

MaineHealth

MaineHealth Knowledge Connection

Operations Transformation

Summer 6-28-2024

PBPA Creating Pathways to Ensure Patients are Using Their Inhaled Medications Effectively

Suzan Michelle Collins

Heather Blake

Chandler Blodgett

Sue Vermette

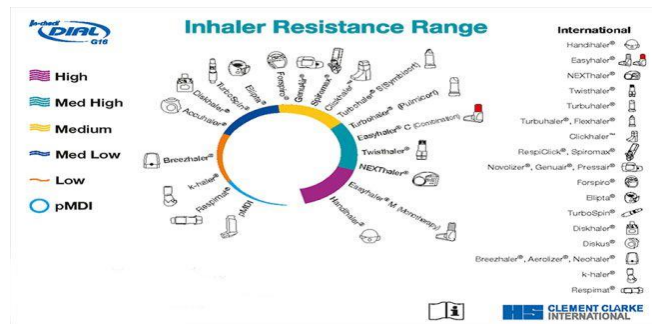
Martine Eon

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PBPA Creating Pathways to Ensure Patients are Using Their Inhaled Medications Effectively.



Each inhaler has a unique technique for use and maintenance.



Green Belt Project
Suzan Michelle Collins, BSRT, RRT, AE-C
Asthma/COPD Educator & Respiratory Care Practitioner



Project: Improved patient response to inhaled medications with education of use.

Last Updated: 6/16/2024

Executive Sponsor: Lyn Faller
Facilitator: Suzan Michelle Collins

Operations
Transformation

Team Members: Heather Blake, Chandler Blodgett, Ambulatory Care Nurses & Providers, Infection Control, Revenue Integrity (Sue Vermette), Martine Eon

Problem/Impact Statement:

Problem: Patients do not consistently know how to prepare, use and/or clean their inhalers effectively. **Impact:** When patients do not consistently know how to prepare, use and/or clean their inhalers effectively they are in fact, not receiving the benefit from their prescribed medication. More details on slide 3

Scope:

Pen Bay adult and pediatric ambulatory care patients.

Baseline Metrics/Current State:

Historic data: October 2022 through May 2023

Current State: June 2023 thru June 2024



Goal/Objective:

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- 90% of the base patients will have the read and/or knowledge sufficient to follow the inhaler education materials that are provided with a follow up assessment by the respective therapist
- 90% of all ages have not been educated in the need from the changes made in 2023 for the HFA preparation and the impact it has had on the use of the HFA inhalers
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Root Cause Analysis:

Root Cause Analysis # 1
Patients do not consistently have spacers with their HFA inhalers.

- Why?** Providers are not ordering spacers when prescribing HFA inhalers.
- Why?** Providers are not aware that a prescription is required for a spacer.
- Why?** Providers are not aware of the 2023 changes in the HFA preparation and the impact it has had on the use of the HFA inhalers.
- Why?** Not enough education, National education information was not distributed well or has been forgotten.
- Why?** Lack of training on independent learning at time of setting the prescription.

Root Cause Analysis # 2
Patients do not consistently have spacers with their HFA inhalers.

- Why?** Spacer was not prescribed by providers.
- Why?** Patients of all ages have not been educated in the need from the changes made in 2023 for the HFA preparation and the impact it has had on the use of the HFA inhalers.
- Why?** Patient had spacer but stop using it. Didn't feel benefit from medication due to incorrect use of spacer with inhaler.
- Why?** Lack of training: Manager came in 1 day before a spacer was prescribed.
- Why?** Patients have been using the inhaler for an extended period of time and are not aware that they are not using the inhaler effectively.

Root Cause Analysis # 3
Patients do not know how to prepare, use or care for their inhalers.

- Why?** Each inhaler has a unique technique for preparation, use and care.
- Why?** Patients are prescribed an inhaler without education and assessment for ability to use at time of prescription.
- Why?** It is anticipated that patients are educated at the pharmacy.
- Why?** It is anticipated that patients are educated and also at during hospital visits.
- Why?** Patients have been using the inhaler for an extended period of time and are not aware that they are not using the inhaler effectively.

