist
 - Often takes much longer to see benefits
 - some get agitation because of the med
- Reputation as weight neutral—not true in kids
- If need to help right away, not my preferred choice
 - More hit-or-miss than the other antipsychotics

Lurasidone

- *NO data in kids yet*
- 1/2 life 18 hours
- low antihistaminic activity
- minimal weight gain/metabolic problems in adults
 - I would not count on that for kids
- some akathisia and EPS making it more like risperidone or typicals
- seems to have a relatively rapid onset of clinical activity
- For adults, shown to have benefit for bipolar depression

Antipsychotic just for Irritability/Aggression?

- Maladaptive aggression
 - inappropriate intensity/frequency/duration
 - associated with PDD, conduct d/o, adhd
 - atypical antipsychotics often prescribed
- risperidone if conduct d/o, low IQ
 - (ES 0.9, combined n=875)
- methylphenidate if comorbid ADHD
 - (ES 0.9, combined n=844)

FDA Antipsychotic Approvals

- Acute Mania (ages 10 years and older)
 - Risperidone, Aripiprazole, Quetiapine, Olanzapine, Ziprasidone, Asenapine
- Schizophrenia
 - Risperidone, Aripiprazole, Quetiapine, Olanzapine
 - (age 13 and older)
 - Paliperidone (age 12 and older)
 - Molindone and Haloperidol (age 12 and older)
- Irritability associated with autism
 - Risperidone (5 - 16 years)
 - Aripiprazole (6 - 17 years)

Atypical Antipsychotics

	Dosage Form	Usual Starting Dose	Sedation	Weight Gain	EPS (stiff muscles)	Bipolar (+) child RCT evidence?	FDA bipolar approved?	Editorial Comments
Risperidone (Risperdal)	0.25,0.5, 1,2,3,4mg 1mg/ml	0.25mg QHS	+	+	+	Yes	Yes (Age >10)	Generic forms. More dystonia risk than rest
Aripiprazole (Abilify)	2,5,10,15, 25,30mg 1mg/ml	2mg QD	+	+	+/-	Yes	Yes (Age >10)	Long ½ life, can take weeks to build effect
Quetiapine (Seroquel)	25,50,100, 200,300, 400mg	25mg BID	++	+	+/-	Yes	Yes (Age >10)	Pills larger, could be hard for kids to swallow.
Ziprasidone (Geodon)	20,40,60, 80mg	20mg BID	+	+	+/-	No	No	Greater risk of QT lengthen, EKG check
Olanzapine (Zyprexa)	2.5, 5,7.5, 10,15, 20mg	2.5 mg QHS	++	++	+/-	Yes	Yes (Age >13)	Greatest risk of weight gain, ↑cholesterol

Table + and – from Fedorowicz VJ, Fombonne E. (2005), Lublin, H; et al (2005), and Correll CU et al (2009)

Monitoring for all atypical antipsychotics: AIMS exam at baseline and Q6months due to risk of tardive dyskinesia. Warn of dystonia risk. Weight checks, fasting glucose/lipid panel Q6months at minimum.

Atypical Antipsychotic Risks

Common Side Effects (>10%)	Less Common Side Effects	Notable Rare Reactions (≤2%)
Weight gain (olanzapine > others) Muscle rigidity Parkinsonism Constipation Dry mouth Dizziness Somnolence/fatigue	Tremors Nausea or abdominal pain Akathisia (restlessness) Headache Agitation Orthostasis Elevated glucose Elevated cholesterol/triglycerides	Tardive Dyskinesia Neuroleptic Malignant Syndrome Lowered blood cell counts Elevated liver enzymes Prolonged QT interval (ziprasidone > others) Tachycardia

Atypical Antipsychotic Monitoring

Monitoring recommendation	Frequency Suggestion
Height and weight	At baseline and at each follow-up (at least every 6 months)
Fasting blood sugar, TG, Cholesterol	At least every 6 months
Screen for stiffness, movement disorder or tardive dyskinesia (like AIMS exam)	At least every 6 months
CBC with Diff	Once to catch if any suppression, a few months after initiation
BP/Pulse	at least once after starting medication
Cardiac history	At baseline, get EKG if in doubt about risk from a mild QT increase

