Caring for Children with Asthma in Community Program Settings

Unified Referral and Intake System (URIS)
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Asthma

This manual was developed in consultation with health care professionals in the areas of asthma and community health. The Unified Referral and Intake System (URIS) wishes to acknowledge the contribution of the following individuals.

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INTRODUCTION

Unified Referral and Intake System

The Unified Referral and Intake System (URIS) is a joint collaboration among various government departments, health service organizations, school divisions and child caring organizations. URIS supports community programs in the care of children with specific health care needs. Community programs that are eligible for URIS support include schools, licensed child care facilities and respite service.

URIS provides a standard means of classifying the complexity of health care needs and establishes the level of qualification required by personnel to support children with these health care needs. Health care needs that are classified as 'Group B' can be delegated to non-health care personnel who receive training and monitoring by a registered nurse. For children with 'Group B' health needs (e.g. asthma) the nurse provides the following support:

- develops and maintains a written health care plan;
- provides training to community program personnel that are responsible for the child; and
- monitors community program personnel that receive training.

URIS 'Group B' support for children with asthma

A child with asthma is eligible for URIS Group B support if he/she is diagnosed with asthma by a physician and prescribed Reliever medication.

If the child is diagnosed with asthma and prescribed a Reliever medication but does **not** bring it to the community program, completion of a health care plan or emergency response plan is not required. In such situations, the response to a medical emergency (e.g. difficulty breathing) is to call 911/EMS.

This document provides standard clinical information that is relevant to the care of children with asthma in community program settings. Supplemental documents are also provided to assist the nurse in the development of the health care plan and training and monitoring of community program personnel.

CLINICAL INFORMATION

The following information is considered 'best practice' in community program settings and is the basis for all asthma information contained in this document and its supplements.

Asthma
Asthma is a chronic inflammatory condition in which the airways are 'hyper responsive' to environmental factors called triggers. When the airway is exposed to triggers, inflammation, swelling and mucus production may increase and the muscles around the airway tighten. The end result is airway narrowing and is characterized by symptoms such as difficulty breathing, chest tightness, wheezing and coughing.

Asthma can vary from mild to severe. It can also vary over time. Sometimes, asthma in children will improve with age.

Causes of Asthma
There is a genetic link to asthma. The exact mechanism is unknown, but an individual with a positive family history (i.e. immediate family like parents and siblings) for asthma, eczema, food allergy and rhinitis are more likely to develop asthma.

Symptoms of Asthma

- Coughing
- Wheezing – whistling sound from the chest when breathing out
- Chest tightness – complaints of pressure in the chest
- Shortness of breath
- Increase in the rate of breathing while at rest

The symptoms of asthma can vary from person to person and from time to time.

Triggers of Asthma
Asthma can be worsened by a number of environmental factors that are described as inflammatory and symptom triggers.

Inflammatory triggers cause the inside of the airways to become swollen and produce extra mucus. Common inflammatory triggers are listed below.

- Respiratory infections (e.g. common cold, flu)
- Environmental tobacco smoke (ETS)
- Allergens (e.g. animal dander, house dust mites, indoor and outdoor mold, pollens)

Symptom triggers cause the muscles around swollen airways to tighten. The muscles in swollen airways are more likely to tighten when in contact with symptom triggers than muscles in airways that are not swollen. Common symptoms triggers are listed below.

- Cold, dry air
- Smoke (e.g. cigarette smoke, environmental tobacco smoke, fires, stubble burning)
- Exercise

  - With good asthma control, children can do almost any kind of exercise. Exercise may be harder if a child has poorly controlled asthma or a cold or if it is windy, dusty or cold outside.
- Rapid breathing from exercise, laughing or crying
  - Exercise, laughter, crying and stress can cause airway muscles to tighten because they involve an increase in breathing rate.
- Strong odors (e.g. paint fumes, perfumes, glues, cleaning products)
- Air pollution
- Stress

A combination of triggers may more rapidly induce asthma symptoms such as exercising in cold, dry air or exposing a child with a cold to second-hand smoke.

