Enhancing Asthma Care

Virtual Joint Clinic
Meeting #5
Overview of Today’s Meeting

1. Clinic Updates
2. QI Component #8 – Controller Medications
   • SMART Therapy
3. QI Component #9 – Albuterol Refills
4. Medication Delivery Devices
5. Assign homework
6. Next steps/next meeting
Asthma Quality Improvement Mapping
Virtual Format | Confidential

Clinic Engagement | Hold Virtual Meeting
CLARIFY ALA contact | Learning collaborative timeline | Expectations | Sign nonbinding MOU | Add contacts to ALA Convio marketing lists

Clinic Awareness/Recruitment
• Provide clinic recruitment flyer
• Share video at Lung.org/EnhancingCare

LAUNCH
Conduct baseline chart audit

1 Year Framework

Virtual Clinic Meetings
#1
• Project overview
• Organizational support
• Clinic team
• Documentation process
• Pre-visit planning

#2
• Asthma severity
• Patient self-assessment

#3
• Controller medications
• Albuterol refills
• Medication delivery devices

#4
• Asthma action plans
• Spirometry
• Tobacco dependence
• Allergy testing in primary care
• Severe asthma

#5

• Self-management education
• ED follow-up

#6
• Planned visits
• Sustainability
• Expansion

LONG-TERM ENGAGEMENT
• Recruit to be spokesperson
• Invite to special events

EVALUATION
• Chart audit at baseline, 12 and 18 months
• Health care utilization
• Return on the investment

PATIENT EDUCATION MATERIALS AVAILABLE
• Lung HelpLine
• Lung.org
• Controlling Asthma: What You Need to Know
• Medication delivery device teaching sheets
• Asthma Action Plan
• What Triggers Your Asthma?
• Trigger remediation videos
• Freedom From Smoking®
• Asthma Basics

TRAINING OPPORTUNITIES
• ALA online training resource sheet
• Asthma Basics
• Medication delivery device
• Asthma Educator Institute
• Spirometry case study videos
• Freedom From Smoking®
• Ask, Advise, Refer to Quit, Don’t Switch

TECHNICAL ASSISTANCE
Component #8
Controller Medications
**SMART**

SMART (Single Maintenance And Reliever Therapy) is a next-generation asthma treatment containing an ICS (inhaled corticosteroid) with formoterol (long-acting beta agonist) combined into one inhaler. SMART includes formoterol due to its ability to be fast-acting for rapid onset of asthma symptoms (similar to a short-acting beta agonist) with a longer lasting effect. This SMART treatment option may be prescribed to those with moderate to severe persistent asthma, as a daily controller medication (ICS/ formoterol) and/or to treat rapid onset of symptoms as a quick-relief medicine.

**Key Messages**
- Less complicated to use (one single inhaler) for managing asthma symptoms and just as effective
- Used to treat symptoms when they start and also for daily maintenance
- Always recommend use of MDI with a valved holding chamber/spacer
- This treatment option is not available for everyone. If someone is already well controlled on current treatment, shared decision making is important before making changes.
- Rinse mouth and spit out after use
- Talk to your healthcare provider for more information

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**Resources for Asthma and COPD**

- Asthma Care Quick Reference  
  [https://www.nhlbi.nih.gov/files/docs/guidelines/asthma_cq.pdf](https://www.nhlbi.nih.gov/files/docs/guidelines/asthma_cq.pdf)
- GOLD Reports for COPD  
  [www.goldcopd.org](http://www.goldcopd.org)
- American Lung Association  
  [www.lung.org/asthma](http://www.lung.org/asthma)  
  [www.lung.org/COPD](http://www.lung.org/COPD)

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**How to use a metered-dose inhaler with a valved holding chamber (spacer)**

1. Shake inhaler 10 seconds.
2. Take the cap off the inhaler and valved holding chamber. Make sure the mouthpiece and valved holding chamber are clean and there is nothing inside the mouthpieces.
3. Put inhaler into the chamber/spacer.
4. Breathe out away from the device.
5. Put chamber mouthpiece in mouth.
6. Press inhaler once and breathe in deep and steadily.
7. Hold your breath for 10 seconds, then breathe out slowly. If you need another puff of medicine, wait 1 minute and repeat steps 4-7.
8. Rinse with water and spit it out.

Proper inhalation technique is important when taking your asthma medication(s) and monitoring your breathing. Make sure to bring all your medicines and devices to each visit with your primary care provider or pharmacist to check for correct use, or if you have trouble using them.

For more videos, handouts, tutorials, and resources, visit lung.org.

Scan the QR Code to access How To Videos.

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You can also connect with a respiratory therapist for one-on-one, free support from the American Lung Association’s Lung Hotline at 1-800-LUNGUSA.
Goals of Therapy

1. Reduce impairment and risk
2. Prevent symptoms and exacerbations
3. Reduce use of reliever(s) medication
4. Maintain (near) normal lung function
5. Allow for normal activity levels
6. Minimize ED visits and hospitalizations
7. Prevent progressive lung function
8. Have optimal pharmacotherapy with minimal or no adverse effects
Daily Long-Term Control: Inhaled Corticosteroids (ICS)

Most effective long-term control therapy for persistent asthma

Minimal risk

Risk depends on delivery method
Types of Daily Long-Term Controller Medications

1. Corticosteroids (inhaled and systemic) and in conjunction with:
   • Long-acting beta$_2$-agonists (salmeterol, formoterol)
   • Long-acting muscarinic antagonists (tiotropium)
   • Ultra-long-acting beta$_2$-agonist (vilanterol)

