

Opioid Addiction Crisis In United States And Canada

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Subjective

CC (chief complaint):

The chief complaint is “frequent coughing and asthma attacks.”

HPI:

The patient is an 11-year-old male who presents with a six-year history of recurrent asthma symptoms beginning around age five. Current concerns include frequent cough and repeated episodes described by the family as asthma attacks. The patient’s father reports that prior clinicians identified multiple environmental allergies but did not provide a structured long-term plan beyond medications for acute exacerbations. The patient has reportedly received bronchodilators and corticosteroids during previous episodes.

The present history is incomplete for determining asthma control and severity. Clarification is required regarding daytime symptoms, nighttime awakening, short-acting bronchodilator use, activity limitation, school absence, emergency visits, hospitalizations, intensive-care admission, oral corticosteroid bursts, medication adherence, inhaler technique, and response to treatment. The cough should be characterized by onset, duration, timing, sputum, wheeze, dyspnea, chest tightness, fever, exercise relationship, seasonal pattern, and exposure relationship. A symptom diary may help identify patterns.

Potential triggers include pollen, mold, house-dust mites, animal dander, viral respiratory infections, smoke, air pollution, strong odors, exercise, cold air, stress, and medication nonadherence. The household should be asked specifically about tobacco and vaping exposure, pets, carpeting, dampness, visible mold, pests, heating systems, and recent environmental changes. Because cough may have causes other than asthma, the clinician should assess for rhinitis, sinus disease, gastroesophageal reflux, habit cough, foreign-body aspiration, infection, vocal-cord dysfunction, and other pulmonary conditions when features are atypical.

Past Psychiatric History:

General Statement:

No psychiatric history is documented in the available case information. This section should not be treated as negative until the child and caregiver have been asked about anxiety, mood, sleep, school stress, bullying, attention, family stress, and emotional responses to chronic respiratory symptoms.

Caregivers (if applicable):

The father is involved in the visit and provides historical information. The child should also be interviewed directly using age-appropriate language. The clinician should assess who administers or supervises medication, whether the child carries a rescue inhaler, how instructions are shared with school staff, and whether caregivers have consistent understanding of the asthma plan.

Hospitalizations:

Hospitalization history is not provided. The clinician should ask about emergency-department treatment, overnight admissions, pediatric intensive-care admission, oxygen, continuous nebulization, noninvasive ventilation, intubation, and prior severe attacks. A history of intensive-care treatment or intubation increases concern for future severe exacerbation.

Medication trials:

The patient has previously received a bronchodilator and corticosteroid therapy, but the names, doses, route, duration, response, and adverse effects are unknown. It is essential to distinguish short-acting rescue medication, daily inhaled corticosteroid, combination inhaled corticosteroid-formoterol, oral corticosteroid bursts, antihistamines, intranasal corticosteroids, leukotriene-receptor antagonists, and biologic therapy. Pharmacy refill history and actual devices should be reviewed when possible. Apparent treatment failure may result from poor technique, an empty inhaler, cost, misunderstanding, or inconsistent use.

Psychotherapy or Previous Psychiatric Diagnosis:

No prior psychotherapy or psychiatric diagnosis is reported. Chronic asthma may affect anxiety, sleep, sports participation, school attendance, and quality of life; referral should be based on identified need rather than assumed from the diagnosis alone.

Substance Current Use and History:

At age 11, confidential and developmentally appropriate screening should include experimentation with tobacco, nicotine vaping, cannabis, or other inhaled substances, while avoiding accusatory assumptions. Household secondhand and thirdhand smoke exposure should also be assessed. No current substance use is documented.

Family Psychiatric/Substance Use History:

Family psychiatric and substance-use history is not provided. Relevant respiratory family history includes asthma, eczema, allergic rhinitis, food allergy, severe drug reaction, and smoking or vaping in the household. A family history of asthma or atopy may support the diagnosis but is neither necessary nor sufficient.

Psychosocial History:

The patient is an 11-year-old school-aged child. The assessment should review home environment, school performance, attendance, exercise participation, sports goals, sleep, peer relationships, caregiver health literacy, insurance, medication affordability, transportation, and access to follow-up. The child may avoid activity because of symptoms, fear, or poor control; exercise restriction should not be accepted as normal without evaluation and treatment.

Medical History:

The known medical history includes recurrent asthma symptoms and reported environmental allergies. Additional history is needed for eczema, allergic rhinitis, sinusitis, recurrent pneumonia, prematurity, congenital heart or lung disease, obesity, sleep-disordered breathing, gastroesophageal reflux, and previous respiratory syncytial virus infection. Growth patterns should be reviewed because chronic disease and repeated systemic corticosteroid exposure may affect growth.