Treatment of Asthma

There is presently no cure for asthma. Current management of asthma includes avoidance of triggers and the use of medication**.** Asthma can be effectively controlled in most people. A child with well-controlled asthma does not present any differently than other children and should participate in all activities. Children with asthma can lead active lives.

Signs of good asthma control include normal activity, normal sleep, no daytime asthma symptoms, no need for Reliever medication, no emergency room visits for asthma and no absenteeism (e.g. school, daycare) for asthma.

Avoidance of triggers

Avoidance of triggers is an important strategy in preventing asthma symptoms and may reduce the need for medication. Triggers of asthma symptoms will vary from person to person. It is important to identify and control any known triggers for a child with asthma.

- Triggers may be present at any time. However, children with asthma may experience more problems during certain seasons or activities. Cold and flu season generally occurs from late fall to early winter.
- Outdoor molds peak in early spring, late summer and autumn.
- Tree pollens peak in early spring.
- Grass pollens peak in late spring and early summer.
- Weed pollens peak in late summer and early fall.
- Some field trips may cause exposure to triggers such as allergens or pollutants.

The following strategies are *some* ways to reduce a child's exposure to triggers. Avoidance strategies should be relevant to the child's triggers and the setting.

- Paint, varnish and tar when children are not present in the facility.
- Keep windows closed during pollen and mold seasons.
- Restrict pets with fur, hair or feathers (e.g. dogs, cats, rabbits) in the community program.
- Clean equipment such as gym mats, chalk boards, and book shelves regularly to avoid accumulation of dust.
- Prohibit smoking in the facility and within 15 feet of any entrance.
- Avoid wearing perfume or other strongly-scented products.

- Choose cleaning solutions that do not have a strong odor.
- Do warm-up and cool-down exercises to accustom the child to a higher or lower rate of breathing.
- Encourage children to wear a scarf over their mouth when exercising outdoors in the winter.

<u>Medication</u>

Medication is used to prevent or decrease airway inflammation or asthma symptoms. Medication for asthma is usually given by inhalation as an aerosol or dry powder. This method delivers medication to the lungs where it is needed and minimizes side effects.

There are two main groups of medications used in the treatment of asthma – Controllers and Relievers.

Controllers, also called preventers or anti-inflammatory medication, control asthma by reducing airway swelling and mucus production. They help to prevent or decrease airway inflammation and asthma symptoms over the long-term. They are used on a regular basis and are most often taken at home. They DO NOT provide quick relief of asthma symptoms.

Relievers, also called bronchodilators, provide fast, temporary relief from asthma symptoms by relaxing muscles around the airways. Reliever medicines are given for symptoms of asthma (e.g. frequent cough, wheezing, shortness of breath, chest tightness). Children with asthma should have their Reliever medication easily accessible.

The most commonly used Reliever medications are the short-acting beta2-agonists and can usually be identified by the blue coloring on the cap. Examples of beta2-agonists include salbutamol (Ventolin®, Airomir®, Ventolin Diskus®,) and Terbutaline (Bricanyl®).

Older children may be prescribed Symbicort®. This is a combination medicine containing a corticosteroid and a fast acting bronchodilator. It can be used as both a Controller and a Reliever medication. It is available in a Turbuhaler® only.

Side effects such as tremors, hyperactivity, racing heart, headache and nausea may occur with high doses of Reliever medication.

Children who experience exercise-induced asthma symptoms may use Reliever medication prior to exercise. It should be given as prescribed, usually ten minutes before exercise begins. If asthma symptoms occur during exercise, Reliever medication should be given and the exercise stopped until the child has fully recovered.

