# Chronic Disease Trainings for Health Home Care Managers

<table>
<thead>
<tr>
<th>Training Topic</th>
<th>NYS Department of Health OHIP Health Home Live Webinar:</th>
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<tr>
<td>1) Chronic Conditions Overview</td>
<td>September 13th</td>
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<tr>
<td>2) High Blood Pressure, Prehypertension &amp; Hypertension</td>
<td>September 13th 1:00-2:30 pm</td>
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<td>3) Prediabetes</td>
<td>November 8th 1:00-2:30 pm</td>
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<td>4) Diabetes</td>
<td>December 6th 1:00 – 2:30</td>
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<td>5) Asthma</td>
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<tr>
<td>6) Arthritis &amp; Chronic Disease Self-Management Program - <em>Live Webinar ONLY</em></td>
<td>January 31st 2018 1:00-2:30 pm</td>
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</tbody>
</table>

To receive updates and slides from these live sessions, sign up for the Medicaid Health Home listserv at: [hhsc@health.ny.gov](mailto:hhsc@health.ny.gov) and request to be added to the Health Home listserv.
WHAT IS ASTHMA?
A chronic inflammatory disorder of the airways

- **Inflammation** *(swelling)* of the lining of the airways
- **Bronchoconstriction** (tightening of the bands of smooth muscles surrounding the airways) which reduces the width of the airways
- **Excess mucus production** that further narrows the airways
A LOT GOING ON BENEATH THE SURFACE

Symptoms

- Airflow obstruction
- Bronchial hyperresponsiveness
- Airway inflammation
WHAT DOES ASTHMA LOOK LIKE?

NORMAL BRONCHUS
1. Cartilage
2. Open airway
3. Mucous glands
4. Muscle layer

BRONCHIAL INFLAMMATION
1. Cartilage
2. Reduced airway
3. Excess mucus
4. Muscle layer contracts

BRONCHIAL CONSTRUCTION
1. Muscles tightened
2. Alveoli filled with trapped air
MYTHS & TRUTHS ABOUT ASTHMA
MYTHS & TRUTHS ABOUT ASTHMA

**Myth**
Asthma is a psychological or emotional illness

**Truth**
Airway swelling is real, even if triggered by strong emotions

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**Myth**
Asthma is only an acute disease, and you can outgrow it

**Truth**
Asthma is a chronic disease, and you do not outgrow it

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**Myth**
Asthma cannot be cured, but can be controlled

**Truth**
Asthma is curable
MYTHS & TRUTHS ABOUT ASTHMA

**Myth**
Asthma always limits normal activities

**Truth**
Daily asthma controller/pre-exercise medications allow individuals to be active

**Myth**
Asthma medication and inhalers are addictive

**Truth**
Asthma medications and inhalers are not addictive

**Myth**
Asthma limits a person’s ability to fully participate in sports

**Truth**
Well-controlled asthma should not limit exercise and individuals can fully participate in sports
MYTHS & TRUTHS ABOUT ASTHMA

Myth: Asthma medication becomes ineffective if used regularly.

Truth: Controller medications work best when used daily. Use of daily Quick Relief (albuterol) inhalers is an indicator of poor asthma control.

Myth: People cannot die from asthma.

Truth: Children and adults die from asthma each year.
ASTHMA STATISTICS
Asthma Facts in the US

Current Asthma Prevalence Percent by Age, Sex, and Race/Ethnicity, United States, 2015

In 2009, there were:
- 479,300 asthma-related hospitalizations
- 1.9 million asthma-related emergency department visits
- 8.9 million asthma-related doctor visits

1 in 11 children has asthma
1 in 12 adults has asthma

Asthma's Impact on the Nation
Data from the CDC National Asthma Control Program
Who has asthma in NYS?

1,400,000 adults
400,000 children

Asthma is the most common chronic condition among children and a leading cause of school absences.

The average cost of an asthma hospitalization:
$18,625

Total projected cost for asthma in 2014 was $3.45 billion, including loss of productivity

POOR ASTHMA CONTROL LEADS TO:

38,000 Hospitalizations
165,000+ Emergency Department Visits
AND 255 DEATHS
NYS Annually

Kids with asthma who are exposed to secondhand smoke at home are 2X more likely to be hospitalized for an asthma attack.
RISK FACTORS FOR DEATH FROM ASTHMA

- History of severe exacerbations
- Prior intubation for asthma
- Prior admission to Intensive Care Unit
- 2 or more hospital admissions in the past year
- 3 or more emergency room visits in the past year
- Hospital or emergency room visit past month
- Use of >2 canisters per month of inhaled short-acting beta2 – agonist
RISK FACTORS FOR DEATH FROM ASTHMA

• Chronic use of systemic corticosteroids
• Poor perception of airflow obstruction or its severity
• Co-morbid conditions (other diseases)
• Serious psychiatric disease or psychosocial problems
• Low socioeconomic status and urban residence
• Illicit drug use
• Sensitivity to alternaria-mold
• Lack of written asthma action plan
SYMPTOMS OF ASTHMA
Early warning signs suggest the possibility of an asthma attack and are not the same for everyone.

- Shortness of breath
- Tightness in chest
- Pain in chest
- Less able to exercise
- Tired
- Itchy throat
- Watery eyes
- Dark circles around eyes
- Congestion
- Feeling Sad
- Fever
- Clammy skin
- Pale
- Dry Mouth
- Fast Heartbeat
- Dark Circles
- Sneezing
- Gets easily excited or upset
- Feels Restless

Early treatment is always most helpful, waiting for an episode to become full-blown usually means it will take more time and treatment to get relief.
SYMPTOMS OF ASTHMA

- Wheeze
- Cough
- Tight Chest
- Difficulty breathing, shortness of breath
GUIDELINES-BASED CARE
National Asthma Education And Prevention Program  Expert Panel Report 3: Guidelines For The Diagnosis And Management Of Asthma

www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm
FOUR COMPONENTS OF ASTHMA MANAGEMENT

- Measures of assessment and monitoring
- Education for a partnership in asthma care
- Control of environmental conditions and comorbid conditions
- Pharmacologic therapy

AMERICAN LUNG ASSOCIATION®
SIX PRIORITY MESSAGES

Diagnosis and Management of

**ASTHMA**

- Use Inhaled Corticosteroids
- Use a Written Asthma Action Plan
- Assess Asthma Severity
- Assess and Monitor Asthma Control
- Schedule Periodic Asthma Visits
- Control Environmental Exposures

*These priority messages are from National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program. Guidelines Implementation Panel Report for GINA 2019.*

www.nhlbi.nih.gov/guidelines/asthma/iga19_pr.htm

**AMERICAN LUNG ASSOCIATION**
IMPAIRMENT
Current frequency and intensity of symptoms and functional limitations

RISK
Future likelihood of asthma exacerbations and progressive decline in lung function over time

SEVERITY

Diagnosis and Management of Asthma

- Use Inhaled Corticosteroids
- Use a Written Asthma Action Plan
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These priority messages are from National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program Guidelines Implementation Panel Report for EPR-3
www.nhlbi.nih.gov/guidelines/asthma/gpp_ppt.htm

American Lung Association
• Based on severity assessment the HCP will choose the appropriate medication

• For all patients with persistent asthma (mild-moderate-severe) the preferred first line treatment is to use a daily inhaled steroid

• Health Home Care Managers should ask what type of medication the member is taking and how often
ASTHMA MEDICATIONS

• **Controllers (anti-inflammatory)**
  - Help to prevent an asthma episode
  - Are taken daily
  - Does not eliminate the need for quick relief medications

• **Quick relief medications (inhaled bronchodilators)**
  - Fast-acting (RESCUE)
  - Relieve symptoms during an asthma episode
  - Are taken as needed
VALVED HOLDING CHAMBERS OR SPACERS

• The most effective way to deliver asthma medications when using an inhaled medication

• Slows down the speed of delivery such that there is medication deposition to the airways, rather than the posterior wall of the pharynx

• Decreases need for coordination between actuation and inhalation

• Mouth piece or face mask available: Must be a one way valved holding chamber
Why use a **Spacer with an Inhaler?**

**Inhaler alone**

When an inhaler is used alone, medicine ends up in the mouth, throat, stomach and lungs.

**Inhaler used with spacer device**

When an inhaler is used with a spacer device, more medicine is delivered to the lungs.

"Comparative respiratory deposition of $^{99m}$Tc labeled particles of albuterol using a metered dose inhaler, a metered dose inhaler with Aerochamber® spacer and OptiChamber® spacer in healthy human volunteers using gamma scintigraphy." R. Behn, PhD, Scintiprox, Inc., Indianapolis, IN and D. Doherty, MD, Dept. of Pulmonology, University of Kentucky Medical Center, Lexington, KY, 1997.