Current Medications:

The current medication list is not available and must be reconciled before prescribing. The family should bring all inhalers, spacers, nebulizer medications, allergy medicines, and over-the-counter products. Dose counters and expiration dates should be checked. A child should not be instructed to continue an unidentified inhaler based only on color because device colors are not standardized.

Allergies:

Environmental allergies are reported but not specified. Drug and food allergy history is not documented. The record should distinguish allergic sensitization from clinically relevant exposure-related symptoms and should document the reaction type, timing, and severity. “No known allergies” should not be entered unless confirmed.

Reproductive Hx:

This section is not central to the respiratory complaint. Developmentally appropriate adolescent health history should be obtained privately as puberty progresses, but irrelevant questions should not displace urgent asthma assessment.

Review of Systems:

General: Assess fever, fatigue, weight change, growth, appetite, and reduced activity.

HEENT: Assess nasal congestion, sneezing, itching, watery eyes, postnasal drainage, sinus pressure, sore throat, and seasonal symptoms.

Respiratory: Positive for frequent cough and recurrent asthma attacks by history. Assess wheeze, chest tightness, dyspnea, retractions, nocturnal symptoms, exercise symptoms, sputum, hemoptysis, and response to rescue medication.

Cardiovascular: Assess chest pain, syncope, palpitations, cyanosis, and exercise intolerance.

Gastrointestinal: Assess reflux, vomiting, abdominal pain, and cough associated with meals or lying down.

Skin: Assess eczema, urticaria, and rashes.

Neurologic: Assess headache, weakness, and altered mental status during severe episodes.

Psychiatric: Assess anxiety related to breathing, sleep disruption, mood, and school impact.

Objective

Physical Examination:

No vital signs or examination findings are provided. The patient requires measurement of temperature, heart rate, respiratory rate, blood pressure, oxygen saturation, height, weight, and body-mass-index percentile. Acute distress should be assessed before completing routine history.

General: Observe ability to speak, alertness, position, anxiety, hydration, and work of breathing.

HEENT: Inspect for allergic shiners, nasal crease, pale or edematous turbinates, discharge, polyps, sinus tenderness, tonsillar enlargement, and pharyngeal irritation.

Respiratory: Inspect respiratory effort and symmetry. Assess retractions, accessory-muscle use, air entry, prolonged expiration, wheeze, crackles, focal reduction, and cough. A quiet chest with severe distress is an emergency sign. A normal examination between episodes does not exclude asthma.

Cardiovascular: Assess rate, rhythm, perfusion, pulses, and cyanosis.

Skin: Inspect for eczema or urticaria.

Extremities: Assess clubbing or edema; clubbing is not typical of uncomplicated asthma and should prompt alternative evaluation.

Diagnostic Results:

Diagnosis should not rest only on reported wheeze or prior labeling. GINA 2025 recommends confirming variable expiratory airflow limitation where feasible. In a child old enough to perform reliable testing, spirometry before and after bronchodilator is appropriate. A significant increase in forced expiratory volume after bronchodilator supports asthma, but absence of reversibility on one day does not exclude it because asthma is variable.

If initial spirometry is normal and suspicion remains, repeat testing during symptoms, peak expiratory-flow variability, exercise challenge, or specialist-directed bronchoprovocation may be considered. Fractional exhaled nitric oxide may support evidence of type 2 airway inflammation but should not be used alone to diagnose or exclude asthma. Allergy testing may identify sensitization when results will change exposure or treatment decisions. Routine chest radiography is not necessary for typical uncomplicated asthma but may be indicated for focal findings, persistent fever, suspected foreign body, recurrent focal pneumonia, or an atypical course.

Assessment

Mental Status Examination:

A full psychiatric mental-status examination is not the primary diagnostic procedure for this complaint. A brief age-appropriate observation can document appearance, behavior, speech, affect, orientation, cooperation, and distress. During an acute attack, agitation, confusion, drowsiness, or reduced speech can signal hypoxemia or impending respiratory failure and requires emergency medical attention rather than psychiatric interpretation.

Differential Diagnoses:

1. Asthma

Asthma is the leading diagnosis because the patient has recurrent attacks beginning in early childhood, frequent cough, prior bronchodilator and corticosteroid treatment, and reported environmental allergies. Asthma is characterized by variable respiratory symptoms and variable expiratory airflow limitation. The case still lacks objective confirmation, current control assessment, and treatment details.

2. Upper Airway Cough Syndrome Associated with Allergic Rhinitis

Environmental allergy history raises the possibility that nasal inflammation and postnasal symptoms contribute to cough. Allergic rhinitis commonly coexists with asthma and can worsen respiratory symptoms. Nasal history and examination are required. Treating rhinitis may improve comfort but does not replace asthma controller therapy when asthma is present.

3. Exercise-Induced Bronchoconstriction

If symptoms occur primarily during or after activity, exercise-induced bronchoconstriction may be present either with or without otherwise persistent asthma. History should determine whether the child avoids exercise, develops symptoms after several minutes, or responds to pre-exercise medication. Objective exercise testing may be used when the diagnosis is uncertain.

4. Inducible Laryngeal Obstruction

Inducible laryngeal obstruction can mimic asthma, particularly when symptoms include inspiratory noise, throat tightness, sudden onset during exercise, and limited response to bronchodilators. It may coexist with asthma. Direct visualization during symptoms or specialist evaluation may be required.

5. Gastroesophageal Reflux-Associated Cough

Reflux may contribute when cough is associated with meals, regurgitation, heartburn, or lying down. Empiric acid suppression is not appropriate for every child with chronic cough in the absence of suggestive features.

6. Protracted Bacterial Bronchitis or Other Chronic Infection

A persistent wet cough, fever, poor growth, crackles, or recurrent infections would support an infectious or suppurative process rather than isolated asthma. Antibiotic treatment should be based on a clinical diagnosis and guideline-directed assessment rather than the presence of cough alone.

7. Foreign-Body Aspiration

Sudden symptom onset, choking history, unilateral wheeze, or focal reduced air entry would increase concern for an inhaled foreign body. Chronic cases may be missed when the initial event was unwitnessed.

8. Cystic Fibrosis, Primary Ciliary Dyskinesia, or Bronchiectasis

These are less likely from the limited history but should be considered with chronic productive cough, recurrent pneumonia, sinus or ear disease, clubbing, poor growth, neonatal respiratory history, or family history. They should not be excluded solely because a child was previously labeled asthmatic.

Working Diagnosis:

The working diagnosis is suspected asthma with currently undetermined level of control and possible comorbid allergic rhinitis. Severity should not be assigned from the available information. Current treatment step and the level needed to maintain control are not known. The diagnosis should be confirmed objectively where possible.

Reflections:

The original case labels the condition “severe asthma” without documenting symptom frequency, lung function, adherence, technique, exposure, or response to optimized treatment. GINA reserves difficult-to-treat and severe asthma concepts for patients who remain uncontrolled despite appropriate high-intensity treatment after modifiable causes have been addressed. A child with frequent attacks may have severe disease, but frequent symptoms can also result from no controller, poor technique, inconsistent access, continued allergen or smoke exposure, or an incorrect diagnosis.

A second concern is that the history says previous clinicians offered acute medications without a long-term plan. Current recommendations advise against treating asthma with a short-acting beta agonist alone because inhaled corticosteroid-containing therapy reduces severe exacerbation risk. The next visit should focus on confirming what the child actually uses, teaching technique, and building an action plan rather than merely adding another prescription.

The child’s voice must be included. An 11-year-old can explain symptoms, fears, activity limitations, treatment preferences, and problems at school. Care should be shared with the father but should not reduce the child to a passive recipient.

Plan

Immediate Triage:

If the patient is currently experiencing severe breathlessness, inability to speak normally, marked retractions, cyanosis, altered consciousness, poor air entry, or low oxygen saturation, emergency treatment and transfer are required. Acute management should follow local pediatric asthma protocols and should not be delayed for routine testing.

Confirm the Diagnosis:

Obtain spirometry with bronchodilator response when the child is stable and able to perform reliable maneuvers. Review prior records for objective testing, emergency treatment, and medication history. If spirometry is nondiagnostic, repeat during symptoms or consider other tests and specialist referral. Do not stop clinically necessary treatment merely to obtain a test without considering risk.

Assess Asthma Control:

Document symptoms over the previous four weeks, nighttime waking, reliever use, activity limitation, and exacerbation history. Assess risk factors including prior severe exacerbation, poor adherence,

incorrect technique, smoke exposure, low lung function, eosinophilic inflammation where available, and psychosocial barriers. A validated age-appropriate questionnaire may supplement but not replace clinical assessment.

