CHILD & ADOLESCENT PSYCHIATRY: selected updates

CENTRAL CALIFORNIA PSYCHIATRIC SOCIETY
Annual CME Conference
March 9, 2024

PART I
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Disclaimer

- NO CONFLICT OF INTEREST

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Learning Objectives

- Utilize Evidence Based Treatment for EOS; and monitor as well as treat metabolic side effects from the antipsychotics
- Incorporate the cultural formulation tools as apart of assessment of children and adolescents

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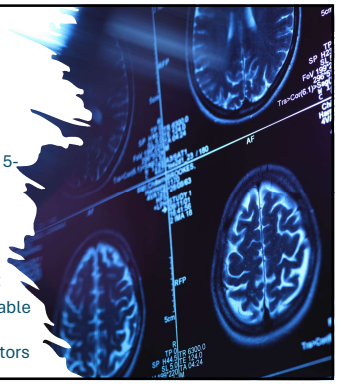
Early Onset Schizophrenia (EOS)

- onset: before age 18;
- rare before age 12 (VEOS/COS)
- WHO:8th leading cause of disability(15-44) ;DALYs: rising since 2005
- prevalence world-wide: 0.5%
- COS:0.04%
- usually associated with chronic morbidity and functional impairment
- effectiveness of antipsychotics : variable
- need for identification of specific neurodevelopmental and genetic factors



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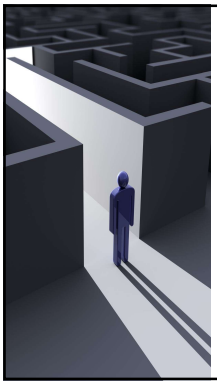

Signs and Symptoms (Mayo Clinic)

Thinking : problem w/ thinking and reasoning
bizarre ideas or speech
confusing dreams or television for reality

Behavior: withdrawal
trouble sleeping
lack of motivation
ADLs not met
bizarre or violent behavior
drug or nicotine use

Emotions: irritability or depressed mood
lack of emotions
strange anxiety or fear
excessive suspicion of others

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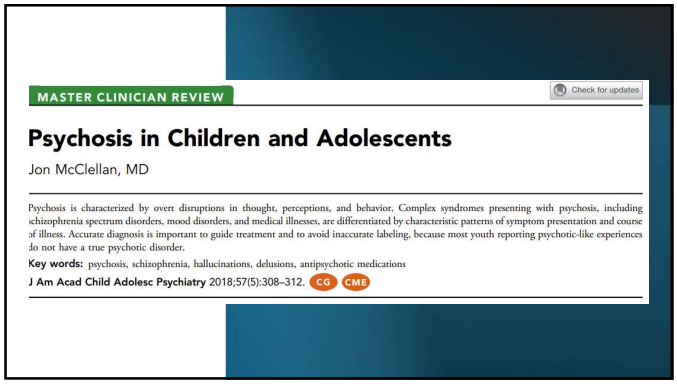

MASTER CLINICIAN REVIEW

Check for updates

Psychosis in Children and Adolescents

Jon McClellan, MD

Psychosis is characterized by overt disruptions in thought, perceptions, and behavior. Complex syndromes presenting with psychosis, including schizophrenia spectrum disorders, mood disorders, and medical illnesses, are differentiated by characteristic patterns of symptom presentation and course of illness. Accurate diagnosis is important to guide treatment and to avoid inaccurate labeling, because most youth reporting psychotic-like experiences do not have a true psychotic disorder.

Key words: psychosis, schizophrenia, hallucinations, delusions, antipsychotic medications

J Am Acad Child Adolesc Psychiatry 2018;57(5):308–312. CG CME

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Challenge in the Youth: is it really psychosis?? Case #1

DJ, 8 y.o boy, poor impulse control, anger problems; mom states child c/o hearing a voice telling him to hurt her after a severe outburst; assessment shows normal growth, thinking and behavior; he drew a picture of demon like face with fiery eyes, "Desperado", who always tells him not to listen to any other voice and not to hurt anyone; DJ not confused nor concerned about the voice; he elaborates with further discussion that explains his behavior; mom's concern of him developing Schizophrenia as her own brother has dx of this condition

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Challenge in the Youth: is it really psychosis? Case #2

17 yr girl, in residential treatment for self harm & suicidal behavior; c/o seeing a tall man w/curly brown hair & wearing Wranger-sunglasses; he sometimes talk to her; used to be supportive but recently says "ugly and should commit suicide"; sees more when upset / angry , alone / at night before falling asleep;

Otherwise, organized thoughts, no sign of responding internal stimuli or thought dis;

In therapy, she mentioned that she started seeing this man when her stepfather was sexually abusing her; initially was hopeful of that the man would rescue her later on the images reminded of her of abuse

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Differential Dx

- Psychotic mood d/o(Bi-Polar I w/ psychosis ; psychotic depression)
- ASD and other developmental d/o
- Sec. to general medical conditions
- Sz
- CNS auto-immune infection
- Genetic (vcf syn.)
- Meds. (steroids)
- Neoplasm
- delirium
- Toxins; substance of abuse

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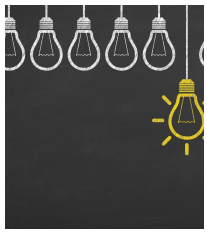
Treatment modalities in Youth w/ EOS

- Psycho-pharmacotherapy
- Psycho-education
- Family intervention
- CB strategies
- Social skills training
- Problem solving skills
- Specialized educational program (in some cases)
- Vocational training



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REVIEW

Efficacy, acceptability, and tolerability of antipsychotics in children and adolescents with schizophrenia: A network meta-analysis

Marc Krause[a,f,*], Yikang Zhu[b], Maximilian Huhn[a], Johannes Schneider-Thoma[a], Irene Bighelli[a], Anna Chaimani[c,d,e], Stefan Leucht[a]

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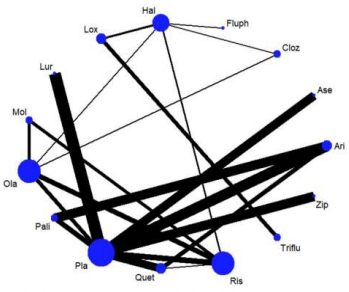

Figure 1 Network plot of eligible comparisons for overall change in symptoms. The size of the circles is weighted according to the number of trials available for each treatment.

