ASTHMA ACTION PLANS - What are they and how do they work?

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I HAVE NO DISCLOSURES.
What is an AAP?
What is an AAP?

• Written Plan or Instructions for the patient and/or caregiver
• Gives instruction on what medications to take when they have acute symptoms
• Symptoms drive responses
What are AAPs intended to do?

- Guide patient/caregiver in assessment and treatment of acute asthma symptoms
Importance of AAPs

• Following instructions on the plan can help treatment of an attack at home and help to avoid the need for the hospital emergency room or doctor’s office
• Following instructions can relieve and/or control acute symptoms and their progression
• Treatments are made to “short circuit” the symptoms
• Caregiver must be aggressive and treat symptoms early
Organized into Three Zones

• Green Zone – good no symptoms. Patient generally doing well
• Yellow Zone - caution symptoms/distress worsening in spite of initial treatment
• Red Zone- danger symptoms have progressed further to a medical emergency
Example of an AAP

### Asthma Action Plan for Home & School

<table>
<thead>
<tr>
<th>Name:</th>
<th>Birthday:</th>
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#### Green Zone
- Have the child take these medicines every day, even when the child feels well.
- Always use a spacer with inhaled corticosteroids.
- Controller Medication: 
  - 
- Rescue Medication: 
  - Budesonide/Fluticasone: 2 puffs every 4 hours as needed
  - Albuterol/Salbutamol: 2 puffs every 2 hours as needed

#### Yellow Zone
- Begin the sick treatment plan if the child has a cough, wheeze, shortness of breath, or tight chest. Have the child take all of these medicines when sick.
- Rescue Medication: 
  - Budesonide/Fluticasone: 2 puffs every 4 hours as needed
  - Albuterol/Salbutamol: 2 puffs every 2 hours as needed
- Controller Medication: 
  - 
- Add: 

#### Red Zone
- If the child is in the yellow zone more than 24 hours or is getting worse, follow red zone and call the doctor right away!
- Go to Help Now
- Take rescue medication(s) now:
  - Rescue Medication: 
    - Budesonide/Fluticasone: 2 puffs every 2 hours as needed
    - Albuterol/Salbutamol: 2 puffs every 2 hours as needed

- If the child is not better right away, call 911. Please call the doctor any time this child is in the red zone.

#### Asthma Triggers (list)
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#### School Staff
- Follow the Yellow and Red Zone plans for rescue medication according to asthma symptoms.
- Ensure the child is not exposed to allergens or irritants.
- Administer medication as directed.
- Monitor the child's response to treatment.

#### Asthma Provider
- 

#### Parent/Guardian
- 

#### School Nurse
- 

Please send a signed copy back to the provider's head nurse.
What Symptoms “drive” the responses?

• Most important assessments are the presence of symptoms-wheeze, cough, shortness of breath, respiratory rate, inability to speak, and decreases in peak expiratory flow rate
• Caregiver/patient must be able to assess the dynamics of the attack and recognize how the patient is doing compared to their baseline status
• Must also assess deterioration
• Symptoms are usually new but have happened before, and usually last ≥ 10-15 minutes
Peak Flow Meter

- Many physicians choose symptom based AAP versus Peak Flow Based
- Poor perceivers benefit from peak flow
- Obtain personal best by performing over two weeks
- Green Zone $\geq 80\%$ of the patient’s “normal”
- Yellow Zone 50-80\% of baseline
- Red Zone <50\% of baseline
Keep Points to an AAP

• Must be available
• Readable
• Understandable
• Accurate as to when treatment increases with symptom increases
• Helpful as to the contact for care when the patient worsens (24/7)
What treatments are given?

- Rescue Inhaler medications – albuterol, pro air, Ventolin, Xopenex
- Given by inhaler or treatment
- Nebulizers (if available) can provide a higher dose of drug per treatment (1 vial is similar to 10 puffs from an MDI)
- Green Zone- 2 puffs every 4 hours
- Yellow Zone- 4-6 puffs every 4-6 hours
- Red Zone- 6-10 puffs every 20 minutes
- If they don’t rapidly improve from the yellow zone, or if they even get to the red zone, the caregiver/patient should call the provider listed on the AAP
- If they do not get called back right away, they should call an ambulance
- 2 puffs every 4 hours is NOT the correct treatment for all zones in an acute flare of asthma
When are AAPs used?

• Should be accessible wherever the patient is located
• They are an important part of asthma education and should be revised with every medication change
• Should be reviewed with every visit
• Extremely helpful to provide pictures of the asthma medication devices, specific to that patient.
Who should have them?

- Parents (both parents)
- Family members who are caregivers
- Coaches
- Teachers
- Daycare
- All caregivers should have a rescue medicine and inhaler with the AAP
How many patients have AAPs?
30% Children
40% Adults
"He who fails to plan is planning to fail"
- Sir Winston Churchill
QUESTIONS?
References

- Asthma - friendly schools – see CDC.gov.
- Program for asthma teaching in the classroom – NIH.gov.
- Toolkit for SAMPRO – aaaaai.org/SAMPRO.