

Information Booklet of Long-term Condition Management

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Assignment 1 Information Booklet of Long-term Condition Management

ASTHMA

Introduction

ASTHMA

¹⁰ “Asthma is a chronic respiratory condition characterized by inflammation and narrowing of the airways, which results in recurring episodes of difficulty in breathing, coughing, wheezing, and chest tightness (NICE, 2022)”. It is considered a long-term or chronic condition because it tends to persist over time and can vary in severity, with symptoms ranging from mild to severe (NICE, 2022).



Asthma Prevalence and Incidence In UK

The prevalence of asthma in the UK has been relatively high compared to other countries. ³ In the UK, more than 8 million people, or over 12% of the population, have asthma diagnosis. ¹⁸ (NICE, 2022; Olin, 2014). However, 5.4 million people receive medical care for their asthma, ¹¹ and some patients may have outgrown their condition. Annually, 160,000 people in the UK are diagnosed with asthma, while incidence rates decreased by roughly 10% between 2008 and 2012. Children are more likely to have asthma than adults are (NICE, 2022; BTS & SIGN, 2019). ³ Boys are more likely than girls to get asthma in early childhood, but by adulthood, the sex ratio is reversed (NICE, 2022; Mukherjee et al., 2016). In the UK, asthma contributes to ¹⁵ 60,000 hospital admissions, 200,000 bed days, and 2-3% of all primary care visits. ⁸ Occupational variables may account for 9–15% of adult-onset asthma. It is the most common industrial lung disease in the world (NICE, 2022; British Lung Foundation, 2018).



Worldwide Prevalence and Incident of Asthma

⁷ More than 300 million individuals worldwide suffer from asthma, including 11.6% of children aged 6 to 7 (WHO, 2023). Globally, asthma is a ²¹ common chronic respiratory condition. According to the Global Asthma Report 2018, 339 ³³ million people globally suffer from asthma. It's essential to remember that prevalence rates can vary between countries and regions (WHO, 2023). Asthma is projected to have killed 4,55,000 people in 2019 and afflicted 262 million people overall (WHO, 2023). It is challenging to determine the precise incidence of asthma over the world due to variations in reporting and data collection methods. However, according to estimates from ³³ the World Health Organisation (WHO), there are between 100 and 150 million new cases of asthma recorded each year globally (WHO, 2023). This number may also alter depending on factors like geographic location, age groups, and environmental circumstances (WHO, 2023).

Aetiology

It is very hard ¹ to identify a single, direct cause for asthma, however multiple factors have been associated with an elevated risk of getting the condition. If a close relative, such as a parent or sibling, also has asthma, it increases the likelihood that the individual may develop asthma (ly et al., 2007). ¹² People with other allergy disorders, such as eczema and rhinitis (hay fever), are more likely to develop asthma (sykes et al., 2008). Urbanisation is also the cause of an increase in asthma prevalence (lin et al., 2015). ¹ Early childhood experiences have an impact on how the lungs develop and can raise the risk of asthma. Low birth weight, premature birth, exposure to tobacco smoke and other air pollution sources, and viral respiratory infections are some of these (ly et al., 2007). Occupational contact to chemicals, fumes, or dust, as ³⁸ well as indoor and outdoor air pollution, home dust mites, and mould are other ²³ environmental allergens and irritants that are thought to raise the risk of asthma (ober et al., 2011). ¹⁶ Overweight or obese people, both in children and adults, have a higher chance of developing asthma (shore et al., 2006).



Genetic Factors: Asthma tends to run in families, suggesting a genetic component. Some genetic variants could increase the risk of developing asthma. However, asthma is a complex trait, and multiple genes are likely involved in its development (ly et al., 2007).

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Environmental Factors: Exposure to certain environmental factors can contribute to the development and exacerbation of asthma. These factors include (ober et al., 2011).

Allergens: Asthma symptoms can be brought on by allergens such mould, dust mites, pet dander, and pollen in people who are sensitive (ober et al., 2011).

Respiratory Infections: Certain respiratory infections, particularly viral infections in early childhood, have been linked to an increased risk of developing asthma (sykes et al., 2008).

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Occupational Exposures: Exposure to certain substances or irritants in the workplace, such as chemicals, dust, or fumes, can trigger or worsen asthma symptoms in some individuals (vandenplas et al., 2011).

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Air Pollution: Long-term exposure to air pollution, including particulate matter and traffic-related pollutants, has been associated with an increased risk of asthma (eguikuz et al., 2020).

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Tobacco Smoke: Exposure to second hand smoke or smoking during pregnancy can increase the risk of asthma in children (ly et al., 2007).

