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Management of adverse effects of psychopharmacologic agents in pediatric patients

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The presence of numerous side effects from use of psychopharmacologic agents in children and adolescents has limited their use in this age group. It is critical for clinicians to understand these potential adverse effects and their management to improve the benefit of these medications for their pediatric patients. Failure of expert management leads to patient dissatisfaction and non-compliance with medication recommendations.

This issue reviews adverse effects of these medications along with potential principles of management. The synopsis begins with a look at immunological mechanisms in psychopharmacologic agents both in the direction of immune suppression and immune stimulation. We look at this influence on the core concept of inflammation in neuro-psychiatric disorders and advise clinicians to pay attention to potentially detrimental immune suppression that may be associated with some of these medications as well as consider iatrogenic etiology in patients presenting with undue susceptibility to infection.

This summary then considers adverse effects of various psychopharmacologic agents in pediatrics including stimulants (i.e., methylphenidate, amphetamine), non-stimulant medications for attention-deficit/hyperactivity disorder (i.e., atomoxetine, alpha 2 agonists), selective serotonin reuptake inhibitors and atypical antipsychotics. Additional articles look at adverse effects of medications used to treat substance use disorders (i.e., opioid use disorders, alcohol use disorders, tobacco use disorders, and cannabis use disorders) and sleep medications (i.e., antihistamines, melatonin receptor agonists, alpha agonists, tricyclic antidepressants, non-benzodiazepine hypnotics, anti-epileptics, and others). This compendium concludes with consideration of potential dermatologic adverse effects of psychopharmacologic agents that can
range from relatively benign rashes to severe, potentially life-threatening conditions.

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1. Immunologic effects of psychotropic pharmacotherapeutics
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2. Adverse effects of stimulant medications in children and adolescents
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3. Non-stimulant ADHD drugs: atomoxetine, alpha-agonists
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4. Management of side-effects of selective-serotonin re-uptake inhibitors
5. Management of Adverse Effects from Atypical Antipsychotics

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6. Management of Adverse Effects of Sleep Medications

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7. Management of Adverse Effects from Medications Used to Treat Substance Use Disorders.

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8. Dermatologic Effects of Psychopharmacologic Agents in the Pediatric Population

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