Images kindly provided by Respironics HealthScan Inc.
Diagnosis and Management of ASTHMA

Use Inhaled Corticosteroids
Use a Written Asthma Action Plan
Assess Asthma Severity
Assess and Monitor Asthma Control
Schedule Periodic Asthma Visits
Control Environmental Exposures

These priority messages are from National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program Guidelines Implementation Panel Report for EPR-3
www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm
• Every child with asthma should have an action plan, especially those on more than one medication

• A copy should be kept with the medical provider, and provided to school/camp, coach, babysitter/care provider

• Empowers caregivers to administer rescue medications

• An asthma action plan should be created with the provider with input from the patient and the family

• Health Home Care Managers can be the bridge between the family and the provider to help develop an asthma action that works for them
An action plan should contain:

- The frequency and dose of daily medications written in simple language
- The medications to add when a person starts having symptoms, including dose & frequency
- Signs and symptoms to monitor for
- An emergency contact number for the doctor
- Indications for when to go to the ER
- Permission for all medication use at school
- Permission for independent medication carry and use at school
ACTIONS TO TAKE FOR AN ASTHMA ATTACK

- Have someone stay with the person
- Follow the person’s Asthma Action Plan
- Make certain quick relief medicine is available and used properly
- Observe person to ensure they improve
- Communicate with emergency contacts if the person with asthma is experiencing breathing difficulties
ACTIONS TO TAKE FOR AN ASTHMA EMERGENCY

• Have someone stay with the person
• If person does NOT have quick-relief medicine or the medication DOES NOT WORK – CHECK ASTHMA ACTION PLAN

OR

• Call 911 if:
  • Person cannot breathe
  • Struggling to breathe
  • Chest/neck are pulled in or sucked in with each breath
  • Trouble walking or talking
  • Nostrils wide open
  • Lips or fingertips are blue
Diagnosis and Management of

ASTHMA

- Use Inhaled Corticosteroids
- Use a Written Asthma Action Plan
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www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm
SCHEDULE FOLLOW-UP VISITS

• Schedule follow-up visits at periodic intervals to assess asthma control and modify treatment if needed
  ✓ 1-6 months depending on control
  ✓ 3-month intervals if step down in medication is anticipated
• Consider a patient reminder system for these visits
Diagnosis and Management of

**ASTHMA**

- **Use Inhaled Corticosteroids**
- **Use a Written Asthma Action Plan**
- **Assess Asthma Severity**
- **Assess and Monitor Asthma Control**
- **Schedule Periodic Asthma Visits**
- **Control Environmental Exposures**

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These priority messages are from National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program Guidelines Implementation Panel Report for EPR-3

www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm
GOALS OF ASTHMA CONTROL

✓ Sleep through the night
✓ Not cough or wheeze during the day or night
✓ Be physically active
✓ Not miss school or work due to asthma
✓ Not have asthma-related visits to the emergency room
✓ Not have a hospitalization due to asthma
GOOD CONTROL DEPENDS ON

- Being able to get medical care
- Having good self-management skills
- Having good communication between a person with asthma and those around them
HOW DO YOU KNOW YOUR ASTHMA IS NOT IN CONTROL?

The Rules of Two

• Do you take your rescue inhaler more than TWO times per week?
• Do you awaken at night with asthma more than TWO times per month?
• Do you refill your rescue inhaler more than TWO times per year?

If you answer “YES” to any of these questions, speak to your HCP to discuss why your asthma may not be in good control.
Diagnosis and Management of ASTHMA

- Use Inhaled Corticosteroids
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These priority messages are from the National Heart, Lung, and Blood Institute's National Asthma Education and Prevention Program Guidelines Implementation Panel Report for EPR-3.

www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm
CONTROL ENVIRONMENTAL EXPOSURES

• Review the environmental history of exposures

• Develop a multi-pronged strategy to reduce exposure to the patient’s triggers
COMMON HOME TRIGGERS

- Animal allergens
- Dust mites
- Cockroach allergens
- Mold
- Tobacco Smoke
All warm-blooded animals produce flakes of skin (dander), feces, urine and dried saliva that can cause allergic reactions.