Immunological Factors: Asthma is characterized by chronic airway inflammation. It is believed that an abnormal immune response plays a role in triggering and perpetuating this inflammation (sethi et al., 2019).

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Respiratory Hygiene Hypothesis: The hygiene hypothesis suggests that reduced exposure to certain infections and microorganisms in early childhood may contribute to an increased risk of asthma and allergies (ramsey et al 2005). This hypothesis proposes that early exposure to diverse microorganisms helps train the immune system, reducing the likelihood of developing asthma (Webley et al., 2015).

MAIN BODY

Physical Impact of Asthma

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Breathing Difficulties: Asthma is characterized by recurrent episodes of wheezing, breathlessness, coughing, and chest tightness. These symptoms can significantly impair an individual's ability to engage in physical activities, resulting in reduced physical fitness and limitations in daily functioning (forrest et al., 1997).

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Increased Risk of Exacerbations: Asthma attacks or exacerbations can be life-threatening and require immediate medical intervention. The fear and uncertainty associated with the possibility of an asthma attack can impact an individual's quality of life and lead to anxiety and stress (desalu et al., 2019).

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Psychological Impact of Asthma

Anxiety and Stress: Living with a chronic illness like asthma can be stressful and anxious since you never know when your symptoms will appear or get worse. ¹ Fear of having an asthma attack or not being able to breathe properly can lead to heightened anxiety levels, affecting overall mental well-being (nocon et al., 1989).

Depression and Emotional Distress: Asthma can result in feelings of frustration, sadness, and helplessness, particularly if the condition is severe or poorly controlled. The need for ongoing management and potential limitations in daily activities can contribute to depression and emotional distress (galil et al., 2000).

Social Impact of Asthma

Social Isolation: Individuals with asthma may experience social isolation due to limitations on physical activities and fear of triggers, such as exposure to allergens or environmental pollutants. This isolation can impact their social relationships, participation in social events, and overall ⁶ quality of life (anderw et al., 1991).

Stigma and Misunderstanding: Asthma is sometimes misunderstood by others who may perceive it as a minor condition or as a sign of weakness (Andrews et al., 2013). This can lead to stigmatization and discrimination, affecting an individual's self-esteem and social interactions (desalu et al., 2019).

Impact on Family of The Patient with Asthma

Increased Caregiver Responsibility: Families of individuals with asthma often take on the role of caregivers, monitoring medication usage, managing triggers, and providing support during asthma attacks (wade et al., 1999). This additional responsibility can be physically and emotionally demanding, impacting the well-being of family members.

Lifestyle Adjustments: Families may need to make lifestyle adjustments to accommodate the needs of an individual with asthma. This can involve modifying the home environment, avoiding triggers, and making changes to daily routines, which can affect the entire family's lifestyle and activities (forero et al., 1996).

Emotional Impact: Witnessing a loved one struggling with asthma symptoms or experiencing severe attacks can be distressing for family members (kharaba et al., 2022). They may experience anxiety, worry, and a sense of helplessness, particularly during exacerbations or emergencies.

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House of Care Model (UK)

The House of Care model is a collaborative and patient-centered approach to healthcare delivery that focuses on supporting individuals with long-term conditions, such as asthma, to effectively self-manage their condition (coulter et al., 2013). While the original House of Care model was developed for long-term conditions in general, we can adapt it specifically for asthma (bahrs et al., 2022). Here are five components of the House of Care model for asthma:

Personalized Care Planning: This component involves the development of an individualized care plan for each asthma patient. The care plan is created in collaboration between the healthcare provider and the patient, taking into account the patient's goals, preferences, and needs (coulter et al., 2013). It includes information about asthma triggers, symptom management, medication use, action plans for exacerbations, and regular review and adjustment of the plan based on the patient's progress (mathers et al., 2016).

Education and Self-Management Support: Education plays a crucial role in asthma management. This component focuses on providing comprehensive education about asthma, including its causes, triggers, symptoms, and treatment options. Patients are empowered with self-management skills, such as correct inhaler technique, recognizing early warning signs of exacerbations, and implementing appropriate self-care measures (chambers et al., 2016). Regular support and reinforcement are provided to help patients gain confidence in managing their condition.

Shared Decision-Making: In this component, healthcare providers and patients engage in shared decision-making regarding treatment options and management strategies (sauvage et al., 2016). Patients are encouraged to actively participate in decisions about their care, based on their preferences, values, and goals. The healthcare provider acts as a guide, providing evidence-based information and discussing the potential risks and benefits of different interventions, ultimately supporting the patient in making informed choices (Coulter et al., 2015).

