**General instruction**

1. For multiple choice questions circle to the number which contains your correct answer (the most appropriate answer) in the space provided.
2. If your answer is not listed among alternatives, please tell your own answer for the data collector

**Section I**: Questions on socio-demographic characteristics of the study participants.

|  |  |  |  |
| --- | --- | --- | --- |
| Ser No.  | Questions  | Response  | Skip  |
| SD101 | Age  | \_\_\_\_\_\_\_\_\_years |  |
| SD102 | Sex  | 1. Male
2. Female
 |  |
| SD103 | Marital status  |  1. Single  2. Married  3. Divorced/separated  4. Widowed  |  |
| SD104 | Educational status  | 1. No formal education
2. Primary school
3. Secondary school
4. Higher education
 |  |
| SD105 | Occupation  | 1. Merchant
2. Daily laborer
3. Private employee
4. Government employee
5. House wife
6. Farmer
7. Others
 |  |
| SD106 | Residence  | 1. Urban
2. Rural
 |  |
| SD107 | Height  | \_\_\_\_\_\_\_\_\_\_ meter |  |
| SD108 | Weight  | \_\_\_\_\_\_\_\_\_\_\_Kg |  |
| SD109 | Household average monthly income (both urban and rural) | \_\_\_\_\_\_\_\_\_\_ birr |  |

**Section II:** Questions to assess Patient related factors associated with uncontrolled asthma

|  |  |  |  |
| --- | --- | --- | --- |
| Ser No.  | Questions  | Response  | Skip  |
| PR201  | Do you follow your medical follow up regularly as scheduled? | 1. Yes
2. No
 |  |
| PR202 | Do you smoke cigarette?  | 1. Currently smoking
2. Previously smoked
3. Never smoked
 |  |
| PR203 | Do you chew khat? | 1. Yes
2. No
 |  |

**Section III**: Questions to measure the level of asthma control using ACT questions.

|  |  |  |  |
| --- | --- | --- | --- |
| Ser No.  | Questions  | Response  | Skip  |
| AC301 | In the past **4 weeks**, how much of the time did your **asthma** keep you from getting as much done at work, school or at home? | 1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time
 |  |
| AC302 | During the past **4 weeks**, how often have you had shortness of breath? | 1. More than once a day
2. Once a day
3. 3-6 times a week
4. Once or twice a week
5. Not at all
 |  |
| AC303 | During the past **4 weeks**, how often did your **asthma** symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning? | 1. 4 or more nights a week
2. 2 or 3 nights a week
3. Once a week
4. Once or twice
5. Not at all
 |  |
| AC304 | During the past **4 weeks**, how often have you used your rescue inhaler or nebulizer medication (such as albuterol)? | 1. 3 or more times per day
2. 1 or 2 times per day
3. 2 or 3 times per week
4. Once a week or less
5. Not at all
 |  |
| AC305 | How would you rate your **asthma** control during the **past 4 weeks**? | 1. Not controlled at all
2. Poorly controlled
3. Somewhat controlled
4. Well controlled
5. Completely controlled
 |  |

**Section IV**: Questions to assess the level of knowledge of participants about asthma.

|  |  |  |  |
| --- | --- | --- | --- |
| Ser No.  | Questions  | Response  | Skip  |
| KL401 | Which one of the following is not a common asthma symptom? | 1. Sore, dry throat
2. Coughing
3. Wheezing
4. Chest tightness
5. Shortness of breath
 |  |
| KL402 | Which one of the following is not a common asthma trigger? | 1. Weather changes
2. Laughing
3. Asprin
4. Exercise
5. Caffeine
 |  |
| KL403 | Which one of the following statement is false? | 1. The best time to treat an attack is before it starts
2. The longer you wait to treat an attack after it begins, the more likely the attack is to clear
3. Modifying your activities, drinking clear liquids, using your inhaler will help clear an attack
4. An attack can be treated before it begins by paying your attention to your medication, the environment, your asthma trigger, your early warning sign, and your health habits
 |  |
| KL404 | When I have an asthma attack and have no idea what caused it, I may have\_\_\_\_\_\_\_- | 1. Failed to take my asthma medications
2. Unknowingly come in to contact with one of my asthma triggers
3. Been experiencing a great deal of stress lately
4. Been unaware of or ignored my early warning signs
5. All of the above
 |  |
| KL405 | Which one of the following statement is true? | 1. Asthma can be a result of emotional stress
2. People bring asthma on themselves
3. Asthma is a physical illness
4. Both 1 and 2
 |  |
| KL406 | Which one of the following may actually make an asthma attack worse? | 1. Continuing to exercise or work once an attack begins
2. Resting instead of remaining active to clear the mucus
3. Pursed lip breathing techniques
4. Drinking warm liquids
5. Using a bronchodilator during the attack
 |  |
| KL407 | The cause of exercise induced asthma is | 1. Cooling and drying of the airways
2. Overheating of the air ways
3. Not taking in enough oxygen
4. Not being able to rid the lungs of carbon dioxide fast enough
 |  |
| KL408 | To prevent asthma attack it is important to pay attention to | 1. My early warning sign and my asthma trigger
2. Good health habit and medication compliance
3. The environment
4. 1 and 2
5. 1, 2 and 3
 |  |
| KL409 | Two early warning signs of an impending asthma attack are | 1. Emotional and attitudinal changes
2. Physical changes and insomnia
3. Physical and attitudinal changes
4. Dizziness and increased sweeting
 |  |
| KL410 | The most important methods that are helpful in treating acute asthma attack are | 1. Alleviate stress, breath rapidly and calm down
2. Address maladaptive behaviors, breath in a shallow manner
3. Cough frequently to clear mucus from lung
4. Adjust activities, use a bronchodilator and consume clear, lukewarm liquid.
 |  |
| KL411 | Active smoking triggers asthma | 1. Yes
2. No
 |  |
| KL412 | Bedroom carpets may trigger asthma | 1. Yes
2. No
 |  |
| KL413 | Unsealed mattress increase risk of asthma | 1. Yes
2. No
 |  |
| KL414 | Increase or initiate ICS therapy when the attack is perceived | 1. Yes
2. No
 |  |
| KL415 | Increase or initiate bronchodilator therapy when the attack is perceived  | 1. yes
2. no
 |  |
| KL416 | Medicines used for asthma attacks constrict air pipes. | 1. yes
2. no
 |  |
| KL417 | some of the medicines used for asthma may have to be used even when the patient is not having symptoms | 1. Yes
2. no
 |  |
| KL418 | Medicines used for asthma helps in reducing inflammation of air pipes | 1. Yes
2. No
 |  |
| KL419 | Physicians should discuss about asthma exacerbation with patients? | 1. Yes
2. no
 |  |
| KL420 | Physicians should discuss how to treat mild and sever symptoms with patients? | 1. Yes
2. No
 |  |