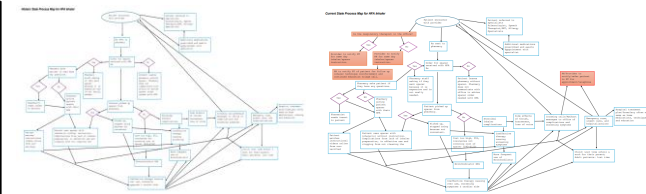
Countermeasures

Countermeasures pg. 1 of 2				
Date	Action Taken	Owner	Due Date	Status
	Baseline Data Collection	Susan Michelle		Completed
	Billing codes, fees and processes established for spacers to dispensed from the office.	Sue Vermette of Revenue Integrity, Heather Blake, Susan Michelle		Completed
	Spacers made available in all Pen Bay Ambulatory Offices.	Susan Michelle, Heather Blake, ASIB Office Manager		Completed
	Provide education and ongoing monitoring regarding need of spacer with HFA for all ages and address technique challenges.	Susan Michelle		Initial education completed, ongoing monitoring
	Smart phone and procedure developed for RN staff documentation education and dispensing of a spacer to the patient in the office.	Susan Michelle		Completed
	Identification update reference chart, update device and spacer video reference & include patient and staff.	Martine Eon, Susan Michelle		Completed
	Draft and approve policy/ procedure and workflow the same day new update perception.	Susan Michelle, Heather & ASIB Providers		Completed
	Draft and approve inhaler/spacer competency.	Susan Michelle & Heather		Completed

Countermeasures pg. 1 of 2				
Date	Action Taken	Owner	Due Date	Status
	Baseline Data Collection	Susan Michelle		Completed
	Billing codes, fees and processes established for spacers to dispensed from the office.	Sue Vermette of Revenue Integrity, Heather Blake, Susan Michelle		Completed
	Spacers made available in all Pen Bay Ambulatory Offices.	Susan Michelle, Heather Blake, ASIB Office Manager		Completed
	Provide education and ongoing monitoring regarding need of spacer with HFA for all ages and address technique challenges.	Susan Michelle		Initial education completed, ongoing monitoring
	Smart phone and procedure developed for RN staff documentation education and dispensing of a spacer to the patient in the office.	Susan Michelle		Completed
	Identification update reference chart, update device and spacer video reference & include patient and staff.	Martine Eon, Susan Michelle		Completed
	Draft and approve policy/ procedure and workflow the same day new update perception.	Susan Michelle, Heather & ASIB Providers		Completed
	Draft and approve inhaler/spacer competency.	Susan Michelle & Heather		Completed

Outcomes

Following discussion/presentations at meetings and/or email communications with providers and clinical staff outcomes with each countermeasure improved for a month or two then dropped off again.



Next Steps

Next Steps

- Further investigate opportunities within HFA use and in supporting a reminder to ensure that a spacer has been ordered and is correct when a patient has been prescribed a HFA inhaler.
- Continue to train and work with clinical staff to ensure spacer prescription is with HFA inhaler during their medication review with the patients.
- Pharmacist Pharmacy to inform patient program.
- Pharmacist Pharmacy to inform patient program.
- Continue to build a system of care that includes patient education on the ability to use the inhaler correctly prior to the patient leaving the office to use their prescription.
- Continue to build a system of care that includes patient education on the ability to use the inhaler correctly prior to the patient leaving the office to use their prescription.
- Work with other departments like Speech Therapy, PT and occupational therapy to address any barriers to patient education and ensure patient education and resources.
- Once we have developed a system that is sustainable, share our processes and resources with other ambulatory practices throughout the Maine health system.

