

Managing Asthma Long Term

TARGET POPULATION

Eligibility

Inclusion Criterion

Exclusion Criterion

KNOWLEDGE COMPONENTS

DEFINITIONS

RECOMMENDATION: F I G U R E 4 – 2 a . CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATME N T IN CHILDREN 0–4 YEARS OF AGE (Assessing severity and initiating therapy in children who are not currently taking long-term control medication)

Conditional: Classification of Asthma Severity (0–4 years of age) {Rec_1: Cond_1 }

Decision Variable: Impairment: Symptoms

Value: 2 days/week

Value: >2 days/week but not daily

Value: Daily

Value: Throughout the day

Decision Variable: Impairment: Nighttime awakenings

Value: 0

Value: 1–2x/month

Value: 3–4x/month

Value: >1x/week

Decision Variable: Impairment: Short-acting beta2-agonist use for symptom control (not prevention of EIB)

Value: 2 days/week

Value: >2 days/week but not daily

Value: Daily

Value: Several times per day

Decision Variable: Interference with normal activity

Value: None

Value: Minor limitation

Value: Some limitation

Value: Extremely limited

Decision Variable: Risk: Exacerbations requiring oral systemic corticosteroids

Value: 0–1/year

Value: 2 exacerbations in 6 months requiring oral systemic corticosteroids, or 4 wheezing episodes/1 year lasting >1 day AND risk factors for persistent asthma

Description: Consider severity and interval since last exacerbation. Frequency and severity may fluctuate over time. Exacerbations of any severity may occur in

patients in any severity category.

Action: Recommended Step for Initiating Therapy: Step 1

Description: In 2–6 weeks, depending on severity, evaluate level of asthma control that is achieved. If no clear benefit is observed in 4–6 weeks, consider adjusting therapy or alternative diagnoses.

Description: The stepwise approach is meant to assist, not replace, the clinical decisionmaking required to meet individual patient needs.

Description: Level of severity is determined by both impairment and risk. Assess impairment domain by patient's/caregiver's recall of previous 2–4 weeks. Symptom assessment for longer periods should reflect a global assessment such as inquiring whether the patient's asthma is better or worse since the last visit. Assign severity to the most severe category in which any feature occurs.

Description: At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma severity. For treatment purposes, patients who had 2 exacerbations requiring oral systemic corticosteroids in the past 6 months, or 4 wheezing episodes in the past year, and who have risk factors for persistent asthma may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.

Action: Recommended Step for Initiating Therapy: Step 2

Description: In 2–6 weeks, depending on severity, evaluate level of asthma control that is achieved. If no clear benefit is observed in 4–6 weeks, consider adjusting therapy or alternative diagnoses.

Action: Recommended Step for Initiating Therapy: Step 3

Description: In 2–6 weeks, depending on severity, evaluate level of asthma control that is achieved. If no clear benefit is observed in 4–6 weeks, consider adjusting therapy or alternative diagnoses.

Action: Conclude: Intermittent

Action: Conclude: Mild persistent

Action: Conclude: Moderate persistent

Action: Conclude: Severe persistent

RECOMMENDATION: FIGURE 4–3 a . ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY IN CHILDREN 0–4 YEARS OF AGE

Conditional: Classification of Asthma Control (0–4 years of age) {Rec_2: Cond_2 }

Decision Variable: Impairment: Symptoms

Value: 2 days/week

Value: >2 days/week

Value: Throughout the day

Decision Variable: Impairment: Nighttime awakenings

Value: 1x/month

Value: >1x/month

Value: >1x/week

Decision Variable: Impairment: Interference with normal activity

Value: None

Value: Some limitation

Value: Extremely limited

Decision Variable: Impairment: Short-acting beta2-agonist use for symptom control (not prevention of EIB)

Value: 2 days/week

Value: >2 days/week

Value: Several times per day

Decision Variable: Risk: Exacerbations requiring oral systemic corticosteroids

Value: 0–1/year

Value: 2–3/year

Value: >3/year

Decision Variable: Risk: Treatment-related adverse effects

Value: Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.

Action: Conclude: Well Controlled

Description: The stepwise approach is meant to assist, not replace, the clinical decisionmaking required to meet individual patient needs.

