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MART Therapy

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OBJECTIVES

MART Therapy

- Define MART therapy
- Determine appropriate MART therapy strategies for maintenance and exacerbation treatment for asthma based on severity and safety

Practical Application

- Identify the primary concerns when trying to select appropriate inhaler therapy
- Recognize commercially available ICS-LABA inhalers and understand how to incorporate GINA recommendations with these inhalers practically
- Identify barriers to AIR/MART therapy and devise possible solutions

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ABBREVIATIONS

- AIR - anti-inflammatory reliever
- ICS - Inhaled corticosteroid
- LABA - Long-acting-beta₂ agonist
- MART - Maintenance-and-reliever therapy (with ICS-formoterol)
- OCS – Oral Corticosteroid
- PRN – as needed
- SABA - Short-acting beta₂ agonist
- SMART – Single-inhaler maintenance-and-reliever therapy

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ASTHMA TREATMENT STEPS IN ADULTS AND ADOLESCENTS

Box 4-6. Personalized management for adults and adolescents to control symptoms and minimize future risk

GINA 2024 – Adults & adolescents 12+ years

Personalized asthma management
Assess, Adjust, Review for individual patient needs

REVIEW

Symptoms
Exacerbations
Side-effects
Lung function
Comorbidities
Patient satisfaction

ADJUST

Confirmation of diagnosis if necessary
Symptom control & modifiable risk factors (see Box 2-2)
Comorbidities
Inhaler technique & adherence
Patient preferences and goals

ASSESS

Treatment of modifiable risk factors and comorbidities
Non-pharmacological strategies
Asthma medications including ICS (as below)
Education & skills training

TRACK 1: PREFERRED CONTROLLER and RELIEVER
Using ICS-formoterol as the "reliever" reduces the risk of exacerbations compared with using a SABA reliever, and is a simpler regimen.

TRACK 2: Alternative CONTROLLER and RELIEVER
Before considering a regimen with SABA reliever, check if the patient is likely to adhere to daily controller treatment.

Other controller options (limited indications, or less evidence for efficacy or safety – see text)

STEP 1: Take ICS whenever SABA taken*
STEP 2: Low dose maintenance ICS
STEP 3: Low dose maintenance ICS-formoterol
STEP 4: Medium dose maintenance ICS-formoterol
STEP 5: Add-on LAMA. Refer for assessment of phenotype. Consider high dose maintenance ICS-formoterol, a anti-IgE, anti-IL5/5R, anti-IL4Rα, anti-TSLP.

RELIEVER: As-needed low-dose ICS-formoterol†

STEP 1: Take ICS whenever SABA taken*
STEP 2: Low dose maintenance ICS
STEP 3: Low dose maintenance ICS-LABA
STEP 4: Medium/high dose maintenance ICS-LABA
STEP 5: Add-on LAMA. Refer for assessment of phenotype. Consider high dose maintenance ICS-LABA, a anti-IgE, anti-IL5/5R, anti-IL4Rα, anti-TSLP.

RELIEVER: As-needed ICS-SABA*, or as-needed SABA

Other controller options (limited indications, or less evidence for efficacy or safety – see text)

Low dose ICS whenever SABA taken* or daily LTRA†, or add HDM SLIT
Medium dose ICS, or add LTRA†, or add HDM SLIT
Add LAMA or add LTRA† or add LTRA†, or add HDM SLIT, or switch to high dose ICS-only
Add azithromycin (adults) or add LTRA†. As add need consider adding low dose ICS but consider side-effects

*Anti-inflammatory reliever. †If prescribing LTRA, advise patient/caregiver about risk of neuropsychiatric adverse effects. See list of abbreviations (p.11). For recommendations about initial asthma treatment in adults and adolescents, see Box 4-4 (p.75) and Box 4-5 (p.76). See Box 4-2 (p.71) for low, medium and high ICS doses for adults and adolescents. See Box 4-8 (p.84) for Track 1 medications and doses.

See GINA severe asthma guide

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AIR VS SMART THERAPY

AIR

- Anti-inflammatory reliever
- Reliever containing both a low-dose ICS and a rapid-acting bronchodilator

MART

- Maintenance and Reliever Therapy
- AKA SMART
 - Single-Inhaler Maintenance-and-Reliever Therapy
- Treatment regimen that uses an ICS-formoterol inhaler daily (i.e., maintenance dose), and also uses the same medication as needed for relief of symptoms (reliever doses)

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AIR THERAPY¹

- Contains low-dose ICS and rapid-acting bronchodilator
- Includes:
 - Budesonide-formoterol
 - Beclometasone-formoterol
 - ICS-salbutamol combinations
- Non-formoterol LABAs in combination with ICS **cannot** be used as relievers
- ICS-formoterol should not be used as a reliever with maintenance ICS-non-formoterol LABAs
- Can be used as needed before exercise or allergen exposure to prevent asthma symptoms and bronchoconstriction
- Some anti-inflammatory relievers can be used PRN at Steps 1-2 as a person's sole asthma treatment, without maintenance (AIR-only)
- Some ICS-formoterol combinations can be used as both maintenance and reliever therapy at Steps 3-5

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AIR THERAPY¹

- Preferred treatment Track #1 Steps 1-2 for adults and adolescents
 - As-needed-only low-dose combination ICS-formoterol
- Treatment regimen is simpler - patients can use a single medication for reliever and maintenance treatment if prescribed
- Dosing frequency and strength is dependent on age group

	6 - 11 years	12 - 17 years	≥18 years*
Inhalers	No evidence to date	Budesonide-formoterol 200/6 mcg/ inhalation (160/4.5 mcg delivered dose)	Budesonide-formoterol 200/6 mcg/ inhalation (160/4.5 mcg delivered dose)
Dosing Frequency for AIR (Step 1-2)		Max total 12 inhalations in any day • 1 inhalation as needed	Max total 12 inhalations in any day • 1 inhalation as needed

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AIR THERAPY¹

Usual dose of as-needed budesonide-formoterol in mild asthma

- Single inhalation of 200/6mcg (delivered dose 160/4.5mcg), taken as needed for symptom relief

Max recommended dose of as-needed budesonide-formoterol in a single day corresponds to a total of 72 mcg formoterol (54 mcg delivered dose)