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Summary of above NMA:

Primary out-come: efficacy as measured by overall change	Secondary out-comes: pos and neg sx response	dropouts
QOL	Soc.functioning	wt gain
sedation	prolactin	EPS

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European Psychiatry

www.cambridge.org/epa

Review/Meta-analysis

Cite this article: Fitzgerald I, Sahm LJ, Byrne A, O'Connell J, Ensor J, Ní Dhubhlaing C, O'Dwyer S, Crowley EK (2023). Predicting antipsychotic-induced weight gain in first episode psychosis – A field-wide systematic review and meta-analysis of non-genetic prognostic factors. *European Psychiatry*, 66(1), e42, 1–13
https://doi.org/10.1192/j.eurpsy.2023.2417

Received: 24 March 2023

Predicting antipsychotic-induced weight gain in first episode psychosis – A field-wide systematic review and meta-analysis of non-genetic prognostic factors

Ita Fitzgerald[1,2], Laura J. Sahm[2,3], Amy Byrne[4], Jean O'Connell[5,6], Joie Ensor[7], Ciara Ní Dhubhlaing[1,8], Sarah O'Dwyer[9] and Erin K. Crowley[7]

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Summary of review: AIWG

Category	Conclusion
1. Measurement of prognostic factors evaluated prior to medication	Insufficient evidence
2. Clinical variables previously thought to be prognostic influence on AIWG (e.g age and antipsychotic treatment response)	analysis did not provide conclusive evidence significantly impact AIWG
3. Prognostic value of Antipsychotic prescription	The prescribed medication remains the most imp variable but no conclusive evidence dose impacting AIWG prognosis
4. Early increase in BMI	Increase in first 12 weeks by $\geq$5% in base line body wt. has worse long-term prognosis

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REVIEW ARTICLE

Comparative Efficacy and Tolerability of Antipsychotics for Juvenile Psychotic Disorders

A Systematic Review and Network Meta-Analysis

Caitlin S. Yee, MD,[1,2] Anees Bahji, MD, CISAM, FRCPC,[3] Maria Lolich, PhD,[4] Gustavo H. Vázquez, MD, PhD, FRCPC,[1,5] and Ross J. Baldessarini, MD[5,6]

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Pairwise Meta-analysis Vs. Network Meta-analysis

- ***Pairwise MA*** (also known as PW-MA,PMA) involves analysis of RCTs of two agents/treatments
- ***Network Metanalysis (NMA)*** gives a global estimate of treatment effects for a set of multiple interventions, ≥ 3, combining direct and indirect evidence, especially when pairwise evidence are available

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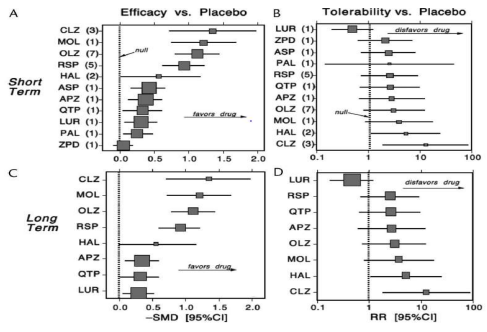

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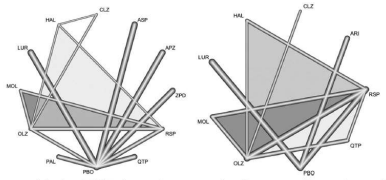

FIGURE 2. Network meta-analysis plots of eligible pharmacotherapy comparisons for treatment efficacy and acceptability from short-term (left) and long-term (right) trials. Width of lines is proportional to the number of trials comparing pairs of treatments.

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Psychopharmacologic Treatment of Schizophrenia in Adolescents and Children

Esther S. Lee, MD*, Hal Kronsberg, MD, Robert L. Findling, MD, MBA

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Table 1
Summary of prescribing information for second-generation antipsychotic agents

Medication	FDA Approval for Adolescent Schizophrenia	Recommended Dosages	Available Strengths	Treatment Considerations for FDA-Approved Agents
Clozapine	No			General warnings/precautions
Risperidone	Yes (13–17 y)	Initial: 0.5 mg Target: 3 mg Effective range: 1-6 mg Maximum: 6 mg/d	Tablets: 0.25, 0.5, 1, 2, 3, 4 mg Oral solution: 1 mg/mL Orally disintegrating tablets: 0.5, 1, 2, 3, 4 mg	• Neuroleptic malignant syndrome • Tardive dyskinesia • Hyperglycemia and diabetes mellitus • Hyperprolactinemia (higher risk with risperidone) • Orthostatic hypotension
Olanzapine	Yes (13–17 y)	Initial: 2.5-5 mg Target: 10 mg/d Maximum: 20 mg/d	Tablets (not scored): 2.5, 5, 7.5, 10, 15, 20 mg Orally disintegrating tablets: 5, 10, 15, 20 mg Intramuscular injection: 10 mg vial	• Leukopenia, neutropenia, and agranulocytosis (elevated risk with clozapine) • Suicidality • Hyperlipidemia (higher risk with clozapine, olanzapine in adult studies)
Quetiapine	Yes (13–17 y)	Initial: 25 mg bid Target: 400–800 mg/d Max: 800 mg/d	Tablets: 25, 50, 100, 200, 300, 400 mg	• Weight gain (higher risk with clozapine, olanzapine in adult studies)
Aripiprazole	Yes (13–17 y)	Initial: 2 mg Target: 10 mg/d Maximum: 30 mg/d	Tablets: 2, 5, 10, 15, 20, 30 mg Orally disintegrating tablets: 10, 15 mg Oral solution: 1 mg/mL Intramuscular injection: 9.75 mg/1.3 mL single-dose vial	• Cardiovascular changes (higher risk of QTc prolongation with ziprasidone, higher risk of myocarditis with clozapine) • Seizure (clozapine associated with greatest risk increase) • Potential for cognitive and motor impairment • Hypothyroidism (observed with quetiapine) • Cataracts (observed with long-term quetiapine use)
Paliperidone	Yes (12–17 y)	Initial: 3 mg Target: 3-6 mg/d (<51 kg), 3–12 mg/d (≥51 kg) Maximum: 6 mg/d (<51 kg), 12 mg/d (≥51 kg) * Tablet must be swallowed whole	Tablets: 1.5, 3, 6, 9 mg	General monitoring recommendations Baseline • Detailed personal, family, and lifestyle history (to be updated regularly) • Parkinsonism, akathisia • Tardive dyskinesia • Height, weight (every visit) • Blood pressure, pulse

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Table 1
(*continued*)

Medication	FDA Approval for Adolescent Schizophrenia	Recommended Dosages	Available Strengths	Treatment Considerations for FDA-Approved Agents
Lurasidone	Yes (13–17 y)	Initial: 40 mg Target: 40–80 mg/d Maximum: 80 mg/d * Tablet should be taken with food (at least 350 calories)	Tablets: 20, 40, 60, 80, 120 mg	• Electrolytes, complete blood count, renal, and liver function • Fasting blood glucose and lipids • Liver function tests At 3 mo • Parkinsonism, akathisia • Tardive dyskinesia • Blood pressure, pulse
Ziprasidone	No			• Fasting blood glucose and lipids • Liver function tests annually • Parkinsonism, akathisia • Tardive dyskinesia • Blood pressure, pulse • Electrolytes, complete blood count, renal and liver function (monitor more frequently with clozapine) • Fasting blood glucose and lipids (every 6 mo) • Liver function tests Other • Prolactin: obtain if symptomatic • Electrocardiogram: obtain at baseline for ziprasidone (also during titration and at maximum dose) and clozapine • Thyrotropin and free T4: baseline and follow-up measures recommended with quetiapine • Eye examination: recommended at baseline and 6-mo intervals with quetiapine
Asenapine	No			
Iloperidone	No			
Cariprazine	No			