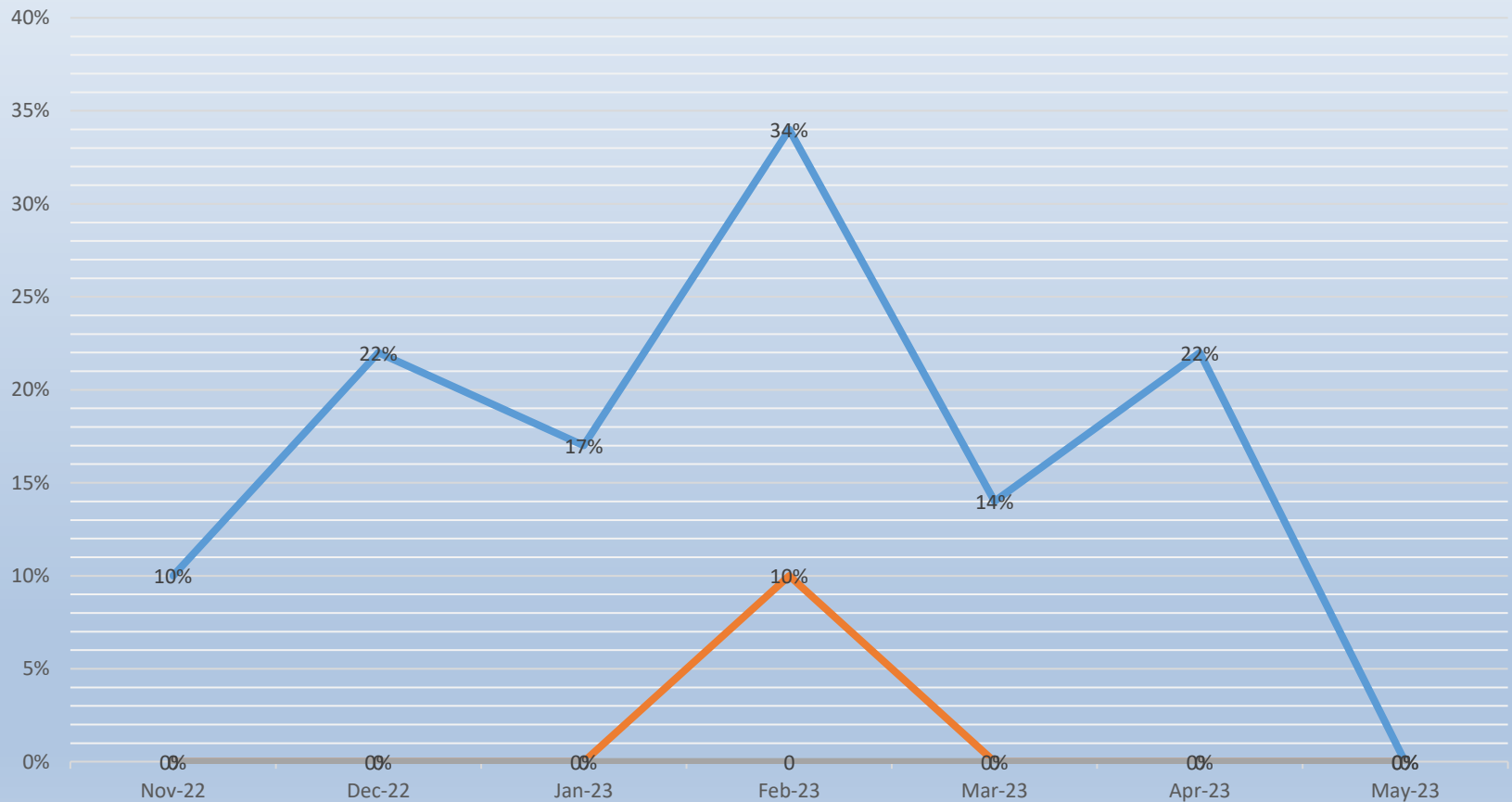
Impact Statement Continued:

They experience poor patient outcomes and overall poor patient experience.

- Increased calls to provider offices for unresolved, worsening symptoms and/or complications. (Thrush, hoarseness, cardiac symptoms etc.)
- Increased same day office visits.
- Patient crowding in Urgent Care and/or Emergency Department.
- Hospital Admissions.
- Increase in emotional and financial stress from missing school and/or work.
- Increase in referrals to specialists like Speech Therapy, ENT, Allergists, Pulmonologists and Cardiologists.
- Increase in time between referral to specialist and availability of appointment with specialist.
- Patient decrease in confidence in their treatment plan.

Historic Data November 2022 – May 2023

- 100 % of the time patients will have and use the spacer with their HFA inhaler.
- 100% of the time a spacer will be prescribed with the ordering of an HFA.
- 100% of the time patients will be able to prepare, use and/or clean their inhalers effectively.



Root Cause Analysis # 1

Patients do not consistently have spacers with their HFA inhalers.

- **Why:**
 - Providers are not ordering spacers when prescribing HFA inhalers.
 - **Why:**
 - Providers are not aware that a prescription is required for a spacer.
 - **Why:**
 - Providers are not aware of the 2005 changes in the HFA propellant and the impact it has had on the use of the HFA inhalers.
 - **Why:**
 - Not enough awareness. National education/information was not distributed well or has been forgotten.
 - **Why:**
 - Challenges of relying on independent memory at time of writing the prescription.