Collaborative Care Coordination: Effective coordination between healthcare professionals is crucial for providing comprehensive and seamless care. This component emphasizes collaboration and communication among healthcare providers involved in the patient's asthma management, including primary care physicians, specialists, nurses, and respiratory therapists (vickridge et al., 1998). It ensures that relevant information is shared, care plans are coordinated, and transitions between care settings are smooth, minimizing any potential gaps in care.

Continuous Monitoring and Evaluation (commissioning): This component involves ongoing monitoring and evaluation of the patient's asthma control and management outcomes (Clark, 2008). Regular assessments are conducted to measure the patient's symptom control, lung function, quality of life, and adherence to treatment (McCrae, 2013). This component also includes regular evaluation of the effectiveness and impact of the House of Care model itself, with the goal of continuously improving the care delivery process.

By incorporating these five components into the House of Care model, healthcare providers can help individuals with asthma optimize their self-management skills, enhance their quality of life, and reduce the burden of their condition through a collaborative and patient-centered approach.

Chronic Care Model (USA)

The Chronic Care Model (CCM) provides a comprehensive framework for the management of chronic conditions, including asthma. It emphasizes a systematic and proactive approach to care delivery (Glasgow et al., 2001). Here's a detailed breakdown of the components of the Chronic Care Model for asthma management:

Health System:

Organization of Healthcare: Establish an organized healthcare system that supports the effective management of asthma. This includes clear roles and responsibilities for healthcare providers, coordination between primary care and specialist services, and the integration of asthma care into routine clinical practice (Zheng et al., 2019).

Decision Support: Develop and implement evidence-based guidelines and protocols for asthma management. Provide healthcare professionals with access to up-to-date clinical information, decision support tools, and educational resources to guide their practice and ensure adherence to best practices (Smith et al., 2008).

Clinical Information Systems: Utilize electronic health records and information systems to facilitate efficient documentation, tracking, and sharing of patient information. This enables healthcare providers to monitor asthma control, track medication usage, and identify gaps in care (Pasricha et al., 2013).

Self-Management Support:

Patient Education: Provide comprehensive education to individuals with asthma and their families about the condition, including triggers, symptoms, medication use, and self-management techniques. Foster shared decision-making and empower patients to actively participate in their care (Bodenheimer et al., 2002).

Action Plans: Develop personalized asthma action plans in collaboration with patients, specifying steps to be taken during different levels of symptom control or exacerbations. Ensure patients understand their action plans and have them readily available for reference (Elissen et al., 2013).

Supportive Interventions: Offer ongoing support and resources for self-management, such as reminders for medication adherence, access to educational materials, and opportunities for self-monitoring of symptoms and peak flow measurements (Siminerio et al., 2006).

Delivery System Design:

Care Coordination: Facilitate effective communication and collaboration among healthcare providers involved in asthma care, including primary care, specialists, nurses, and pharmacists. Establish mechanisms for care coordination, such as regular case conferences, shared care plans, and referrals as needed (Stellefson et al., 2013).

Regular Follow-up: Implement a systematic approach to follow-up visits, ensuring regular assessment of asthma control, medication adherence, and adjustment of treatment plans as necessary. Promote proactive communication between patients and healthcare providers (Adams et al., 2016).

Access to Care: Ensure timely access to appropriate asthma care, including timely appointments, access to necessary medications, and emergency care when needed. Consider the use of telehealth or remote monitoring technologies to improve accessibility and convenience for patients (Siminerio et al., 2010).

Clinical Guidelines: Develop and disseminate evidence-based guidelines for asthma management, tailored to the local context. Ensure that healthcare providers are familiar with and regularly updated on these guidelines to inform their decision-making (Pasricha et al., 2013).

Provider Training: Provide ongoing training and professional development opportunities to healthcare providers on asthma management, including the latest research, treatment options, and communication skills. This empowers providers to deliver high-quality care and support patient self-management (Stellefson et al., 2013).

Community Resources and Policies:

Community Engagement: Engage community organizations, schools, and other stakeholders to raise awareness about asthma, its triggers, and effective management strategies. Collaborate with community resources to provide support groups, educational programs, and resources for individuals with asthma (barr et al., 2003).

Policy and Advocacy: Advocate for policies that promote asthma management and prevention, including measures to reduce exposure to environmental triggers and improve air quality. Work with policymakers to ensure the availability and affordability of essential medications and asthma-related services (hung et al., 2007).