* Denotes important med administration considerations.
Data from Refs.[110–116]

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Table 2
Summarization of selected second-generation antipsychotic studies

Medication	Publication	Study Design, Duration	N	Age (y)	Target Dose (mg/d)	Primary Efficacy Measure/Purpose	Effectiveness/ Findings	Noteworthy AEs
Clozapine	Kumra et al,[11] 1996	Randomized, DB trial against haloperidol & benztropine, 6 wk	21	6–17	Flexible dosing: clozapine up to 525 mg/d (mean 176 mg/d), haloperidol up to 27 mg/d (mean 16 mg/d)	Mean reduction in BPRS, Bunney-Hamburg Psychosis Rating Scale, Children's Global Assessment Scale, Scale for Assessment of Negative Symptoms, Scale for Assessment of Positive Symptoms	Clozapine had statistically significant improvement over haloperidol on all measures of psychosis	Drowsiness and salivation higher in clozapine, no changes in AIMS for either group. For the clozapine group, 2/10 dropped out from neutropenia (even after stopping and restarting medication), 2/10 had significant seizure activity
Clozapine	Shaw et al,[19] 2006	Randomized, DB, head-to-head trial against olanzapine, 6 wk	25	7–16	Flexible dosing: clozapine up to 900 mg/d (mean 327 mg/d), olanzapine up to 20 mg/d (mean 18.1 mg/d)	Mean reduction in CGI-S, Scale for the Assessment of Negative Symptoms, Scale for the Assessment of Positive Symptoms, BPRS, Bunney-Hamburg Psychosis Rating Scale	Moderate to large treatment effects in favor of clozapine, but given sample size only statistically significant improvement in negative symptoms	Clozapine group had more AEs, especially nocturnal enuresis, tachycardia, and hypertension. Similar weight gain in both groups
Clozapine	Kumra et al,[12] 2008	Randomized, DB, head-to-head trial against high-dose olanzapine, 6 wk	39	10–18	Flexible dosing: clozapine up to 900 mg/d (mean 403.1 mg/d), olanzapine up to 30 mg/d (mean 26.2 mg/d)	Response defined as a decrease of ≥30% in BPRS and a CGI improvement rating of 1 or 2	66% taking clozapine met responder criteria compared with 33% taking olanzapine	AE profiles were similar between groups with substantial metabolic effects and higher levels of sweating and salivation in the clozapine group

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Table 2
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Medication	Publication	Study Design, Duration	N	Age (y)	Target Dose (mg/d)	Primary Efficacy Measure/Purpose	Effectiveness/ Findings	Noteworthy AEs
Risperidone	Haas et al,[20] 2009	Randomized double-blind controlled trial vs lowdose risperidone, 8 wk	257	13–17	Flexible dosing: standard dose between 1.5 and 6 mg/d (mean 4 mg/d), low-dose between 0.15 and 0.6 mg/d (mean 0.4 mg/d)	Mean improvement in PANSS scores	Statistically significant improvement over low dose and an average reduction of 23.6 in PANSS scores, effect size of 0.49	74.4% in standard-dose group had an AE, most dose adjustments were for somnolence (19%). 33% of this group had EPS-related AEs, and 56% were prescribed an antiparkinsonian agent. 70% of the standard-dose group had prolactin elevations beyond the upper limit of normal
Risperidone	Haas et al,[21] 2009	RDBPCT, 6 wk	160	13–17	Flexible dosing: 4- 6 mg/d (mode 6 mg) vs 1-3 mg/d (mode 3 mg/d) vs placebo	Mean improvement in PANSS scores and response defined as reduction in PANSS of greater or equal to 20%	Statistically significant improvement over placebo by both active groups, high dose by 12.8 and low dose by 12.0. Overall improvement by high-dose group was 23.7 and 23.0 in low-dose group	AEs in 75% low-dose and 76% high-dose groups, most often somnolence, and changes in AIMS were minimal in both arms. No glucose-related AEs, weight gain was 1.3 kg in low-dose and 1.5 kg in high-dose groups

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Risperidone	Pandina et al,[22] 2012	OLE of the above trials, 6 or 12 mo	390	13–17	Flexible dosing between 2 and 6 mg/d (median mode dose 3.8 mg/d for 6-mo group and 3.0 mg/d for 12-mo group)	Mean improvement in PANSS scores and response defined as ≥20% reduction in PANSS total score	PANSS scores decreased 13.6 from baseline at 6 mo, 61.8% response at 6 mo	Serious AEs experienced by 16%, with 86% experiencing any AE. Weight gain was reported as a treatment AE in 15% with a mean gain of 4.0 kg. Prolactin-related AE in 9%. 32.3% of participants dropped out of the study, 31% experienced an EPS-related AE, and 27% reported somnolence
Olanzapine	Kryzhanovskaya et al,[29] 2009	RDBPCT, 6 wk	107	13–17	Flexible dosing between 2.5 and 20 mg/d (mean 11.1 mg/d)	Mean change in BPRS-C total score	Significant improvement with olanzapine over placebo (−19.4 vs −9.3) starting at week 2	Significant increases with olanzapine in terms of weight, prolactin levels, fasting triglycerides, uric acid, and alanine aminotransferase
Olanzapine	Kemp et al,[115] 2013	RDBPCT, 6 wk, post hoc analysis of study by Kryzhanovskaya et al,[29] 2009	107	13–17	Flexible dosing between 2.5 and 20 mg/d	Study possible association between weight gain and treatment outcome	Significant weight gain appeared to indicate greater treatment efficacy, but effect cancels out once duration is included as a covariate	

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Table 2
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Medication	Publication	Study Design, Duration	N	Age (y)	Target Dose (mg/d)	Primary Efficacy Measure/Purpose	Effectiveness/ Findings	Noteworthy AEs
Quetiapine	Findling et al,[31] 2012	RDBPCT, 6 wk	222	13–17	400 mg/d or 800 mg/d in divided doses	Mean change in PANSS total score	Both 400-mg/d and 800-mg/d groups demonstrated significant mean improvement compared with placebo, with LS mean changes from baseline to endpoint being −27.3 and −28.44 vs placebo (−19.15)	Most common TEAEs included somnolence, headache, and dizziness. Active groups also had increased weight (2.2 kg for 400 mg/d, 1.8 mg for 800 mg/d, −0.4 kg for placebo), and increases in total cholesterol, LDL cholesterol, and triglycerides. Quetiapine showed a decrease in mean total thyroxine levels (with mean increase in thyroid stimulating hormone in the 400-mg/d group) and greater mean changes in pulse rate

