Royal United Hospitals Bath
NHS Foundation Trust

Diabetes

Current Awareness Bulletin

January 2026

This bulletin uses content created and shared with permission by the Library at Milton Keynes University Hospital NHS Foundation Trust

Please contact the Academy Library to request any articles:

ruh-tr.library@nhs.net

01225 82 4897/4898

Carry out basic searches using the Knowledge and Library Hub.

Sign up to NHS OpenAthens to access our subscriptions.

Contact us to receive our bulletins via email each month.

Get personalised alerts via our KnowledgeShare service.

ruh.nhs.uk/library

New training via MS Teams available from the Academy Library:

- **Bitesize searching databases for evidence: a quick guide to help you develop your literature searching skills**
  45 minutes. Learn how to transform a question into a search strategy, and how to find the best evidence in a database.

  Next sessions: 22nd January 2026 @ 2pm and 13th February 2026 @ 3pm

- **Simple and painless evidence into practice (BMJ Best Practice and the LKS Hub)**
  30 minutes. Learn about quick and hassle-free ways to seamlessly incorporate evidence into your daily work.

  Next sessions: 16th January 2026 @ 10am and 2nd February 2026 @ 11am

- **Quickfire health literacy: communicating with patients more effectively**
  30 minutes. Learn about the communication barriers patients may encounter, and ways to ensure they get the most from their care.

  Next sessions: 7th January 2026 @ 2pm and 19th February 2026 @ 3pm

Book a session today at https://forms.office.com/e/HyiSXfDaYV (these sessions will be held on a monthly basis)

1**. Awareness of diabetes stigma and advocacy among future physicians: insights from the first real-world survey among medical trainees in Japan**

Author: Matsushiro M., Motohashi K., Murakami T., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: Diabetes stigma is an important issue, and healthcare providers may inadvertently perpetuate it. However, the extent to which future physicians—medical students and residents—are aware of diabetes stigma and advocacy remains poorly understood. This first real-world study aimed to assess their understanding of diabetes stigma and advocacy and identify the needs for strategic interventions in medical education.]

2**. Correction to Lancet Diabetes Endocrinol (2025; 13: 699–721**)

Author: Brandi ML, Pieterman CRC, English KA, et al

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

Brandi ML, Pieterman CRC, English KA, et al. Multiple endocrine neoplasia type 1 (MEN1): recommendations and guidelines for best practice.

3**. Corrigendum to "Divergence in prediabetes guidelines – A global perspective" [Diabetes Res. Clin. Pract. 223 (2025) 112142]**

Authors: Pragati G. and Paolo P.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[The authors regret that there was an error in the order of their surnames and names. The correct order of author surnames and names is: Gupta Pragati and Pozzilli Paolo.]

---

4. **Corrigendum to "Retention and outcomes of National Diabetes Prevention Program enrollees and non-enrollees with prediabetes: The University of Michigan experience" [J. Diabetes Complicat. (2023) 108527]**

Authors: Herman W.H., Villatoro C., Joiner K.L., et al.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

The authors regret that the original article did not acknowledge the assistance of Hannah Levy, an undergraduate student.

---

5. **Diabetic Platelets: Pathophysiology, Clinical Significance, and Therapeutic Perspectives**

Authors: Sharma N., Verma S.K., Sharma S., et al.

Publication Date: 2025

Journal: Diabetes Therapy

[Platelets are crucial for haemostasis and thrombosis. They acquire a distinct prothrombotic and proinflammatory platelet phenotype in individuals with diabetes mellitus, particularly type 2 diabetes mellitus (T2DM). Such platelets in people with diabetes (diabetic platelets) contribute to the pathogenesis of micro- and macro-vascular complications in T2DM. Chronic hyperglycaemia, oxidative stress, advanced glycation end-products (AGEs) and insulin resistance converge to reprogram platelet function at the molecular level. This results in platelet hyperreactivity, enhanced aggregation and a diminished therapeutic response to standard antiplatelet medications. Platelets in people with diabetes play a central role in the development and progression of cardiovascular disease (CVD), the most common cause of mortality in such patients. This manuscript explores the structural and functional changes in platelets in people with diabetes, underlying molecular mechanisms, their role in vascular complications and therapeutic perspectives in patients with diabetes. Also, we introduce the concept of 'haematobolomics' to drive more research in the metabolic profile of platelets in people with diabetes, being a potential avenue for personalised therapeutics.]

6. **Global, regional, and national cascades of diabetes care, 2000–23: a systematic review and modelling analysis using findings from the Global Burden of Disease Study**

Authors: Stafford L.K., Gage A., Xu Y.Y., et al.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

[**Background**: Diabetes is a serious global health challenge, with a rising prevalence and substantial effect on disability and mortality worldwide. Despite medical advancements, gaps in the cascade of diabetes care—comprising diagnosis, treatment, and glycaemic management—persist, hindering effective management. We aimed to comprehensively assess the state of the diabetes cascade of care globally, identifying areas of strength and needs for improvement in diabetes management.]

---

7. **Supporting neurodiversity in diabetes care: a nursing perspective from the Royal College of Nursing**

Authors: Metcalfe-O'Shea C., Williams A., Fletcher-Salt T., et al.

Publication Date: 2025

Journal: British Journal of Nursing

As patient diversity continues to expand, nursing staff are increasingly required to support neurodivergent individuals, particularly in the context of diabetes care. This article explores the principles of neurodiversity and outlines how nurses can provide informed, inclusive support to both patients and colleagues across various healthcare settings. It considers communication techniques, sensory considerations, environmental design, and policy recommendations. A key focus is placed on strategies for behaviour change, managing comorbid conditions, and tailoring diabetes care to individuals with specific learning differences. Consistent communication plans, reasonable adjustments, and multiagency collaboration have been shown to significantly enhance care outcomes. There is a need for increased recognition of neurodiversity within nursing education and practice environments. Embracing neurodiversity fosters more equitable, person-centred care and supports nursing staff in delivering high-quality services.

Children with diabetes

8. **Disparities in diabetes technology utilization in youth with diabetes**

Authors: Singh P., Garcia A., Grishman E.K., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

[**Background**: Diabetes technology can improve glycemic variability and diabetes outcomes, but there are disparities in patient use.

Aims: Identify racial, ethnic, and socioeconomic disparities in technology utilization and determine provider-, patient-, and parent-identified barriers.]