It is not recommended to use Reliever medication on a regular basis (e.g. every 4 hours) unless directed by a physician. There is increasing awareness that frequent use of a Reliever medication is a risk for severe asthma. Most recent recommendations are to combine an inhaled corticosteroid with a Reliever medication. In Canada the only preparation approved for this is Symbicort®.

Medication Devices
The most common devices used for asthma medication are the metered dose inhaler (MDI) and the Turbuhaler®. Spacer devices are usually recommended for all age groups when medication is being given with an MDI.

Children should be encouraged to self-manage their asthma. Typically, children become independent in managing their medication between the ages of 8-10 depending on maturation, development and cognitive abilities. Younger children or those with a developmental delay may need assistance in managing their asthma medication. Children who can routinely administer their own medication may require your assistance if their asthma symptoms are severe.

Metered Dose Inhaler (MDI)

1. Remove the cap.
2. Shake well.
3. Have the child breathe out as completely as possible.
4. Bring the inhaler to the child's mouth, with the mouthpiece between the teeth and lips closed around it.
5. Tilt head slightly back.
6. Push down on the canister once as the child starts to breathe in through the mouth, deeply and slowly.
7. Have the child hold breath for 10 seconds or as long as comfortable and then breathe out.
8. Replace the cap.

If a second dose is prescribed, repeat steps 2-6, waiting 30 seconds between each dose.

MDIs should be stored at room temperature (15-30°C) and not left in extreme temperatures for long periods of time. If the MDI freezes, it should be replaced. If the MDI has never been used, it needs to be primed. Priming includes shaking the MDI and releasing four puffs into the air to ensure it is working properly.

Spacer devices
A spacer device attaches to the mouthpiece of a metered dose inhaler and acts as a holding chamber for the medication. A spacer device makes it easier to take medication and increases the amount of medication that reaches the airways. There are different models of spacer devices that vary in shape and size. The most frequently used spacer device is the AeroChamber® - with a mask or mouthpiece. Most school age children should be using the spacer device with the mouthpiece, not with the mask.

The purpose of using a spacer device is to allow more medication to get to the airways. A spacer device is recommended for all MDI medications, particularly with inhaled corticosteroids. Use of spacer devices is recommended for all ages, regardless of their skill in using the MDI.

Spacer with mouthpiece

1. Shake the metered dose inhaler (MDI) and remove its cap.
2. Remove the Spacer cap and insert the mouthpiece of the MDI into the end of the Spacer.
3. Place the mouthpiece of the Spacer in the child's mouth making sure there is a tight seal.
4. Have the child breathe out.
5. Push down once on the MDI canister.
6. Have the child inhale slowly and deeply and hold breath for 10 seconds or as long as comfortable. If this is not possible, have the child breathe normally from the device 5-6 times. It is recommended that the child holds their breath, if possible.
7. Replace the caps.

If a second dose is prescribed, repeat the above steps, waiting 30 seconds between each dose.

Spacer device with mask

1. Shake the metered dose inhaler (MDI) and remove its cap.
2. Insert the mouthpiece of the MDI into the end of the Spacer.
3. Apply the mask to the child's face so there are no leaks between the child's face and the mask.
4. Have the child breathe out.
5. Push down once on the MDI canister.
6. Have the child inhale slowly and deeply and hold breath for 10 seconds or as long as comfortable. If this is not possible, have the child breathe normally from the device 5-6 times.
7. Replace the cap.

If a second dose is prescribed, repeat the above steps, waiting 30 seconds between each dose.

Turbuhaler®

1. Remove the cap. Do NOT shake the Turbuhaler®.
2. Hold the Turbuhaler® upright.
3. Turn the colored grip as far as it will go in one direction and then back again as far as it will go. You will hear one "click".
4. Have the child breathe out. Never breathe out through the mouthpiece.
5. Tilt head back slightly.
6. Place the Turbuhaler® mouthpiece between the child's teeth, closing lips around it.
7. Have the child breathe in deeply and forcefully through the mouth.
8. Remove the Turbuhaler® from the child's mouth and have child hold breath for 10 seconds or as long as comfortable.
9. Have the child breathe out.
10. Replace the cap.

