

## Appendix 1 Data collection elements

### The following data will be collected at baseline for all participants:

1. Demographic data: date of birth, gender, ethnicity, medical insurance type, and kindred relationship of caregiver; education status of caregiver, family economic status, occupation of caregiver and residency.
2. Disease inducement.
3. asthma-like symptom: if there any wheezing, shortness of breath, cough, chest tightness/chest pain, nasal obstruction, nose itch, runny nose, dyspnea, attack or aggravation at night and/or early morning within the four weeks before enrollment and their frequency.
4. Response to bronchodilators: such as if asthma can be relieved by aerosol inhalation controller or reliever drugs.
5. Family history of asthma.
6. History of asthma.
7. Other history of illness: history of respiratory infection, sinusitis, obstructive sleep apnea, gastroesophageal reflux.
8. History of lung surgery.
9. History of allergy: eczema, allergic rhinitis, etc.
10. Acute attack information: such as frequency of hospitalization or emergency room admission due to acute asthma-like symptom within previous 12 weeks.
11. Physical examination and signs: height, weight, pulse rate, respiratory rate, body temperature, cyanosis, wet rales, three concave signs, wheezing sound, anxious/fidgety, shortness of breath.
12. Spirometry examination.
13. Protocol specified laboratory tests.
14. Protocol specified imaging examination.
15. Diagnosis.
16. Asthma-related drugs in the previous 12 weeks.
17. Other concomitant medication.

### The following data will be collected for participants diagnosed as stable asthma:

1. Asthma control: defined according to *Bronchial Asthma in Children Guideline for Its Diagnosis and Treatment (2016)*.
2. Asthma symptom score: children aged 4–11 years old will be assessed by the C-ACT score, while the older children (12–14 years of age) will be assessed by ACT score.

### The following data will be collected for 1<sup>st</sup> follow-up (12±1 weeks):

1. Asthma-like symptom: if there any wheezing, shortness of breath, cough, chest tightness/chest pain, nasal obstruction, nose itch, runny nose, dyspnea, attack or aggravation at night and/or early morning within the four weeks before enrollment and their frequency.
2. Asthma control: stage of asthma (acute attack stage/chronic duration stage/clinical remission stage), control level classification [defined according to *Bronchial Asthma in Children Guideline for Its Diagnosis and Treatment (2016)*].
3. Acute attack information: such as frequency of hospitalization or emergency room admission due to acute asthma-like symptom within previous 12 weeks.
4. Asthma-related drugs in the previous 12 weeks.\*
5. Asthma symptom score: children aged 4–11 years old will be assessed by the C-ACT score, while the older children (12–14 years of age) will be assessed by ACT score.
6. Medical cost for the diagnosis and treatment of asthma.
7. Study discontinuation status.

**The following data will be collected for 2<sup>nd</sup> follow-up (24±1 weeks):**

1. Asthma-like symptom: if there any wheezing, shortness of breath, cough, chest tightness/chest pain, nasal obstruction, nose itch, runny nose, dyspnea, attack or aggravation at night and/or early morning within the four weeks before enrollment and their frequency.
2. Asthma control: stage of asthma (acute attack stage/chronic duration stage/clinical remission stage), control level classification [defined according to *Bronchial Asthma in Children Guideline for Its Diagnosis and Treatment (2016)*].
3. Acute attack information: such as frequency of hospitalization or emergency room admission due to acute asthma-like symptom within previous 12 weeks.
4. Physical examination and signs: height, weight, pulse rate, respiratory rate, body temperature, cyanosis, wet rales, three concave sign, wheezing sound, anxious/fidgety, shortness of breath.
5. Spirometry examination.
6. Protocol specified laboratory tests.
7. Protocol specified imaging examination.
8. asthma-related drugs in the previous 12 weeks.\*
9. Asthma symptom score: children aged 4–11 years old will be assessed by the C-ACT score, while the older children (12–14 years of age) will be assessed by ACT score.
10. Medical cost for the diagnosis and treatment of asthma.
11. Study discontinuation status.

\*, treatment change include but not limit within the following situations: drug dosing change, drug administration schedule change, change drug (drug brand change is not included), add new treatment.

In addition to the data elements mentioned above, any AE/SAE reported at any time will be recorded.

**Table S1** Data collection plan

Data collection	Baseline <sup>a</sup>	1 <sup>st</sup> Visit	2 <sup>nd</sup> Visit
Window of visits (week ± week)	0±1	12±1	24±1
Informed consent	X		
Demographics	X		
Disease inducement	X		
Asthma-like symptom	X	X	X
Acute attack information	X	X	X
Physical examination and signs	X		X
Asthma-related drugs in the previous 12 weeks	X	X	X
Response to bronchodilators	X		
Family history of asthma	X		
History of asthma	X		
History of lung surgery	X		
History of allergy	X		
Other past history of illness	X		
Spirometry examination	X		X
Protocol specified laboratory tests	X		X
Protocol specified imaging examination	X		X
Diagnosis	X		
Concomitant medication	X	X	X
Asthma control <sup>b</sup>	X	X	X
Asthma symptom score <sup>b</sup>	X	X	X
AEs and SAEs		X	X
Cost of diagnosis and treatment of asthma (if applicable)		X	X
Study discontinuation status		X	X

<sup>a</sup>, to help assess the rates of participation, sites should maintain a log of the number of eligible participants who decline to participate in the study. <sup>b</sup>, the information of participants with diagnosed stable asthma in Phase I need to be collected. AE, adverse event; SAE, severe adverse events.