Medication Plan:

The exact prescription requires current examination, testing, medication reconciliation, and clinician judgment. The patient should receive an inhaled corticosteroid-containing regimen appropriate to age, symptom pattern, exacerbation risk, and local approvals. GINA 2025 includes inhaled corticosteroid-formoterol-based treatment options for many children in the 6–11 age group, while alternative tracks use daily inhaled corticosteroid with a reliever. The regimen must not be selected from this written case alone.

Before stepping up, check adherence, device technique, exposure, comorbidity, and diagnosis. If control remains poor despite optimized therapy, refer to pediatric pulmonology or allergy for phenotype assessment and consideration of add-on therapy. Long-term oral corticosteroid should be avoided when safer alternatives are available because of substantial adverse effects.

Inhaler and Spacer Teaching:

Ask the patient to demonstrate every device. Correct errors using demonstration and teach-back. A pressurized metered-dose inhaler generally requires an age-appropriate spacer. Provide written and visual instructions. Technique should be reviewed at every visit because skills deteriorate and devices differ.

Written Asthma Action Plan:

Provide a written plan describing daily treatment, recognition of worsening symptoms, how to adjust reliever or controller according to the prescribed regimen, when to contact the clinic, and when to seek emergency care. The plan should be understandable to the child, caregivers, school nurse, and other relevant adults. It must match the medications actually dispensed.

Trigger Reduction:

Recommend interventions only when exposure and sensitization are relevant. Avoid tobacco and vaping exposure completely. Address visible mold, moisture, pest infestation, and workplace or school triggers. For dust mites, multifaceted measures may be considered, but isolated expensive products should not be promised as a cure. Removing a beloved pet should not be the first recommendation without evidence that the animal is a clinically important trigger and discussion of practical

alternatives.

Allergic Rhinitis:

If nasal symptoms and examination support allergic rhinitis, provide guideline-consistent management such as allergen avoidance where feasible, intranasal corticosteroid, or a non-sedating antihistamine as clinically appropriate. The child and caregiver should be taught correct nasal-spray technique. Sedating antihistamines may interfere with school performance and should not be used casually.

School Plan:

Confirm access to rescue medication according to school and jurisdictional policy. Provide medication authorization and action-plan copies. Ask whether the child has experienced exercise restriction, bullying, embarrassment using an inhaler, or delayed access through the school office. Asthma should be managed so the child can participate in normal activity whenever possible.

Exercise:

Do not advise routine avoidance of exercise. Optimize asthma control, encourage warm-up, and use the prescribed pre-exercise strategy when indicated. Persistent symptoms during activity despite treatment require reassessment for control, technique, and alternative diagnoses.

Vaccination and Preventive Care:

Review routine immunizations, including annual influenza vaccination according to current national recommendations. Address healthy sleep, nutrition, physical activity, and general pediatric preventive care. Vaccination does not replace controller treatment or action planning.

Monitoring:

Use symptoms, exacerbations, lung function, reliever use, activity, and adverse effects to monitor response. Consider growth monitoring for children receiving inhaled corticosteroids, while explaining that the benefits of preventing severe asthma generally outweigh the small potential effect on growth associated with some regimens. The goal is the lowest effective treatment that maintains control and reduces risk.

Follow-Up:

Arrange follow-up soon after initiating or changing treatment, generally within several weeks depending on clinical status, and after every exacerbation. Review adherence, technique, control, side effects, action-plan use, and test results. Step down only after sustained control and risk assessment; do not stop inhaled corticosteroid abruptly without a clinician-directed plan.

Referral:

Refer to pediatric pulmonology or allergy when diagnosis is uncertain, symptoms are uncontrolled despite optimized treatment, severe exacerbations recur, high treatment steps are required, a biologic is being considered, or atypical features are present. Allergy specialist input may help interpret testing and plan immunotherapy in selected patients. Emergency referral is required for signs of life-threatening exacerbation.

Patient and Family Education:

Explain that asthma is a chronic inflammatory airway disease with variable symptoms and that feeling well does not necessarily mean inflammation or future risk is absent. Distinguish controller and reliever therapy. Use non-blaming language regarding adherence and environmental exposure. Ask the family to identify barriers and choose one or two feasible changes at a time.

Health Promotion Activity:

For an 11-year-old with suspected asthma, an appropriate health-promotion activity is a child-centered asthma self-management and school participation session. The patient should demonstrate inhaler and spacer use, identify personal warning signs and triggers, explain the action plan in his own words, and choose an activity goal such as participating in physical education without avoidable symptoms. The father and school nurse can reinforce the plan. This activity supports autonomy, safety, and normal development rather than focusing only on avoidance.

References

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