Description: The level of control is based on the most severe impairment or risk category. Assess impairment domain by caregiver's recall of previous 2–4 weeks. Symptom assessment for longer periods should reflect a global assessment such as inquiring whether the patient's asthma is better or worse since the last visit.

Description: At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma control. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate poorer disease control. For treatment purposes, patients who had 2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have not-well-controlled asthma, even in the absence of impairment levels consistent with not-well-controlled asthma.

Description: Before step up in therapy: — Review adherence to medications, inhaler technique, and environmental control. — If alternative treatment option was used in a step, discontinue it and use preferred treatment for that step.

Action: Maintain current treatment. • Regular followup every 1–6 months. • Consider step down if well controlled for at least 3 months.

Action: Conclude: Not well-controlled

Action: • Step up (1 step) and • Reevaluate in 2–6 weeks. • If no clear benefit in 4–6 weeks, consider alternative diagnoses or adjusting therapy. • For side effects, consider alternative treatment options.

Action: Conclude: Very poorly controlled

Action: • Consider short course of oral systemic corticosteroids, • Step up (1–2 steps), and • Reevaluate in 2 weeks. • If no clear benefit in 4–6 weeks, consider alternative diagnoses or adjusting therapy. • For side effects, consider alternative treatment

RECOMMENDATION: FIGURE 4–2 b . CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATMENT IN CHILDREN 5–11 YEARS OF AGE (Assessing severity and initiating therapy in children who are not currently taking long-term control medication)

Conditional: Classification of Asthma Severity (5–11 years of age)
{Rec_3: Cond_3 }

Decision Variable: Impairment: Symptoms

Value: 2 days/week

Value: >2 days/week but not daily

Value: Daily

Value: Throughout the day

Decision Variable: Impairment: Nighttime awakenings

Value: 2x/month

Value: 3–4x/month

Value: >1x/week but not nightly

Value: Often 7x/week

Decision Variable: Impairment: Short-acting beta2-agonist use for symptom control (not prevention of EIB)

Value: 2 days/week

Value: >2 days/week but not daily

Value: Daily

Value: Several times per day

Decision Variable: Impairment: Interference with normal activity

Value: None

Value: Minor limitation

Value: Some limitation

Value: Extremely limited

Decision Variable: Impairment: Lung function

Value: • Normal FEV1 between exacerbations • FEV1 >80% predicted • FEV1 /FVC >85%

Value: • FEV1 = >80% predicted • FEV1 /FVC >80%

Value: • FEV1 = 60–80% predicted • FEV1 /FVC = 75–80%

Value: • FEV1 <60% predicted • FEV1 /FVC <75%

Decision Variable: Risk: Exacerbations requiring oral systemic corticosteroids

Value: 0–1/year (see note)

Value: 2/year (see note)

Description: Consider severity and interval since last exacerbation. Frequency and severity may fluctuate over time for patients in any severity category.

Description: Relative annual risk of exacerbations may be related to FEV1.

Decision Variable: Intermittent

Decision Variable: Mild Persistent

Decision Variable: Moderate Persistent

Decision Variable: Severe Persistent

Action: Recommended Step for Initiating Therapy

Value: Step 1

Value: Step 2

Value: Step 3, medium-dose ICS option and consider short course of oral systemic corticosteroids

Value: Step 3, medium-dose ICS option, or step 4 and consider short course of oral systemic corticosteroids

Description: In 2–6 weeks, evaluate level of asthma control that is achieved, and adjust therapy accordingly.

Description: The stepwise approach is meant to assist, not replace, the clinical decisionmaking required to meet individual patient needs.

Description: Level of severity is determined by both impairment and risk. Assess impairment domain by patient's/caregiver's recall of the previous 2–4 weeks and spirometry. Assign severity to the most severe category in which any feature occurs

Description: At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma severity. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate greater underlying disease severity. For treatment purposes, patients who had 2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.