- Best option - Keep animals out of house
- If you can’t keep the pet outside, keep it out of the bedroom and keep the door shut
- Wash hands and clothes after contact with the pet
- Remove upholstered furniture and carpets from the home or isolate the pet in areas without these items
DUST MITES

• Require humidity and human dander to survive, thrive in most areas of the US but usually not present in high altitudes or arid areas

• High levels are found in bedding, pillows, mattress, upholstered furniture, carpets, clothes and soft toys

**IMPORTANT**: Since the patient’s bed is the most likely place for dust mites to be found this is the best place for trigger control measures
DUST MITES CONTROL MEASURES

- Encase the pillow and mattress in an allergen-impermeable cover
- Wash all bedding in hot (>130°F) water weekly*
- Keep humidity below 60% (ideally 30%-50%).
- Remove carpets from the bedroom
- Avoid sleeping or lying on upholstered furniture
- In children’s beds, minimize the number of stuffed toys; each week, wash the toys in hot water or freeze them
- Room air filtration devices are not recommended to control dust mite exposure – the allergens are air-borne only briefly and not removed via air filtration.

(*Exposure to dry heat or freezing kills dust mites but does not remove the allergen.)
COCKROACH CONTROL MEASURES

• Keep counters, sinks, tables and floors clean and clear of clutter.
• Fix plumbing leaks and other moisture problems.
• Remove piles of boxes, newspapers and other items where cockroaches may hide.
• Seal all entry points.
• Make sure trash in your home is properly stored in containers with lids that close securely; remove trash daily.
• Try using poison baits, boric acid or traps first before using pesticide sprays.
### Common Home Triggers: Irritants

<table>
<thead>
<tr>
<th>Category</th>
<th>Triggers</th>
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<tbody>
<tr>
<td>Molds</td>
<td>Basements, Bathrooms</td>
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<tr>
<td>Smoke &amp; Gases</td>
<td>Kerosene heaters, Wood stoves and/or Fireplaces</td>
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<tr>
<td>VOCs and Strong Smells</td>
<td>Hairspray, cooking spray &amp; odors, Furniture polish</td>
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<tr>
<td>Tobacco Smoke</td>
<td>Secondhand smoke, Thirdhand smoke</td>
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<tr>
<td>New carpets</td>
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<tr>
<td>Perfumes</td>
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MOLD CONTROL MEASURES

• Moisture control = mold control, so – ACT QUICKLY.
  – If wet or damp materials or areas are dried 24-48 hours after a leak or spill, in most cases mold will not grow.

• Scrub mold off hard surfaces with detergent and water; dry completely.

• Absorbent or porous materials, such as moldy ceiling tiles and carpet, may have to be thrown away.

• Dehumidify basements if possible.

TOBACCO SMOKE CONTROL MEASURES

• If you smoke, ask for ways to help you quit. Ask family members to quit.
• Do not allow smoking in your home or car.
• Be sure no one smokes at your child’s daycare or school.
• Advocate for smoke free workplaces.
SECON DHAND AND THIRDHAND SMOKE

• Exposure is linked to increased asthma symptoms, decreased lung function and greater use of health services among those who have asthma.

• Message to smokers – Quit or at least smoke outside (may not adequately reduce exposure).

• Provide smoking cessation support if possible.

• Thirdhand smoke clings to clothes, furniture, drapes, walls bedding, carpets, vehicles and other surfaces long after smoking has stopped
  – Thirdhand smoke residue builds up over time
• Vacuum 1-2 times per week
  – Get someone else to do this if possible or wear a dust mask
• Damp mop
• Air conditioning during warm weather recommended for asthma patients
• Dehumidifiers to reduce house-dust mite levels in high-humidity areas
• HEPA filters to reduce airborne cat dander, mold spores and particulate tobacco smoke.
  – Not a substitute for more effective measures!
HEALTH HOME CARE MANAGERS ... FIRST LINE OF DEFENSE

• Work with children to find out when and where in the home they have more asthma symptoms
• Work with family members to examine household conditions
• Work to assist and link the family to available resources to make household modifications
OUTDOOR ENVIRONMENT

• Ask the patient:
  “Is your asthma worse in spring, summer, fall or parts of the growing season?”

Pollen and Molds

• Avoid areas of high pollution; stay indoors on ozone alert days when possible.

• Do not use air cleaners that create ozone.

Ozone

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INFECTIONS

Viral respiratory infections
Respiratory infections can exacerbate asthma symptoms, particularly in children under age 10.