If a second dose is prescribed, repeat above steps.

Diskus®

1. Hold the outer case in one hand and put your thumb of the other hand on the thumb grip to push the Diskus® open.
2. Slide the lever away as far as it will go until a click is heard.
3. Have the child breathe out.
4. Place the mouthpiece between the child's teeth, closing lips around it.
5. Have the child breathe in deeply and forcefully through the mouth and hold breath for 10 seconds or as long as is comfortable.
6. Remove the Diskus® from the child's mouth.
7. Have the child breathe out.
8. To close, slide the thumb grip back as far as it will go until a click is heard.

If a second dose is prescribed, repeat above steps.

Nebulizer/Compressor units

This type of device is seldom recommended. A nebulizer, driven by an electric compressor, forces air through a liquid medicine to produce a fine mist. The mist is inhaled and exhaled through a mask, usually for 10 to 15 minutes. Nebulizers should be rarely prescribed for current asthma management, but may be used under special circumstances.

1. Choose a convenient location where the child can sit comfortably for 10 to 15 minutes and where a power source is available.
2. Plug in the machine.
3. Prepare the medication as directed or empty pre-measured medication into the nebulizer (medication chamber). Do not mix different types of medication unless instructed to do so.
4. Connect the tubing to the machine port.
5. Attach the medication chamber and mask to the other end of the tubing.
6. Apply the mask over the child's nose and mouth, adjusting the straps as necessary.
7. Turn on the machine. Remain with the child for the duration of the treatment.
8. Have the child breathe in normally until the medication chamber is empty.
9. Turn off the machine, remove the mask and ensure the child's face is washed to remove any traces of medication.
10. Follow the cleaning instructions supplied with the machine.

When asthma is not well controlled

If any of the following situations occur, the child's asthma may not be controlled and the parent/guardian should be informed.

- Asthma symptoms prevent the child from performing normal activities (recess, gym class).
- The child is frequently coughing, short of breath or wheezing.
- The child requires their Reliever medication more than 3 times per week for asthma symptoms.

When a child has an asthma episode

1. Remove the child from any triggers of asthma (e.g. exercise, cold air, smoke).
2. Have the child sit down.

- *Do not insist that the child lie down.*

3. Ensure the child takes Reliever medication (usually blue cap or bottom).
   - *The child should have their Reliever medication easily accessible at all times. If the medication is not with the child, send another person for it, not the child who is experiencing the asthma episode.*
   - *Do **not** leave the child alone.*
   - *Provide assistance if the child is unable to take the medication independently.*
   - *If the child's Reliever medication is not available, contact parent/guardian. If any of the emergency situations occur (see list below), call 911/EMS.*
4. Encourage slow deep breathing.
   - *It may be helpful for the child to perform a quiet task for distraction purposes.*
5. Monitor the child for improvement of asthma symptoms.
   - *Relief from asthma symptoms should occur within minutes of taking Reliever medication.*
6. If Reliever medication has been given and asthma symptoms do not improve in 5-10 minutes, contact parent/guardian.
   - *Reliever medication can be repeated once at this time. If the child is not well enough to remain at the community program, the parent/guardian should come and pick them up.*
7. If any of the emergency situations occur (see list below), call 911/EMS.

Emergency Situations

Most asthma symptoms do not lead to a medical emergency. However, if any of the following emergency conditions occur, the emergency response plan described below should be implemented.

- Skin pulling in under the ribs ("belly breathing")
- Skin being sucked in at the ribs or throat ("tracheal tug")
- Greyish/bluish color in lips and nail beds
- Inability to speak in full sentences
- Shoulders held high, tight neck muscles
- Cannot stop coughing
- Difficulty walking

If asthma symptoms are severe, the child may NOT wheeze if there is not enough air moving in the lungs to generate a wheeze.