RECOMMENDATION: FIGURE 4 – 3 b . ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY IN CHILDREN 5–11 YEARS OF AGE

Conditional: Classification of Asthma Control (5–11 years of age) {Rec_4: Cond_4 }

Decision Variable: Impairment: Symptoms

Value: 2 days/week but not more than once on each day

Value: >2 days/week or multiple times on 2 days/week

Value: Throughout the day

Decision Variable: Impairment: Nighttime awakenings

Value: 1x/month

Value: 2x/month

Value: 2x/week

Decision Variable: Impairment: Interference with normal activity

Value: None

Value: Some limitation

Value: Extremely limited

Decision Variable: Impairment: Short-acting beta2-agonist use for symptom control (not prevention of EIB)

Value: 2 days/week

Value: >2 days/week

Value: Several times per day

Decision Variable: Impairment: Lung function • FEV1 or peak flow • FEV1 /FVC

Value: >80% predicted/ personal best >80%

Value: 60–80% predicted/ personal best 75–80%

Value: <60% predicted/ personal best <75%

Decision Variable: Risk: Exacerbations requiring oral systemic corticosteroids

Value: 0–1/year

Value: 2/year (see note)

Decision Variable: Risk: Reduction in lung growth

Description: Evaluation requires long-term followup.

Decision Variable: Risk: Treatment-related adverse effects

Description: Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.

Action: Recommended Action for Treatment

Value: • Maintain current step. step. • Regular followup every 1–6 months. • Consider step down if well controlled for at least 3 months.

Value: • Step up at least 1 step and • Reevaluate in 2–6 weeks. • For side effects: consider alternative treatment options.

Value: • Consider short course of oral systemic

corticosteroids, • Step up 1–2 steps, and • Reevaluate in 2 weeks. • For side effects, consider alternative treatment options.

Description: The stepwise approach is meant to assist, not replace, the clinical decisionmaking required to meet individual patient needs.

Description: The level of control is based on the most severe impairment or risk category. Assess impairment domain by patient's/caregiver's recall of previous 2–4 weeks and by spirometry/or peak flow measures. Symptom assessment for longer periods should reflect a global assessment such as inquiring whether the patient's asthma is better or worse since the last visit

Description: At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma control. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate poorer disease control. For treatment purposes, patients who had 2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.

Description: Before step up in therapy: — Review adherence to medications, inhaler technique, environmental control, and comorbid conditions. — If alternative treatment option was used in a step, discontinue it and use preferred treatment for that step.

Action: Conclude: Well controlled

Action: Conclude: Not well controlled

Action: Conclude: Very poorly controlled

RECOMMENDATION: FIGURE 4 – 6 . CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATMENT IN YOUTHS 12 YEARS OF AGE AND ADULTS — Assessing severity and initiating treatment for patients who are not currently taking long-term control medications

Conditional: Classification of Asthma Severity 12 years of age {Rec_5: Cond_5 }

Decision Variable: Impairment: Symptoms

Value: 2 days/week

Value: >2 days/week but not daily

Value: Daily

Value: Throughout the day

Decision Variable: Impairment: Nighttime awakenings

Value: 2x/month

Value: 3–4x/month

Value: >1x/week but not nightly

Value: Often 7x/week

Decision Variable: Impairment: Short-acting beta2-agonist use for symptom control (not prevention of EIB)

Value: 2 days/week

Value: >2 days/week but not daily, and not more than 1x on any day

Value: Daily

Value: Several times per day

Decision Variable: Impairment: Interference with normal activity

Value: None

Value: Minor limitation

Value: Some limitation

Value: Extremely limited

Decision Variable: Impairment: Lung function

Value: • Normal FEV1 between exacerbations • FEV1 >80% predicted • FEV1 /FVC normal

Value: • FEV1 >80% predicted • FEV1 /FVC normal

Value: • FEV1 >60% but <80% predicted • FEV1 /FVC reduced 5%

Value: • FEV1 <60% predicted • FEV1 /FVC reduced >5%

Decision Variable: Risk: Exacerbations requiring oral systemic corticosteroids

Value: 0–1/year (see note)

Value: 2/year (see note)

Description: Consider severity and interval since last exacerbation. Frequency and severity may fluctuate over time for patients in any severity category

Action: Recommended Step for Initiating Treatment

Value: Step 1

Value: Step 2

Value: Step 3 and consider short course of oral systemic corticosteroids

Value: Step 4 or 5 and consider short course of oral systemic corticosteroids

Description: In 2–6 weeks, evaluate level of asthma control that is achieved and adjust therapy accordingly.

Description: The stepwise approach is meant to assist, not replace, the clinical decisionmaking required to meet individual patient needs.

