



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

200
1822 - 2022

ASSIGNMENT

Critically discuss the management of asthma as a long-term condition in the UK, with reference to national policy, evidence-based guidelines and person-centered care.

Course – M.sc public health and social care in practice course

Module code – LCHS7003 (Community care and management of longer – term conditions)

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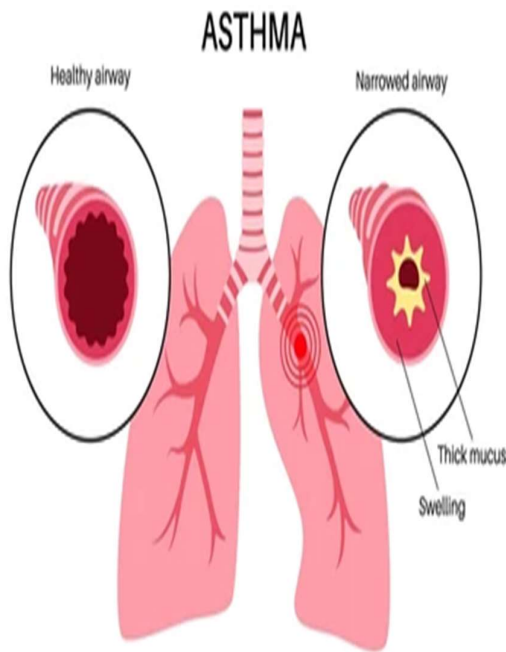
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Introduction

Definition



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Asthma is a chronic (long-term) lung disease where the airways become inflamed and narrow, causing symptoms like wheeze, shortness of breath, chest tightness and cough that vary over time and in intensity. **National library of medicine (2025)**

Prevalence rate

Globally, asthma affects an estimated 260–300 million people, with an age-standardized prevalence of roughly 3–4% of the population. In the UK, over 5 million people are currently receiving treatment for asthma, including about 1 in 11 children and 1 in 12 adults, which is among the highest rates in Europe. **WHO (2024)**

Key asthma risk factors include:



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Physical risk factors - family impact

- **Genetics and atopy** – family history of asthma, eczema or allergic rhinitis increases susceptibility. **WHO (2024)**
- **Obesity and low BMI** – abnormal body weight, especially obesity, is associated with higher asthma risk and worse control. **National library of medicine (2025)**
- **Allergens and irritants** – exposure to house dust mite, pet dander, mould, cockroaches, pollens, smoke and air pollution can trigger or worsen asthma.
- **Respiratory infections** – viral infections (e.g. RSV, rhinovirus) in early life are linked to later asthma development and exacerbations.
- **Co-morbid physical illness** – chronic respiratory disease, cardiac disease and poorly controlled rhinitis can aggravate asthma and increase risk of severe attacks or death.

- **More symptoms and hospital visits** (e.g. due to allergens, pollution, obesity or infections) mean families spend more time in A&E, clinics and managing medications, disrupting work and school routines.
- **Severe or poorly controlled asthma** leads to sleep disruption for parents (night-time coughing/wheeze, monitoring), chronic tiredness and stress in the household.
- **Co-morbid conditions** (e.g. obesity, other chronic illness) increase care tasks, appointments and costs, adding to overall caregiver burden.

Psychological risk factors - family impact

- **Anxiety and depression** – common in people with asthma and associated with poorer quality of life, more symptoms, and worse asthma control.
 - **Severe mental illness and substance misuse** – psychosis and alcohol or drug misuse have been linked to higher risk of asthma death, partly via poor treatment adherence.
 - **Health behaviors** – poor inhaler technique, inconsistent medication use, and missed appointments are behavioral risk factors often associated with psychological distress.
 - **Stress and low resilience** – chronic stress and low coping capacity can worsen symptom perception and trigger or exacerbate asthma attacks.
 - **Child anxiety or depression** around asthma (fear of attacks, embarrassment, avoidance) increases parents' worry and can strain parent-child relationships.
- **Parental anxiety and depression** are common and linked to poorer asthma control, more family conflict and “family chaos” (disorganization, inconsistent routines).
 - High caregiver burden is associated with **reduced quality of life**, sleep problems, feelings of guilt and burnout; this can reduce parents' capacity to manage treatment plans consistently.

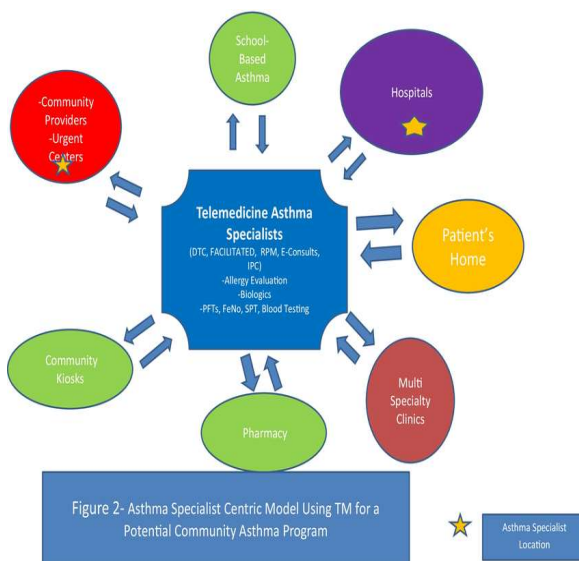
Social risk factors – family impact

- **Poverty and deprivation** – low income, unemployment and deprived neighborhoods are linked to higher asthma prevalence, worse control and more hospital use.
- **Poor housing conditions** – damp, mould, pests, overcrowding and exposure to indoor pollutants, more common in low-income or substandard housing, increase asthma risk and exacerbations.
- **Limited access to care** – barriers to primary care, specialist services, or asthma education impact diagnosis, inhaler training and follow-up.
- **Occupational and environmental exposures** – jobs with dust, fumes or chemicals, and living near heavy traffic or industry increase exposure to triggers.
- **Social support and family factors** – low social support, chaotic households and caregiving strain can undermine consistent management, though evidence on direct mortality risk is mixed.
- **Poverty and poor housing** (damp, mould, pests, overcrowding) increase exposure to triggers and also mean families face repeated costs for

medicines, transport and missed work, creating financial stress.

- Parents may have to **reduce hours or leave employment** to care for a child with severe or frequent attacks, lowering household income and job security.
- **Low social support and stigma** (e.g. school not understanding asthma, family conflict) increase parental stress and isolation, while good social support can reduce caregiver burden and improve coping.

Asthma care models



Asthma care UK model

Asthma care is structured around evidence-based models that guide diagnosis, treatment and long-term management at both national and international levels. In the United Kingdom, clinical practice predominantly follows the British Thoracic Society/Scottish Intercollegiate Guidelines Network (BTS/SIGN) guideline together with National Institute for Health and Care Excellence (NICE)

pathways. Internationally, the Global Initiative for Asthma (GINA) strategy provides a widely adopted framework that informs national policies and local protocols worldwide. Both models promote stepwise pharmacological treatment, objective diagnosis and personalized self-management, but there are differences in how they are organized, implemented and emphasized in practice. **NICE (2024)**

The UK asthma model is built around a combination of clinical guidelines and pathways that cover diagnosis, chronic management and acute exacerbations. The British guideline on the management of asthma (SIGN 158) provides detailed recommendations on assessment, pharmacological therapy and organization of services for adults, young people and children. NICE has developed an asthma pathway that integrates these recommendations with its own guidance on diagnosis, monitoring and chronic asthma management, providing a single route for clinicians across primary and secondary care.

A core feature of the UK model is the emphasis on objective testing for diagnosis wherever possible, including spirometry with bronchodilator reversibility, peak expiratory flow monitoring and, in some settings, fractional exhaled nitric oxide (FeNO) to support the diagnosis of asthma. This reflects concerns about both over- and under-diagnosis, and seeks to ensure that inhaled corticosteroids and other treatments are directed to patients who will benefit. Once diagnosed, pharmacological treatment follows a stepwise approach, starting with low-dose inhaled

corticosteroids (ICS) and adding long-acting bronchodilators or other therapies as symptom burden and exacerbation risk increase. Regular review is encouraged so that therapy can be stepped up or down according to control and side-effects, with the goal of achieving good symptom control on the lowest effective treatment.