---

9. **Effect of Automated Insulin Delivery System Therapy at Diagnosis on Metabolic Control in Children and Adolescents with Type 1 Diabetes**

Authors: Yilmaz U.C., Demir G., Özalp Kızılay D., et al.

Publication Date: 2025

Journal: Diabetes Therapy

[**Introduction**: The primary goal of managing type 1 diabetes mellitus (T1D) is to achieve glycemic control and prevent both acute and chronic complications. In recent years, automated insulin delivery (AID) systems, such as the 780G AID system, have significantly improved glycemic control and patient safety. Despite being the most advanced treatment option, AID initiation is often delayed until the honeymoon stage (partial remission phase). This study evaluated the impact of initiating MiniMed™ 780G at diagnosis on metabolic control and glycemic metrics in children newly diagnosed with T1D. It compares early AID initiation with continuous glucose monitoring (CGM) and multiple daily injection (MDI) therapy over a 1-year follow-up period.]

---

10. **Human factor in the use of automated insulin delivery systems: Real-world effects in children with type 1 diabetes after 2 years of use (AID-A study)**

Author: Schneidewind J., Von Sengbusch S., Schmidt D., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: This study aimed to assess the metabolic effects, changes in daily life, and diabetes burden associated with automated insulin delivery (AID) systems in children in a real-world setting after 2 years of use.]

11. **Self-efficacy among parents of children and adolescents with type 1 diabetes: a systematic review**

Authors: Arcangeli I.C., Ciavatta V., Celia G.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Parental self-efficacy in caring for children and adolescents with type 1 diabetes (T1D) plays a crucial role in effective diabetes management and the overall well-being of both the parent and the child. This systematic review aims to synthesize research on parental self-efficacy in managing children and adolescents with T1D, focusing on factors influencing self-efficacy, outcomes associated with high or low self-efficacy, and interventions designed to improve it. In accordance with PRISMA guidelines, a systematic review of the PubMed, PsycINFO, Web of Science, and Scopus databases was conducted. A total of 19 articles met the inclusion criteria and were included in the review. The results indicate that lower parental self-efficacy is often associated with psychological factors such as depression and stress, while higher self-efficacy is linked to better quality of life, glycemic control, and dietary management in children with T1D. Health education and social support, particularly from online health communities, significantly enhance self-efficacy. Family dynamics, including better organization and reduced conflict, are crucial in promoting higher parental self-efficacy, thereby improving disease management in their children.

---

12. **Types of fluid therapy for pediatric patients with diabetic ketoacidosis: a systematic review**

Authors: Magallón P.C., Sesma I.R., Gómez J.A.V., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[There is ongoing debate regarding the optimal fluid therapy for treating diabetic ketoacidosis (DKA) in pediatric patients. This paper reviews the evidence comparing balanced fluids with normal saline (NS), examines the best fluid tonicity and the effects of rapid versus slow rehydration rates for the treatment of DKA, based on articles published since 2004. Weak evidence suggests that balanced solutions (Ringer's, Hartmann's) may be superior to NS in some areas, such as shorter time to DKA resolution. However, no significant differences were found between some balanced solutions and NS regarding most outcomes (acute kidney injury, hospital stay, or mortality). There are no significant differences in neurological complications or the speed of DKA resolution when comparing 0.45% saline to NS, although NS is associated with more frequent electrolyte disturbances, such as hyperchloremic metabolic acidosis. There is no strong evidence that rapid-rate rehydration DKA resolution or increases major complications, although it is linked to more hyperchloremic metabolic acidosis. Current evidence suggests that balanced solutions and 0.45% saline are not inferior to NS in pediatric DKA, but evidence is insufficient to recommend them over NS. There is no evidence that rapid-rate rehydration increases major complications. More studies are needed to provide further evidence.]

Co-morbidities (find here cardiovascular, kidney disease, neuropathy, diabetic retinopathy etc)

13. **Accelerometer-measured “weekend warrior” physical activity and incident cardiovascular disease in adults with type 2 diabetes mellitus or prediabetes: A prospective cohort study**

Authors: Yang H., Qiao Y., Lin R., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Background**: Adherence to guideline-recommended optimal dose (≥150 min/week of moderate-to-vigorous physical activity [MVPA]) has been associated with reduced risk of cardiovascular disease (CVD) in adults with type 2 diabetes mellitus (T2DM) or prediabetes. However, the influence of different PA patterns, such as concentrated versus evenly distributed activity, on this risk remains unclear. We aimed to examine the associations of accelerometer-measured “weekend warrior” (WW) and active regular patterns with incident CVD in adults with T2DM or prediabetes.]

---

14. **Association of the metabolic dysfunction-associated steatotic liver disease with cardiovascular and kidney disease in patients with type 2 diabetes mellitus: a cross-sectional study**

Authors: Ren H., Hu M., Yan Y., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Purpose: This study explored the link between liver fibrosis and left ventricular hypertrophy (LVH), a good indicator of cardiovascular disease (CVD), and chronic kidney disease (CKD) risk in type 2 diabetes mellitus (T2DM) patients.

---

15. **Beta-hydroxybutyrate ameliorates cardiac fibrosis in diabetic cardiomyopathy rats via regulating macrophage polarization**

Authors: He M., Luo W., Ning S., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Objective: Beta-hydroxybutyrate (BHB) has been demonstrated to enhance cardiac function in patients with diabetic cardiomyopathy (DCM), the underlying mechanism remains unclear.

16. **Between *Scylla* and *Charybdis* – Enigmatic role of lipoprotein(a) in atherosclerotic cardiovascular disease and type 2 diabetes mellitus**

Authors: Li Q., Xu J., Xiong Z., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Lipoprotein(a) [Lp(a)], one of the major residual cardiovascular risks, is a highly polymorphic low-density lipoprotein (LDL)-like particle. Epidemiological and Mendelian randomization studies have suggested that elevated Lp(a) is a causal risk factor for atherosclerotic cardiovascular disease (ASCVD) due to its pro-inflammatory, pro-atherogenic and pro-thrombotic properties. However, metabolic and pathological mechanisms of Lp(a) remain under-investigated. Recent genomic and population studies show that very low Lp(a) levels are associated with increased risk of type 2 diabetes mellitus (T2DM). Thus, whether potent Lp(a)-lowering therapies might increase the risk of T2DM incident has been raised as a potential issue from recent guidelines. This review details Lp(a)-induced inflammation and thrombosis evidences, the underlying mechanisms of Lp(a) in ASCVD, and the complicated associations and potential mechanistic effects of Lp(a) on the development of T2DM. Current evidences tend to favor that the anti-atherogenic benefits of lowering Lp(a) shall override the paradoxical negative impact on the new-onset T2DM. The risk–benefit assessments for potent Lp(a)-lowering therapies are warranted.