Emergency Response Plan

1. Activate 911/EMS.
   - *Delegate this task to another person. Do not leave the child alone.*
2. Continue to give Reliever medication as prescribed every five minutes.
3. Notify the child's parent/guardian.
4. Stay with the child until EMS personnel arrive.
   - *Information that should be provided to EMS personnel includes symptoms of asthma observed, medication and dose given, when medication was given and effect of medication on child.*

Asthma & Anaphylaxis

For children who are diagnosed with both anaphylaxis and asthma, epinephrine should always be used first if there is uncertainty about whether they are having an anaphylactic reaction or an asthma episode. Epinephrine can be used to treat life-threatening asthma attacks as well as anaphylactic reactions. Children with anaphylaxis and asthma should carry their epinephrine auto-injector and asthma Reliever medication with them.

HEALTH CARE PLAN

When a community program receives URIS 'Group B' support for children with URIS 'Group B' health care needs, a written health care plan is developed and maintained by a registered nurse on at least an annual basis. The development and implementation of the health care plan should reflect the principles of inclusion, normalization and independence.

- A child with asthma is foremost a child within a family, child-care facility, classroom or other community program.
- The environment should be changed to support the child, not the child changed to suit the environment.
- Interventions should be as non-intrusive as possible and be delivered in a manner that respects the child's dignity and privacy as well as the normal routines and patterns of the community program.
- The parent/guardian and child have rights and obligations and should be actively encouraged to participate in decisions affecting themselves and their children.

Health Care Plans should be kept in a location that is secure and accessible to all staff at the community program. All community program personnel that may be responsible for a child with asthma should be aware of the location of the health care plan and it should accompany the child on excursions outside the facility.

If the child is prescribed a Reliever medication but does not bring it to the community program, completion of a health care plan or emergency response plan is not required. In such situations, the response to a medical emergency (e.g. difficulty breathing) is to call 911/EMS.

Asthma Health Care Plan

The *Asthma Health Care Plan* is completed for children that require assistance with their asthma including administration of Reliever medication and recognizing symptoms of asthma. The *Asthma Health Care Plan* contains the following information and is included as a supplement to this document.

Demographic information

- Child's name
- Birth date
- Community program name
- Parent(s)/guardian name and phone number(s)
- Alternate emergency contact name and phone number(s)
- Physician information
    - Allergist name and phone number
    - Family physician/pediatrician name and phone number

Medical information

- Known allergies
- Availability of Medic-Alert® identification

Asthma information

- Triggers, if known
- Name and dosage of Reliever medication prescribed
- Type of medication device used (e.g. MDI, Turbuhaler®)
- Location of Reliever medication
- Child's ability to self-manage
  - Does the child know when to take their Reliever medication?
  - Can the child take their Reliever medication on their own?

Responding to an asthma episode

- Symptoms of asthma
- How to respond to asthma episode
- How to use medication device, if child requires assistance
  - Written instruction on how to use medication devices is included as supplements to this document and may be attached to the Asthma Health Care Plan
- Emergency situations and how to respond
- Situations when asthma is not controlled and how to respond

Documentation

- Template for recording interventions and actions performed by nurse and/or community program personnel (e.g. communication, actions taken)
- Signatures & dates
  - Parent/guardian signature & date signed
  - Nurse name and signature & date signed

When a child is independent in managing asthma

More than 50% of URIS Group B Applications received on an annual basis are for children with asthma. Many of these children are independent in the daily management of their asthma. Therefore, the following process is recommended when providing URIS 'Group B' support for children that are deemed to be independent with managing their asthma.

1. When a community program applies for URIS 'Group B' support for a child with asthma, the parent/guardian completes the *Asthma Health Care Plan* along with the URIS Group B Application. The *Asthma Health Care Plan* includes two questions to determine if the child is independent in managing their asthma.
   - Does the child know when to take their reliever medication?
   - Can the child take their Reliever medication on their own?
2. If the parent/guardian answers 'YES' to both of the questions listed above in the *Asthma Health Care Plan*, the child is deemed as independent in managing their asthma.