Average use around 3-4 doses per week^{2,3,4}

Rinsing the mouth is not generally needed after as-needed doses of low-dose ICS-formoterol⁵

Other ICS-formoterol formulations have not been studied for PRN use

- Beclometasone-formoterol may also be suitable based on well-established use within maintenance-and-reliever therapy, but it is not available as a combination in the USA

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AIR THERAPY¹

SYGMA I study found a 64% reduction in severe exacerbations requiring oral corticosteroids, compared to SABA-only treatment³

Compared to SABA alone, as-needed low-dose ICS-formoterol reduced risk of severe exacerbations requiring OCS by 55%, and reduced the risk of emergency department visits or hospitalizations by 65%⁶

In four studies, the as-needed ICS-formoterol strategy was associated with substantially lower average ICS dose than with maintenance low-dose ICS^{2,3,4,7}

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MART THERAPY¹

- Contains ICS-formoterol daily (maintenance therapy), and uses the same medication as-needed for asthma symptom relief (reliever therapy) –Preferred for Track #1 Steps 3-5
- Used **only** with combination ICS-formoterol inhalers
- Include:

Budesonide-formoterol

Beclometasone-formoterol
(combo not available in US)
- Combination of ICS with non-formoterol LABAs, or ICS-SABA, **cannot** be used for MART
- Low-dose ICS-formoterol can be used before exercise and before expected allergen exposure
- Use of ICS-formoterol as a reliever and maintenance step simplifies the regimen with an easy transition if treatment needs to be stepped up or down, without the need for an additional medication or inhaler type

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MART THERAPY¹ – STEP 3

- Preferred treatment Track #1 Steps 3 for adolescents and adults
 - Low-dose ICS-formoterol used for both the daily maintenance treatment and an anti-inflammatory reliever for symptom relief
- Treatment regimen is simpler – patients can use a single medication for reliever and maintenance treatment if prescribed
- Dosing frequency and strength is dependent on age group

	6 - 11 years	12 - 17 years	≥18 years
Inhalers	Budesonide-formoterol 100/6 mcg/ inhalation (80/4.5 mcg delivered dose)	Budesonide-formoterol 200/6 mcg/ inhalation (160/4.5 mcg delivered dose)	Budesonide-formoterol 200/6 mcg/ inhalation (160/4.5 mcg delivered dose)
Dosing Frequency for MART (Step 3)	Max total 8 inhalations in any day • 1 inhalation once daily plus 1 as needed	Max total 12 inhalations in any day • 1 inhalation twice (or once) daily plus 1 as needed	Max total 12 inhalations in any day • 1 inhalation twice (or once) daily plus 1 as needed

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MART THERAPY¹ – STEP 3

Usual dose of MART budesonide-formoterol in Step 3

- 1 inhalation twice (or once) daily plus 1 as needed

Max total recommended dose, based on formoterol (accounting for both maintenance-and-reliever doses), is 72mcg metered dose (54mcg delivered dose)

ICS-formoterol should **not** be used as a reliever for patients taking a different ICS-LABA maintenance treatment and may be associated with increased adverse effects⁸

Rinsing the mouth is not generally needed after as-needed doses of ICS-formoterol⁵

MART is an option for children 6-11 years of age in Step 3 of treatment at a lower dose

- Very low-dose budesonide-formoterol 80/4.5 mcg delivered dose
- 1 inhalation once daily plus 1 as needed
- Max total 8 inhalations in any day

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MART THERAPY¹ – STEP 3



Low-dose ICS-formoterol maintenance-and-reliever therapy reduced severe exacerbations

Also provided similar levels of asthma control at relatively low doses of ICS, compared with a fixed dose of ICS-LABA as maintenance treatment or a higher dose of ICS, both with PRN SABA⁹⁻¹⁴



Switching patients with uncontrolled asthma from Step 3 treatment + SABA reliever to MART was associated with a 29% reduced risk of severe exacerbation, vs stepping up to Step 4 ICS-LABA maintenance + SABA reliever, and a 30% reduced risk compared to staying on the same step treatment with SABA reliever¹⁵

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MART THERAPY¹ – STEP 4

Usual dose of MART budesonide-formoterol in Step 4

Max total recommended dose, based on formoterol (accounting for both maintenance-and-reliever doses), is 72mcg metered dose (54mcg delivered dose)

MART is an option for children 6-11 years of age in Step 4 of treatment at a lower dose

- Very low-dose budesonide-formoterol 80/4.5 mcg delivered dose
- 1 inhalation twice daily plus 1 as needed
- Max total 8 inhalations in any day

For adults and adolescents, combination ICS-formoterol as MART is more effective at reducing exacerbations than the same dose of maintenance ICS-LABA or higher doses of ICS¹³ or ICS-LABA¹⁶

