

**Measure Information Form
Collected For:
The Joint Commission Only**

Measure Set: Children's Asthma Care (CAC)

Set Measure ID#: CAC-3

Performance Measure Name: Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver

Description: An assessment that there is documentation in the medical record that a Home Management Plan of Care (HMPC) document was given to the pediatric asthma patient/caregiver.

Rationale: Asthma is the most common chronic disease in children and a major cause of morbidity and health care costs nationally (Adams, et al., 2001). In 2005, 5.2% of children with asthma had at least one asthma attack in the previous year (3.8 million children). Nearly two of every three children who currently have asthma had at least one attack in the past 12 months. Chronic asthma in children can account for an annual loss of more than 14 million school days per year, according to the Asthma and Allergy Foundation (Asthma Facts and Figures).

It is clear from multiple sources of evidence including the National Heart Lung and Blood Institute (NHLBI) Guidelines that actual self-management of asthma by the patient or caregiver leads to more positive outcomes. Appropriate self-management is completely reliant upon patient education. Patient education is more effective when it aims at training self-management skills that will alter behavior (Norris, et al., 2001).

NHLBI notes that review of asthma management by expert clinicians is necessary but not sufficient to improve outcomes. Active learning, participating and verbalization of understanding are all strategies that a healthcare organization must incorporate with parents or caregivers of asthmatic children in order for them to understand and make the appropriate changes that can impact the disease in the child in question. Education programs have been effective in improving lung function, feelings of self-esteem, and consequently decreased missed days of school in children and adolescents (Phipatanakul, 2004). Acute hospitalization follow up is imperative to a successful discharge from the hospital, providing the caretaker with the resource information needed to contact the follow up facility, medical office or clinic setting (Schatz, et al, 2009).

Environmental control consists of removal of asthma triggers from the environment. Multiple studies support the positive correlation of household maintenance factors such as control of cockroach dust, and the number of acute asthma attacks in asthmatic children (McConnell, et al, 2005 and Eggleston, et al., 2005). Evidence from Carter et

al, (2001) supported by the National Institute of Health (NIH) grant found specifically that reduction in triggers such as household conditions i.e. dust mites, cockroach, cats and presence of molds and fungus, resulted in a decrease in acute care visits and an overall positive outcome of children.

Rescue action education related to early recognition of symptoms and proper action to control incidence of asthma attacks is noted to have positive outcomes for asthmatic children (Ducharme and Bhogal, 2008).

Type of Measure: Process

Improvement Noted As: An increase in the rate.

Numerator Statement: Pediatric asthma inpatients with documentation that they or their caregivers were given a written Home Management Plan of Care (HMPC) document that addresses **all** of the following:

1. Arrangements for follow-up care
2. Environmental control and control of other triggers
3. Method and timing of rescue actions
4. Use of controllers
5. Use of relievers

Included Populations: Pediatric asthma inpatients discharged with a distinct or stand alone HMPC document that addresses the five specific topic areas above.

Excluded Populations: None

Data Elements:

- *Home Management Plan of Care Document Addresses Arrangements for Follow-up Care*
- *Home Management Plan of Care Document Addresses Environmental Control and Control of Other Triggers*
- *Home Management Plan of Care Document Addresses Methods and Timing of Rescue Actions*
- *Home Management Plan of Care Document Addresses Use of Controllers*
- *Home Management Plan of Care Document Addresses Use of Relievers*
- *Home Management Plan of Care Document Given to Patient/Caregiver*
- *Home Management Plan of Care Document Present*

Denominator Statement: Pediatric asthma inpatients discharged home.

Included Populations: Discharges with:

- An ICD-9-CM Principal Diagnosis Code of asthma (as defined in Appendix A, Table 6.1)
- An age of 2 through 17 years
- Patients discharged to home, home care or court/law enforcement

Excluded Populations:

- Patients with an age less than 2 years or 18 years or greater

- Patients who have a Length of Stay greater than 120 days
- Patients enrolled in clinical trials

Data Elements:

- *Admission Date*
- *Birthdate*
- *Clinical Trial*
- *Discharge Date*
- *Discharge Disposition*
- *ICD-9-CM Principal Diagnosis Code*

Risk Adjustment: None

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical record documents. Some hospitals may prefer to gather data concurrently by identifying patients in the population of interest. This approach provides opportunities for improvement at the point of care/service. However, complete documentation includes the principal or other ICD-9-CM diagnosis and procedure codes, which require retrospective data entry.

Data Accuracy: Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: This measure provides opportunity to assess components of the HMPC individually. Healthcare organizations may obtain percentage reports of each individual HMPC component and focus their quality improvement initiatives in relation to components not adequately addressed.