3. Once a child is deemed to be independent in managing their asthma, the *Asthma Emergency Response Plan* (ERP) is provided to the community program and parent/guardian on an annual basis. It is recommended to send the *Asthma ERP* to the parent along with the *Letter to Parent/Guardian to Accompany Asthma Emergency Response Plan,* which instructs the parent/guardian to contact the URIS nurse if any changes to their child's status occur. The *Asthma ERP* and *Letter to Parent/guardian to Accompany Asthma Emergency Response Plan* are included as supplements to this document.
4. When a child requires assistance in managing their asthma (i.e. answered 'NO' to one or both of the questions listed in step #1) the *Asthma Health Care Plan* is completed on an annual basis until the parent/guardian answers ‘YES’ to BOTH questions listed in step #1.

The *Asthma Emergency Response Plan* contains the following information and is included as a supplement to this document.

Responding to an asthma episode

- Symptoms of asthma
- Steps in responding to asthma episode
- Emergency situations and emergency response plan
- Situations when asthma in not controlled and how to respond

If the child has been deemed independent based on the two questions included in the *Asthma Health Care Plan* but the community program has concerns about the child’s ability to manage their asthma, the URIS nurse should be notified to determine to assess the child’s level of independence.

When a community program requires assistance with establishing avoidance strategies

It is the responsibility of the community program to establish avoidance strategies, as appropriate, in their facility. If the community program requests assistance from the nurse, the *Avoidance Strategies Template* may be used for this purpose.

When a child uses a nebulizer/compressor unit at the community program

Nebulizers/compressor units are not common and not the preferred medicine delivery device. When a child uses a nebulizer/compressor unit at the community program, the following information is added to the Asthma Health Care Plan.

The *Nebulizer* template contains this information and is included as a supplement to this document.

- Name of nebulizer
- Location at community program
- Storage/disposal of equipment and supplies
- Cleaning instructions
- Steps in using nebulizer/compressor unit

TRAINING

When a community program receives URIS 'Group B' support, training is provided to community program personnel by a registered nurse. Training is provided on at least an annual basis. The training of community program personnel should reflect the principles of adult learning.

- The learning needs of participants should be identified and integrated into the training session
- Information should be applicable to the participants' responsibilities and focus on what is most useful to them.
- Adults have accumulated a foundation of life experiences and knowledge and need to connect learning to this knowledge/experience base.
- An organized training session with clearly-defined elements assists participants in identifying and attaining learning goals.

It is recommended that all community program personnel that may be responsible for a child with asthma attend the training session. As an example, community program personnel that may be responsible for a child with asthma may include:

- in schools - teachers, teaching assistants, school administrators, office staff, substitute teachers, bus drivers, lunch room supervisors;
- in licensed child care facilities - child care providers, child care directors; and
- in recreational programs – staff members, administrators, volunteers.

The community program is responsible to ensure relevant personnel attend the training session. It is recommended to keep a written record that indicates community program personnel in attendance and the date that training occurred.

Adequate time should be scheduled for training to ensure community program personnel obtain the knowledge and skill necessary to safely respond to the needs of children with asthma in their facility. The amount of time required to train community program personnel will vary depending on several factors such as the existing knowledge of community program personnel, number of personnel attending the session and format of training resources used (e.g. PowerPoint, Worksheet).

Whenever possible, training should be scheduled when all community program personnel can attend to ensure service is provided in an efficient manner. If the training session is poorly attended (i.e. there is not an adequate number of community program personnel to safely address the child's needs), additional training should be scheduled. If subsequent training sessions are also poorly attended, alternate strategies should be discussed with the community program to ensure training is provided in an efficient manner.