Description: Level of severity is determined by assessment of both impairment and risk. Assess impairment domain by patient's/caregiver's recall of previous 2–4 weeks and spirometry. Assign severity to the most severe category in which any feature occurs.

Description: At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma severity. In general, more frequent and

intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate greater underlying disease severity. For treatment purposes, patients who had 2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma

RECOMMENDATION: FIGURE 4 – 6 . CLASSIFYING ASTHMA SEVERITY AND INITIATING TREATMENT IN YOUTHS 12 YEARS OF AGE AND ADULTS — Assessing severity and initiating treatment for patients who are not currently taking long-term control medications

Conditional: Classification of Asthma Control (12 years of age) {Rec_6: Cond_6 }

Decision Variable: Impairment: Symptoms

Value: 2 days/week

Value: >2 days/week

Value: Throughout the day

Decision Variable: Impairment: Nighttime awakenings

Value: 2x/month

Value: 1–3x/week

Value: 4x/week

Decision Variable: Impairment: Interference with normal activity

Value: None

Value: Some limitation

Value: Extremely limited

Decision Variable: Impairment: Short-acting beta2-agonist use for symptom control (not prevention of EIB)

Value: 2 days/week

Value: >2 days/week

Value: Several times per day

Decision Variable: Impairment: FEV1 or peak flow

Value: >80% predicted/ personal best

Value: 60–80% predicted/ personal best

Value: <60% predicted/ personal best

Decision Variable: Impairment: Validated questionnaires: ATAQ ACQ ACT

Value: 0 0.75* 20

Value: 1–2 1.5 16–19

Value: 3–4 N/A 15

Decision Variable: Risk: Exacerbations requiring oral systemic corticosteroids

Value: 0–1/year

Value: 2/year (see note)

Description: Consider severity and interval since last exacerbation

Decision Variable: Risk : Progressive loss of lung function

Value: Evaluation requires long-term followup care

Decision Variable: Risk: Treatment-related adverse effects

Value: Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.

Action: Recommended Action for Treatment

Value: • Maintain current step. • Regular followups every 1–6 months to maintain control. • Consider step down if well controlled for at least 3 months.

Value: • Step up 1 step and • Reevaluate in 2–6 weeks. • For side effects, consider alternative treatment options.

Value: • Consider short course of oral systemic corticosteroids, • Step up 1–2 steps, and • Reevaluate in 2 weeks. • For side effects, consider alternative treatment options.

Description: The stepwise approach is meant to assist, not replace, the clinical decisionmaking required to meet individual patient needs.

Description: The level of control is based on the most severe impairment or risk category. Assess impairment domain by patient's recall of previous 2–4 weeks and by spirometry/or peak flow measures. Symptom assessment for longer periods should reflect a global assessment, such as inquiring whether the patient's asthma is better or worse since the last visit.

Description: At present, there are inadequate data to correspond frequencies of exacerbations with different levels of asthma control. In general, more frequent and intense exacerbations (e.g., requiring urgent, unscheduled care, hospitalization, or ICU admission) indicate poorer disease control. For treatment purposes, patients who had 2 exacerbations requiring oral systemic corticosteroids in the past year may be considered the same as patients who have not-well-controlled asthma, even in the absence of impairment levels consistent with not-well-controlled asthma.

Description: Validated Questionnaires for the impairment domain (the questionnaires do not assess lung function or the risk domain) ATAQ = Asthma Therapy Assessment Questionnaire© (See sample in “Component 1: Measures of Asthma Assessment and Monitoring.”) ACQ = Asthma Control Questionnaire© (user package may be obtained at www.qoltech.co.uk or juniper@qoltech.co.uk) ACT = Asthma Control Test™ (See sample in “Component 1: Measures of

Asthma Assessment and Monitoring.”) Minimal Important Difference: 1.0 for the ATAQ; 0.5 for the ACQ; not determined for the ACT.

Description: Before step up in therapy: — Review adherence to medication, inhaler technique, environmental control, and comorbid conditions. — If an alternative treatment option was used in a step, discontinue and use the preferred treatment for that step.

Action: Conclude: Well Controlled

Action: Conclude: Not Well Controlled

Action: Conclude: Very Poorly Controlled

ALGORITHM: