

Type 2 Diabetes Mellitus: Diagnosis, Management and Prevention in the UK

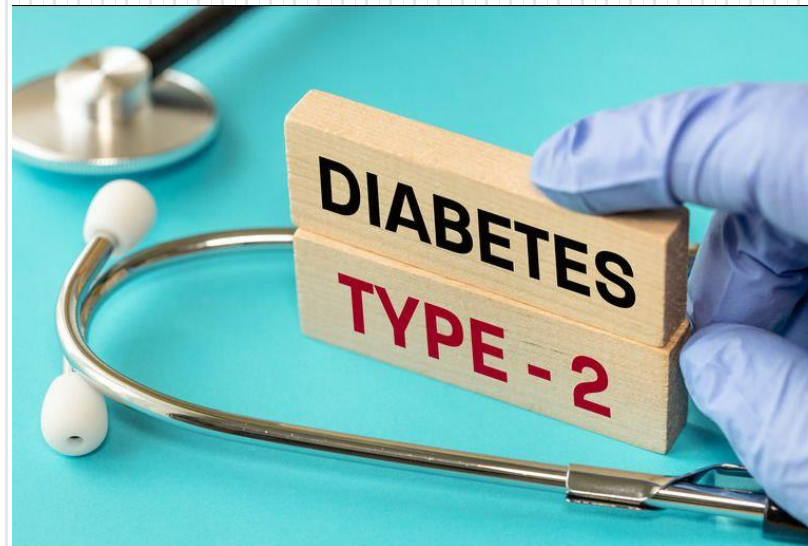
Module: Community Care and Management for Longer-term Conditions

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What is Type 2 Diabetes?

- ❑ It is a long-term condition where blood glucose becomes high
- ❑ Mainly caused by insulin resistance and a gradual loss of insulin production
- ❑ Common symptoms includes tiredness, thirst, frequent urination and blurred vision
- ❑ Develops slowly and often goes unnoticed in early stages (DeFronzo et al., 2015).



Risk Factors of T2DM

1

Strong genetic influence

Family history significantly influences type 2 diabetes as certain genes are related with the production of insulin (Fletcher et al., 2002).

2

Obesity and physical inactivity

When there is excess body fat then it become less responsive to insulin as well as obesity can disrupts the function of insulin in the body. Regular physical activity improves insulin sensitivity (Fletcher et al., 2002).

3

Poor diet and long-term stress

Good and processed food raise the blood sugar level . When adequate amount of food is not taken, body does not produce glucose properly (Bellou et al., 2018).



Frequency of T2DM



Approximately 4.3 million people currently diagnosed in the England



An estimated 850,000 people are not diagnosed



According to IDF 2023, Worldwide over 537 million adults are suffering from diabetes.



Because of lifestyle changes , this amount is increasing day by day (Maxwell, 2023).



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Economic Impact of T2DM

NHS spend about
£10 billion each
year for diabetes

Most of the
expenses are
linked to issues
such as heart
disease and
kidney failure.

Lost work
productivity and
early retirement
also add to the
national cost
(Valabhji et al.,
2024).



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Social & Personal Impact

- It significantly affects daily routines and long-term health.
- It can cause emotional strain, anxiety, and depression
- It need lifestyle adjustments for both patients and families
- Some patients may experience stigma (Feng & Astell-Burt, 2017).



Diagnosis of T2DM

- HbA1c ≥ 48 mmol/mol (6.5%)
- Fasting glucose ≥ 7.0 mmol/L
- Random glucose ≥ 11.1 mmol/L with symptoms
- Initial detection includes kidney tests, lipid profile, BMI, blood pressure, and foot checks (Ortiz-Martínez et al, 2022).



Management of T2DM

Personalised care plan should be implemented.

Regular HbA1c monitoring is must (every 3–6 months).

Education programmes or seminars should be arranged.

Multidisciplinary team steps . For example- GP, nurse, dietitian, podiatrist or pharmacist (Ley et al., 2007).

