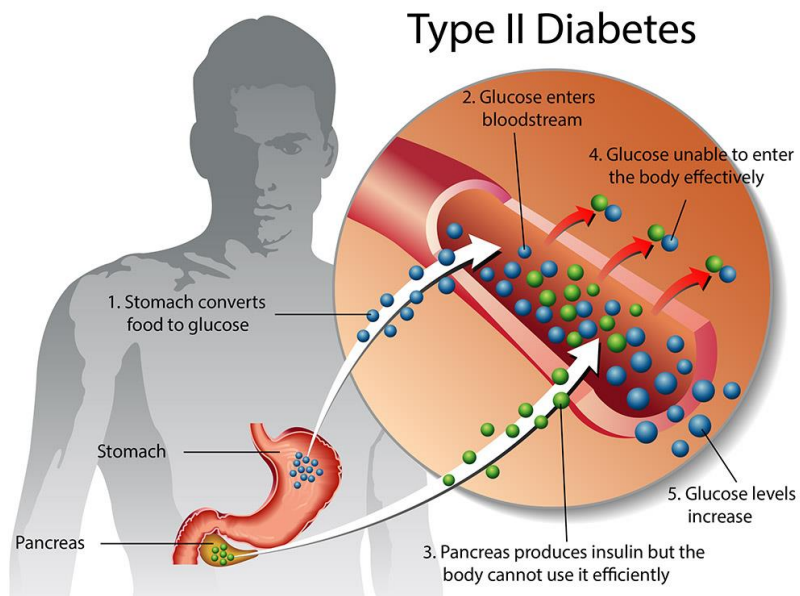




“LONG TERM MANAGEMENT OF
TYPE 2 DIABETES: A THOROUGH
GUIDE FOR LONG-TERM
CONDITION FOR HEALTH AND
CARE SERVICE USERS”

Programme:	MSc Public Health and Social Care in Practice
Module:	Community Care and Management of Longer-term Conditions
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Table of Contents

Introduction	0
1. Understanding Type 2 Diabetes	1
Definition.....	1
How Common is Type 2 Diabetes?	1
UK Statistics	1
Global Statistics	2
Risk Factors for Type 2 Diabetes.....	3
2. Impact of Type 2 Diabetes	4
Physical Health Impact	4
Psychological Impact.....	5
Social Impact	5
Impact on Families and Caregivers	5
3. Evidence-Based Treatments Available Through the NHS	6
4. Theoretical Models for Improving Outcomes.....	7
The Chronic Care Model (International Framework).....	7
The House of Care Model (UK-Based)	8
5. National and Local Health Policy Context	9
National Policy Frameworks	9
Local Health and Social Care Strategies	10
6. Recommendations for Improving Person-Centred Care.....	11
Self-Management Support.....	11
End-of-Life Care	11
Conclusion	13
References.....	0

Introduction

Type 2 diabetes is one of the most common long-term health conditions affecting millions of people in the UK and worldwide. Unlike some conditions that develop suddenly, type 2 diabetes typically develops gradually and often goes unnoticed for several years. The booklet serves as a comprehensive academic resource that examines the intricacies of Type 2 diabetes as a chronic condition, addressing its definition, prevalence, and associated risk factors, while also critically evaluating its physical, psychological, and social effects on individuals and their families. The booklet investigates evidence-based treatment options available via the NHS, analyses frameworks like the House of Care Model and Chronic Care Model, and evaluates the implementation of policies related to health and social care that establish strategies for diabetes management. The booklet intends to provide health and care service customers in the UK with explicit knowledge about type 2 diabetes, its ramifications, and the many approaches through which the NHS may facilitate its treatment.

1. Understanding Type 2 Diabetes

Definition

Type 2 diabetes (T2D) is a chronic illness characterised by consistently elevated blood glucose levels (hyperglycemia) (Banday, Sameer and Nissar, 2020). Optimal blood glucose levels range from 70 to 99 milligrammes per decilitre (mg/dL). Undiagnosed Type 2 diabetes is characterised by glucose readings of 126 mg/dL or above. Type 2 diabetes occurs when the pancreas fails to produce sufficient insulin, the body improperly utilises insulin, or a combination of both factors is present (Currie, 2024). This differs from Type 1 diabetes, which occurs when an autoimmune assault on the pancreas leads to a complete absence of insulin synthesis.

