



QUICK REFERENCE Recommendations for the prevention and management of respiratory disease in young people with cerebral palsy: Standards of care



Family centred care is at the forefront of application of the recommendations

PREVENTION

Recognizing respiratory risk in young people with cerebral palsy is everyone's role.

Respiratory review annually and when there has been

- A respiratory related hospital admission
- Any change in **Red Flags and Potentially Modifiable Risk Factors**
- Loss of weight

Regularly assess → **Screen for Red flags and Potentially Modified Risk Factors**

Red Flags

- GMFCS level V, or
- Hospital admission/antibiotics for respiratory illness over the last year

Potentially Modifiable Risk Factors

- Dysphagia
- Gastro-oesophageal reflux
- Frequent respiratory symptoms
- Mealtime respiratory symptoms
- Current seizures
- Snoring every night

Improve General Health

- Good personal hygiene and hand hygiene of carers
- Good dental hygiene and regular dental reviews
- Optimise nutrition
- Vaccinate against influenza
- Reduce exposure to tobacco smoke
- Encourage physical activity

The Multidisciplinary Team

Optimise Lung Health

- Doctor
 - Treat asthma
 - Manage upper airway obstruction
 - ? Snoring/apnoea → refer to Ear, Nose, Throat Doctor/or refer for overnight oximetry
- Physiotherapist
 - Prescribe chest physiotherapy as required and educate carers in recommended chest physiotherapy regimen

Prevent Aspiration

- Speech pathologist
 - Assessment swallowing problems
 - Prescribe mealtime management plan
 - Conduct video fluoroscopy swallow study as needed
- Doctor
 - Treat
 - Drooling
 - Gastro-oesophageal reflux disease
 - Seizures

ASSESSMENT

Multidisciplinary assessment is essential (Family, Speech Pathologists, Occupational Therapists, Physiotherapist, Doctor, Nurse Consultant).

Our aim is to understand the individual's unique risk factors for aspiration (when well and unwell)

Diagnostic tests → **Initial Assessments**

In certain instances consider

- Videofluoroscopy swallow study
- Overnight oximetry if indicated
- Sputum culture
- Chest x-ray
- Chest CT
- Sleep study

Screen for Red Flags and Potentially Modifiable Risk Factors

History:

- Concerns, care, comfort, goals
- Episodes of aspiration, wheeze
- Details of hospital admissions

Physical Examination: (when well and unwell)

- Breathing pattern (rhythm, depth, pattern of chest wall movement), oxygen saturation level, respiratory rate
- heart rate, work of breathing, Colour, chest wall shape, palpation, auscultation, visualisation of tonsils and other turbinates

- Assessment of eating and drinking abilities (when well and unwell)

- Nutritional status

- Ability to manage secretions (when well and unwell)

- Assessment of musculoskeleton deformities

Individuals at risk of respiratory illness need their respiratory health assessed regularly

TREATMENT

Effective treatment of respiratory illness must be a partnership between individuals with CP, their parents, carers, team.

Speech Pathologist

- Conduct a swallow assessment
- A video fluoroscopy swallow study as is needed
- Prescribe a mealtime management plan for well and unwell days
- Educate individual/parent/carer in strategies to optimize meal time management
- Discuss with individual, family and team including Dietitian and Doctor if alternatives to oral intake are indicated

Physiotherapist

- Assess
 - Strength and effectiveness of cough
 - Is cough productive i.e. wet, or are there signs of mucous retention?
- Prescribe
 - Airway clearance therapy
 - Suction if cough too weak to bring up mucous and secretions
 - Long term plan for chronic wet cough
- Educate individual/parent/carer
 - Manual techniques to get the best cough and clear secretions
 - Positional changes to maximise lung and chest movement
- Monitor and review
 - Any positive or negative responses to airway clearance therapy

Minimize Aspiration → **Improve General Health**

The Multidisciplinary Team

Optimise Lung Health → **Medical Interventions**

Potentially Modifiable Risk Factors

- Dysphagia
- Gastro-oesophageal reflux
- Frequent respiratory symptoms
- Mealtime respiratory symptoms
- Current seizures
- Snoring every night

Continue to screen for Red Flags and Potentially Modified Risk Factors

Doctor

- Investigate and treat infections early with antibiotics
- Manage drooling
 - If using medication for drooling, ensure secretions do not become too thick (from treatment or during a chest infection)
- Treat asthma
 - Consider a trial medication

Allocate a clinical lead

- Refer to other teams as needed: Nurse Consultant, Surgeon, Anaesthetist, Neurologist, Gastrologist, Palliative Care Physician, Ethicist, Allied Health Professionals