Lithium

- Rapid absorption
 - peaks in 0.5 to 2 hours
- Half life ~24 hours
 - longer if poor renal function (renal excretion)
- Narrow therapeutic index
- Drug levels 0.6 to 1.2 mEq/L
- Don't go past 1.4 mEq/L
- Don't combine with NSAIDS

Lithium

PROS

- FDA approved for mania >12 years
- Some evidence helps refractory depression
- Anti-suicide properties
- Some EB dosing guidelines (adjust for age/GFR)

CONS

- Narrow therapeutic index (close monitoring for toxicity w/ illness/dehydration; no NSAIDs)
- Usually best in combination, so committing to polypharmacy if you start here (best w/ atypical or VPA)
- SE in therapeutic range similar to early toxicity (tremor, diarrhea)
- SE often limit use (weight gain, acne, GI); HS dosing can minimize
- Hard to predict who will respond
- No evidence for maintenance treatment /slow anti-manic effects

Lithium Monitoring

- **Baseline**
 - renal screen (BUN/creatinine)
 - thyroid function
 - cbc with diff
 - calcium/phosphorous
 - pregnancy test ? (epstein anomaly)
 - EKG
 - lithium level 5 days after start
- **Q3 months**
 - lithium level
- **Q6 months**
 - TSH, renal function

- Warn about NSAID use, dehydration from sports

Depakote

- Possible use with aggression, bipolar
- Baseline
 - CBC, Diff with platelets
 - LFT
 - amylase?
 - Pregnancy test?
- Monitoring
 - hepatotoxicity risk highest if young, and in first 6 months
 - CBC/LFT every 6-12 months thereafter
 - Weight
 - Adult mania: levels 50-125 mcg/mL

Valproic Acid (Depakote)

PROS

- Single daily dosing can be effective (Depakote ER)
- Can be useful for maladaptive/non-specific aggression
- Studies suggest more helpful in combination

CONS

- Requires blood draws (levels, LFTs, CBC)
- Risk of hepatotoxicity (highest in first 6 months)
- High side-effect burden (weight gain, GI, tremor, sedation, rash)
- Less ideal for females (risk of birth defects (NTD), PCOS)

Valproic Acid

- How well does it work?
 - Fair, usually works best in adolescents in combination with an antipsychotic (better than either one alone)
 - Some RCT's have suggested that it works better than lithium on acute manic symptoms
 - Broad effects: also used for externalizing behavior disorders, conduct disorder
 - Lost in head-to-head trial with quetiapine
 - Similar long-term stabilizing effect to Lithium after stabilization with both divalproex and lithium

Carbamazepine (Tegretol)

PROS

- Some empirical supports for aggression
- Similar response rates as Li and VPA (38%) (Kowatch et al, 2005)

CONS

- Drug/drug interactions (OCPs, Lithium)
- Blood draws to check levels (auto-induced metabolism)
- Weak evidence of benefit in bipolar (McClellan and Werry, 1997)
- Risk of aplasia and liver failure

Oxcarbazepine (Trileptal)

- FDA approved for adults with bipolar
- less medical risks than Carbamazepine
 - less liver/blood toxicity
- weight neutral
- levels don't correlate with efficacy or toxicity
- Only blinded adolescent bipolar mania trial (n=116) was negative in 2006
 - Not a great treatment choice for pediatric bipolar

Lamotrigine (Lamictal)

PROS

- Less sedation and lower side effect profile in general
- Some studies report bipolar depression help

CONS

- Not helpful for manic phase
- Requires monitoring of CBC and liver function
- Significant rash risk
- Slow titration (age >12)

Sleep Aides

- (Lifestyle)- limit caffeine, exercise, no drugs/alcohol
- (Sleep hygiene)
- Melatonin (mild sleep aide, can help regulate sleep cycle)
- Anti-histamines
- Trazodone
- Benzodiazepines
- Newer sleep aides

Reminder: Medications will not resolve...

- Family stress/conflict
- Abuse/neglect
- Poor parenting strategies
- School stress/conflict
- Strong willed temperament
- Intellectual deficits
- Developmental impairments

Questions?