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MART THERAPY¹ – STEP 4

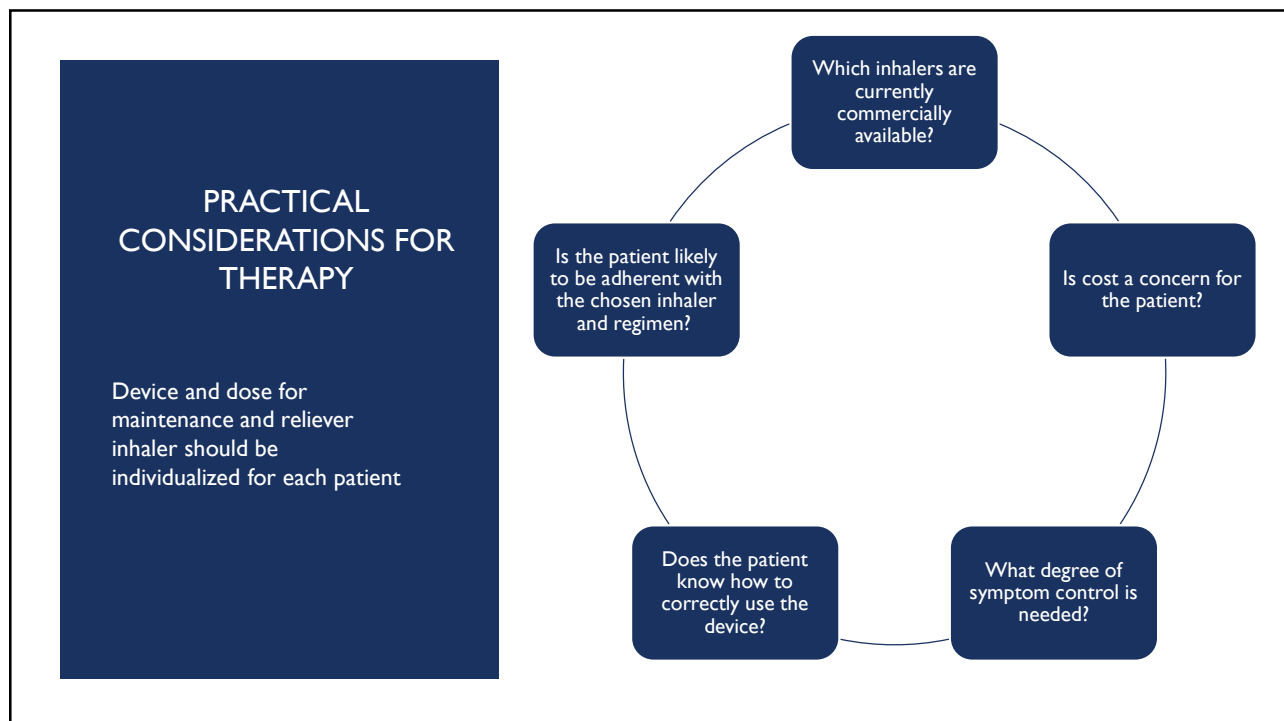
- Usual dose of MART budesonide-formoterol in Step 4
 - Medium-dose ICS-formoterol used for both the daily maintenance treatment and an anti-inflammatory reliever for symptom relief
- Treatment regimen is simpler – patients can use a single medication for reliever and maintenance treatment if prescribed
- Dosing frequency and strength is dependent on age group

	6 - 11 years	12 - 17 years	≥18 years
Inhalers	Budesonide-formoterol 100/6 mcg/ inhalation (80/4.5 mcg delivered dose)	Budesonide-formoterol 200/6 mcg/ inhalation (160/4.5 mcg delivered dose)	Budesonide-formoterol 200/6 mcg/ inhalation (160/4.5 mcg delivered dose)
Dosing Frequency for MART (Step 4)	Max total 8 inhalations in any day • 1 inhalation twice daily plus 1 as needed	Max total 12 inhalations in any day • 2 inhalations twice daily plus 1 as needed	Max total 12 inhalations in any day • 2 inhalations twice daily plus 1 as needed

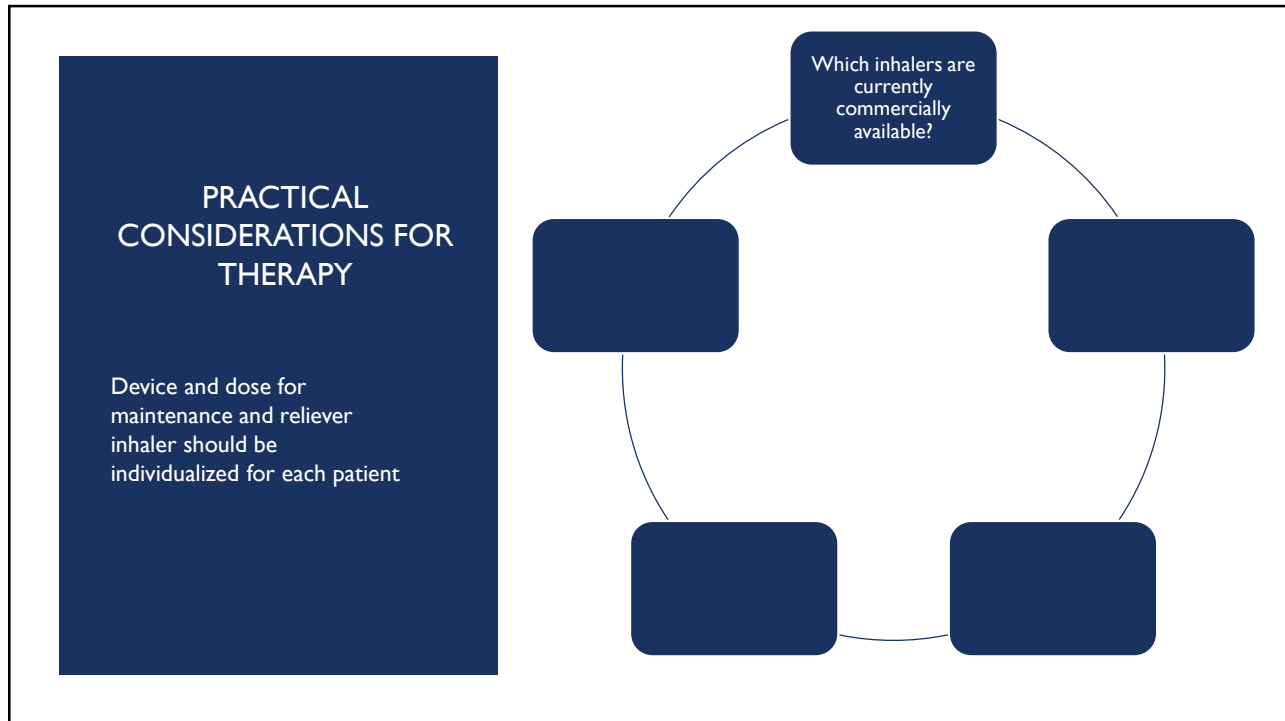
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PRACTICAL APPLICATION OBJECTIVES	
Identify	Identify the primary concerns when trying to select appropriate inhaler therapy
Recognize	Recognize commercially available ICS-LABA inhalers and understand how to incorporate GINA recommendations with these inhalers practically
Identify	Identify barriers to AIR/MART therapy and devise possible solutions

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Agents	Brand	Formulation
Budesonide- <u>formoterol</u>	Symbicort®	MDI
Mometasone- <u>formoterol</u>	Dulera®	MDI
Fluticasone-vilanterol	Breo Ellipta®	DPI
Fluticasone-salmeterol	Advair®	DPI, MDI