The symptoms of Type 2 diabetes often manifest gradually over time. They may encompass:

- increased polydipsia, or thirst.
- urinating more often.
- feeling more hungry than normal.
- exhaustion.
- Cuts and sores heal slowly.
- Your hands or feet may feel tingling or numb.

- visual impairment.
- skin that is dry.
- inexplicable loss of weight.

Symptoms of Diabetes



Source: (Tharu, 2023)

- Urinary tract infections (UTIs) and/or vaginal yeast infections may occur often in women.

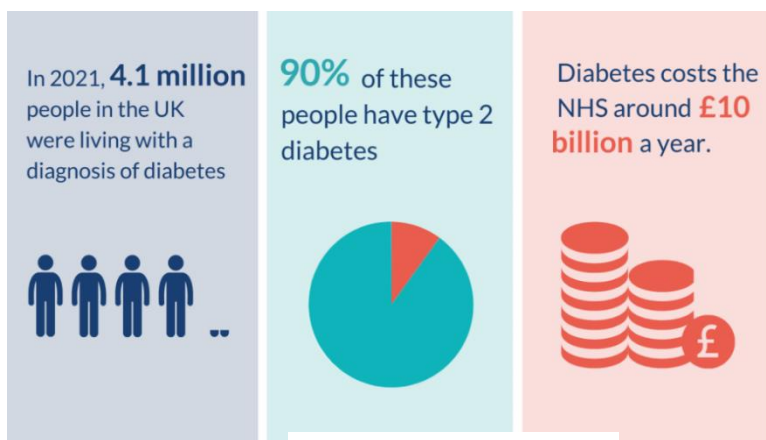
How Common is Type 2 Diabetes?

UK Statistics

- Type 2 diabetes is a serious and increasing problem in the UK. In March 2024, the prevalence rate of type 2 diabetes in adults aged 17 and above in England was registered to be 7.0% which was an increase of 6.8% in March 2023 (White et al., 2024).
- This implies that the number of individuals who are aged 16 and

above with type 2 diabetes in England are estimated to be 3.6 million (Taylor, 2025).

- West Midlands region has the highest prevalence of 9.7% whereas in other areas in England, Buckinghamshire, Oxfordshire and Berkshire West the estimated prevalence of the disease is 6.3% (Powell, 2022).



Source: (Powell, 2022)

- Its overall prevalence (diagnosed and undiagnosed cases) was 7.8% in 2021. Moreover, pre-diabetes which is a condition associated with a high level of sugar in the blood compared to the normal level but not so high as to qualify as diabetes is becoming more prevalent with 3.6 million individuals in England diagnosed with pre-diabetes in 2023, a 18% rise since 2022 (NHS England, 2024a).

- In the younger age group of below 40 years, pre-diabetes cases nearly doubled in the last five years, with 216,440 cases in 2023 compared to 173,166 in 2022 which is also a worrying development in youthful communities (Meisters et al., 2024).

Global Statistics

- Type 2 diabetes is a global epidemic. Worldwide, approximately 830 million people were living with diabetes in 2022, up from 200 million in 1990 (IHME, 2023).
- Among individuals ranging in age from 20 to 79, 5.37 billion people suffer from type 2 diabetes (European Medical Journal, 2020). The prevalence of diabetes among individuals increased from 7% to 14% between 1990 and 2022.
- According to the Office for Health Improvement & Disparities (2025), the proportion of adults aged 30 and above who did not adhere to their diabetic treatment regimen rose to 59% in 2022. Low- and middle-income nations have the worst coverage rates for

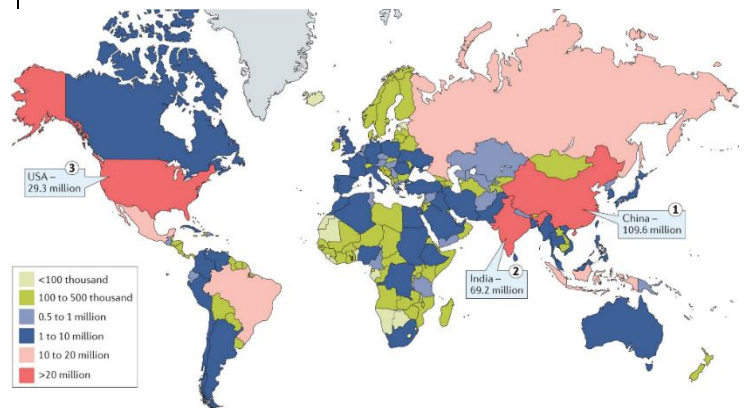
diabetes treatments (Busili et al., 2024).