---

17. **The cardiovascular–kidney–metabolic staging in type 2 diabetes: the clock starts ticking early**

Authors: Hoffmann K., Paczkowska A., Maggio V., et al.

Publication: 2025

Journal: Journal of Diabetes and Its Complications

Nishizawa et al. demonstrate that cardiovascular–kidney–metabolic (CKM) staging is a strong predictor of all-cause mortality in type 2 diabetes, even before contemporary ardiorenal therapies were widely available. In their cohort, mortality rose sharply from stage 3 onward, underscoring that pathological risk begins well before overt cardiorenal failure. Because CKM staging relies on routine clinical data, it offers a pragmatic framework for early risk stratification, yet it is often applied too late. Integrating CKM assessment into electronic health systems and initiating cardiorenalprotective interventions in stages 1–2 could substantially improve outcomes. Future studies should validate CKM staging in modern therapy settings and evaluate stageguided interventions.

18. **Comparative effectiveness of GLP-1 receptor agonists on cardiovascular outcomes among adults with type 2 diabetes and moderate cardiovascular risk: emulation of a target trial**

Authors: Sklepinski S.M., Deng Y., Swarna K.S., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aim: To compare the cardiovascular outcomes of glucagon-like peptide-1 receptor agonists (GLP-1RAs) among adults with type 2 diabetes mellitus (T2D) at moderate cardiovascular risk.

---

19. **Comparative effectiveness of OW GLP-1 RAs and other glucose-lowering therapies among Medicare beneficiaries with T2D and ASCVD**

Authors: Tan X., Harton J., Gutierrez C., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To compare the incidence rates for cardiovascular (CV) outcomes and healthcare resource utilization (HCRU) and costs among patients treated with once-weekly (OW) glucagon-like peptide-1 receptor agonists (GLP-1 RAs) compared with other non-insulin glucose lowering therapies (ONIGLTs).

20**. Corrigendum to "Exploring the benefits of alirocumab as lipid-lowering therapy in people with diabetes and very high cardiovascular risk"**

Authors: Avogaro A., Buzzetti R., Candido R., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

The authors regret a wrong reference cited in table 2, first column under the heading "*Odyssey Outcomes – DM (prespecified analysis) incorrectly listed as [70]*".

---

21. **Dietary glycocalyx mimetic reduces vascular risk in Type 2 diabetes: evidence from urinary peptidomic classifiers in a South–Asian Surinamese Cohort**

Authors: Biglari S., Yuan L., Mischak H., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: Following up on a prior placebo-controlled trial (NCT03889236), we examined the effects of an oral glycocalyx-mimetic supplement and a fasting-mimicking diet (FMD) on three

urinary peptidomic-based classifiers, which indicate future heart failure (HF2), coronary artery disease (CAD160), and chronic kidney disease (CKD273) risk in South-Asian Surinamese adults with type 2 diabetes mellitus.]

---

22. **Metabolic factors moderate the association between hepatic fibrosis and atherosclerotic cardiovascular risk in type 2 diabetes**

Authors: Lu L., Gao C., Wu N., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

[**Introduction:** Hepatic fibrosis caused by metabolic dysfunction-associated steatotic liver disease (MASLD) predicts adverse atherosclerotic cardiovascular disease (ASCVD) outcomes in the general patient population. However, it is unclear whether this association extends to type 2 diabetes mellitus (T2DM) patients, who have distinct metabolic profiles and high comorbidity of both MASLD and ASCVD. To address this gap, we investigated the association between hepatic fibrosis caused by MASLD and ASCVD risk in T2DM patients as well as potentially moderators of this association.]

---

23. **Sex-related differences of diabetic cardiomyopathy**

Author: Ell O.Z., Bojer A.S., Sørensen M.H., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: It is well known that patients with type 2 diabetes (T2D) have an increased risk of both ischemic and non-ischemic heart disease. We studied sex differences in the microvascular function and myocardial extracellular fibrosis that underlie cardiac dysfunction.

---

24. **Urate-lowering therapy and risk of cardiorenal mortality in patients with type 2 diabetes and asymptomatic hyperuricemia**

Authors: Chuan C.F., Hwang S.J., Huang Y.B.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: Epidemiological evidence has linked elevated serum uric acid levels with increased mortality risk in patients with type 2 diabetes mellitus (T2DM). This study aimed to evaluate whether urate-lowering therapy (ULT) is associated with a lower risk of cardiorenal and all-cause mortality in patients with T2DM and asymptomatic hyperuricemia (HUA).]

25. **World Heart Day: diabetes and cardiovascular risk**

Author: The Lancet Diabetes & Endocrinology

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

[Cardiovascular disease is one of the leading causes of death globally. Tragically, as many as 80% of heart disease and stroke cases could be avoided through prevention. For people with diabetes, the risk of developing cardiovascular disease is increased, and cardiovascular disease is also one of the leading causes of death and morbidity in this population. On Sept 29, World Heart Day draws attention to this concerning reality. This year's theme, “Don't Miss a Beat”, emphasises prevention and collective action—promoting a heart-healthy lifestyle, and calling on individuals, governments, and communities to help reduce the risk of heart disease. For those living with diabetes, this focus on prevention is especially crucial.]

Diabetic Neuropathy

26. **A Pragmatic Approach to Improving Management and Patient Flow for Painful Diabetic Neuropathy in UK Primary Care**

Authors: Fernando K., Bell H., Davies S., et al.

Publication Date: 2025

Journal*:* Diabetes Therapy

Introduction: Painful diabetic peripheral neuropathy (pDPN) affects approximately 25% of individuals with diabetes in the UK and remains underdiagnosed and suboptimally managed in primary care. The condition causes chronic pain, limits daily functioning, impairs quality of life, and increases the risk of complications like foot ulcers and amputations due to underlying neuropathy. Current care pathways are fragmented, leading to delays in diagnosis and limited access to evidence-based therapies. This article aims to address the challenges of screening, diagnosis, and management of pDPN in UK primary care by proposing a consensus-driven, five-step pragmatic strategy.

---

27. **The prevalence of diabetic neuropathy in Greenland and its association with Inuit genetic ancestry – a cross-sectional study**

Authors: Christensen M.M.B., Hansen C.S., Fleischer J., et al.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

[**Aims**: Data on diabetic neuropathies in Greenland remains limited. The aim was to estimate the prevalence of diabetic peripheral neuropathy (DPN) and cardiovascular autonomic neuropathy (CAN) among Greenlanders with diabetes and prediabetes and investigate whether Inuit ancestry contributes to higher susceptibility.]

Eye Diseases

28. **Can fibrate therapy redefine the management of diabetic retinopathy? A comprehensive systematic review and meta-analysis of efficacy and safety**

Authors: Chen K.Y., Chan H.C., Chan C.M.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

Background: Diabetic retinopathy (DR) is a severe microvascular diabetes complication and a leading cause of preventable blindness. Fibrates, being lipid-lowering agents, have been found to have promise in modifying DR progression.

Objective: To determine fibrates' effectiveness and safety profile in reducing the incidence, progression, and severity of diabetic retinopathy.

---

29. **Diabetic retinopathy and mortality in adults with diabetes: causal mediation analysis of the role of HbA1c**

Authors: Wang Z., Guo H., Teng X.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Background: Diabetic retinopathy (DR) is a well-established risk factor for increased mortality in diabetes, but the mechanisms remain unclear. Chronic hyperglycemia, reflected by glycated hemoglobin (HbA1c), may be one pathway linking DR to adverse outcomes, yet its mediating role is not well defined.

---

30. **Differentiating treatment episodes from gaps in eyes with diabetic macular oedema**

Authors: Hashimoto Y., Hunt A.R., Silva R., et al.

Publication Date: 2025

Journal: British Journal of Ophthalmology

The treatment of diabetic macular oedema (DMO) likely involves a series of treatment episodes separated by gaps during which no vascular endothelial growth factor inhibitor injections are delivered. Our aim is to differentiate the episodes and gaps with the isolation forests algorithm using the Fight Retinal Blindness! registry. We analysed 11 786 injection intervals (12 803 injections) and found that the period between adjacent injections≥38 weeks (95% CI 34 to 43 weeks) apart could be regarded as a treatment gap. The results will allow treatment episodes to be isolated so that the treatment patterns of DMO can be characterised more accurately.

31. **Enhancing diabetic retinopathy query responses: assessing large language model in ophthalmology**

Authors: Wu H., Su Z., Pan X., et al.

Publication Date: 2025

Journal: British Journal of Ophthalmology

Background: Diabetic retinopathy (DR) is a leading cause of blindness, with an increasing reliance on large language models (LLMs) for health-related information. The specificity of LLM-generated responses to DR queries is yet to be established, prompting an investigation into their suitability for ophthalmological contexts.

---

32. **Evidence-Based Guidelines for Intravitreal Anti-VEGF Therapy for Diabetic Retinopathy in Chronic Kidney Disease**

Authors: Sharma S., Venkatesh P., Kalra S., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Intravitreal therapy using anti-vascular endothelial growth factor (anti-VEGF) has transformed the approach to treating diabetic retinopathy (DR), but its application in individuals with diabetes and chronic kidney disease, the majority of whom have diabetic kidney disease, involves a complex evaluation of risks and benefits. Emerging evidence indicates that the systemic absorption of anti-VEGF agents administered intravitreally may lower circulating VEGF levels and negatively impact the renal endothelium, especially in individuals with pre-existing kidney issues. In this article, we showcase an evidence-based framework for the safe administration of anti-VEGF therapy in patients with DR accompanied by chronic kidney disease. We introduce a novel renoretinal syndrome, which we refer to as anti-VEGF-associated nephropathy (AVAN), and outline diagnostic criteria, severity classifications, biopsy indications, and treatment recommendations to guide clinical practice.

---

33. **Intravitreal anti-VEGF therapy and risk of limb complications in individuals with diabetic eye disease**

Authors: Hong A.T., Luu I.Y., Lin F., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To evaluate the association between intravitreal anti-VEGF therapy and lower extremity complications in diabetic eye disease (DED), and compare risks among ranibizumab, aflibercept, and bevacizumab.

34. **The Mechanisms of Inflammatory Factors and the Total Load of Cerebral Small Vessel Disease in Diabetic Retinopathy and Cognitive Impairment**

Authors: Miao J., Chen S., Sun X., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Introduction: The purpose of this study was to explore the roles and methods of inflammatory factors and total load of cerebral small vessel disease (CSVD) in diabetic retinopathy (DR) and cognitive impairment.

---

35. **Psoriasis and risk of diabetic retinopathy in patients with type 2 diabetes mellitus**

Authors: Yueh M.P., Kao S.K., Chen J.W., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To assess the risk of diabetic retinopathy (DR) among patients with type 2 diabetes mellitus (T2DM) who had a prior diagnosis of psoriasis, compared with those without psoriasis.

---

36. **Semaglutide and diabetic retinopathy: an OHDSI network study**

Authors: Cai C.X., Nishimura A., Baxter S., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

Introduction: Semaglutide, a glucagon-like peptide-1 receptor agonist (GLP-1RA) used to treat type 2 diabetes mellitus (T2D), has potential associations with higher rates of diabetic retinopathy (DR) complications including proliferative DR (PDR) and diabetic macular edema (DME). The purpose of this study was to determine whether an association exists between semaglutide and PDR and treatment-requiring DR/DME.

Kidney Disease

37. **Association of the metabolic dysfunction-associated steatotic liver disease with cardiovascular and kidney disease in patients with type 2 diabetes mellitus: a cross-sectional study**

Authors: Ren H., Hu M., Yan Y., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Purpose: This study explored the link between liver fibrosis and left ventricular hypertrophy (LVH), a good indicator of cardiovascular disease (CVD), and chronic kidney disease (CKD) risk in type 2 diabetes mellitus (T2DM) patients.

---

38. **Burden and trends of diabetic kidney disease in East Asia, 1990–2038: An analysis of the global burden of disease study 2023**

Authors: Lin S., Liu R., Zhong G., et al.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

Aim: Diabetic kidney disease is a major cause of chronic and end-stage kidney disease. East Asia, home to one-third of the world's people living with diabetes, is undergoing rapid demographic and metabolic transitions.

---

39. **Dipeptidyl peptidase 4 (DPP-4) inhibitors for people with chronic kidney disease and diabetes**

Authors: Natale P., Green S.C., Tunnicliffe D.J., et al.

Publication Date: 2025

Journal: Cochrane Database of Systematic Reviews

Rationale: Diabetes is a critical risk factor for cardiovascular disease and chronic kidney disease (CKD). Type 2 diabetes increases all-cause and cardiovascular death and impairs health-related quality of life. More than a third of people with type 2 diabetes develop kidney failure, requiring treatment with dialysis or kidney transplantation. People with CKD and type 2 diabetes have a substantially higher risk of premature cardiovascular complications. Dipeptidyl peptidase 4 (DPP-4) inhibitors are glucose-lowering agents that achieve glucose control in people with type 2 diabetes and may prevent poor kidney and cardiovascular outcomes for people with CKD and type 2 diabetes. However, new trials are emerging rapidly, and continuous evidence synthesis is essential to summarising cumulative evidence.
Objectives: This review aims to assess the benefits and harms of DPP-4 inhibitors in people with CKD and type 2 diabetes.

40. **Efficacy of levocetirizine in reducing albuminuria and inflammatory biomarkers in patients with diabetic kidney disease: A randomized controlled trial**

Author: Rizk M.A., El-Haggar S.M., Ibrahim O.M., et al.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

Globally, the prevalence of diabetes mellitus is rising. One of the main causes of end-stage renal disease (ESRD) and a risk factor for higher morbidity and death in diabetic patients is diabetic nephropathy (DN), sometimes referred to as diabetic kidney disease (DKD). DN, a microvascular consequence of diabetes, affects 20–40 % of diabetics globally. The study's objective was to assess if levocetirizine may have albuminuria lowering effect and anti-inflammatory effect in patients treated with angiotensin receptor blockers (ARBs) and sodium-glucose cotransporter 2 (SGLT2) inhibitors therapy by reducing albuminuria and improving DKD indicators.

---

41. **End-stage renal diseases associated with SGLT2 inhibitors versus GLP-1 receptor agonists in metabolic dysfunction-associated steatotic liver disease**

Authors: Ko H.Y., Hong B., Bea S., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To compare the renal effectiveness of SGLT2 inhibitors (SGLT2i) versus GLP-1 receptor agonists (GLP-1RA) in metabolic dysfunction-associated steatotic liver disease (MASLD).

---

42. **Estimated pulse wave velocity and incident chronic kidney disease: evidence from a prospective cohort and meta-analysis**

Author: Zhang F., Bai Y., Huang L., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: This study aims to investigate the association between estimated pulse wave velocity (ePWV) and risk of incident chronic kidney disease (CKD).

43. **Evidence-Based Guidelines for Intravitreal Anti-VEGF Therapy for Diabetic Retinopathy in Chronic Kidney Disease**

Authors: Sharma S., Venkatesh P., Kalra S., et al.

Publication Date: 2025

Journal: Diabetes Therapy

[Intravitreal therapy using anti-vascular endothelial growth factor (anti-VEGF) has transformed the approach to treating diabetic retinopathy (DR), but its application in individuals with diabetes and chronic kidney disease, the majority of whom have diabetic kidney disease, involves a complex evaluation of risks and benefits. Emerging evidence indicates that the systemic absorption of anti-VEGF agents administered intravitreally may lower circulating VEGF levels and negatively impact the renal endothelium, especially in individuals with pre-existing kidney issues. In this article, we showcase an evidence-based framework for the safe administration of anti-VEGF therapy in patients with DR accompanied by chronic kidney disease. We introduce a novel renoretinal syndrome, which we refer to as anti-VEGF-associated nephropathy (AVAN), and outline diagnostic criteria, severity classifications, biopsy indications, and treatment recommendations to guide clinical practice.]

44**. Impact of sodium-glucose co-transporter-2 inhibitor combined with mineralocorticoid receptor antagonist therapy versus either agent alone in individuals with chronic kidney disease: A systematic review and meta-analysis**

Authors: Dutta D., Kamrul-Hasan A.B.M., Jena S., et al.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

[**Background:** Sodium-glucose co-transporter-2 inhibitor (SGLT2i) with mineralocorticoid receptor antagonist (MRA) combination therapy (SMCT) hypothetically appears feasible and rational, given their complementary mechanisms of action. This systematic review and meta-analysis (SRM) assessed the effectiveness and safety of SMCT compared to either agent alone in CKD.]

---

45. **Integrative analysis identifies novel proteins associated with chronic kidney disease in participants with abnormal glucose metabolism**

Authors: Li N., Liu J., Wu G., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aim**: Chronic kidney disease (CKD) is highly prevalent among individuals with abnormal glucose metabolism. However, limited research has specifically investigated CKD-associated proteins within this high-risk population. To address this gap, our study aimed to identify

proteins associated with CKD in participants with abnormal glucose metabolism, potentially informing early detection and targeted therapeutic strategies.]

---

46. **Pillar Risk-Based Treatment for Chronic Kidney Disease in People With Type 2 Diabetes: A Narrative Review**

Authors: Cheng A.Y.Y., Mottl A., Magwire M., et al.

Publication Date: 2025

Journal: Diabetes Therapy

[Chronic kidney disease continues to be a significant burden for people living with type 2 diabetes, despite the available guideline-directed treatment options. Traditionally, a stepwise approach has been implemented for the management of chronic kidney disease and type 2 diabetes, which involves the linear sequential initiation of one therapy after the other on the basis of an individual's treatment outcomes. However, this approach is not beneficial for all individuals, as it can lead to treatment inertia and subsequent disease progression. Therefore, primary care practitioners should consider implementing a more proactive treatment strategy to optimize care. The pillar risk-based approach is an emerging concept with goals of glucose control and blood pressure control as well as comprising simultaneous or rapid sequential initiation of multiple therapies, such as renin-angiotensin system inhibitors (RASi), sodium-glucose cotransporter 2 inhibitors, a nonsteroidal mineralocorticoid receptor antagonist (finerenone), and glucagon-like peptide-1 receptor agonists, which target the different hemodynamic, metabolic, and fibrotic/inflammatory pathways involved in chronic kidney disease and type 2 diabetes. This approach enables earlier chronic kidney disease risk reduction, and the recently published CONFIDENCE trial reported tolerability and efficacy of simultaneous initiation of two of these therapies (finerenone and empagliflozin) in those already receiving RASi. This review article provides primary care practitioners with practical considerations, discussing current guideline-directed treatment options for chronic kidney disease in people with type 2 diabetes in the context of a historical stepwise approach versus the new patient-centric pillar risk-based approach.]

---

47. **Promoting soluble guanylate cyclase activity via guanylate cyclase stimulators or guanylate cyclase activators: a feasible option in diabetic kidney disease**

Authors: Afsar B., Afsar R.E., Lentine K.L.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[Diabetic kidney disease (DKD) is a word-wide problem. In patients with diabetes mellitus (DM), DKD occurs in up to 40% of patients and is the most common cause of chronic kidney disease (CKD) in diabetic patients. Despite various reno-protective agents, DKD still progresses in the majority of patients necessitating further novel therapeutic options. Recently, another class of medications working by augmenting soluble guanylate cyclase (sGC) has been studied in DKD. Soluble guanylate cyclase activity can be increased by 2 classes of medications with different modes of action, namely sGC stimulators and sGC activators. Preclinical and clinical studies have shown that these medications may reduce

albuminuria/proteinuria independent of BP lowering, decrease inflammation, reduce oxidative stress and kidney fibrosis, and have favorable impacts on lipid profile and glucose levels. Importantly, these medications can be used with other kidney protective agents such as Renin-angiotensin system inhibitors and Sodium-glucose cotransporter-2 inhibitors. In this review, we summarized the experimental and clinical studies specifically investigating the effects of sGC stimulators and sGC activators in the context of DKD. Additionally, we explore the effects of increasing sGC on laboratory and clinical parameters in DKD. We also identify knowledge gaps and proposals for future studies.]

---

48. **A renal biopsy–anchored multi-marker signature involving AOPEP SNP-driven splicing, miR-27b-3p and glycated albumin for stratifying renal damage in type 2 diabetes**

Authors: Conserva F., Pesce F., Cinefra C., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: Stratifying renal damage in type 2 diabetes is challenging due to overlapping features between diabetic nephropathy (DN) and non-diabetic renal disease (NDRD). While miR-27b-3p modulates kidney fibrosis in DN through the lysine63 ubiquitination pathway, its upstream regulation and diagnostic relevance remain unclear.]

---

49. **Risk of Progression and Costs of Care for Patients with Type 2 Diabetes and Chronic Kidney Disease**

Authors: Tangri N., Singh R., Betts K.A., et al.

Publication Date: 2025

Journal: Diabetes Therapy

[**Introduction**: Chronic kidney disease (CKD) progression is associated with a significant incremental economic burden. Previous work has demonstrated high accuracy of the laboratory-based machine learning model, Klinrisk, in predicting the risk of CKD progression. We sought to use the Klinrisk model to evaluate the association of risk of CKD progression with healthcare resource utilization (HRU) and costs of care in adults with type 2 diabetes and CKD.]

---

50. **Thiazolidinediones for people with chronic kidney disease and diabetes**

Authors: Natale P., Green S.C., Tunnicliffe D.J., et al.

Publication Date: 2025

Journal: Cochrane Database of Systematic Reviews

[**Rationale**: Type 2 diabetes is a risk factor for cardiovascular disease and chronic kidney disease (CKD), and it affects quality of life and contributes to substantial costs for healthcare

systems. Approximately a third of people with type 2 diabetes develop CKD. Thiazolidinediones are associated with improved glucose management and a lower risk of progression to kidney failure, requiring long-term dialysis. However, evidence of safety in people with CKD and type 2 diabetes is still lacking and is based on low-certainty studies. **Objectives**: This review aims to assess the benefits and harms of thiazolidinediones in people with CKD and type 2 diabetes.]

Liver Disease

51. **Association of the metabolic dysfunction-associated steatotic liver disease with cardiovascular and kidney disease in patients with type 2 diabetes mellitus: a cross-sectional study**

Authors: Ren H., Hu M., Yan Y., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Purpose**: This study explored the link between liver fibrosis and left ventricular hypertrophy (LVH), a good indicator of cardiovascular disease (CVD), and chronic kidney disease (CKD) risk in type 2 diabetes mellitus (T2DM) patients.]

---

52. **Clinical outcomes of SGLT2 inhibitors among patients with MASLD and T2DM**

Authors: Wu J.Y., Chang H.Y., Tsung Y., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Background and Aims**: Metabolic dysfunction-associated steatotic liver disease (MASLD) frequently coexists with type 2 diabetes mellitus (T2DM), increasing the risk of cardiovascular, renal, and hepatic complications. Pharmacologic options remain limited. This study aimed to evaluate the association between sodium-glucose cotransporter-2 inhibitors (SGLT2is) and one-year clinical outcomes in patients with MASLD and T2DM, compared to dipeptidyl peptidase-4 inhibitors (DPP4is).]

---

53. **Liver disease in people with latent autoimmune diabetes in adults (LADA): A cross-sectional study using magnetic resonance elastography**

Authors: Maddaloni E., Zerunian M., Cardinale V., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: To investigate liver disease and its risk factors in LADA compared to type 1 (T1D) and type 2 (T2D) diabetes.]

Complications

54. **Hemoglobin A1c time-in-range, mortality, and diabetes complications in older adults with diabetes**

Authors: Conlin P.R., Prentice J.C., Mohr D.C., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

[**Introduction:** Hemoglobin A1c (A1c) treatment goals in older adults often consider life expectancy and comorbidities. A1c stability may also inform the risks of major outcomes. We studied the association of individualized A1c time-in-range (A1c TIR) with mortality and diabetes complications.]

Diabetic Foot

55. **Corrigendum to "Economic burden of podiatric care for diabetic foot ulcers in the Czech Republic: A prospective multicenter study**

Authors: Fejfarová V., Koliba M., Piťhová P., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[The authors regret to inform an error dedicated to the funding information in the original article. Please find the corrected version below.]

---

56. **Evidence-based management of diabetic foot problems**

Authors: Boulton A.J.M. and Viswanathan V.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[At present we are experiencing a rapid rise in the global prevalence of diabetes and unfortunately, this is associated with an increase in many of the late complications of diabetes, particularly diabetic foot ulcers which have a significant impairment on quality of life as well as being associated with increased morbidity and mortality. The potential for preventing first and recurrent foot ulcers is reviewed particularly related to recent developments in smart technology and remote monitoring of foot temperature and pressures under high-risk feet. Recent trials on both these areas are reviewed and show promise for the future. Pharmacological approaches to reduce the incidence of foot ulcers are then considered and the small section on the potential role of fibrates which certainly demands further investigation. With respect to treatment of complex foot ulcers, a number of recent evidence-based therapies are described including sucrose octasulfate dressings, negative pressure wound therapy and topical wound oxygen therapy. Lastly, appropriate care and management of infected DFUs is considered particularly focusing on the area of osteomyelitis. A number of excellent recent

Guidelines and related reviews are then listed to help readers further understand this rapidly developing and complex area.]

---

57. **Interpretable machine learning model for predicting recurrence in patients with diabetic foot ulcers**

Authors: Mou W., Shan W., Yu S., et al. *BMJ*

Publication Date: 2025

Journal: Open Diabetes Research and Care

Background: Diabetic foot ulcer (DFU) is a severe complication of diabetes mellitus, often characterized by a chronic disease course and a high recurrence rate, posing significant challenges to patient management. Accurately predicting DFU recurrence is essential for enhancing patient care and outcomes through timely treatment and intervention. This study aimed to develop a machine learning (ML) model to predict the 3-year recurrence risk in patients with DFU.

---

58. **Introduction “global progress in diabetic foot care”**

Authors: Viswanathan V. and Boulton A.J.M.

Publication Date: 2025

Journal: International Diabetes Federation

Introduction: The Atlas published by the International Diabetes Federation (IDF) is a reliable and most cited source on the global prevalence of diabetes and its publication usually coincides on the occasion of the World Diabetes Congress: thus, the next data will be available in April 2025 to coincide with the Bangkok Global IDF Congress. At the time of writing, the most recent data were published in the 10th edition of the IDF Atlas in 2021 [1]. In many ways, this makes for a depressing reading as in the two years prior to publication, a 16 % increase of the global prevalence of diabetes has been reported with more than half a billion people across the world having diabetes which is approximately one in ten adults [1]. Certain areas of the world have an even higher prevalence such as the Middle East and Indian sub-continent, Asia, where for example, data from Pakistan show that 26.4 % of all adults have diabetes [2]. Not surprisingly therefore, diabetic foot disease is also increasing across the world as reported in recent reviews [3, 4].

59. **Letter to “Impact of remnant cholesterol and triglycerides on diabetes foot and disease in type 1 diabetes: A propensity score-matched case-control study”**

Authors: Wang X.M. and Yang S.Q.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

[We read with great interest the recent article by Sebastian-Valles and colleagues in the Journal of Diabetes and Its Complications, which investigates the association between remnant cholesterol, triglycerides, and diabetes foot disease (DFD) in 419 individuals with type 1 diabetes (T1D) using a propensity score-matched case-control design. This study addresses a critical gap in understanding lipid-related risk factors for DFD—a severe complication of T1D linked to disability and mortality—and its focus on remnant cholesterol, an emerging cardiovascular risk marker, is particularly relevant given the growing recognition of residual vascular risk in diabetes. [1] The use of propensity score matching to balance key confounders and multivariable regression models strengthens the analysis, but several methodological and interpretative considerations warrant further discussion.]

---

60. **Response to the letter to the editor**

Author: Sebastian-Valles F.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

We sincerely thank the authors for their thoughtful comments 1 on our recently published article in the Journal of Diabetes and Its Complications. 2 Their observations provide an important contribution to the discussion on the role of remnant cholesterol and triglycerides in diabetic foot disease (DFD). Below, we address the main issues raised.

---

61. **Neuroinflammation and osteomyelitis in adults with Type 2 diabetes mellitus and peripheral neuropathy without and with foot lesions. What comes first?**

Authors: Sambataro M., Sambado L., Colardo M., et al.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

Aims: Diabetic foot is the leading cause of both major and minor non-traumatic amputations yet a truly understanding of the phenomenon is still lacking. The updated definition for diabetes-related foot disease from the International Working Group on the Diabetic Foot (IWGDF 2023 update) is “disease of the foot of a person with current or previously diagnosed diabetes mellitus that includes one or more of the following: peripheral neuropathy, peripheral artery disease, infection, ulcer(s), neuro-osteoarthropathy, gangrene, or amputation”, but what comes first? Our hypothesis is that distal sensory and autonomic neuropathy activate neuroischemic signaling and dysregulation of bone cell apoptosis portending to infections.

62. **Swabs versus tissue samples for infected diabetic foot ulcers: the CODIFI2 RCT**

Authors: Nelson E.A., Everett C.C., Konwea H., et al.

Publication Date: 2025

Journal: Health Technology Assessment

[**Background**: Foot ulcers affecting people with diabetes (diabetic foot ulcers) often become infected, potentially leading to amputation. Suspected diabetic foot ulcer infection is treated with immediate empiric antimicrobials, with wound samples for culture and sensitivity collected to optimise antibiotic therapy. Collecting samples with swabs is easier than obtaining tissue, but this reports fewer pathogens and more contaminants. Compared with standard culture and sensitivity laboratory methods, molecular microbiology identifies more organisms. How these differences affect clinical decisions or outcomes is currently unknown.

Objectives:
Main study: To determine if taking tissue samples versus swabs from suspected infected diabetic foot ulcer affects ulcer healing, antibiotic prescribing, costs of care and patient safety.
Substudy 1: To determine the agreement between microbiology results from culture and sensitivity versus molecular techniques and to assess whether intention of prescribers to change antimicrobials differs based on sampling methods.
Substudy 2: A health-economic perspective of the expected application of empiric and/or targeted treatment regimens and the cost consequences of treatment decisions based on substudy 1.
Substudy 3: To compare questionnaire response rates for theoretically informed versus standard participant letters.
Substudy 4: To explore clinician perspectives on diabetic foot ulcer sampling and processing techniques.]

---

63. **Using Nominal Group Technique to Gather Recommendations in the Decision-Making for Amputation Due to Diabetes**

Authors: Ong E.K.M., Murray C., Hillier S., et al.

Publication Date: 2025

Journal: Journal of Foot and Ankle Research

Introduction: A lower extremity amputation has traditionally been considered as a last resort treatment option for people with a diabetes-related foot ulcer (DFU). However, some people will opt for an earlier amputation to overcome the daily lifestyle challenges from ongoing conservative wound management. Even so, making the decision for non-emergency amputation is challenging due to the lack of clear recommendations or evidence-based resources. Therefore, this study aimed to gather recommendations from people with lived experience of a DFU or amputation, family members, health practitioners, and experts to guide decision-making for amputation due to diabetes.