NICE (2024)

The UK model places strong emphasis on primary care as the main setting for long-term asthma management. General practices are expected to maintain asthma registers, provide routine annual reviews, and deliver proactive, risk-based recall of patients at higher risk of attacks, for example those with previous hospital admissions, frequent oral corticosteroid bursts or poor adherence. Structured reviews typically include assessment of symptoms and exacerbations, inhaler technique checks, review of adherence, and updating of a personalized asthma action plan. These written action plans guide patients on daily management and how to recognize and respond to worsening asthma, and are associated with better outcomes

NHS(Nov,2025)

At a system level, NHS initiatives have promoted proactive management models, including high-risk asthma clinics, integrated respiratory services and quality improvement projects aimed at reducing preventable attacks and deaths. This approach increasingly incorporates learning from national audits and inquiries into asthma deaths, emphasizing identification of modifiable risk factors such as smoking, poor housing and mental health

issues, alongside pharmacological optimization.

NHS(Nov,2025)

The model promotes **risk-stratified care**, identifying high-risk patients (previous ICU, hospital admissions, frequent oral steroids) for closer follow-up or specialist referral.

UK primary-care models (e.g. high-risk asthma clinics, proactive recall) focus on preventing attacks through structured reviews, inhaler technique checks, and optimizing inhaled corticosteroid use.

International / global model (GINA)

- The Global Initiative for Asthma (GINA) provides a global strategy document that is updated annually and synthesizes evidence on asthma definition, diagnosis, treatment and prevention. Rather than being a guideline for a single health system, GINA is designed to be adapted to different national contexts, including countries with very different resources and service structures. GINA defines asthma as a heterogeneous disease characterized by chronic airway inflammation with variable respiratory symptoms and variable expiratory airflow limitation, and emphasizes confirmation of diagnosis using lung function tests where feasible.

GINA(2024)

- GINA's treatment model is built around a stepwise, personalized approach that integrates both symptom control and future risk of exacerbations. A major shift in recent years has been the recommendation that adults and adolescents should not be treated with short-acting beta-agonist (SABA) reliever alone; instead, all patients should receive inhaled corticosteroid-containing treatment,

either as regular maintenance ICS or as combination ICS-formoterol used for both relief and prevention. This change is based on evidence that SABA-only regimens are associated with increased exacerbation risk and that even low-dose ICS substantially reduces severe attacks. Like the UK model, GINA supports stepping treatment up or down according to control, with different tracks depending on whether ICS-formoterol or SABA is used as reliever. **GINA(2024)**

- GINA also strongly promotes non-pharmacological aspects of care, including assessment and management of modifiable risk factors such as smoking, obesity, occupational exposures and indoor allergens. The strategy recommends that every patient should be offered a personalized written asthma action plan and education in self-management, tailored to age, health literacy and cultural context. For patients with difficult-to-treat or severe asthma, GINA outlines a structured approach to confirming the diagnosis, optimizing basics such as inhaler technique and adherence, addressing comorbidities, and then considering advanced therapies such as biologics targeted at specific inflammatory phenotypes.

GINA(2024)

- **GINA** provides a global strategy for asthma management and prevention, regularly updated **GINA Reports(2024/2025)**.
- GINA promotes a **stepwise, personalized approach**, starting treatment based on symptom burden and exacerbation risk, with regular reassessment and adjustment up or down.

- A key change is that GINA no longer recommends SABA-only treatment; instead, all adults and adolescents should receive inhaled corticosteroid-containing therapy, either regularly or as needed with formoterol.
- The model highlights written asthma action plans, self-management education, addressing modifiable risk factors (smoking, obesity, triggers) and integrating severe asthma biologics within specialist care pathways.

Relationship between UK and GINA models

- In practice, the UK BTS/SIGN/NICE model is broadly consistent with GINA recommendations but is tailored to NHS structures, commissioning arrangements and local epidemiology. For example, the move away from SABA-only treatment and toward ICS-containing therapy is reflected in recent UK guidance and prescribing initiatives, while proactive primary-care-based review models operationalize GINA's concepts of risk assessment and self-management within a nationally funded system. Both models stress the importance of objective diagnosis, stepwise treatment, written action plans and attention to psychosocial and environmental risk factors, but GINA provides the overarching international framework and evidence synthesis that national bodies such as BTS, SIGN and NICE adapt into detailed UK guidance.

Local and national policies

National policies

- In the UK, asthma care is shaped by a mix of **national policies** and more detailed **local/ICS-level pathways**, all nested within wider respiratory and health-inequality strategies. These policies aim to reduce preventable asthma attacks and deaths, improve diagnosis, and address environmental and social determinants of lung health. *NHS,health innovation north west coast (2024)*
- the **NHS Long Term Plan** identifies respiratory disease, including asthma, as a clinical priority and commits to earlier and more accurate diagnosis, better access to spirometry, and ensuring patients receive and correctly use appropriate inhaled therapy. This is supported by national respiratory plans and programmes led by NHS England and partners, which aim to transform respiratory outcomes to match or exceed those of comparable countries. Policy actions include investment in diagnostic capacity, expansion of pulmonary rehabilitation, smoking cessation pathways, and efforts to reduce air pollution from NHS fleets and business travel. *NHS,England (2024)*
- Clinical policy is further operationalized through **national guidelines and standards**, particularly the combined NICE/BTS/SIGN guideline NG245 on asthma diagnosis, monitoring and chronic management. This guideline underpins national care standards, including the recommendation to move away from SABA-only treatment and towards inhaled corticosteroid-containing regimens, and it provides a framework for structured reviews, action plans and risk-based

follow-up across the NHS. National audit programmes, such as the National Asthma and COPD Audit Programme, monitor adherence to standards and highlight gaps in care, supporting quality improvement and policy refinement. The earlier National Review of Asthma Deaths and subsequent reports from charities such as Asthma + Lung UK have also influenced national policy by highlighting that many asthma deaths are preventable and calling for stronger implementation and accountability. *British Thoracic Society(2025)*

Local policies

At **local level**, Integrated Care Systems (ICSs) and ICBs develop asthma pathways and prescribing guidelines that implement national policy in their own populations, for example primary-care asthma guidelines, high-risk clinics and children-and-young-people asthma programmes. Local policies typically specify stepwise treatment in line with NG245, referral criteria to secondary care, templates for asthma reviews, and expectations around personalized asthma action plans. Initiatives such as NHS England's **National Bundle of Care for children and young people with asthma** and campaigns like #AskAboutAsthma set standards for local systems on access to diagnostics, professional training, and tackling health inequalities, and are explicitly referenced by ICS-level policies. These local frameworks also connect asthma management to broader public-health and inequality agendas (for example the Core20PLUS5 framework), recognizing that deprivation, poor housing and environmental exposures drive much of the asthma burden in the UK. *British Thoracic Society(2025)*

Recommendation

Person centered care



- **Personalized Asthma Action Plans (PAAPs)** – written plans developed jointly by patient and clinician, describing daily treatment, when to step up medication and when to seek urgent help. Evidence shows PAAPs plus regular review reduce attacks, unscheduled care and days off work or school.
- **Shared decision-making** – discussing options (e.g. inhaler types, step-up/step-down), risks and patient preferences, and agreeing treatment together rather than telling the patient what to do. This improves adherence, satisfaction and sometimes asthma control.
- **Holistic care** – addressing smoking, physical activity, weight, allergens, housing and mental health alongside inhalers, recognizing that these determinants strongly affect control.
- **Tailored education and support** – adapting information and follow-up (face-to-face, phone, digital) to age, literacy, culture and patient “activation” level, so people can realistically self-manage.

Self-Management

In UK primary-care guidelines, this is summarized as asthma management that is **patient-centered**, encouraging and supporting self-management, with treatment decisions made in partnership with the individual and their carers.

- regular daily treatment,
- how to recognize deterioration (symptoms and/or peak flow),
- when and how to step up inhalers or start oral steroids,
- when to seek urgent or emergency help. Plans should also include advice on minimizing exposure to triggers such as smoke, pets, dust or pollution.
- **Education and skills** – teaching patients (and parents/carers) what asthma is, how medicines work, trigger avoidance, and correct inhaler technique, reinforced at regular reviews. Education needs to be tailored to age, literacy and culture and repeated over time, not a one-off.
- **Regular professional support** – the most effective programmes combine a PAAP with pre-planned, ongoing support from nurses, doctors or asthma educators (at least around two hours of contact over time). This reduces unscheduled care, A&E visits and hospital admissions and improves quality of life.