- By 2045, the prevalence of diabetes is projected to reach 783 million, with a 46% increase compared to the present rate resulting in 1 in 8 individuals getting type 2 diabetes (Narjes Hazar et al., 2024). The International Diabetes Federation's database has these details.
- The United Kingdom and other highly developed countries had far higher rates, with 8,663 instances per 100,000 people (White et al., 2024), demonstrating a significant regional variance in these rates.
- According to the World Health Organisation (2024), the International Diabetes Federation predicts that 7,079 out of 100,000 individuals would have diabetes by 2030, and that number will rise to 7,862 by 2040.

Risk Factors for Type 2 Diabetes

Type 2 diabetes develops due to a combination of genetic, environmental, and lifestyle factors. Understanding these risk factors is important as many

can be modified to reduce your risk or delay the onset of the condition.



Source: (Zheng, Ley and Hu, 2018)

Non-modifiable Risk Factors

- **Age:** Risk increases significantly after age 35, though increasingly affecting younger people.
- **Family history:** Having relatives with diabetes substantially increases your risk
- **Ethnicity:** Some ethnic groups have higher risk, including people of African, Asian, South Asian, and Hispanic descent (Dunning, 2020).
- **Gender-specific factors in women:** History of gestational diabetes (diabetes during pregnancy) or giving birth to a baby weighing more than 9 pounds (Goh et al., 2022).

Modifiable Risk Factors

- **Overweight or obesity:** This is the primary risk factor, accounting for 52.2% of type 2 diabetes-related disability and mortality globally (Khan et al., 2020). Central obesity (excess fat around the abdomen) is particularly significant.
- **Physical inactivity:** Low levels of physical activity substantially increase risk (Ndetei et al., 2024).
- **Poor diet:** High-sugar and processed foods, low fibre intake .
- **Pre-diabetes:** Having this condition significantly increases progression to type 2 diabetes.
- **High blood pressure and cholesterol:** These metabolic abnormalities increase risk.
- **Tobacco use:** Smoking substantially increases risk
- **Alcohol use:** Excessive consumption increases risk

2. Impact of Type 2 Diabetes

Physical Health Impact

Type 2 diabetes affects multiple body systems and, if not well managed, can lead to serious long-term complications

- ✚ **Cardiovascular Complications:** People with



Source: (Banday, Sameer and Nissar, 2020)

type 2 diabetes have twice the risk of cardiovascular disease. Type 2 diabetes increases the risk of heart disease, stroke, and peripheral arterial disease by 2-3 times (NHS, 2017).

- ✚ **Kidney Disease:** Diabetic kidney disease results from kidney blood vessel damage from high blood sugar.

- ✚ **Problems with eyes:** High blood glucose damages the retina's small blood vessels, causing diabetic retinopathy (NICE, 2023).

- ✚ **Nerve Damage:** Diabetic neuropathy is nerve damage from high blood sugar. Pain, numbness, and tingling usually start in the feet and legs.

Psychological Impact

The psychological impacts are as substantial, although often neglected. Research indicates that a Type 2 diabetes diagnosis triples the chance of diminished quality of life (Plan, 2019). Diabetes-associated distress include complications, treatment obligations, and lifestyle restrictions. Individuals with Type 2 Diabetes have a depression prevalence that is double that of the general population, correlating with suboptimal treatment adherence and increased mortality (Public Health England, 2018). Hypoglycaemia-related fear, repercussions, and the erosion of health and lifestyle autonomy constitute psychological stresses.

Social Impact

Social impacts profoundly influence everyday functioning and interpersonal interactions. The diagnosis of Type 2 Diabetes has been associated with reduced social interactions, including less time spent with friends and family, fewer phone communications, and decreased participation in social clubs and religious organisations (Sattar et al., 2024). The ailment may result in employment discrimination, diminished productivity, and career constraints. Healthcare, medications, and

absenteeism from work due to sickness might incur expenses.