Available ICS-LABA Inhalers

MDI = meter dose inhaler
 DPI = dry powder inhaler

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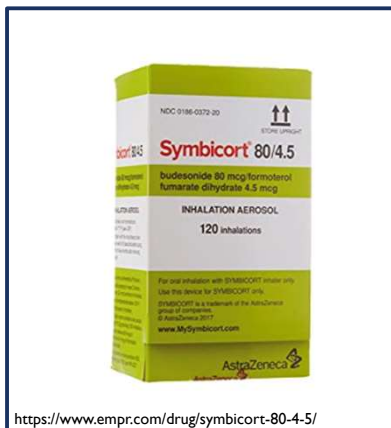
SELECTING AN INHALER



- AIR/MART studies recommend ICS-formoterol combination inhalers for symptom relief and maintenance
- Is mometasone-formoterol an appropriate alternative to budesonide-formoterol?
 - Currently no MART studies with mometasone-formoterol
 - GINA cautions against extrapolating data to other ICS-formoterol inhalers

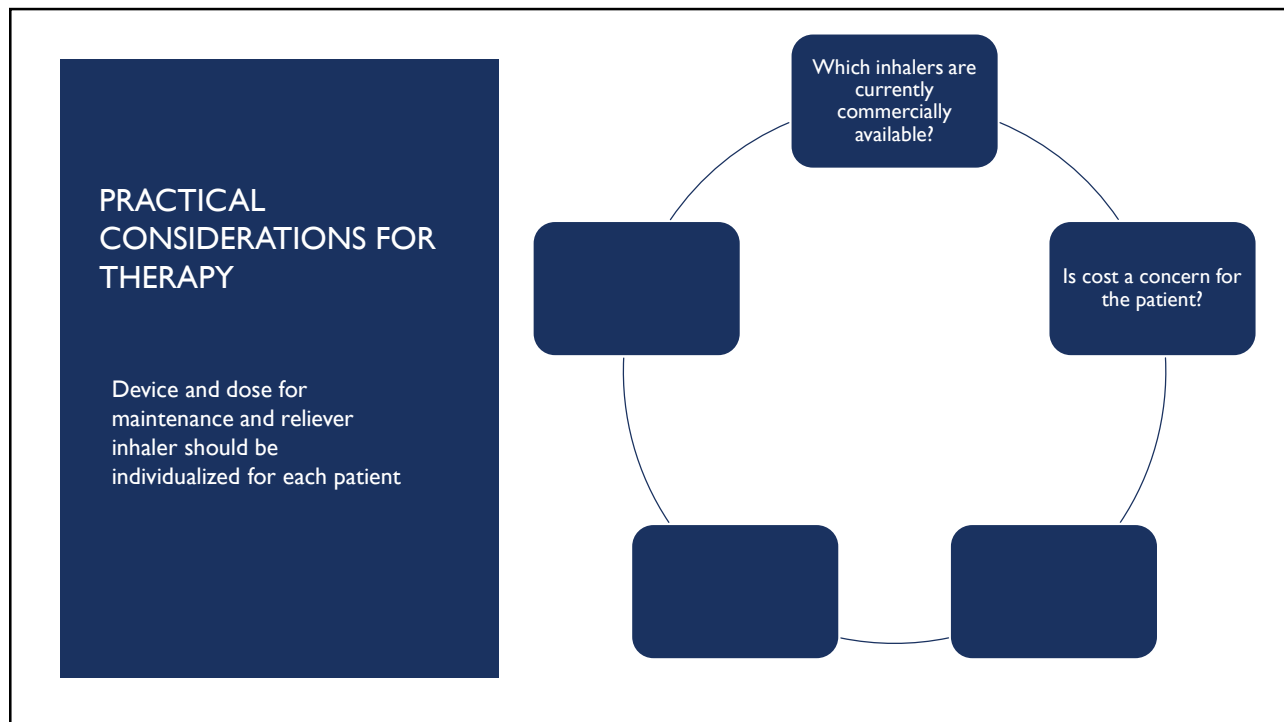
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SELECTING AN INHALER



- Is AIR/MART therapy appropriate for both adults and children?
 - AIR and MART therapy are recommended for adolescents and adults
 - AIR therapy not studied extensively in children ages 6-11; therefore, use in this age group is not recommended at this time
 - MART is an option for children ages 6-11; initiate at a lower dose
- Potential barrier: AIR/MART therapy with ICS-formoterol DPI is not an approved regimen by the US FDA
 - Most studies for MART looked at the Symbicort DPI
 - In the US, only Symbicort MDI is available

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COST AND COVERAGE

- Generic budesonide-formoterol became available March 2022
- Most insurance companies do not have formularies that support MART therapy, and may have quantity limits that would limit additional inhalations for rescue use
 - Cost differences between available SABAs and ICS-formoterol
 - Lack of FDA approval

Symbicort	Budesonide-formoterol	Albuterol
<ul style="list-style-type: none"> • 120 inhalations • \$300-400 	<ul style="list-style-type: none"> • 120 inhalations • \$150-250 	<ul style="list-style-type: none"> • 90 inhalations • \$30-60

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COST AND COVERAGE

- MART therapy reduces severe exacerbations compared to SABA alone; cost of MART therapy may be offset by decreases in health care costs
 - Decreased number of emergency room visits, urgent care visits
 - MART/AIR therapy reduces the number of inhalers a patient requires
 - Fewer medications = less copays
 - A single device reduces the potential for waste
 - Expiring albuterol inhalers
 - Major differences and options for government insurance and private insurance



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COST AND COVERAGE – MEDICARE TODAY

- In 2024 in Nebraska, there are 22 Part D Prescription Drug Plans available

Deductible

Patient pays 100% of drug costs up to a maximum of \$545

Initial Coverage

Patient pays between \$0 to 50% coinsurance of the drug's full price

Coverage Gap (Donut Hole)

After patient and plan combined spend \$5030, patient pays 25% of the drug's full price

Catastrophic Coverage

After the out-of-pocket spending reaches \$8000, patient pays \$0

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COST AND COVERAGE – MEDICARE IN 2025