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Aripiprazole	Findling et al,[30] 2008	RDBPCT, phase 3, 6 wk	302	13–17	10 mg/d or 30 mg/d	Mean change in PANSS total score	Aripiprazole statistically superior to placebo at both 10 mg/d (−26.7) and 30 mg/d (−28.6) vs placebo (−21.2)	Extrapyramidal disorder, somnolence, and tremor were most common, with higher incidence in the 30-mg/d group. Both active groups had worsening in Simpson-Angus Scale scores (+0.5 for 10 mg/d, +0.3 with 30 mg/d, −0.3 for placebo). There were reductions in serum prolactin in all groups and minimal weight changes (−0.8 kg for placebo, 0.0 in 10 mg/d, and +0.2 kg for 30 mg/d).
Aripiprazole	Correll et al,[28] 2017	RDBPCT, 52 wk	146	13–17	10–30 mg/d	Time from randomization to exacerbation of psychotic symptoms/ impending relapse	Significantly longer time to exacerbation for treatment group (hazard ratio = 0.46) and fewer meeting criteria for exacerbation (19.4% vs 37.5%)	TEAEs reported in a similar proportion in both groups with none being related to neuroleptic malignant syndrome, seizures, orthostasis, glucose levels, or prolactin levels. There was a comparable incidence of weight gain and somnolence

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Aripiprazole	Findling et al,[58] 2008	RDBPCT, phase 3, 6 wk	302	13–17	10 mg/d or 30 mg/d	Mean change in PANSS total score	Aripiprazole statistically superior to placebo at both 10 mg/d (−26.7) and 30 mg/d (−28.6) vs placebo (−21.2)	Extrapyramidal disorder, somnolence, and tremor were most common, with higher incidence in the 30-mg/d group. Both active groups had worsening in Simpson-Angus Scale scores (+0.5 for 10 mg/d, +0.3 with 30 mg/d, −0.3 for placebo). There were reductions in serum prolactin in all groups and minimal weight changes (−0.8 kg for placebo, 0.0 in 10 mg/d, and +0.2 kg for 30 mg/d).
Aripiprazole	Correll et al,[59] 2017	RDBPCT, 52 wk	146	13–17	10–30 mg/d	Time from randomization to exacerbation of psychotic symptoms/ impending relapse	Significantly longer time to exacerbation for treatment group (hazard ratio = 0.46) and fewer meeting criteria for exacerbation (19.4% vs 37.5%)	TEAEs reported in a similar proportion in both groups with none being related to neuroleptic malignant syndrome, seizures, orthostasis, glucose levels, or prolactin levels. There was a comparable incidence of weight gain and somnolence

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Table 2
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Medication	Publication	Study Design, Duration	N	Age (y)	Target Dose (mg/d)	Primary Efficacy Measure/Purpose	Effectiveness/ Findings	Noteworthy AEs
Paliperidone	Singh et al,[64] 2011	RDBPCT, 6 wk	201	12–17	Weight-based, fixed doses ranging from low (1.5 mg/d), medium (3 or 6 mg/d), and high (6 or 12 mg/d)	Mean change in PANSS total score	Significant for the medium-treatment group (−17.3, $P = .006$) vs the high- (−13.8, $P = .09$) and low-treatment (−9.8, $P = .51$) groups as well as placebo (−7.9)	Most common TEAEs included somnolence, akathisia, tremor, insomnia, and headache, many of which were dose related
Paliperidone	Savitz et al,[40] 2015	OLE trial (Singh et al,[64] 2011), 2 y (36 patients involved in a 6-mo study)	220	12–17	Flexible dosing between 1.5 and 12 mg/d (6 mg/d most common dose)	Primary objective was to evaluate long-term safety parameters; secondary objective was efficacy per PANSS, CGI-S, and Children's Global Assesment Scale scales	Improvement in PANSS total score observed within 3 mo of treatment initiation and continued to endpoint, with the mean change in score being −19.1%, and 41.7% of patients achieving remission. Safety profile consistent with that of paliperidone in adults, and risperidone in adolescents	TEAEs experienced by 85.3% of patients, with somnolence and weight gain being most common (18.3% each). 4.3% participants showed a shift to high glucose levels, 9.3% suicidality-related TEAEs, and 9.3% a potentially prolactin-related event (18.5% in girls, 3.3% in boys). EPS-related events were most commonly related to Parkinsonism (15.5%) and hyperkinesia (13.8%)

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Lurasidone	Goldman et al,[67] 2017	RDBPCT, 6 wk	326	13–17	40 mg/d or 80 mg/d	Mean change in PANSS total score	LS mean change significant for both 40-mg/d and 80-mg/d groups (−18.6, −18.3) vs placebo (−10.5), with separation apparent starting at week 1. A greater proportion of 40-mg/d and 80-mg/ d participants also met criteria for response (63.9% and 65.1% vs 42.0% placebo)	Lower overall incidence of serious AEs with treatment (3.6% at 40 mg/d, 1.9% at 80 mg/d) vs placebo (8.0%), and no clinically significant differences for body weight, lipid parameters, glycemic indices, and prolactin levels. Higher incidence of akathisia (9.1% for 40 mg/d, 8.7% for 80 mg/d, and 1.8% for placebo) and other EPS-related AE (6.4% at 40 mg/d, 3.8% in 80 mg/d, 1.8% with placebo)

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Table 2
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Medication	Publication	Study Design, Duration	N	Age (y)	Target Dose (mg/d)	Primary Efficacy Measure/Purpose	Effectiveness/ Findings	Noteworthy AEs
Ziprasidone	Findling et al,[60] 2013	RDBPCT, 6 wk followed by 26-wk open extension	283	13–17	Flexible dosing 40–160 mg/d (mean modal dose 129.3 mg/d)	Mean change in BPRS-A, PANSS, CGI-S scores	In the RCT, no significant separation in BPRS-A or other measures, statistically significant improvement in PANSS-positive subscale	In the RCT, somnolence (19.7%) and EPS (11.4%) were the most common AEs. No difference in AIMS and small increase in QT interval corrected by Fridericia's formula (3.9 ms to 10.8 ms) ziprasidone was generally well tolerated with minimal associated changes in body mass index and no differences in metabolic AEs
Asenapine	Findling et al,[61] 2015	RDBPCT, 8 wk followed by 26-wk open extension	306	12–17	Fixed doses, either 5 mg/d or 10 mg/d	Mean change in PANSS scores	In the RCT, PANSS scores did not separate from placebo despite numerical improvement. In OLE, 48% had a 30% decrease in PANSS total	In the RCT, somnolence, sedation, hypersomnia, and gastrointestinal disorders were most common AEs. In the RCT, 10% had >7% weight gain, and in the OLE, 14.3% had >7% gain

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Table 3
Summarization of selected head-to-head antipsychotic studies