Bacterial infections

Infections such as Mycoplasma and Chlamydia may contribute to asthma exacerbations.
INFECTIONS

Respiratory infections are the #1 trigger for children with asthma

- Keep hands away from face
- Wash hands
- Use separate towels
- Get a flu shot
OTHER TRIGGERS

Strong Emotions

Exercise
- Induced Asthma

Exercise may be a trigger for asthma, but asthma should not limit physical activity.
Schools: Potential Concerns

- Poor indoor air quality
- Leaky roofs/wet carpeting = Molds
- New carpeting/chemicals = Toxic fumes
- Building repairs/renovations = Dust
- Idling school busses = Diesel fumes
- Unventilated portable classrooms

- Fragrances (Magic Markers, air fresheners, art supplies)
- Animals in classroom
- Cleaning supplies
- Classroom environment (old carpeting, furniture)
- Insecticides, herbicides, fungicides
- Chalk dust, foods
- Access to medications
- Access to a school nurse

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Asthma-Friendly School Checklist

• Tobacco free campus? Good indoor air quality?
• Policy on inhalers?
• Written asthma emergency plan for teachers & staff?
• Updated asthma action plans for students with asthma on file at school?
• School nurse?
• Education for school staff/teachers about asthma?
• Degree of participation asthma student has in PE, sports, recess, field trips?

*Health Home Care Managers can collaborate with the school to ensure a proper school environment and plan for the child*
It is recommended that a clinician prepare a written asthma action plan for the school setting. In addition to medications and emergency response, this plan should identify factors that make students’ asthma worse so that the school may help avoid exposure.
SUMMARY

• Asthma episodes can be prevented.
• When asthma symptoms go away, asthma is still there.
• Asthma is treatable. All episodes should receive immediate attention.
• A severe asthma episode IS an emergency!
• A person with mild asthma can suffer a fatal episode.
WHAT CAN A CARE MANAGER DO TO SUPPORT ASTHMA CONTROL?

A Health Home Care Manager can reinforce these key messages:

• People with asthma should always have their quick relief medication with them for relief of symptoms.

• Controller medications should be taken every day, even when feeling well, for people who have persistent asthma.

• It is important to identify asthma triggers and know how to avoid them.

• Good communication is essential for effective asthma management.

• With proper management, everyone with asthma can live active and healthy lives.
RESOURCES
AVAILABLE FREE THROUGH NYS DOH
HERE’S HOW TO GET THEM…

For an electronic publication request form, go to:
http://www.health.ny.gov/forms/order_forms/asthma.pdf

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NEW YORK STATE DEPARTMENT OF HEALTH
ASTHMA PROGRAM
PUBLICATION REQUEST FORM

RETURN TO:
NYS Department of Health
121 Simmons Lane
Menands, New York 12204
email: public.health@health.state.ny.us

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<td>City:</td>
<td>State: Zip Code:</td>
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<tr>
<td>Telephone Number: Date of Request:</td>
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<thead>
<tr>
<th>TITLE/DESCRIPTION</th>
<th>QUANTITY</th>
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<tbody>
<tr>
<td>Clinical Guideline for the Diagnosis, Evaluation and Management of Adults and Children with Asthma - 2009</td>
<td>15 25 100</td>
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<tr>
<td>Asthma in the Primary Care Practice DVD Clinical Application of the NACCP Expert Panel Report 3, 2007 Guidelines for the Diagnosis and Management of Asthma. This is a companion piece to the above guideline support tool and is acceptable for up to 1.50 processed credits by the American Academy of Family Physicians.</td>
<td>15 25 100</td>
</tr>
<tr>
<td>Asthma Action Plan The purpose of this Asthma Action Plan is to help families become proactive and anticipatory with respect to asthma exacerbations and their control. The Asthma Action Plan should be used as an education and communication tool between the provider and the patient and his or her family. The patient/family should be able to demonstrate an understanding of the plan and the appropriate use of medicines.</td>
<td>15 25 100</td>
</tr>
<tr>
<td>Asthma and Influenza Brochure for People with Asthma This brochure answers these questions: What is asthma? and, If it is flu, how will it be treated?</td>
<td>15 25 100</td>
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<tr>
<td>Fast Facts for Health Care Providers – Asthma and Influenza</td>
<td>only available for download</td>
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AMERICAN LUNG ASSOCIATION RESOURCES

FREE

• Questions about Lung Health?: 1-800-LUNGUSA
• Lungtropolis: video game for kids ages 5-10
• Asthma Basics: 50-minute online program
• Freedom from Smoking online
• Asthma Educator Institute (AEI)
• Open Airways For Schools
• Kickin’ Asthma

OPEN AIRWAYS
FOR SCHOOLS

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