When the community program has not received training, a child with asthma may still attend the community program. In such situations, the community program's standard policy for emergency situations (e.g. call 911/EMS) is implemented, if required.

Content

The following clinical information and child specific information is included in the training session. A demonstration of medication device(s) is also completed at the training session if children require assistance in managing their asthma.

Clinical information

- Definition of asthma
- Common triggers
- Avoidance of triggers
- Symptoms of asthma
- Treatment of asthma
    - Reliever & Controller medication
    - Responding to an asthma episode
    - Emergency situations and how to respond
    - When asthma is not well controlled

Child specific information

For children that have an *Asthma Health Care Plan*, the following information is reviewed at the training session.

- Name, dosage and location of Reliever medication
- Type of medication device

Community program personnel are made aware of the children that have an *Asthma Emergency Response Plan* and that they are independent in managing their asthma. Child specific information is not reviewed at the training session for these children.

Demonstration & return demonstration

The nurse demonstrates the administration of all medication devices used by children in the community program. If the child requires assistance only or is independent in administering medication, a return demonstration is not required. If the community program personnel is administering medication to the child (i.e. child is completely dependent on community program staff), the nurse observes community program personnel performing a return demonstration.

Training devices may be purchased through the manufacturer's websites.

Training Resources
The following resources are included as supplements to this document. If alternate resources are used, it is the responsibility of the nurse to ensure its content is consistent with the clinical information included in this document.

- *Asthma Handout*
- *Asthma PowerPoint*
- *Asthma DVD*
- *Asthma Worksheet* (Word and PowerPoint version)
    - Recommended for community program personnel that have previously attended an asthma training session.
    - The Microsoft Word version may be better suited for individuals or small groups. The Microsoft PowerPoint version may be more suitable for large groups.
- *Child Specific Information for Asthma Training Session* may be used to review child specific information at the training session

On-site training by a registered nurse is required to delegate knowledge and skill to community program personnel in the management of asthma. Other teaching strategies may be used as supplements to on-site training at the discretion of the nurse. The following on-line resources may be useful for training purposes.

The Children's Allergy & Asthma Education Centre
www.caaec.ca

CAAEC YOUTube Channel: Allergy and Asthma Education Playlist: How to use inhalers
https://www.youtube.com/watch?v=YHEWtJkWgj8&list=PLcMGfBsVtJrBIgoQaDjXXp1QiLeedO13z&index=4

MONITORING

Monitoring of trained community program personnel by a nurse is required to ensure that the knowledge and skill necessary to safely care for children with asthma has been acquired and/or retained. Monitoring is required on at least an annual basis.

The frequency and timing of monitoring is based on the professional judgment of the nurse as well as the complexity of information taught, maturational issues and the skill demonstrated by community program personnel. The following strategies may be used for monitoring purposes.

- Completion of an evaluation form by community program personnel that attend the training session. The *Asthma Training Session Evaluation Form* is included as a supplement to this document.
- Observation of community program personnel performing a return demonstration (i.e. use of asthma medication device) at the training session.
- Asking community program personnel questions during the training session. The Asthma *Worksheet* is included as a supplement to this document.

FOR FURTHER INFORMATION

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RESOURCES

The following list includes resources that may be relevant to community programs in the care of children with asthma. The purpose of these agencies/organizations may not be consistent with the purpose and content of this document.

Children's Allergy and Asthma Education (CAAEC) at Health Sciences Centre in Winnipeg

YouTube channel "Allergy and Asthma Education"

- The CAAEC offers free asthma and food allergy education programs for parents, school age children and teens.
- www.caaec.ca or 204-787-2551 Toll free number 1-888-554-1141

Asthma Society of Canada
www.asthma.ca

Canadian Lung Association
www.lung.ca

Global Initiative for Asthma (GINA)
www.ginasthma.org

Canadian Thoracic Society
www.respiratoryguidelines.ca