Sampling: Yes, please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Section.

Age Groups: 2 years to 17 years

Data Reported As: Aggregate rate generated from count data reported as a proportion

Selected References:

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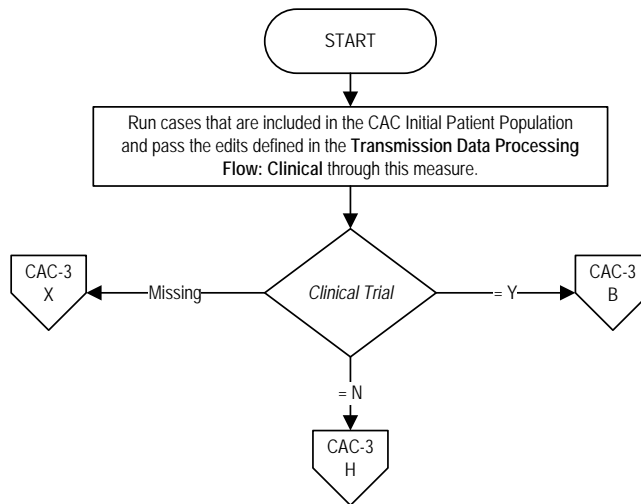
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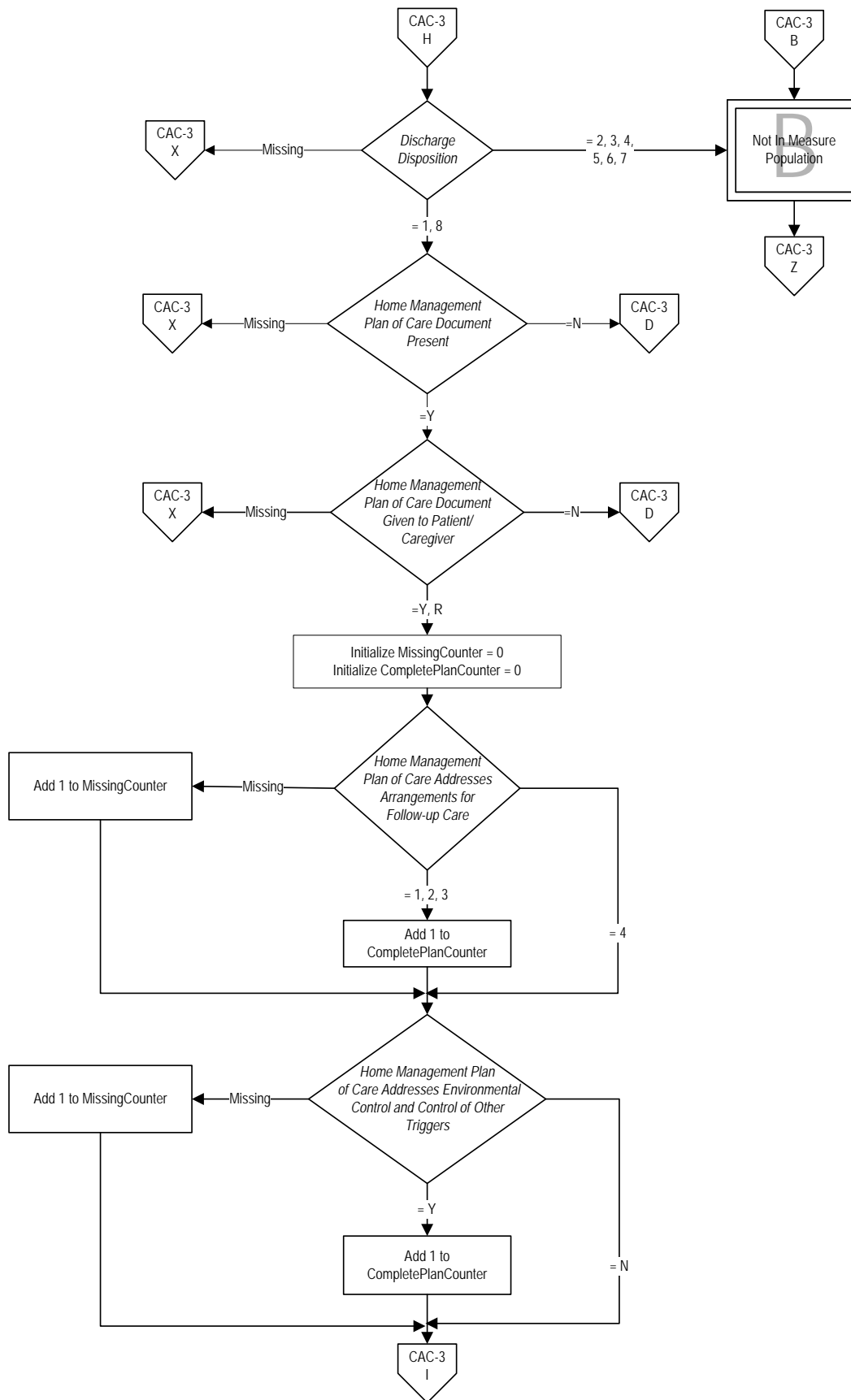
CAC-3: Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver

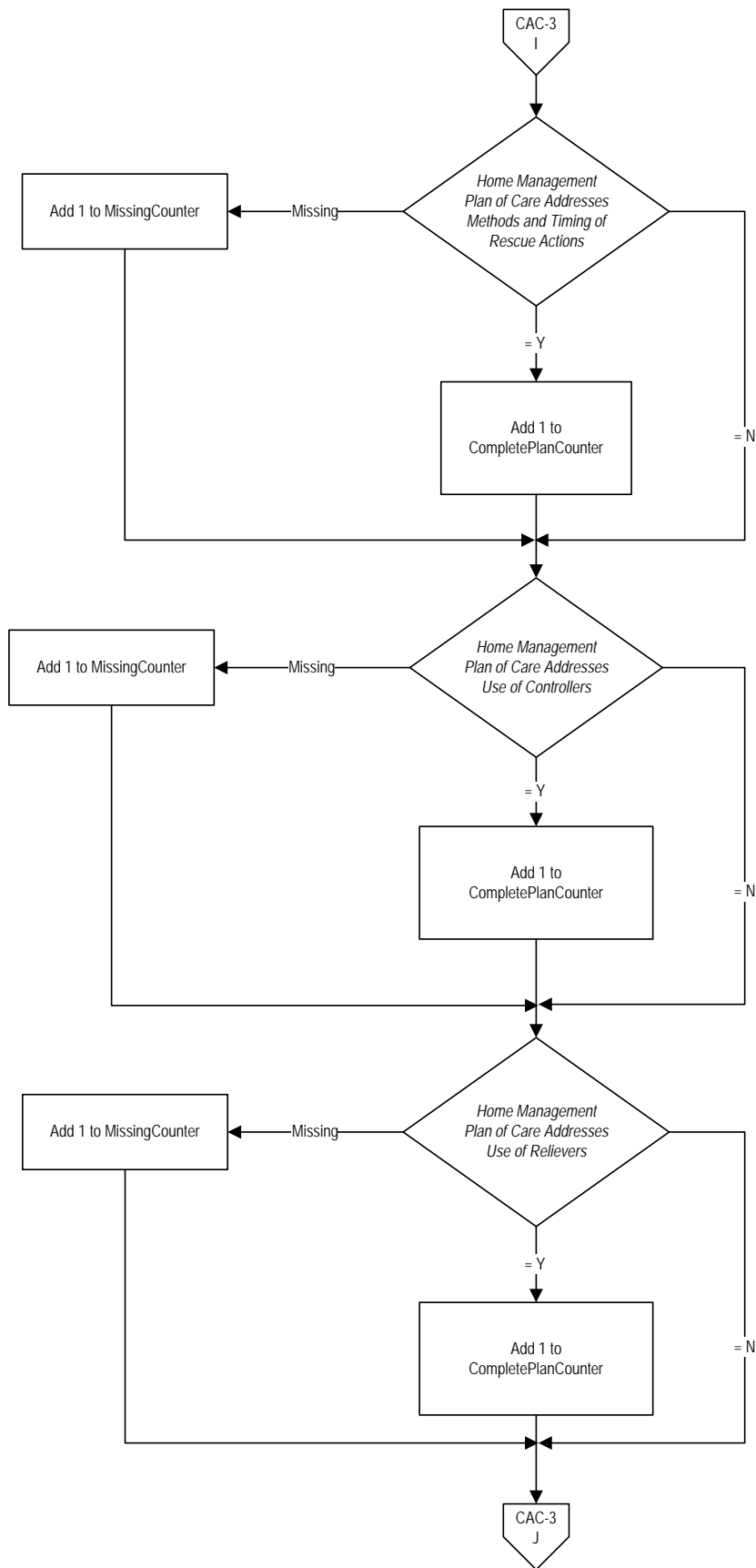
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Arrangements for follow-up care, Environmental control and control of other triggers,
Method and timing of rescue actions, Use of controllers, Use of relievers.