Medications	Publication	Study, Design, Duration	N	Age (y)	Target Dose (mg/d)	Primary Efficacy Measure/Purpose	Effectiveness/Findings	Noteworthy AE
Haloperidol Olanzapine Risperidone	Sikich et al,[62] 2004	Randomized double-blind controlled trial, 8 wk	50	8–19	Flexible dosing: olanzapine 2.5–20 mg/d (mean 12.3 mg/d), haloperidol 1-8 mg/d (mean 5 mg/d), risperidone 1-6 mg/d (mean 4 mg/d)	Mean change in BPRS-C	74% of risperidone, 88% of olanzapine, 53% of haloperidol had significant symptom reduction; between group overall comparisons failed to show statistical improvement differences	Risperidone and olanzapine had higher rates of AEs than in adults and more than half of those on atypicals had mild to moderate EPS; severe EPS was even higher on haloperidol; significant weight gain across all groups
Risperidone Olanzapine Quetiapine	Jensen et al,[51] 2008	Randomized open-label, 12 wk	30	10–18	Flexible dosing: olanzapine 5–20 mg/d (mean 11.4 mg/d), risperidone 0.5-6 mg/d (mean 2.8 mg/d), quetiapine 100–800 mg/d (mean 611 mg/d)	Mean reduction in PANSS	No statistically significant differences between treatment arms, although differences between risperidone > quetiapine approached significance	No significant differences in AIMS. Significant weight gain across all groups
Molindone (with benztropine) Olanzapine Risperidone	Sikich et al,[63] 2008	Randomized double-blind controlled trial, 8 wk	116	8–19	Flexible dosing: olanzapine 2.5–20 mg/d (mean 11.4 mg/d), risperidone 0.5-6 mg/d (mean 2.8 mg/d), molindone 10–140 mg/d (mean 59.9 mg/d)	Response defined as CGI improvement score of 1 or 2 and ≥20% reduction in PANSS	Molindone achieved 50% response, olanzapine achieved 34% response, and risperidone achieved 46% response. No statistically significant differences	Weight gain in olanzapine > risperidone > molindone. Randomization to olanzapine stopped due to weight gain. More changes in lipids and liver function tests in olanzapine group, more akathisia in molindone group

(*continued on next page*)

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Table 3
(*continued*)

Medications	Publication	Study, Design, Duration	N	Age (y)	Target Dose (mg/d)	Primary Efficacy Measure/Purpose	Effectiveness/Findings	Noteworthy AE
Molindone (with benztropine) Olanzapine Risperidone	Findling et al,[64] 2010	DB extension of Sikich et al,[63] 2008 study; up to 44 wk	54	8–19	Flexible dosing (as above): olanzapine mean 9.6 mg/d, risperidone mean 3.9 mg/d, molindone mean 76.5 mg/d	Response defined as CGI improvement score of 1 or 2 and ≥20% reduction in PANSS	PANSS scores varied little during the maintenance period	All groups had statistically significant weight gains but olanzapine > molindone for several weight-related measures. Only 12% of participants completed the study on the same medication they started and only 26% completed the extension trial
Quetiapine Risperidone	Swadi et al,[65] 2010	Open-label, 6 wk	22	<19	Flexible dosing: quetiapine 100–800 mg/d (mean 607 mg/d), risperidone 1.5-5 mg/d (mean 2.9 mg/d)	Response defined as 30% or more reduction in PANSS, BPRS, and CGI-S scores	No significant differences in reduction of symptoms, but risperidone performed better on most outcome measures	Although not statistically significant, greater weight gain was seen with quetiapine and more anticholinergic coadministration for management of EPS with risperidone
Paliperidone Aripiprazole	Savitz et al,[66] 2015	RDBT against aripiprazole, 26 wk	228	12–17	Flexible dosing for paliperidone (3, 6, or 9 mg/d) and aripiprazole (5, 10, or 15 mg/d)	Mean change in PANSS total score	Similar improvement for paliperidone ER and aripiprazole at day 56 (−19.3 vs −19.8) and day 182 (−25.6 vs −26.8). Paliperidone ER and aripiprazole also showed similar rates of response (67.9% and 76.3% at day 56, 76.8% and 81.6% at day 182)	Higher frequency of TEAEs for paliperidone ER compared with aripiprazole (77.0% vs 66.7%); most common TEAEs were akathisia, headache, somnolence, tremor, and weight gain. Incidence of dystonia and hyperkinesia for paliperidone ER was higher (>2%) and also demonstrated more frequent TEAEs related to prolactin (4.4% vs 0.9%)

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Review

Thieme

Pharmacological Treatment of Early-Onset Schizophrenia: A Critical Review, Evidence-Based Clinical Guidance and Unmet Needs

OPEN ACCESS

Authors
Javier-David Lopez-Morinigo[1, 2], Stefan Leucht[3*], Celso Arango[1, 2*]

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First Author	Publication year	Article type	Number of studies	N	Average follow-up (weeks)	Primary outcome(s)	Secondary outcome(s)
Pagsberg	2017	NMA	12	2158	7	*Efficacy:* 1. ARI, PAL, RIS, QUET, OLZ, MOL. 2. ASE, ZIPRA	*Safety – WG:* 1. MOL > ARI > ZIPRA > 2. PAL > RIS, OLZ *Safety – EPS:* 1. ASE, OLZ > 2. ZIPRA, PAL, RIS, ARI, PAL, RIS, QUET > 3. MOL. *Acceptability:* 1. OLZ, PAL, QUE, RIS > all others
Druyts	2016	SR	11	1772	6		*Safety – PRL:* 1. ARI, CLOZ, QUET 2. RIS, OLZ, PAL
Harvey	2016	NMA	11	1714	6	*Efficacy:* 1. HAL and MOL > 2. OLZ, ARI, RIS, PAL, QUET > ZIPRA	*Safety - WG:* 1. HAL, MOL, ZIPRA 2. RIS, PAL, ARI 3. QUE 4. OLZ *Acceptability:* 1. HAL 2. QUET 3. MOL, ZIPRA, RIS, PAL, OLZ, ARI

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Krause	2018	NMA	28	3303	6	*Efficacy:* 1. CLZ 2. RIS, OLZ, ARIP, LUR, ASE 3. HAL, ZIPRA.	*Acceptability:* 1. PAL, MOL, RIS, OLZ 2. ARI *Safety – WG:* 1. MOL > ZIPRA > LUR > ARI > ASE > QUET, RIS, PAL 2. CLZ, OLZ, QUE *Safety - sedation:* QUE > LOX, ASE, CLZ. *Safety – PRL:* 1. ARI 2. ASE 3. LUR 4. QUE, RIS, HAL and PAL *Safety EPS:* HAL, MOL, LOX and RIS worse than the others. *Social Functioning:* 1. RIS, ARI, LUR; QoL: NMA not feasible due to data unavailability.
Arango	2020	NMA	13	2210	6	*Efficacy:* 1. LUR = CLZ, OLZ, QUET, ZIPRA, ARIP, ASE.	*Safety - WG:* 1. LUR > 2. PAL > ASE > RIS > QUE > OLZ *Safety - Motor symptoms: No differences* *Safety – Dyslipidaemia and Glucose:* 1. ZIPRA 2. LUR 3. OLZ *AE discontinuation:* 1. LUR > all others *Somnolence/sedation: No differences*