Treatment Options for T2DM

Healthy diet

Physical activity

Weight reduction

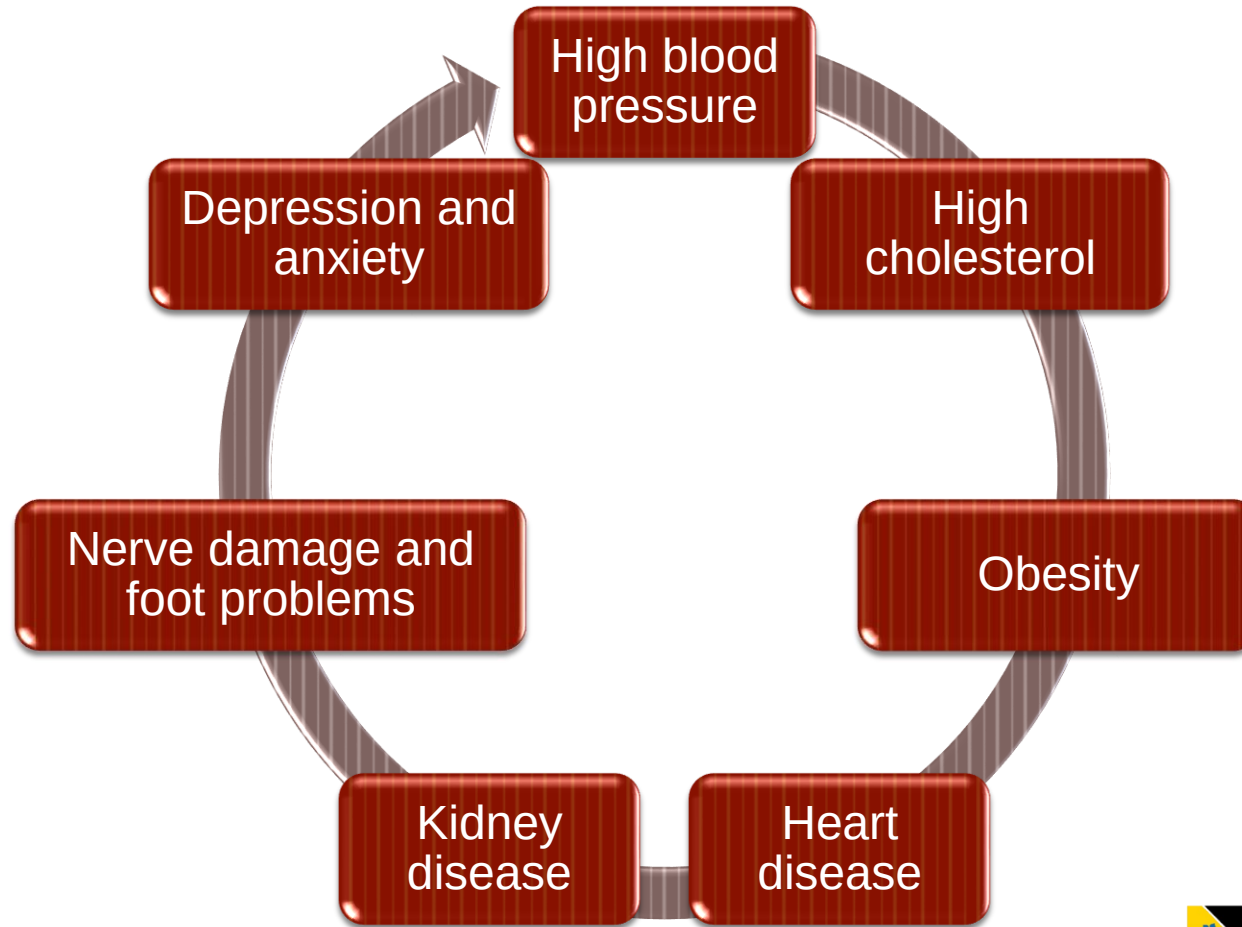
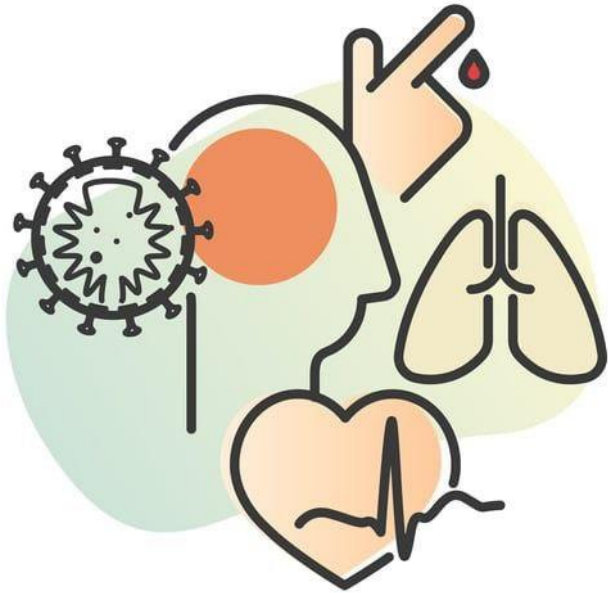
Behaviour change support
(Marín-Peñalver et al., 2016).

Metformin

SGLT2 inhibitors, GLP-1 agonists,
DPP-4 inhibitors, sulfonylureas

Insulin when needed (Magkos et
al., 2020).

Common Comorbidities



(Adeline, 2022)

Models of Care for T2DM

- **House of Care Model**

Focuses on personalised care planning and shared decision-making.

- **Year of Care Approach**

Organises diabetes care across the year.

- **NHS and Social Care Model**

Supports integrated, joined-up care between health and social services.

- **Innovative Care for Chronic Conditions (WHO)**

Motivates strong community support and patient self-management.

- **Public Health Model**

Focuses on prevention, early detection, and reducing inequalities.

- **Continuity of Care Model**

Ensures long-term, consistent care relationships to improve outcomes
(Roberts et al., 2019).

Skills for Co-Productive Care

Active listening and empathy should be shown



Cultural awareness is important



Building trust and supporting behaviour change



Clear, simple communication with the sufferer



Working in partnership with patients and families

(CK, 2025).

Personalised Care Model in T2DM Care

Shared decision-making

Personalised care and support planning

Helping patients manage their own condition

Social prescribing (exercise groups, diet clubs)

Use of personal health expenses (when applicable)

Offering real choices in treatment and monitoring (de Fine Olivarius, 2001).

Recommendations

- Increase diagnosis in high-risk communities
- Improve access to lifestyle and weight-management services
- Build nurse-led diabetes clinics
- Utilization of digital technologies is prime
- More training for nurses on new diabetes medications (Chen et al., 2012).

Conclusion

- ❑ T2DM is a major public health challenge.
- ❑ Early detection and long-term follow-up will improve the situation.
- ❑ Person-centred, evidence-based care is prime for the improvement
- ❑ Prevention, education and self-management is the strongest way for the better outcome.

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Thank

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