Implementing ⁹ the Chronic Care Model for asthma management ⁴³ can improve the quality of care, enhance patient outcomes, and empower individuals with asthma to better self-manage their condition. It emphasizes a proactive, collaborative, and evidence-based approach to asthma care, with a focus on patient education, self-management support, and care coordination across healthcare settings.

National Political ⁴³ Health and Social Care Agendas for Asthma:

- ⁴² In order to support children with asthma, all UK schools should have an asthma policy that includes regular training, emergency inhalers, and asthma action plans.
- Through partnerships between health, education, and local authorities, the National Policing Digital Strategy intends to improve the management of ¹³ children and young people with asthma in schools (NICE, 2017).
- ⁴² The ⁴² British guideline on the management of asthma, which is ⁴ updated every two years by SIGN and the British Thoracic Society, addresses ⁴ the diagnosis and treatment of asthma in both adults and children (BTS & SIGN, 2019). It offers suggestions for self-management, monitoring, medication and non-medication treatment, and acute asthma management (SIGN, 2019).
- According to the safeguarding policy for Asthma in UK, all staff members, volunteers, partners, and associates must have undergone the necessary screenings to guard against any potential risks (GOV.UK, 2018).
- In England, the outcomes plan ¹³ for people with asthma and chronic obstructive pulmonary disease (COPD) includes six shared objectives to improve outcomes through high-quality care, identification, and treatment (NICE, 2017).

Recommendations:

Improving person-centered care approaches, self-management support, and end-of-life care for asthma sufferers in the UK can have a significant positive impact on their overall well-being and quality of life (qamar et al., 2011). Here are some recommendations for enhancing these aspects of asthma care:

Person-Centered Care: Foster Shared Decision-Making: Ensure that individuals with asthma are actively involved in their care and treatment decisions. Encourage open and honest communication, provide clear information about treatment options, and consider their preferences, values, and goals when developing care plans (fiks et al., 2015).

Continuity Care: Promote continuity care by assigning a primary healthcare provider who can establish a long-term relationship with the individual. This enables better understanding of their needs, facilitates personalized care, and improves coordination among healthcare providers involved in their asthma management (shah et al., 2011).

Self-Management Support: Education and Skills Training: Provide comprehensive education and skills training to individuals with asthma to enhance their understanding of the condition, triggers, medication usage, and self-management techniques (morrow et al., 2007). Emphasize the importance of regular monitoring, action plans, and strategies for symptom control (mcdonald et al., 2006).

Individualized Action Plans: Develop personalized asthma action plans in collaboration with individuals, ensuring they understand the steps to be taken during different levels of symptom control or exacerbations (gatheral et al., 2017). Regularly review and update these plans as needed, reinforcing self-management strategies and promoting self-efficacy (pinnock, 2015).

Supportive Technologies: Leverage digital health tools, such as mobile applications or online platforms, to provide ongoing support and resources for self-management (peters et al., 2017). These tools can facilitate medication reminders, symptom tracking, access to educational materials, and communication with healthcare providers (klasnja et al., 2012).

End-of-Life Care:

Advance Care Planning: Encourage individuals with severe or end-stage asthma to engage in advance care planning. Discuss their preferences for end-of-life care, including treatment options, location of care, and palliative care considerations (Curtis et al., 2021). Ensure their wishes are documented and shared with relevant healthcare providers and family members (landefeld et al., 2020).

Palliative Care Integration: Integrate palliative care services for individuals with advanced or difficult-to-control asthma. Collaborate with palliative care specialists to provide symptom management, psychosocial support, and address emotional and spiritual needs (world health organisation, 2018).

Holistic Support: Provide holistic support for individuals and their families during end-of-life care, including access to counselling services, bereavement support, and assistance with practical matters such as care coordination and financial planning.

Access to Guidelines and Resources: Ensure healthcare providers have access to up-to-date clinical guidelines, best practice resources, and educational materials related to asthma management, self-care, and end-of-life care (krishna et al., 2003). Promote their use in clinical practice to enhance knowledge and inform patient care.

Research and Quality Improvement: Research on Person-Centered Approaches: Encourage research on person-centered care models, self-management interventions, and end-of-life care in asthma management. Investigate the effectiveness and impact of different strategies, interventions, and care models to inform best practices and improve outcomes (Kirschenbaum et al., 2005).

By implementing these recommendations, healthcare systems in the UK can improve person-centered care, self-management support, and end-of-life care for individuals with asthma. These strategies aim to empower individuals, enhance their control over their asthma management, and ensure their care align. It is crucial to address these implications through comprehensive asthma management, including proper medical treatment, education, and support.

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