Root Cause Analysis # 2

Patients are not using spacers with their HFA inhalers.

- **Why:**
 - Spacer was not prescribed by provider.
 - **Why:**
 - Patients of all ages have not been educated in the need from the changes made in 2005 to the HFA propellant and the impact it has had on the use of the HFA inhalers.
 - **Why:**
 - Patient had spacer but stop using it. Didn't feel benefit from medication due to incorrect use of spacer with inhaler.
 - **Why:**
 - Cost barrier. Average cost is \$ 40- \$120 for a spacer.
 - **Why:**
 - Pharmacy personnel discouraging or telling patients that a spacer is not needed even when a prescription has been written for one.

Root Cause Analysis # 3

Patients do not know how to prepare, use or care for their inhalers.

- **Why:**

- Each inhaler has a unique technique for preparation, use and care.

- **Why:**

- Patients are prescribed an inhaler without education and assessment for ability to use at time of prescription.

- **Why:**

- It is anticipated that patients are educated at the pharmacy.

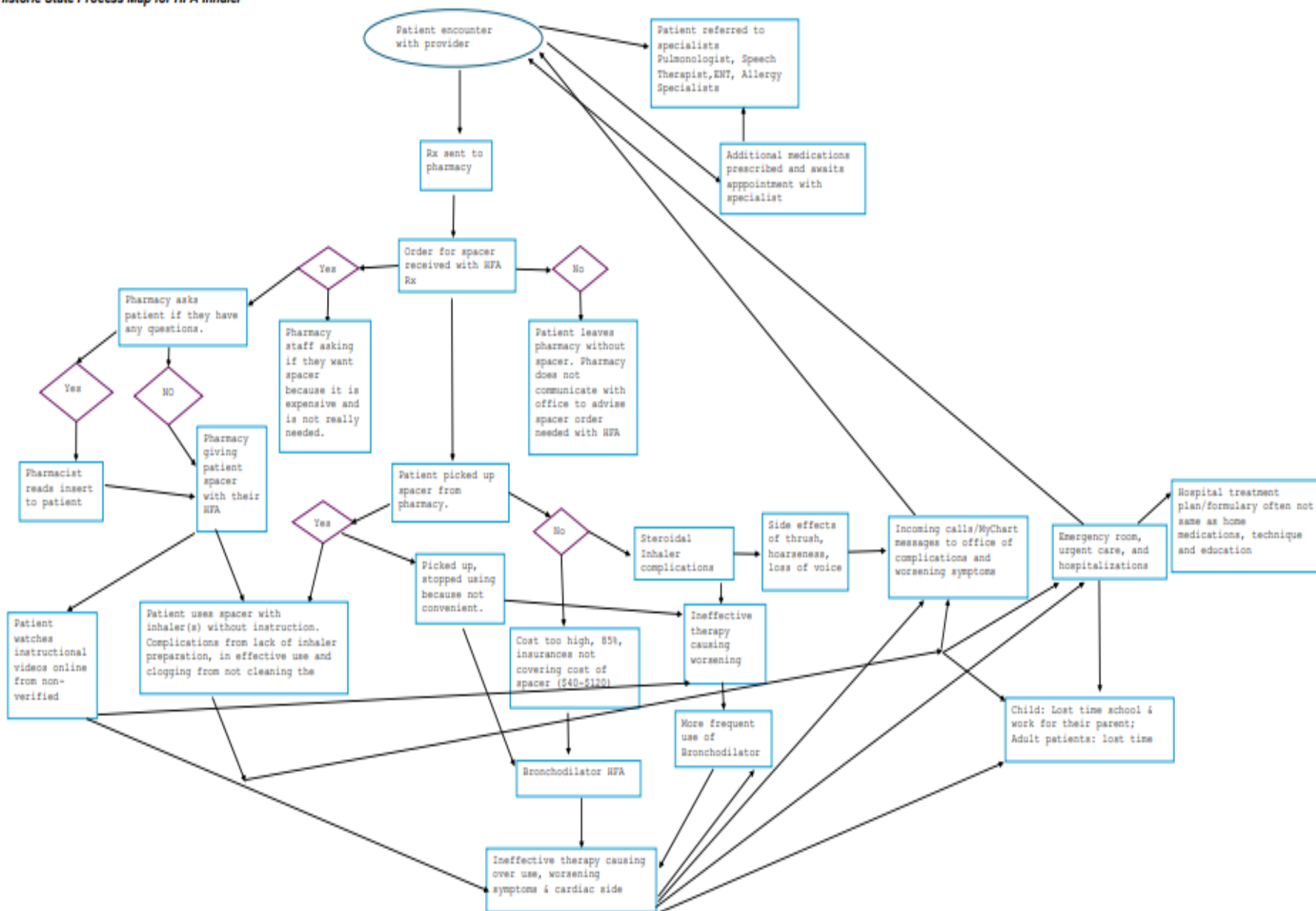
- **Why:**

- It is anticipated that patients are assessed and educated during hospital visits.

- **Why:**

- Patients have been using the inhaler for an extended period of time and are not aware that they are not using the inhaler(s) effectively.

Historic State Process Map for HFA Inhaler



Goal/Objective:

- ❖ 100% of the time patients will have the tools and knowledge to effectively use and care for their inhaled respiratory medications when they are prescribed with a follow-up assessment by the respiratory therapist.
- ❖ At each medication review, patients will be assessed for effective use and care of their inhaled medication. They will be referred to the respiratory therapist for additional assessment/education as needed.
- ❖ Care Connect Goal: Integrate and streamline processes and resources that support patients with inhaled medications throughout the Maine Health system.