2. Leukotriene modifiers (montelukast, zafirlukast)
Daily Long-Term Control: ICS

1. Benefit of daily use:
   - Reduced airway inflammation
   - Improved lung function
   - Reduced use of quick-relief medicine
   - Fewer symptoms and exacerbations

2. Do **not** provide short-term relief

3. Must be used **daily** for full benefit
Estimated Comparative Dosage of Inhaled Corticosteroids (*see attached*)

1. Preparations *not* equivalent per puff/per microgram
2. Comparative doses estimated:
   - Few studies directly compare preparations
3. Clinician judgment—most important determinant of dosing:
   - Monitor clinical response to therapy
   - Adjust dose accordingly
Inhaled Corticosteroids and Effect on Linear Growth

1. Untreated or poorly treated asthma is detrimental to height growth.

2. CAMP study on growth concluded that long-term ICS therapy was associated with a mean height deficit of 1.2 cm.

Minimizing Risk with ICS

- Monitor growth
- Use lowest possible dose
- Use spacers
- Teach “rinse and spit”
- Consider combination med (ICS/LABA)
Corticosteroid Side Effects

**Inhaled Local:**
- Dysphonia
- Thrush
- Cough/throat irritation
- Short-term impaired growth rate (high dose only—adult height is equal)

**Systemic (oral, IV):**
- Fluid retention
- Muscle weakness
- Ulcers
- Malaise
- Impaired wound healing
- N/V, HA
- Osteoporosis (adults)
- Cataracts (adults)
- Glaucoma (adults)
Prescribing Controller Medications Current Practice – Food for Thought

What systems exist to prompt controller medication prescribing?

What decision support tools exist for providers?

What is the process for deciding which controller med?

When is SMART therapy appropriate for your patients?

How is documentation of medications done?

What further education is needed for the primary care team?
Long-Acting Beta$_2$-agonists (LABA)

Salmeterol (Serevent), Formoterol (Foradil), Vilanterol (Breo)

LABAs are not recommended for use as monotherapy

May be beneficial when added to ICS

Do not have anti-inflammatory properties

Asthma may worsen if used as monotherapy

Not appropriate for quick relief***
Long-Term Control: Leukotriene Inhibitors

Mechanisms

- Cysteinyl Leukotriene Receptor Antagonists—montelukast (Singulair, generic available), zafirlukast (Accolate – no longer available in US)

Indications

- Previous monotherapy in mild persistent asthma (0-4 years of age), 2020 guidelines no longer preferred therapy
- Add-on therapy in moderate to severe persistent asthma
Leukotriene Modifiers: Montelukast

- Oral pharmacokinetics:
  - Rapidly and well absorbed
  - Not affected by food ingestion
  - Minimal accumulation with multiple dosing
- No dosage adjustments required based on:
  - Renal insufficiency
  - Mild to moderate hepatic insufficiency
  - The elderly
- Anecdotal reports:
  - Recent reports about behavioral side effects
- FDA **black box warning** March 2020
Montelukast (SINGULAIR™†) (montelukast sodium, MSD):

• Administered once daily (bedtime)
• Available for adults and children as young as 6 months

<table>
<thead>
<tr>
<th>Montelukast: Dosing Regimen in Adults and Children</th>
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<tbody>
<tr>
<td>Cherry-Flavored Chewable Tablets</td>
</tr>
<tr>
<td>4 mg</td>
</tr>
<tr>
<td>Ages 2-5</td>
</tr>
<tr>
<td>5 mg</td>
</tr>
<tr>
<td>Ages 6-14</td>
</tr>
<tr>
<td>Film-Coated Tablet</td>
</tr>
<tr>
<td>10 mg</td>
</tr>
<tr>
<td>Ages ≥ 15 years</td>
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<tr>
<td>C.A.I.R. Granule Packets</td>
</tr>
<tr>
<td>4 mg</td>
</tr>
<tr>
<td>Ages 6 mos-5yrs</td>
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</tbody>
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†Trademark of Merck & Co., Inc., Whitehouse Station, NJ, USA
Component #9
Albuterol Refills
SABA overuse leads to exacerbations, ED visits, hospitalizations, death

**Overuse is a big problem**

High SABA usage indicates poor control and a need to reassess controller medications/adherence and triggers.

Should be prescribed 1 or 2 at a time (not 11 refills).
Albuterol Refill Requests

An opportunity to assess patient

Discuss strategies to decrease excessive (inappropriate) use of albuterol
Medication Delivery Devices
In-Check Dials
Reimbursement for Spacers/Multiple Inhalers

Dispel myths

Blue Cross Blue Shield does reimburse for spacers/valved holding chambers, and multiple inhalers

Good idea to indicate “for home, school, daycare, etc.”
Inhaler Techniques

We have resources for you:

1. How to Use Asthma Inhalers and Medication Devices
   • Including Videos and Handouts
2. Asthma Resource Library
3. Booster Shot Comics Video for kids
4. One-Stop Shop: Asthma Quality Improvement Resources
Homework / Taking it Back to Your Clinic

1. Assess both your **controller medication prescribing** and **albuterol refill processes**

2. Schedule your **medication delivery device hands-on training** for January – March 2023, either in-person or virtually

3. Hold **monthly TA meeting** with your local ALA staff partner