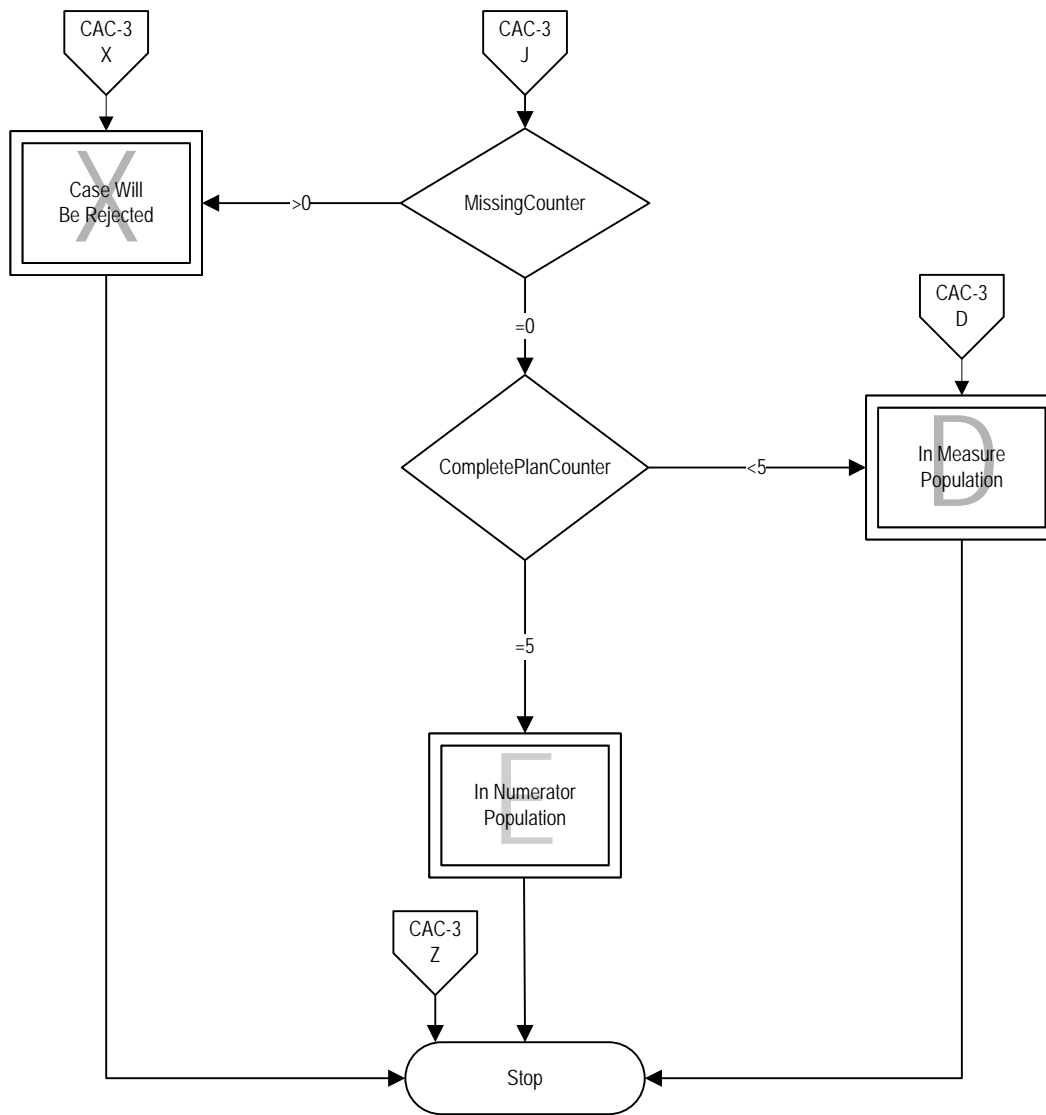
Denominator: Pediatric asthma inpatients discharged home.

Variable Key:
MissingCounter
CompletePlanCounter









Children's Asthma Care-3: Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver

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5. Use of relievers

Denominator: Pediatric asthma inpatients discharged home

Variable Key: Missing Counter, Complete Plan Counter

1. Start processing. Run cases that are included in the CAC Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Check Clinical Trial
 - a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Clinical Trial equals No, continue processing and proceed to Discharge Disposition.
3. Check Discharge Disposition
 - a. If Discharge Disposition is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Discharge Disposition equals 2, 3, 4, 5, 6 or 7, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Stop processing.
 - c. If Discharge Disposition equals 1 or 8, continue processing and proceed to Home Management Plan of Care Document Present.
4. Check Home Management Plan of Care Document Present
 - a. If Home Management Plan of Care Document Present missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Home Management Plan of Care Document Present equals No, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing.