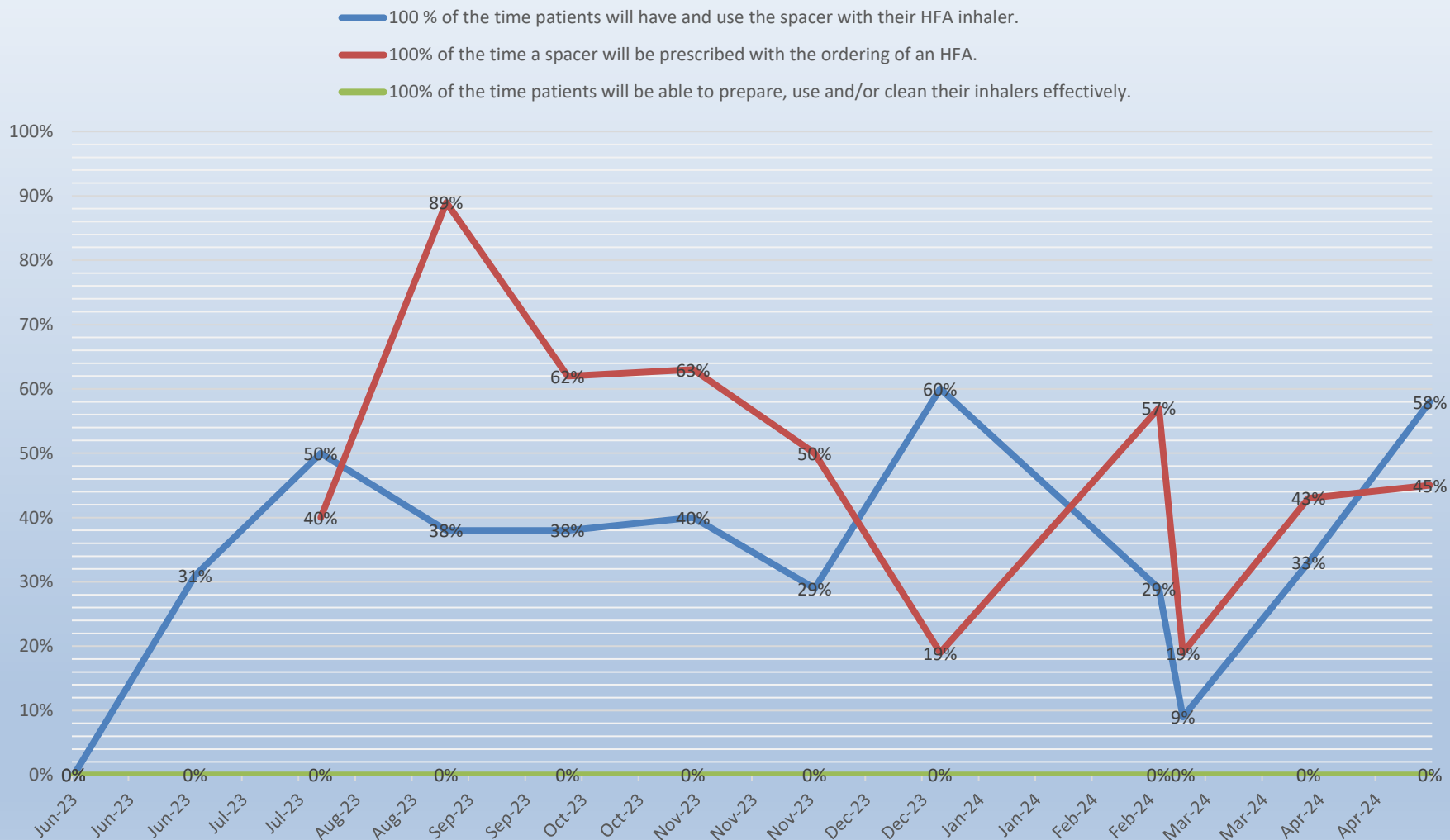
Countermeasures pg. 1 of 2

| Date | Action Taken | Owner | Due Date | Status |
|------|---|--|----------|--|
| | Baseline Data Collection | Suzan Michelle | | Completed |
| | Billing codes, fees and processes established for spacers to dispensed from the office. | Sue Vermette of Revenue Integrity, Heather Blake, Suzan Michelle | | Completed |
| | Spacers made available in all Pen Bay Ambulatory Offices. | Suzan Michelle, Heather Blake, AMB Office Managers | | Completed |
| | Provider education and ongoing mentoring regarding need of spacer with HFA for all ages and inhaler technique challenges. | Suzan Michelle | | Initial education completed, ongoing mentoring |
| | Smart phrase and procedure developed for RN staff documentation of education and dispensing of a spacer to the patient in the office. | Suzan Michelle | | Completed |
| | Medication inhaler reference chart, inhaler device and spacer video reference & handouts updated and shared with providers and staff. | Martine Eon, Suzan Michelle | | Completed |
| | Draft and approve policy/procedure and workflow for same day new inhaler prescription. | Suzan Michelle, Heather Blake & AMB Providers | | Completed |
| | Draft and approve inhaler/spacer competency. | Suzan Michelle & Heather Blake | | Completed |