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First Author	Publi-cation year	Article type	Num-ber of studies	N	Average follow-up (weeks)	Primary outcome(s)	Secondary outcome(s)
Sarkar & Grover	2013	MA	15	995	6	*Efficacy:*	*Tolerability:*
						1. CLZ 2. PAL, OLZ, RIS, QUE, ARI, HAL, MOL, FLU.	*FGA-EPSs*
							SGA (Olanzapine and clozapine) – weight gain and glucose
Kumar	2013	MA	13	1112	6–8	*Efficacy:*	*Safety – WG:*
						FGA = SGA, with no differences	*To avoid: OLZ, RIS, CLZ.*
						FGA: PER, MOL, HAL, CHLOR.	*Safety – GLU and PRL:*
						SGA: RIS, OLZ, QUE; ZIPRA, ARI, AMI, PAL, LUR, CLZ.	1. To use ARI
Cohen	2012	MA	41	4015	3–12	*Safety – WG: ARI > QUET > RIS > CLZ > OLZ*	
						GLU: OLZ > RIS	
						Dyslipidaemia: OLZ > QUET	
						PRL: ZIPRA > OLZ > RIS	
						EPS: RIS > ARI > OLZ > ZIPRA	
Xia	2018	MA	8	457	8.5	*Efficacy: RIS = OLZ*	*Safety – WG: RIS > OLZ*
							Safety – Sedation: RIS > OLZ
							Safety – Insomnia: OLZ > RIS
							Safety – PRL: OLZ > RIS
							Safety – EPS: OLZ > RIS

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Pringsheim	2011	MA	35	2667	6–12	*Safety – WG: ARI > QUET > RIS > OLZ*	
						Safety – Dyslipidaemia: CLZ and OLZ worse than the others	
						Safety – GLU: OLZ worse	
						Safety – EPS: RIS worse than all others	
Solmi	2020	UR	17	51108	NA	*Safety – any EPS: RIS > ARI > PAL > OLZ > AMI > MOL > ZIPRA > HAL > LOX*	
						Safety – Asthenia: RIS > HAL	
						Safety – anorexia: ARI	
						Safety – Sedation: ARI > HAL > LOX > CLZ > MOL > PAL > RIS > ZIPRA > OLZ	
						Safety – Akathisia: ARI > OLZ > RIS > PAL > MOL	
						Safety – Cholesterol: ARI > QUE > OLZ	
						Safety – PRL: QUE > HAL > OLZ > PAL	
						Safety – WG: PAL > ARI > QUE > CLZ > OLZ	
						Safety – GLU: ASE > RIS > OLZ	
Correll	2021	UR	28	9778	6–8	*Acceptability:*	*Efficacy:*
						1. PAL, RIS, OLZ 2. LUR, ZIPRA, QUE, ASE, ARI	1. OLZ > RIS > LUR > ARI > QUE > PAL > ASE
							Tolerability: LUR > ZIPRA > RIS > ARI > ASE > QUE > OLZ > PAL

AMI: Amisulpride; ARI: Aripiprazole; ASE: Asenapine; CLZ: Clozapine; EPS: Extrapyramidal symptom; HAL: Haloperidol; Lox: Loxapine; LUR: Lurasidone; MOL: Molindone; MA: Pairwise meta-analysis; NMA: Network Meta-analysis. OLZ: Olanzapine; PAL: Paliperidone; PRL: Prolactin; QUET: Quetiapine; RIS: Risperidone; GLU: Glucose. SR: Systematic review; UR: Umbrella review; ZIPRA: Ziprasidone.

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Continent	Country	Title	Author	Publica-tion date	Abbreviation and reference	Pharmacological treatment Recommendations
Europe						
	Germany	S3 Guideline for Schizophrenia	German Association for Psychiatry, Psychotherapy and Psychosomatics	2019	DGPPN (German Association for Psychiatry, Psycho-therapy and Psychosomatics, 2019)	1. ARI, QUE, PAL, RIS, CLZ (TR) 2. HAL, OLZ.
	UK	The Maudsley Prescribing Guidelines in Psychiatry, 13th Edition.	Editors: Taylor, Barnes, Young	2018	Maudsley (Taylor et al., 2019)	1. ARI, QUE, PAL, RIS, OLZ, CLZ (only for TR, OLZ should be tried first). 2. ASE, ZIPRA (less efficacious than the above drugs) 3. FGAs should be avoided due to extrapyramidal adverse effects
Oceania						
	Australia	Australian Clinical Guidelines for Early Psychosis	Orygen, The National Centre of Excellence in Youth Mental Health	2016	Orygen (*Australian Clinical Guidelines for Early Psychosis*, 2016)	1. ARI, OLZ, RIS, QUE 2. CLZ (TR)
North America						
	US	Practice Parameter for the Assessment and Treatment of Children and Adolescents With Schizophrenia	American Academy of Child and Adolescent Psychiatry	2013	AACAP (McClellan et al., 2013)	1. RIS, ARI, QUE, PAL. 2. OLZ, ZIPRA, HAL. 3. CLZ (TR)
	Canada	Canadian Guidelines for Schizophrenia	Abidi, et al.	2017	CSG (Abidi et al., 2017)	No clear recommendations, but:1. SGAs (rather than FGAs). 2. OLZ, only as second-line option due to rwetabolic side effects. 3. CLZ (only TR cases)

ARI: Aripiprazole. PAL: Paliperidone. RIS: Risperidone. QUE: Quetiapine. OLZ: Olanzapine. MOL: Molindone. ASE: Asenapine. ZIPRA: Ziprasidone. CLZ: Clozapine. HAL: Haloperidol. ASE: Asenapine. Lox: Loxapine. LUR: Lurasidone. AMI: Amisulpride.

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► **Table 4** Evidence-based clinical guidance, approval status and guidelines recommendations.

Outcomes (proportion)	Studies	Treatments	EB	EMA	FDA	DGPPN	Maudsley	AACAP	CSG	Orygen
Acceptability (5/12)	(Arango et al., 2020; Correll et al., 2021; Harvey et al., 2016; Krause et al., 2018; Pagsberg et al., 2017)	AMI	0/5	NA	NA	NR	NR	NR	NR	NR
		ARI	3/5	A	A	R	R	R	R	R
		CLZ	0/5	A	NA	R	R	R	R	R
		HAL	1/5	NA	A	R	NR	R	NR	NR
		LUR	2/3	A	A	NR	NR	NR	NR	NR
		MOL	2/5	NA	A	NR	NR	NR	NR	NR
		OLZ	4/5	A	A	R	R	R	R	R
		PAL	5/5	A	A	R	R	R	R	NR
		QUE	4/5	A	A	R	R	R	R	R
		RIS	5/5	A	A	R	R	R	R	R
Efficacy (8/12)	(Arango et al., 2020; Correll et al., 2021; Harvey et al., 2016; Krause et al., 2018; Kumar et al., 2013; Pagsberg et al., 2017; Sarkar and Grover, 2013; Xia et al., 2018)	AMI	1/7	NA	NA	NR	NR	NR	NR	NR
		ARI	7/7	A	A	R	R	R	R	R
		CLZ	4/7	A	NA	R	R	R	R	R
		HAL	4/7	NA	A	R	NR	R	NR	NR
		LUR	3/3	A	A	NR	NR	NR	NR	NR
		MOL	4/7	NA	A	NR	NR	NR	NR	NR
		OLZ	8/8	A	A	R	R	R	R	R
		PAL	5/7	A	A	R	R	R	R	NR
		QUE	6/7	A	A	R	R	R	R	R
		RIS	7/8	A	A	R	R	R	R	R