Impact on Families and Caregivers

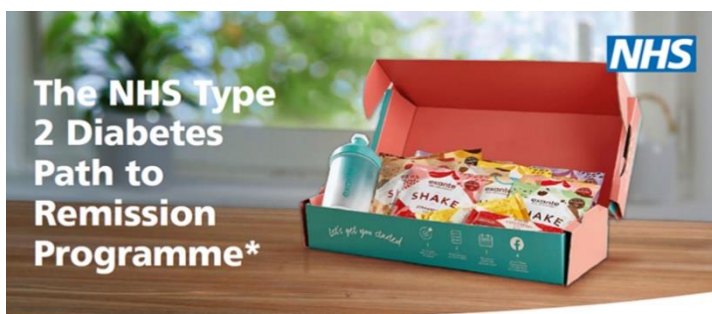
The impact of Type 2 diabetes on families and carers is referred to as "family carer burden." Physical caring, emotional distress, and financial strain from medical expenses and diminished productivity impact family carers. Research indicates that 66.7% of family carers for diabetes have objective load, whereas 22.5% report subjective hardship (Tharu, 2023).

The load on carers impacts patient outcomes reciprocally. Heightened carer load results in diminished patient health, creating a cycle in which carer stress deteriorates care quality and exacerbates patient outcomes (Zaroug, 2024). Modifications in lifestyle, administration of medicine, and monitoring may impose stress on familial relationships. When patients encounter challenges with self-management, caretakers may have a sense of helplessness.

3. Evidence-Based Treatments Available Through the NHS

Lifestyle Management

Initial Approach: Lifestyle changes may be enough to control or even cure diabetes for many people, especially those newly diagnosed.



Source: (NIHR, 2024)

Remission and Weight Loss: This ground-breaking NHS Type 2 Diabetes Path to Remission Programme is available nationwide in England. This free one-year program is based on research showing that significant weight loss can cure type 2 diabetes (Valabhji et al., 2024). Programme includes:

- ❖ 12 weeks of low-calorie diet replacement (800-900 calories per day) using specially formulated meal replacement products (soups, shakes, and bars).
- ❖ Four weeks of gradual food reintroduction with support.

- ❖ Eight months of weight maintenance through healthy eating, physical activity, and ongoing support.

Diabetes Prevention Programme

The NHS Type 2 Diabetes Prevention Programme is for pre-diabetics and high-risk patients. Over 9-12 months, this free programme provides personalised lifestyle interventions, including healthy eating and exercise education (NIHR, 2024). Both face-to-face and digital versions exist.

Organised Education

DESMOND (Diabetes Education and Self-Management for Ongoing and Newly Diagnosed) is a free, UK-wide group-based education program. It offers six hours of group education over one or two days on diabetes, blood sugar management, healthy eating, physical activity, and managing emotions (NHS Lothian, 2024). It lowers HbA1c, supports weight loss, improves physical activity, helps smokers quit, educates about type 2 diabetes and its complications, reduces depression, and promotes positive behaviour change.

Medicine for type 2 diabetes

- ❖ Metformin is among the few medications used in the management of type 2 diabetes (NHS England, 2024b). Administering a combination of metformin and an adjunctive medication may be necessary to lower blood glucose levels.
- ❖ Insulin may be delivered intravenously or via a pump many times daily.
- ❖ Dosage and timing directives will be sent to you. Excessive insulin administration may lead to hypoglycemia (GOV.UK, 2019).

Appointments and tests

Individuals with Type 2 diabetes need periodic evaluations and assessments to track their condition. This entails the surveillance of average glucose levels and HbA1c every 3 to 6 months (NHS England, 2024a). Adults should get foot examinations biennially after a normal result or yearly if concerns emerge.