- **Monitoring and early action** – patients are supported to monitor symptoms and/or peak flow at home and to act early according to their plan, instead of waiting until attacks are severe.
- **Whole-system approach** – for self-management to work in routine practice, services must priorities it (templates, recall systems, trained staff), not just give out plans.

End of life care

- End-of-life care usually starts with **advance care planning (ACP)**, where the person is supported to talk about what matters to them, how they want symptoms managed, and where they would prefer to be cared for (home, hospice, care home or hospital). ACP may include an advance care plan, an advance decision to refuse treatment (ADRT), documentation of Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) wishes, and nomination of a lasting power of attorney; these documents help ensure future care reflects the person's values if they cannot speak for themselves. Early and honest conversations about prognosis and treatment goals are encouraged so that decisions about ventilation, intensive care and hospital admission are anticipated rather than made in crisis.
- **Symptom control**
especially of breathlessness, cough, anxiety and pain, is a core part of end-of-life respiratory care. Guidelines emphasize optimizing existing inhaled therapy, treating reversible causes where appropriate, and using non-pharmacological measures such as breathing techniques, positioning, handheld fans, pacing activities and psychological support. When needed, low-dose opioids can be used carefully to relieve chronic breathlessness, and short-acting anxiolytics may help with panic related to dyspnoea. NICE recommends anticipatory prescribing of medicines for common end-of-life symptoms (pain, breathlessness, agitation, secretions) so they are available promptly if distress occurs in the last days of life.
- End-of-life care in asthma also extends to **support for families and carers**. Families often experience anxiety, anticipatory grief and practical difficulties, so services such as hospice teams, specialist nurses and charities (for example Asthma + Lung UK and Marie Curie) provide information, emotional support and bereavement services. Palliative-care guidance for advanced respiratory disease recommends assessing carers' needs, offering respite, and ensuring they know what to expect as the illness progresses and who to contact in an emergency.
- In summary, UK end-of-life care for severe asthma follows general respiratory palliative-care principles: early advance care planning, proactive symptom management, personalized communication and strong family support, guided by NICE end-of-life recommendations and local palliative-care frameworks.

Conclusion

Asthma is a common, chronic inflammatory airway disease with substantial impacts on individuals, families and the wider health system, particularly in high-prevalence countries such as the UK. Its

burden reflects an interaction of physical, psychological and social risk factors, including genetic susceptibility, allergens, obesity, smoking, mental-health problems, deprivation, poor housing and air pollution. These determinants not only shape who develops asthma and how severe it becomes, but also influence families' day-to-day experiences, care burden, financial stress and quality of life.

UK and international models for asthma management provide a strong, evidence-based framework to address this burden. The BTS/SIGN/NICE pathway offers detailed national guidance on diagnosis, stepwise pharmacological treatment and structured review, embedded within NHS primary care and supported by local ICS-level pathways. At global level, the GINA strategy promotes a similar stepwise, risk-based approach and has driven key shifts such as moving away from SABA-only therapy towards universal use of ICS-containing treatment in adults and adolescents. Both models emphasize objective diagnosis, regular monitoring, written asthma action plans and attention to modifiable risk factors, providing a coherent clinical foundation for improving outcomes.

Within the UK, these clinical models sit inside a wider policy context shaped by the NHS Long Term Plan and national respiratory strategies, which priorities earlier and more accurate diagnosis, optimized prescribing, expanded rehabilitation, strengthened self-management and aggressive action on smoking and air pollution. Person-centered care and supported

self-management are central organizing principles: patients are expected to receive personalized asthma action plans, shared decision-making around treatment options and tailored education, delivered through a whole-system approach rather than isolated advice. Evidence shows that such supported self-management programmes reduce exacerbations, unscheduled care and days lost from work or school, while improving quality of life.

Finally, for people with advanced or severe asthma approaching the end of life, UK palliative-care frameworks and NICE end-of-life guidance provide a structure for early advance care planning, proactive symptom control (especially of breathlessness), sensitive communication and support for families and carers. Across the trajectory from diagnosis to end-of-life care, the overall direction of policy and practice is clear: to move from reactive, crisis-driven management towards proactive, person-centered, integrated care that addresses both clinical and social determinants, with the aim of reducing avoidable attacks and deaths and improving lived experience for people with asthma and those who care for them.

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