The coverage gap will be eliminated

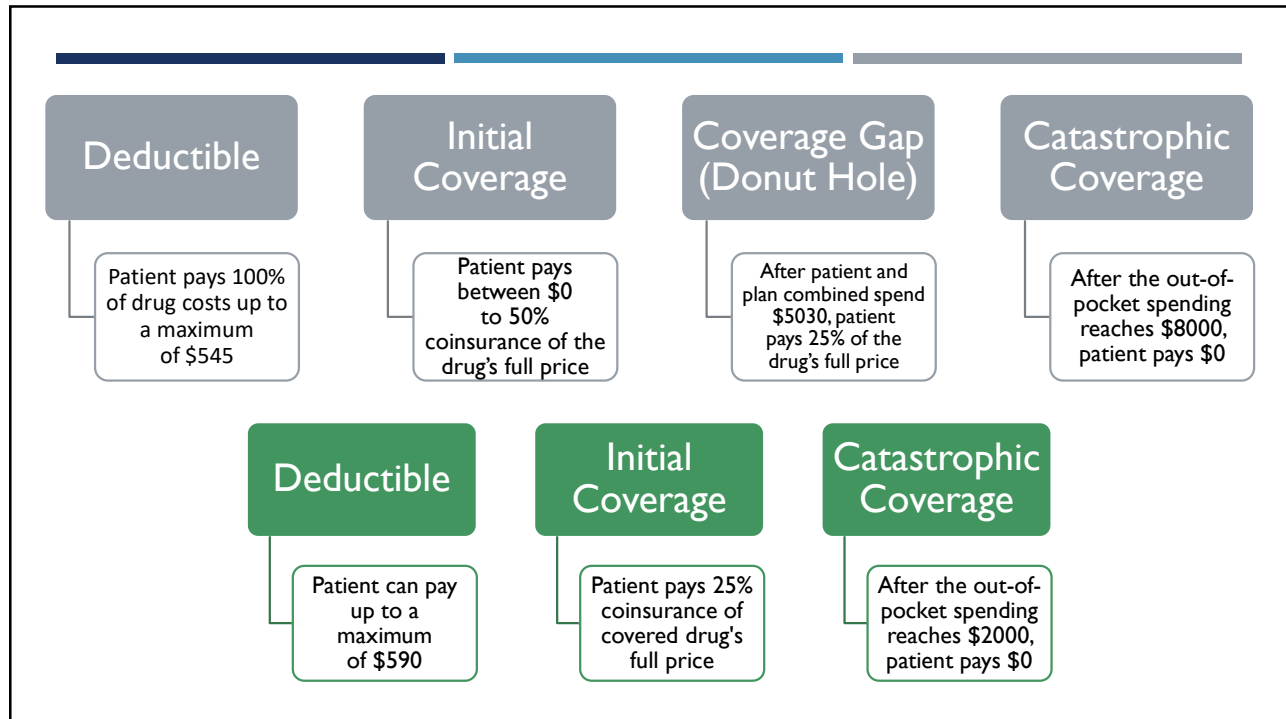
The initial coverage phase will extend to the maximum annual out-of-pocket threshold, at which point the catastrophic phase will begin



Out-of-pocket cap

The out-of-pocket limit for 2025 is set at \$2000, after which Medicare will cover the remaining costs

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COST AND COVERAGE - MEDICAID


PDL – Preferred Drug List
<https://nebraska.fhsc.com/PDL/PDLlistings.asp>

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Preferred Agents	Non-Preferred Agents	Prior Authorization/Class Criteria	
GLUCOCORTICIDS			
ARNUITY ELLIPTA (fluticasone)	ALVESCO (ciclesonide) ^{AL,CL}	<ul style="list-style-type: none"> • Non-preferred agents within the Glucocorticoids and Bronchodilator Combo groups will be approved for patients who have failed a trial of TWO preferred agents within this drug class within the last 6 months • Drug-specific criteria: <ul style="list-style-type: none"> • budesonide respules: Covered without PA for age ≤ 8 years OR for diagnosis of eosinophilic esophagitis in patients ≥ 9 years, by GI biopsy or upper endoscopy. For other indications, must have failed a trial of two preferred agents within this drug class, within the last 6 months. • fluticasone HFA: Covered without PA for age ≤ 8 years 	
ASMANEX (mometasone) ^{2L,AL}	ARMONAIR DIGIHALER (fluticasone) ^{AL,CL}		
ASMANEX HFA (mometasone) ^{2L}	FLOVENT DISKUS (fluticasone)		
FLOVENT HFA (fluticasone)	fluticasone (generic Flovent Diskus) ^{NR}		
PULMICORT FLEXHALER (budesonide)	fluticasone HFA (generic Flovent HFA) ^{2L}		
	QVAR Redihaler (beclomethasone)		
GLUCOCORTICOID/BRONCHODILATOR COMBINATIONS			
ADVAIR DISKUS (fluticasone/salmeterol) ^{2L}	AIRDUO DIGIHALER (fluticasone/salmeterol) ^{AL,CL}		
ADVAIR HFA (fluticasone/salmeterol) ^{2L}	AIRSUPRA HFA (albuterol and budesonide) ^{AL}		
DULERA (mometasone/formoterol)	BREO ELLIPTA (fluticasone/vilanterol)		
SYMBICORT (budesonide/ formoterol)	BREZTRI (budesonide/formoterol/ glycopyrrolate) ^{2L}		
TRELEGY ELLIPTA (fluticasone/umeclidinium/vilanterol)	budesonide/formoterol (generic for Symbicort)		
	fluticasone/salmeterol (generic for Advair Diskus) ^{2L}		
	fluticasone/salmeterol (generic for Advair HFA) ^{2L}		
	fluticasone/salmeterol (generic for Airduo Resplick)		
	fluticasone/vilanterol (Breo Ellipta)		
	WIXELA INHUB (generic for Advair Diskus) ^{2L}		

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COST AND COVERAGE – COMMERCIAL INSURANCE



<https://www.azpatientsupport.com/home/pharmacist.html?brand=SYMBICORT>

- Highly variable
 - Preferred products, preferred pharmacy
 - Eligibility for savings programs
 - May require prior authorization
- Savings program – eligible patients save and spend \$35
 - Cannot use with government-issued insurance (Tricare, VA, Medicare, Medicaid)
 - Pay as low as \$35 for each 30-day supply (one inhaler); patient out-of- pocket expenses may vary
 - Maximum savings limit for the program is \$200 per inhaler
 - The coupon is valid for use 12 times only

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COST AND COVERAGE – COMMERCIAL INSURANCE

- Mail order rebate
 - For patients with a mail-order option - can complete the Savings Card reimbursement form and mail it with proof of purchase to receive a savings refund
- AZ&ME - savings discount program provided by AstraZeneca
 - Patients with no insurance or Medicare Part D may be eligible
 - Need to make a certain income or lower to qualify and receive a manufacturer coupon



<https://www.azpatientsupport.com/home/pharmacist.html?brand=SYMBICORT>

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COST AND COVERAGE

NO INSURANCE
GoodRx

Prescription: budesonide / formoterol (1 inhaler (120 doses) 1...	Prescription: Symbicort (1 inhaler (120 doses) 160mcg/4.5mcg)
Choose pharmacy Omaha, NE (68114)	Choose pharmacy Omaha, NE (68114)
Target (CVS) \$103.07	Costco \$262.65 <small>Special offers</small>
Walgreens \$97.09	Target (CVS) \$247.06
Walmart \$200.93	Hy-Vee \$226.41 <small>Special offers</small>
CVS Pharmacy \$103.07	Walgreens \$247.31
Hy-Vee \$196.78	Walmart \$255.78
Walmart Neighborhood Market \$200.93	Bakers Pharmacy \$243.97
Bakers Pharmacy \$218.34	CVS Pharmacy \$247.06

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ADDITIONAL OPTIONS

- Independent patient assistance programs

Additional Affordability Resources

Here are some additional resources that may help you gain access to the medicines or services you need. This is not a complete list and is provided as a public service for health care providers, caregivers, and low-income patients.

Area Agencies on Aging (ElderCare)
Local area agencies on aging may be able to help patients age 65 years and older who cannot afford their medicines. To contact your local area agency on aging, call 1-800-677-1116 or visit www.eldercare.acl.gov.

Association of Clinicians for the Underserved (ACU)
The ACU is a nonprofit organization that works to help clinicians better serve the needs of low-income patients. The ACU has developed tools and links for implementing comprehensive pharmaceutical care for low-income patients. For more information, visit www.clinicians.org.

BenefitsCheckUp®
The National Council on Aging (NCOA) sponsors this website. It offers confidential assistance online for seniors and caregivers by searching more than 1,100 federal, state, and private prescription drug programs and determining those for which the senior may be eligible. For more information, visit www.benefitscheckup.org.

Health Resources and Services Administration (HRSA)
HRSA offers information about community health centers that may offer prescription assistance to low-income patients. For more information, call 1-888-ASK-HRSA or visit www.hrsa.gov.

Inside RxSM
Express Scripts has introduced a prescription drug discount program called InsideRx and AstraZeneca is one of several pharmaceutical companies participating. This program serves as another option for patients who pay full price at the pharmacy, including those who don't have insurance, or who are in the deductible phase of a high-deductible commercial insurance plan. Through this program, many AstraZeneca products can be accessed at a discounted price, providing savings that are realized immediately at the pharmacy. For a list of participating pharmacies, medications, and other important information about the program, visit www.insiderx.com.

Medicine Assistance Tool (MAT)
PhRMA's Medicine Assistance Tool (MAT) is a search engine designed to help patients, caregivers and health care providers learn more about the resources available through the various biopharmaceutical industry programs. MAT is not its own patient assistance program but rather a search engine for many of the patient assistance resources that the biopharmaceutical industry offers. For more information, visit www.mat.org.

Medicare
This official Medicare website can help patients, caregivers, and doctors find information about public and private prescription drug assistance programs in their area, including eligibility requirements and covered services. For more information, visit www.medicare.gov.

My Medicare Matters
The My Medicare Matters website is designed to help individuals learn more about Medicare prescription drug coverage. The website was developed using materials from the Centers for Medicare and Medicaid Services, as well as materials developed by the National Council on Aging (NCOA), the Access to Benefits Coalition (ABC), and AstraZeneca. For more information, visit www.medicarematters.org.

NeedyMeds
NeedyMeds is devoted to helping people in need find assistance programs to help them afford their medications and costs related to health care. The NeedyMeds website provides information on company patient assistance programs, free and low-cost clinics, government programs and other types of assistance programs. For more information, visit www.needy meds.org.

Rx Outreach
Rx Outreach is a fully licensed nonprofit mail order pharmacy. It offers more than 1,000 medication strengths that cover most chronic diseases. Rx Outreach is available to qualifying individuals and families. Patients or their advocates can complete a simple enrollment process online, by phone, or with a paper application. For more information, call 1-888-RXO-1234 (1-888-796-1234) or visit <https://rxoutreach.org>.

RxAssist
RxAssist lets you search for information on patient assistance programs by company, brand name, generic name, or type of medicine. RxAssist provides information on ways to get free and low-cost medications. The site also provides a quick-reference chart that lists drug assistance programs by state. For more information, visit www.rxassist.org.

RxHope™
RxHope lets you search for patient assistance information. In addition, some companies allow physicians to submit applications electronically through this site. For more information, visit www.rxhope.com.

Independent Charitable Patient Assistance Foundations

Assistance may be available through independent foundations such as those listed below. This is not a comprehensive list, and other foundations may be able to help. Foundations can provide a variety of assistance types: co-pay, transportation, premium, patient education, etc. These foundations are not associated with AstraZeneca; specific details and eligibility requirements can be found directly on the foundations' websites.