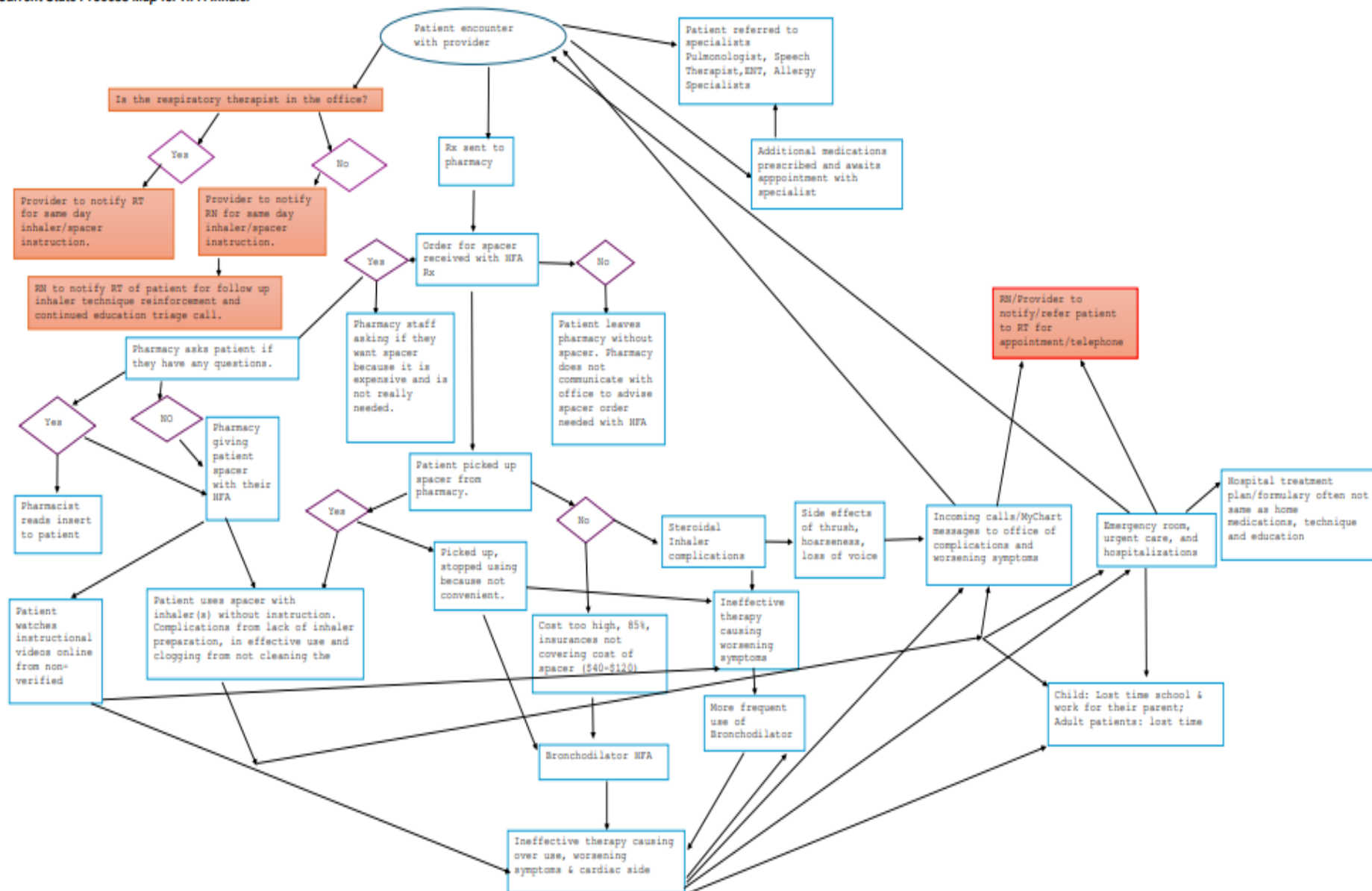
Countermeasures Continued

| Date | Action Taken | Owner | Due Date | Status |
|------|---|--|-----------|---|
| | Train and ongoing mentoring for RN's regarding spacer and inhaler technique. | Suzan Michelle | | Initial training completed; ongoing mentoring |
| | Collect data following countermeasure/interventions. | Suzan Michelle | | ongoing |
| | Pen Bay Pharmacist training and ongoing mentoring regarding need of spacer with HFA for all ages and inhaler technique. | Suzan Michelle | 7/30/2024 | Pending |
| | Draft and approve policy/procedure and workflow for spacer/inhaler education for patient who present at Pen Bay Retail Pharmacy for inhaler pick up (new or refill) | Suzan Michelle, Chandler Blodgett, Heather Blake & Sue Vermette in Revenue Integrity | 7/30/2024 | Pending |
| | EPIC dropdown alert regarding spacer when HFA is ordered | Martine Eon | 7/1/2024 | Pending |
| | Partnering with ambulatory primary care transition of care team from ED/Urgent Care and Inpatient regarding Asthma patients. | Ambulatory care nursing staff, Suzan Michelle | | Ongoing |
| | Partnering with Knox County Health Clinic. | Martine Eon, Patient Medication Assistance Team, Lisa, Suzan Michelle | | Ongoing |
| | | | | |
| | | | | |

Current State June 2023-2024



Current State Process Map for HFA Inhaler



Next Steps

- *Further investigate opportunities within EPIC to aid in triggering a reminder to assess that a spacer has been ordered and is current when a patient has been prescribed a HFA inhaler.*
- *Continue to train and work with clinical staff to assess spacer prescription/use with HFA inhalers during their medication review with the patients.*
- *PBPA Retail Pharmacy inhaler/spacer program.*
- *PBPA Retail Pharmacists sharing up spacer/inhaler concerns/information at their pharmacist meetings/conferences.*
- *Continue to build a system of same day inhaler prescription assessment for patients ability to use and educate patient prior to the patient leaving the office to fill their prescription.*
- *Continue to build a system of re-assessing a patients effective use of their prescribed inhaled medications at each interaction with referral to respiratory educator as appropriate for follow up patient assessment/education.*
- *Work with other departments like Speech Therapy, PFT lab and hospital departments to collaborate regarding patient inhaler/spacer education processes and resources.*
- *Once we have developed a system that is sustainable, share our processes and resources with other ambulatory practices throughout the Maine Health system.*