4. Theoretical Models for Improving Outcomes

The Chronic Care Model (International Framework)

The Chronic Care Model (CCM) was first formulated in the 1990s, and is now the internationally recommended

framework for organising and optimising diabetes care delivery. The model is grounded on the fact that care improvements can only take place by adopting an approach that involves patients, health care providers, and system-level interventions (Gee et al., 2015). **The CCM comprises six interrelated components:**

The Chronic Care Model (CCM)



The six components *Source: (Gee et al., 2015)*

of the CCM consist of delivery system design, community resources, healthcare organisation, decision support, self-management help, and clinical information systems (Coulter et al., 2016). Collectively, these elements provide proactive, coordinated, evidence-based management of type 2 diabetes. The CCM enables patients to manage diabetes via education, behavioural coaching, and support groups (Bongaerts et al., 2017). Electronic health records enable healthcare workers to monitor patients,

identify high-risk people, and act promptly. Numerous studies indicate that the CCM improves glycaemic regulation, medication compliance, and diabetes complications (Zaroug, 2024; Zheng, Ley and Hu, 2018). Canada, Australia, and other countries have improved the quality and accessibility of diabetes care via the implementation of the Chronic Care Model (CCM).

Foundation of Evidence and Efficacy

Systematic evaluations indicate that CCM treatments enhance diabetes management. A comprehensive meta-analysis shown that CCM interventions significantly reduced HbA1c levels relative to conventional therapy, with greater advantages seen in patients with baseline levels $\geq 8\%$ and those using four or more CCM components (Goh et al., 2022).

The House of Care Model (UK-Based)

The House of Care structure, first designed for diabetes management, has since been used for other chronic diseases in the UK under the Year of Care Partnerships initiative (Busili et al., 2024). The framework delineates the components of integrated care planning using the metaphor of a home.



Source: (Banday, Sameer and Nissar, 2020)

This concept shifts the emphasis from the physician to the patient, positioning the patient as a fundamental component of their own treatment instead of the reverse (Currie, 2024). The four elements that support patient self-management are: healthcare providers promoting collaborative partnerships, organisational protocols that enhance care coordination, patient education and engagement, and strong community resources (Dunning, 2020). The DESMOND program exemplifies a structured education initiative for type 2 diabetes, aligning with this model's focus on self-management education (Busili et al., 2024). Research has shown that the House of Care model is an effective instrument for enhancing long-term outcomes in diabetes management.

Evidence and Implementation

The Year of Care initiative evaluated the House of Care concept in three English pilot locations, enhancing patient outcomes and care procedures. In Tower Hamlets, patient-reported engagement in care rose from 52% to 82%, and 76% of individuals with Type 2 diabetes had care planning consultations (Currie, 2024). The Royal College of General Practitioners advocates for the care planning paradigm.

Comparative Analysis

Both approaches stress patient-centered care, interdisciplinary collaboration, and methodical care planning. The CCM offers a more extensive organisational structure for systemic alterations, but the House of Care model delivers clearer direction on care planning discussions and patient involvement. The CCM encompasses community resources and information systems, while the House of Care prioritises patient-provider interactions and care planning.

5. National and Local Health Policy Context

National Policy Frameworks

Comprehensive national policy frameworks aimed at standardising

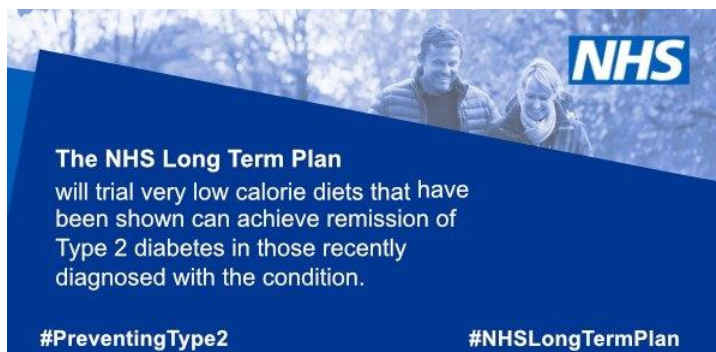
care quality and enhancing patient outcomes have influenced the UK's diabetes management strategy.

1. The National Service Framework (NSF)

Published in 2001, it created the framework for diabetes care strategy in England. This framework set rigorous quality requirements to mitigate diabetes and health disparities while guaranteeing high-quality treatment irrespective of location (Valabhji et al., 2024).

The NSF established twelve criteria for prevention, identification, empowerment, clinical treatment, and complications (Khan et al., 2020). These guidelines emphasised patient empowerment and self-management, asserting that persons with diabetes, whatever of age, shall have access to a program that fosters active involvement in decision-making, aids in diabetes control, and directs them towards a better lifestyle.