- **The Assistance Fund**
<https://afcs.org>
1-855-845-3663
- **CancerCare Co-Payment Assistance Foundation**
www.cancercare.org
1-866-532-6729
- **Good Days Fund**
www.mygooddays.org
1-877-968-7233
- **HealthWell Foundation**
www.healthwellfoundation.org
1-800-675-9416
- **Accessia Health**
www.accessiahealth.org
1-800-366-7741
- **Leukemia & Lymphoma Society**
www.lls.org
1-800-955-4572
- **Patient Access Network Foundation**
www.PANfoundation.org
1-866-316-7263
- **Patient Advocate Foundation**
www.patientadvocate.org
1-800-532-5274

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PRACTICAL CONSIDERATIONS FOR THERAPY

Device and dose for maintenance and reliever inhaler should be individualized for each patient

Which inhalers are currently commercially available?

Is cost a concern for the patient?

What degree of symptom control is needed?

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My Asthma Action Plan

For Single Inhaler Maintenance and Reliever Therapy (SMART) with budesonide/formoterol

Name: _____ Action plan provided by: _____
 Date: _____ Doctor: _____
 Usual best PEF: _____ L/min Doctor's phone: _____
(if used)

Normal mode

My SMART Asthma Treatment is:

- budesonide/formoterol 160/4.5 (12 years or over)
- budesonide/formoterol 80/4.5 (4-11 years)

My Regular Treatment Every Day:
(Write in or circle the number of doses prescribed for this patient)

Take (1, 2) inhalation(s) in the morning and (0, 1, 2) inhalation(s) in the evening, every day

Reliever

Use 1 inhalation of budesonide/formoterol whenever needed for relief of my asthma symptoms. I should always carry my budesonide/formoterol inhaler

My asthma is stable if:

- I can take part in normal physical activity without asthma symptoms
- AND
- I do not wake up at night or in the morning because of asthma

Other Instructions

Asthma Flare-up

If over a Period of 2-3 Days:

- My asthma symptoms are getting worse **OR NOT** improving **OR**
- I am using more than 6 budesonide/formoterol reliever inhalations a day (if aged 12 years and older) or more than 4 inhalations a day (if 4-11 years)

I should:

- Continue to use my regular everyday treatment **PLUS** 1 inhalation budesonide/formoterol whenever needed to relieve symptoms
- Start a course of prednisolone
- Contact my doctor

Course of Prednisolone Tablets:

Take _____ mg prednisolone tablets per day for _____ days **OR**

If I need more than 12 budesonide/formoterol inhalations (total) in any day, (or more than 8 inhalations for children 4-11 years) I MUST see my doctor or go to the hospital the same day

Asthma Emergency

Signs of an Asthma Emergency:

- Symptoms getting worse quickly
- Extreme difficulty breathing or speaking
- Little or no improvement from my budesonide/formoterol reliever inhalations.

If I have any of the above danger signs, I should dial _____ for an ambulance and say I am having a severe asthma attack.

While I am waiting for the ambulance start my asthma first aid plan:

- Sit upright and stay calm
- Take 1 inhalation of budesonide/formoterol. Wait 1-3 minutes. If there is no improvement take another inhalation of budesonide/formoterol (up to a maximum of 6 inhalations on a single occasion)
- If only albuterol is available, take 4 puffs as often as needed until help arrives
- Start a course of prednisolone tablets (as directed) while waiting for the ambulance
- Even if my symptoms appear to settle quickly, I should see my doctor immediately after a serious attack

MANAGEMENT OF AIR/MART THERAPY

Modified from Australian action plan with permission from National Asthma Council Australia and AstraZeneca Australia
<https://asthma.org.au/meddirector-resources/>

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PRACTICAL CONSIDERATIONS FOR THERAPY

Device and dose for maintenance and reliever inhaler should be individualized for each patient

```

graph TD
    A[Which inhalers are currently commercially available?] --- B[Is cost a concern for the patient?]
    B --- C[What degree of symptom control is needed?]
    C --- D[Does the patient know how to correctly use the device?]
    D --- A
            
```

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PERFECTING TECHNIQUE¹⁹ – PRIMING A SYMBICORT® INHALER



https://www.symbicorttouchpoints.com/content/dam/physician-services/us/526-rwd-symbicort-hcp/pdf/03_using_the_symbicort_inhaler.pdf

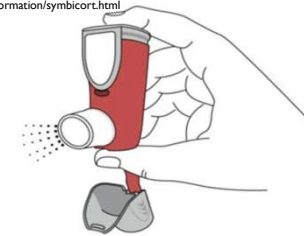
- Take the inhaler out of the foil pouch
- If using it for the first time, shake inhaler for 5 seconds, then release a test spray
 - Also, if > 7 days since last use
- Shake it again for 5 seconds and release a second test spray

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DIRECTIONS FOR USE¹⁹

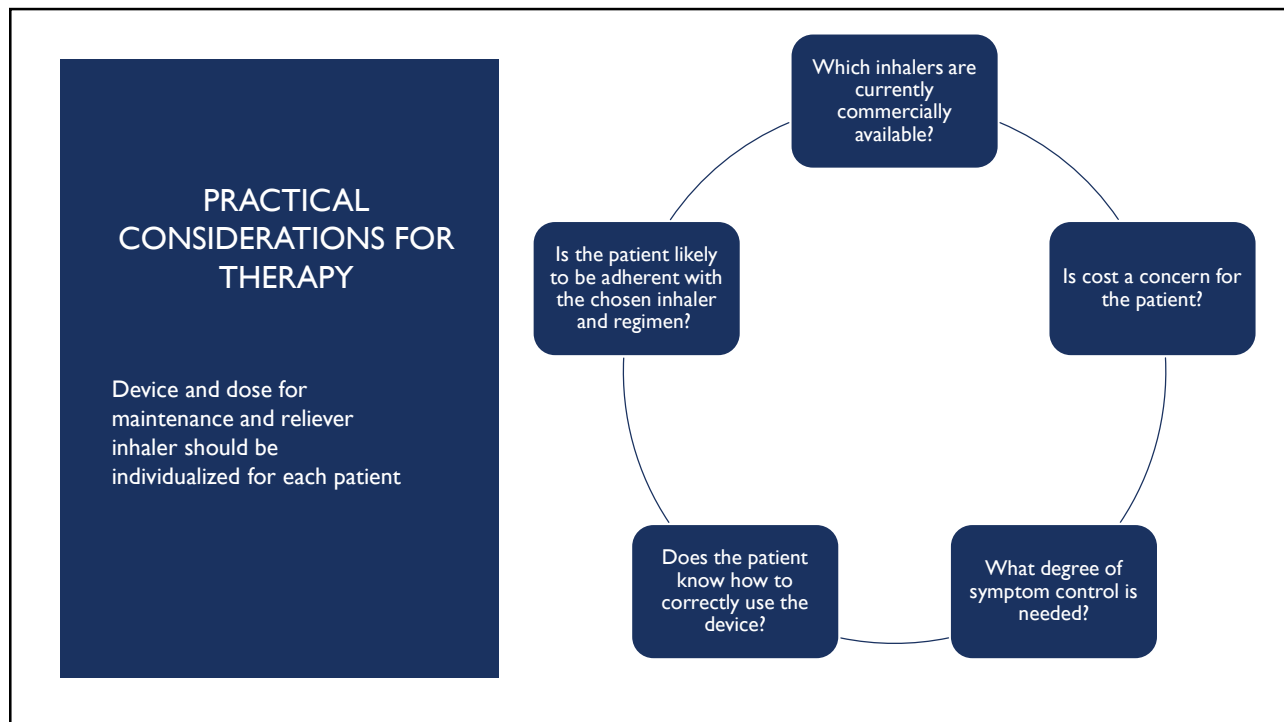
1. Shake inhaler for 5 seconds
2. Remove the mouthpiece cover by squeezing gently at both sides, then pull off
3. Hold inhaler upright. Breathe out fully, then place the mouthpiece into mouth and close lips around it
4. Inhale deeply and slowly while pressing down firmly on the top of the counter on the inhaler
5. Hold breath for about 10 seconds (or as long as comfortable.)
6. Release your finger from the top of the counter
7. Keep the inhaler upright and remove from mouth, then breathe out

<https://medicalinformation.astrazeneca-us.com/home/prescribing-information/symbicort.html>

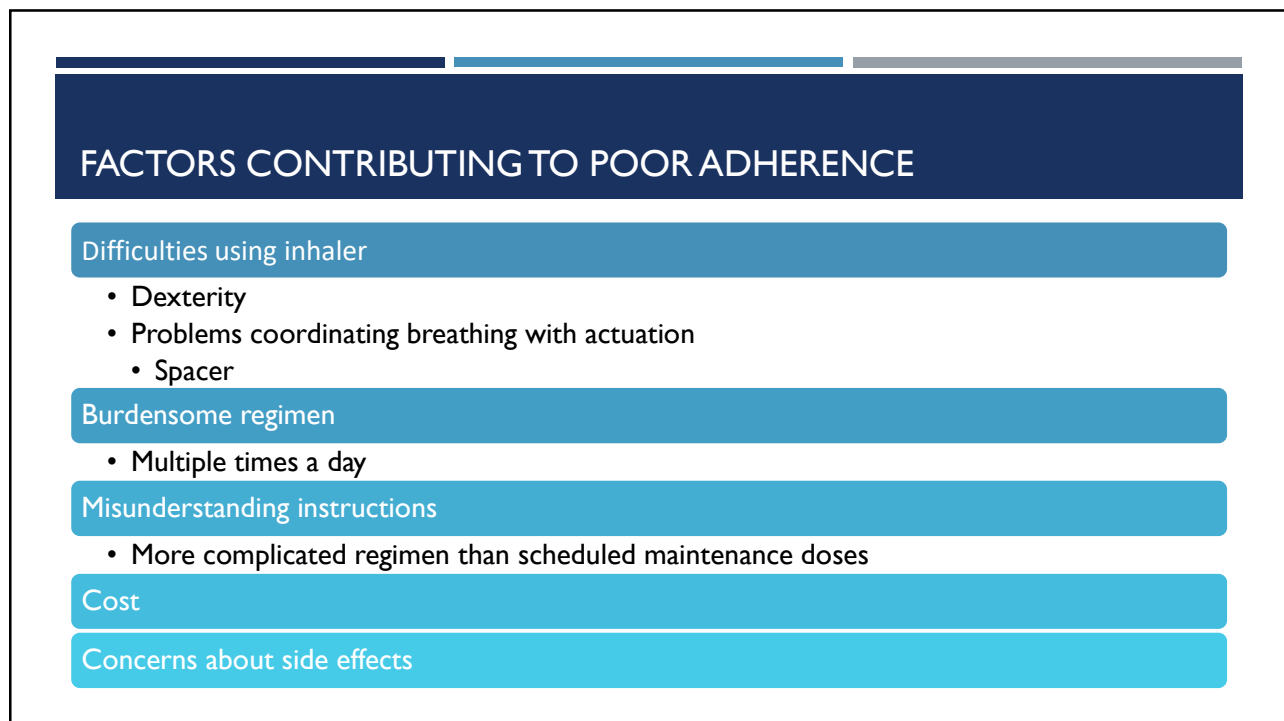


<https://medicalinformation.astrazeneca-us.com/home/prescribing-information/symbicort.html>

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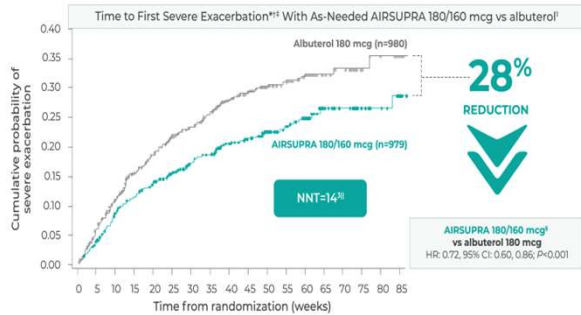


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NEW DEVELOPMENTS - AIRSUPRA



<https://www.airsuprahcp.com/exacerbation-study>

- Airsupra = budesonide-albuterol (ICS-SABA)
- FDA has approved Airsupra for as-needed treatment for patients 18+ years with asthma
 - First product containing an ICS to be approved as a reliever
- Efficacy - evaluated in adult patients with moderate to severe asthma in the MANDALA study²⁰ (randomized, double-blind, multicenter study)
 - Primary endpoint - time to first severe asthma attack
 - Airsupra demonstrated a 28% reduction in the risk of a severe asthma attack as compared to albuterol

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QUESTIONS?

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