- c. If Home Management Plan of Care Document Present equals Yes, continue processing and proceed to Home Management Plan of Care Document given to Patient/Caregiver.
- 5. Check Home Management Plan of Care Document given to Patient/Caregiver
 - a. If Home Management Plan of Care Document given to Patient/Caregiver is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Home Management Plan of Care Document given to Patient/Caregiver equals No, the case will proceed to a Measure Category Assignment of D and will be in the measure population. Stop processing.
 - c. If Home Management Plan of Care Document given to Patient/Caregiver Present equals Yes or "R," continue processing and initialize Missing Counter and Complete Plan Counter.
- 6. Initialize Missing Counter and Complete Plan Counter. Set both counters equal to zero. Continue processing and proceed to Home Management Plan of Care Addresses Arrangements for Follow-up Care.
- 7. Check Home Management Plan of Care Addresses Arrangements for Follow-up Care.
 - a. If Home Management Plan of Care Addresses Arrangements for Follow-up Care is missing, add 1 to the Missing Counter. Continue processing and proceed to Home Management Plan of Care Addresses Environmental Control and Control of Other Triggers.
 - b. If Home Management Plan of Care Addresses Arrangements for Follow-up Care equals 4, continue processing and proceed to Home Management Plan of Care Addresses Environmental Control and Control of Other Triggers.
 - c. If Home Management Plan of Care Addresses Arrangements for Follow-up Care equals 1, 2, or 3, add 1 to the Complete Plan Counter. Continue processing and proceed to Home Management Plan of Care Addresses Environmental Control and Control of Other Triggers.
- 8. Check Home Management Plan of Care Addresses Environmental Control and Control of Other Triggers
 - a. If Home Management Plan of Care Addresses Environmental Control and Control of Other Triggers is missing, add 1 to the Missing Counter. Continue processing and proceed to Home Management Plan of Care Addresses Methods and Timing of Rescue Actions.
 - b. If Home Management Plan of Care Addresses Environmental Control and Control of Other Triggers equals No, continue processing and proceed to Home Management Plan of Care Addresses Methods and Timing of Rescue Actions.

- c. If Home Management Plan of Care Addresses Environmental Control and Control of Other Triggers Yes, add 1 to the Complete Plan Counter. Continue processing and proceed to Home Management Plan of Care Addresses Methods and Timing of Rescue Actions.
- 9. Check Home Management Plan of Care Addresses Methods and Timing of Rescue Actions
 - a. If Home Management Plan of Care Addresses Methods and Timing of Rescue Actions is missing, add 1 to the Missing Counter. Continue processing and proceed to Home Management Plan of Care Addresses Use of Controllers.
 - b. If Home Management Plan of Care Addresses Methods and Timing of Rescue Actions equals No, continue processing and proceed to Home Management Plan of Care Addresses Use of Controllers.
 - c. If Home Management Plan of Care Addresses Methods and Timing of Rescue Actions Discharge Instructions Address Follow-up Monitoring equals Yes, add 1 to the Complete Plan Counter. Continue processing and proceed to Home Management Plan of Care Addresses Use of Controllers.
- 10. Check Home Management Plan of Care Addresses Use of Controllers
 - a. If Home Management Plan of Care Addresses Use of Controllers is missing, add 1 to the Missing Counter. Continue processing and proceed to Home Management Plan of Care Addresses Use of Relievers.
 - b. If Home Management Plan of Care Addresses Use of Controllers equals No, continue processing and proceed to Home Management Plan of Care Addresses Use of Relievers.
 - c. If Home Management Plan of Care Addresses Use of Controllers equals Yes, add 1 to the Complete Plan Counter. Continue processing and proceed to Home Management Plan of Care Addresses Use of Relievers.
- 11. Check Home Management Plan of Care Addresses Use of Relievers
 - a. If Home Management Plan of Care Addresses Use of Relievers is missing, add 1 to the Missing Counter. Continue processing and proceed to Missing Counter.
 - b. If Home Management Plan of Care Addresses Use of Relievers equals No, continue processing and proceed to the Missing Counter.
 - c. If Home Management Plan of Care Addresses Use of Relievers equals Yes, add 1 to the Complete Plan Counter. Continue processing and proceed to the Missing Counter.
- 12. Check Missing Counter
 - a. If the Missing Counter is greater than zero, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

- b. If the Missing Counter equals zero, continue processing and proceed to the Complete Plan Counter.
- 13. Check the Complete Plan Counter
 - a. If the Complete Plan Counter is less than 5, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.
 - b. If the Complete Plan Counter Education Counter equals 5, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.