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Tolerability (2/12)	(Correll et al., 2021; Sarkar and Grover, 2013)	AMI	0/2	NA	NA	NR	NR	NR	NR	NR
		ARI	2/2	A	A	R	R	R	R	R
		CLZ	0/2	A	NA	R	R	R	R	R
		HAL	0/2	NA	A	R	NR	R	NR	NR
		LUR	1/1	A	A	NR	NR	NR	NR	NR
		MOL	0/2	NA	A	NR	NR	NR	NR	NR
		OLZ	0/2	A	A	R	R	R	R	R
		PAL	1/2	A	A	R	R	R	R	NR
		QUE	1/2	A	A	R	R	R	R	R
		RIS	2/2	A	A	R	R	R	R	R
Motor AE (7/12)	(Arango et al., 2020; Cohen et al., 2012; Krause et al., 2018; Pagsberg et al., 2017; Sarkar and Grover, 2013; Solmi et al., 2020; Xia et al., 2018)	AMI	2/6	NA	NA	NR	NR	NR	NR	NR
		ARI	5/6	A	A	R	R	R	R	R
		CLZ	1/6	A	NA	R	R	R	R	R
		HAL	0/6	NA	A	NR	NR	R	NR	NR
		LUR	1/3	A	A	NR	NR	NR	NR	NR
		MOL	0/6	NA	A	NR	NR	NR	NR	NR
		OLZ	6/7	A	A	R	R	R	R	R
		PAL	3/6	A	A	R	R	R	R	NR
		QUE	4/6	A	A	R	R	R	R	R
		RIS	3/7	A	A	R	R	R	R	R

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► **Table 4** Continued.

Outcomes (proportion)	Studies	Treatments	EB	EMA	FDA	DGPPN	Maudsley	AACAP	CSG	Orygen
Metabolic AE (10/12)	(Arango et al., 2020; Cohen et al., 2012; Harvey et al., 2016; Krause et al., 2018; Kumar et al., 2013; Pagsberg et al., 2017; Pringsheim et al., 2011; Sarkar and Grover, 2013; Solmi et al., 2020; Xia et al., 2018)	AMI	1/9	NA	NA	NR	NR	NR	NR	NR
		ARI	7/9	A	A	R	R	R	R	R
		CLZ	2/9	A	NA	R	R	NR	NR	R
		HAL	3/9	NA	A	R	NR	R	NR	NR
		LUR	2/3	A	A	NR	NR	NR	NR	NR
		MOL	2/19	NA	A	NR	NR	NR	NR	NR
		OLZ	1/10	A	A	NR	R	NR	NR	R
		PAL	5/9	A	A	R	R	R	R	NR
		QUE	3/9	A	A	R	R	R	R	R
		RIS	3/10	A	A	R	R	R	R	R
Hyperprolactinaemia (6/12)	(Cohen et al., 2012; Druyts et al., 2016; Krause et al., 2018; Kumar et al., 2013; Solmi et al., 2020; Xia et al., 2018)	AMI	0/5	NA	NA	NR	NR	NR	NR	NR
		ARI	3/5	A	A	R	R	R	R	R
		CLZ	1/5	A	NA	R	R	R	R	R
		HAL	1/5	NA	A	R	NR	R	NR	NR
		LUR	1/2	A	A	NR	NR	NR	NR	NR
		MOL	0/5	NA	A	NR	NR	NR	NR	NR
		OLZ	3/6	A	A	R	R	R	R	R
		PAL	0/5	A	A	R	R	R	R	NR
		QUE	2/5	A	A	R	R	R	R	R
		RIS	0/6	A	A	R	R	R	R	R

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Cognition (4/12)	(Arango et al., 2020; Krause et al., 2018; Solmi et al., 2020; Xia et al., 2018)	AMI	0/3	NA	NA	NR	NR	NR	NR	NR
		ARI	2/3	A	A	R	R	R	R	R
		CLZ	3/3	A	NA	R	R	R	R	R
		HAL	1/3	NA	A	R	NR	R	NR	NR
		LUR	1/3	A	A	NR	NR	NR	NR	NR
		MOL	1/3	NA	A	NR	NR	NR	NR	NR
		OLZ	1/4	A	A	R	R	R	R	R
		PAL	1/3	A	A	R	R	R	R	NR
		QUE	1/3	A	A	R	R	R	R	R
		RIS	2/4	A	A	R	R	R	R	R
Functioning (1/12)	(Krause et al., 2018)	RIS	1/1	A	A	R	R	R	R	R
		ARI	1/1	A	A	R	R	R	R	R
		LUR	1/1	NA	A	NR	NR	NR	NR	NR
Quality of Life (0/12)										
Suicidal behaviour (0/12)										
Mortality (0/12)										
Services use (0/12)										
Cost-Effectiveness (0/12)										

B: Evidence-Based; EMA: European Medicines Agency; FDA: Food and Drugs Administration; DGPPN: German Association for Psychiatry, Psychotherapy and Psychosomatics; AACAP: American Academy of Child and Adolescent Psychiatry; CSG: Canadian Schizophrenia Guidelines; A: Approved; NA: non-approved; R: Recommended; NR: non-recommended; ARI: Aripiprazole; PAL: Paliperidone; RIS: Risperidone; QUE: Quetiapine; OLZ: Olanzapine; MOL: Molindone; ASE: Asenapine; ZIPRA: Ziprasidone; CLZ: Clozapine; HAL: Haloperidol; ASE: Asenapine; Lox: Loxapine; LUR: Lurasidone; AMI: Amisulpride.