**Section V**: Questions to assess the participant’s attitude toward asthma.

Instruction: read each statement carefully and put 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 for strongly agree in the corresponding column that most likely reflects the respondents answer to the following questions.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Ser No.  | Questions  | Strongly disagreed | Disagree  | Neutral | Agree  | Strongly agree  |
| AT501 | Following a healthy diet and life style will help control your asthma |  |  |  |  |  |
| AT502 | It is important for you to take your asthma medications as prescribed |  |  |  |  |  |
| AT503 | your family can help you to remain calm during your asthma episode |  |  |  |  |  |
| AT504 | You can learn to be an effective asthma self-manager. |  |  |  |  |  |
| AT505 | The more you know about asthma, the more you can help your self |  |  |  |  |  |

**Section VI**: Questions to assess treatment related factors associated with uncontrolled asthma.

|  |  |  |  |
| --- | --- | --- | --- |
| Ser No.  | Questions  | Response  | Skip  |
| TR601 | Do you use medications to control asthma? (check from medical record) | 1. Yes
2. No
 | If No *→*  section VIII |
| TR602 | If your answer is yes for the above question, what type of medication do you use? (check from medical record) |  List \_\_\_\_\_\_\_\_\_\_\_ |  |
| TR603 | Do you use medications regularly to control your asthma? (check from medical record) | 1. Yes
2. No
 |  |

Section VII: questions to assess medication adherence using Medication Adherence Reporting scale (MARs)

Instruction: read each statement carefully and put 1 for never, 2 for rarely, 3 for sometimes, 4 for often and 5 for always in the corresponding column that most likely reflects the respondents answer to the following questions.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1Ser No.**  | **Questions**  | **Always**  | **Often**  | **Sometimes**  | **Rarely**  | **Never**  |
| AD701 | I only use my medication when I need it |  |  |  |  |  |
| AD702 | I only use it when I feel breathless  |  |  |  |  |  |
| AD703 | I decide to miss out a dose |  |  |  |  |  |
| AD704 | I try to avoid using it |  |  |  |  |  |
| AD705 | I forget to take it |  |  |  |  |  |
| AD706 | I alter the dose |  |  |  |  |  |
| AD707 | I stop taking it for a while |  |  |  |  |  |
| AD708 | I use it as a reserve, if my other treatment doesn’t work |  |  |  |  |  |
| AD709 | I use it before doing something which might make me breathless |  |  |  |  |  |
| AD710 | I take it less than instructed  |  |  |  |  |  |

**Section VIII:** Questions to assess disease related factors associated with uncontrolled asthma.

|  |  |  |  |
| --- | --- | --- | --- |
| Ser No.  | Questions  | Response  | Skip  |
| DR801 | For how long did you live with asthma?  | \_\_\_\_\_\_\_\_\_\_\_ years |  |
| DR802 | Have you experienced asthma exacerbation in the past 12 months | 1. Yes
2. No
 |  |
| DR803 | Do you have comorbid chronic illness? (check from medical record) | 1. Yes
2. No
 | If No *→* Q# 805 |
| DR804 | If your answer is yes for the above question what is comorbid illness you have? (check from medical record) | 1. Allergic rhinitis
2. Hypertension
3. Diabetes mellitus
4. HIV/AIDS
5. Others (specify) ­­\_\_\_\_\_
 |  |
| DR805 | Have you been admitted in the hospital within the past 12 months | 1. Yes
2. No
 | If No *→* Q# 807 |
| DR806 | If your answer is yes for the above question, what was the cause for admission  | 1. Asthma
2. Other
 |  |
| DR807 | Do you have a family history of bronchial asthma | 1. Yes
2. No
 |  |
| DR808 | What triggers your asthma attack | 1. Dust
2. Pets
3. Mold
4. Pollen
5. Physical exercise
6. Season variation
7. Stressful events
8. Emotions
9. Smoke
10. Others (specify)\_\_\_\_\_
 |  |

 Thank you so much for your participation.