2. NHS Long Term Plan



Diabetes treatment, a significant clinical concern of the 21st century, is increasingly central to the development of integrated care systems under the NHS Long Term Plan. The plan projects that about 9% of the population will be diagnosed with diabetes by 2030, necessitating significant changes in care delivery (Khan et al., 2020; NICE, 2023). The primary interventions of the strategy are professional multidisciplinary footcare teams, diabetic inpatient specialist nursing, NICE treatment objectives, and organised education.

3. Public Health England (PHE) and Diabetes Prevention Programs

To deter individuals from adopting diabetes-inducing habits and enhance public awareness of the condition, PHE has facilitated the creation of national campaigns like as "Healthier You". These definitely enhance the overarching governmental push to address obesity and advocate for



Source: (Public Health England, 2018)

improved eating habits (Public Health England, 2018).

Local Health and Social Care Strategies

Integrated Care Systems (ICSs)

Local governments and NHS organisations that have established integrated care systems provide more coordinated care for individuals with Type 2 diabetes (NHS, 2017). Primary care, hospitals, and community groups collaborate, and Integrated Care Systems (ICSs) seek to promote this kind of partnership.

- The tactics may be customised for diabetes treatment in patients.
- The care transition may be improved to prevent hospital admissions.
- Augment community-focused diabetes support programs.

Integrated circuits have promise; nevertheless, not all operate well, and challenges such as uneven resource distribution and administrative difficulties may hinder the prompt provision of advantageous services (Khan et al., 2020).

6. Recommendations for Improving Person-Centred Care

Self-Management Support

Person-centred treatment for Type 2 diabetes must emphasise patient empowerment and self-management skills as the foundation of good long-term disease control.

- ✚ Self-management education should be universally accessible, with programs like DESMOND and X-PERT providing evidence-based methods for diabetes education (Sattar et al., 2024).
- ✚ Medical practitioners should use collaborative care planning using the House of Care model to ensure treatment plans are congruent with patients' choices, values, and living circumstances.

- ✚ Routine treatment must include digital self-management tools, and programs like the NHS Healthy Living initiative should provide readily available evidence-based resources for diabetes control (Taylor, 2025).
- ✚ The organisation of peer support programs is essential, since peer experiences have significant value in diabetes management.
- ✚ Psychological evaluations should be conducted regularly using proven instruments to identify diabetic discomfort, depression, and anxiety (Tharu, 2023).
- ✚ Patients must possess formal agreements delineating their responsibilities and the circumstances under which healthcare professionals will assume diabetes management during hospitalisation (World Health Organization, 2024).

End-of-Life Care

Person-centred care should encompass end-of-life situations, wherein diabetes management objectives transition from the prevention of long-term complications

to the management of symptoms and the enhancement of comfort.

- ✚ Care planning discussions must encompass patient and family preferences regarding diabetes management in the context of terminal illness, accompanied by precise documentation of the agreed-upon strategies. Healthcare providers must elucidate the alterations in diabetes management principles during end-of-life care, prioritising comfort and quality of life over stringent glycaemic control (Zaroug, 2024).
- ✚ The administration of medication should incorporate a sequential management strategy that simplifies diabetes care as life expectancy diminishes.
- ✚ During end-of-life care, family support must encompass education on diabetes self-management and guidance on when to seek consultation from healthcare professionals (Dunning, 2020). Families must understand comfort-oriented care policies while respecting the dignity and preferences of patients.

Conclusion

Type 2 diabetes affects millions of people in the UK and hundreds of millions more around the world, and is a serious long-term condition. With the right understanding, support, and self-management, many people with type 2 diabetes can achieve health outcomes and even remission. The process is never a straight path; changing your lifestyle, taking medications, and staying in contact with the health services. The good news is, the NHS and other health services regard type 2 diabetes as a priority, and evidence-based, person-centred approaches are becoming available. Achieving good control may not be restricted only to one pathway. Thus, a combination of

education (like the DESMOND), a lifestyle intervention (like the remission programme) and appropriate medicines provides several pathways to achieve good control and prevent complications.

Your role in managing your condition is central. When you understand your diabetes and make healthy lifestyle choices, take medication and go to your appointments and screening programmes, and get the psychological support you need, you take charge of your health. Your family members and caregivers also play an important role in your recovery. Supporting them with education and resources will strengthen your support network.

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