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RESEARCH REPORT

Metformin add-on vs. antipsychotic switch vs. continued antipsychotic treatment plus healthy lifestyle education in overweight or obese youth with severe mental illness: results from the IMPACT trial

Christoph U. Correll[1-3], Linmarie Sikich[4], Gloria Reeves[5], Jacqueline Johnson[6], Courtney Keeton[7], Marina Spanos[4], Sandeep Kapoor[1-3], Kristin Bussell[5], Leslie Miller[7], Tara Chandrasekhar[4], Eva M. Sheridan[8], Sara Pirmohamed[5], Shauna P. Reinblatt[5-7], Cheryl Alderman[9], Abigail Scheer[4], Irmgard Borner[1], Terrence C. Bethea[4,10], Sarah Edwards[5], Robert M. Hamer[11], Mark A. Riddle[7]

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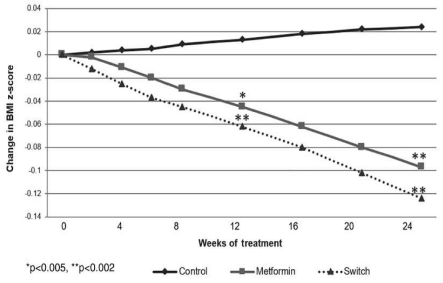

Figure 1 Estimated change in body mass index (BMI) z-score over time

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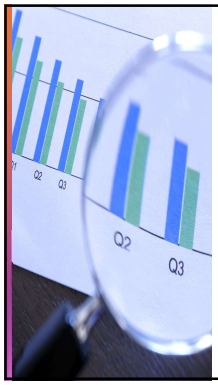

Unmet needs: (Research-Gaps)

- Long term efficacy
- Efficacy on neg.sx
- Cognition
- Functioning
- QOL
- Suicide behavior
- Mortality
- Service use
- Cost effectiveness: long term
- Dosing (age- dosing in EOS)

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Tools to Craft a Cultural Formulation

Sarah H. Arshad, MD[a,*], Jaclyn Chua, DO[a,1], Stacy-Ann Wayne, MD[b,2], Jamesha Lewis Bryant, DO, MS[c,3], Cheryl S. Al-Mateen, MD[d,e,4]

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Table 1
Outline for cultural formulation elements

OCF Elements DSM-IV (APA 1994)	OCF Elements DSM-5-TR (APA 2022)	Comments
Cultural identity of the individual	Cultural identity of the individual	This emphasizes the need to include *any* "socially and culturally defined characteristics that may influence interpersonal relationships, access to resources, and developmental and current challenges, conflicts, or predicaments" (p. 861), including the aspects prioritized by the individual and the impact of intersectionality.
Cultural explanations of the individual's illness	Cultural concepts of distress	Further normalizes the potential for differences between cultures by changing the phrasing from "cultural reference groups" to "cultural background."

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Cultural factors related to the psychosocial environment and functioning	Psychosocial stressors and cultural features of vulnerability and resilience	Specifically identifies the need to identify social determinants of mental health, such as access to resources and opportunities such as housing, transportation, education, employment, and exposure to individual or structural racism and structural violence. Online interactions are included as stressors or supports.
Cultural elements of the relationship between the individual and the clinician.	Cultural features of the relationship between the individual and the clinician, *treatment team and institution* (text in italics is new in DSM-5-TR)	Continues to expand the understanding of the potential for previous experiences of discrimination to impact the clinical encounter, affecting rapport, and development of an effective clinical alliance (p. 862)

(*continued on next page*)

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Table 1
(*continued*)

OCF Elements DSM-IV (APA 1994)	OCF Elements DSM-5-TR (APA 2022)	Comments
Overall cultural assessment for diagnosis and care	Overall cultural assessment	Essentially unchanged, this summarizes the implications of the four elements for differential diagnosis, management, and treatment.

Data from American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. American Psychiatric Association; 1994 (p.843-844); American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision. American Psychiatric Association; 2022.p.861.

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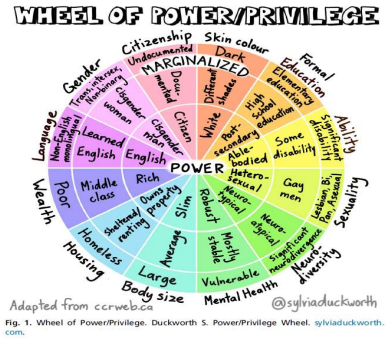

Fig. 1. Wheel of Power/Privilege. Duckworth S. Power/Privilege Wheel. sylviaduckworth.com.

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Table 3
Use of *ADDRESSING* for Christian (case 2)

Cultural Influences (ADDRESSING Framework)	Clinical Information
*A*ge and generational influences	Christian was an adolescent who appeared easily distracted and active on two electronic devices in addition to his PlayStation
*D*evelopmental disabilities	There may have been a concern for distractibility and inattention as Christian was not fully engaged and had noticeable difficulty sitting still, but he had no formal diagnoses
*D*isabilities acquired later in life	Christian was diagnosed with cystic fibrosis in childhood, including subsequent hepatic Failure
*R*eligion and spiritual orientation	Uncertain
*E*thnic and racial identity	Christian is an African American, who appeared to engender subsequent implicit bias by the primary team that he would be "difficult"
*S*ocioeconomic status	Christian was raised by a single African American mother with little financial means and limited support
*S*exual orientation	Christian identifies himself as heterosexual
*I*ndigenous heritage	Uncertain
*N*ational origin	US citizen
*G*ender	Male

Data from Hays PA. Connecting Across Cultures: The Helper's Toolkit. In: Connecting Across Cultures: The Helper's Toolkit. Sage Publications; 2013:123. https://doi.org/10.1037/14801-000.

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Table 4
Use of *RESPECTFUL* for Andrew (Case 1)

Cultural Influences (RESPECTFUL Framework)	Clinical Information
*R*eligion/spiritual identity	Atheist
*E*conomic class background	Middle class; two-parent household
*S*exual identity	Previously gay male; exploring gender identity
*P*sychological maturity	Appropriate for age
*E*thnic/racial identity	Caucasian, Irish, and Scandinavian origins
*C*hronologic/developmental challenges	None
*T*rauma and threats to well-being	Experienced bullying for small stature throughout middle school that resulted in physical abuse
*F*amily background	Fourth-generation Irish immigrant family; within the United States; \the Mormon faith
*U*nique physical characteristics	Thin, petite, ruddy skin with freckles, blue eyes, and dark brown hair; wears glasses
*L*ocation of residence and language differences	Resides in Virginia; English-speaking

Data from D'Andrea M, Daniels J. Before You Get Started. In: Ivey AE, D'Andrea M, Ivey MB, Simek-Morgan L, eds. Theories of Counseling and Psychotherapy - A Multicultural Perspective. Fifth Edit. Allyn & Bacon; 2002:456; pages xvii-xxiv.

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CLINICS CARE POINTS

- Cultural assessment should be used in all encounters but can be especially helpful in difficult diagnostic assessments, limited engagement and adherence, or disagreement between clinician and patient
- Cultural formulation is a dynamic process and should continue as a clinician longitudinally works with a patient, including gathering information from appropriate collateral sources
- Use tools such as the Outline for Cultural Formulation and Cultural Formulation Interview, including its Supplementary Modules
- There are also frameworks in psychology literature, such as *ADDRESSING* and *RESPECTFUL*, to help guide clinicians in their cultural formulations
- Aim to be patient centered and allow the patient to narrate their own symptoms in their own experiential, cultural context
- Interdisciplinary case discussions can be helpful in crafting a more nuanced cultural formulation

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