Diabetes and Pregnancy

64. **Association between gestational diabetes mellitus and postpartum depression: an updated systematic review and meta-analysis**

Authors: Nourollahi Z. and Azami M.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

The aim of this study is to provide a robust statistical analysis of the association between gestational diabetes mellitus (GDM) and postpartum depression (PPD). For this purpose, the PRISMA statement guided the reporting of results, while the MOOSE guidelines informed the methodological aspects. This strategy includes searching in several electronic databases. Statistical heterogeneity between studies was assessed using the Q-statistic and I-squared (I^2) test. The final included studies comprised 29 studies with a total of 2,442,001 participants. Overall results showed that mothers with GDM are at a higher risk of developing PPD compared to mothers without GDM (RR = 1.42 (95 %CI: 1.17–1.72, P < 0.001)). To investigate potential sources of heterogeneity, subgroup analyses based on study design (P = 0.085), study type (P = 0.357), duration of PPD measurement (P = 0.329), and continent (P = 0.163) were not significant, but it was significant based on the PPD measurement tool (P < 0.001). Finally, the results of this systematic review and meta-analysis provide strong evidence that GDM is an important risk factor for PPD. These findings underscore the critical importance of screening and providing targeted psychological and therapeutic support to mothers with GDM, both during pregnancy and after delivery.

---

65. **Association between obesity at age 20 and postpartum glucose tolerance in women with a history of gestational diabetes mellitus**

Authors: Yamashita A., Kaku M., Matsunaga M., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: We aimed to investigate the association between obesity at age 20 and weight gain from age 20 to pregnancy and postpartum glucose tolerance in women with a history of gestational diabetes mellitus (GDM).

66. **Gestational diabetes mellitus and its impact on maternal and neonatal outcomes in Indigenous populations: a systematic review and meta-analysis**

Authors: Duong T.L., Shahunja K.M., Le M., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

This systematic review and *meta*-analysis examined the association between gestational diabetes mellitus (GDM) and adverse pregnancy outcomes among Indigenous populations globally. Pooled risk ratios were calculated using a random-effects model, and study quality was assessed using the Newcastle-Ottawa Scale and the CONSIDER Statement. Twenty studies from Canada, the United States, and Australia were included. Results showed that GDM was associated with increased caesarean section (risk ratio 1.83, 95% confidence interval 1.63 to 2.06), shoulder dystocia (3.21, 2.94 to 3.50), large for gestational age (2.35, 1.46 to 3.77), macrosomia (1.75, 1.48 to 2.07), preterm birth (1.36, 1.09 to 1.69), and hypoglycaemia (8.17, 4.39 to 15.22), but decreased risk of low birth weight (0.80, 0.69 to 0.91) and small for gestational age (0.44, 0.39 to 0.50). Four studies had low or medium risk of bias, only 25% of the studies reported Indigenous involvement in the research process. These findings show that Indigenous women with GDM are at greater risk of perinatal complications than those without GDM. This underscores the need for timely, intensive clinical management of GDM, delivered within culturally safe models of care, to reduce these inequities. In line with calls for action, prioritizing the early prevention of GDM is essential.

---

67. **Triglyceride glucose-body mass index and the risk of gestational diabetes mellitus: a prospective pregnancy nutrition cohort study**

Authors: Lin L., Xu L., Dong J., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Background: The 75 g oral glucose tolerance test (OGTT) fails to identify high-risk gestational diabetes mellitus (GDM) early in pregnancy. The triglyceride-glucose-body mass index (TyG-BMI), an insulin resistance marker, shows promise in predicting metabolic diseases, but hasn’t been studied for GDM before this study.

Diabetes mellitus Type 1

68. **Addressing the educational needs of older adults with type 1 diabetes**

Authors: Maltese G., Kar P., Gallen G., et al.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

Type 1 diabetes is a lifelong condition requiring a multitude of tasks and constant adaptation to evolving physiological and lifestyle needs. Following a type 1 diabetes diagnosis, and throughout their life, people living with type 1 diabetes are empowered through regular care and structured education. Existing diabetes education programmes provide knowledge on carbohydrate counting, sick day rules, and exercise but they do not explore and address the varying and complex needs that emerge with ageing.

---

69. **Association of socioeconomic status and hospital efficiency in Type-1 diabetic patients with ketoacidosis or diabetic coma: a secondary data analysis comparing nation-wide paediatric and adult admissions in France**

Authors: Xu Y., Chevreul K., Dindorf C., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To study the association between socioeconomic status (SES) and hospital efficiency in Type 1 diabetes mellitus patients admitted for ketoacidosis or diabetic coma in mainland France, overall and in adults *versus* children.

---

70. **Atypical complications and co-morbidities of type 1 diabetes in young adults**

Authors: James S., Barber R., Forster J., et al.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

Aims: Our review aimed to determine the prevalence of – and factors associated with – hearing loss, oral and olfactory disease, frozen shoulder, trigger finger, and hair loss in young adults with type 1 diabetes. These conditions were selected based on research team interests, existing literature, and group discussion.

71. **Behavioral self-control and glycemic levels in youth with type 1 diabetes: serial mediation by family conflict and self-management behaviors**

Authors: Mali L.V., Malik J.A., Sanchez J., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: Examine the mediating roles of family conflict (FC) and diabetes self-management behaviors (SMB) in the relationship between behavioral self-control (BSC) and glycemic levels in adolescents with type 1 diabetes (T1D). We predicted that BSC would improve glycemic levels directly and indirectly by decreasing FC and increasing SMB, both cross-sectionally and longitudinally.

---

72. **Corrigendum to "Time-trends in body mass index, and overweight and obesity as independent risk factors for diabetes angiopathy in young females with type 1 diabetes – A nationwide study in Sweden"**

Authors: Haas J., Franko M.A., Olinder A.L., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

The authors regret that an error unfortunately has been discovered in Table 1, cohort description, regarding numbers of any micro/macroangiopathy. During the preparation of a dissertation, the corresponding author noticed this error. The statistician found that he had summed everyone in the cohort who ever had either microalbuminuria, macroalbuminuria or retinopathy during the follow-up period and not just at baseline. However, this does not impact the main findings of our study. A revised Table 1 is added, and the corrected numbers are highlighted in bold.

---

73. **Effect of daily insulin delivery variability on glycemic outcomes in patients with type 1 diabetes mellitus using an automated insulin delivery system**

Authors: Papa G., Cannarella R., Gusmano C., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Background: Automated insulin delivery (AID) systems are central to managing type 1 diabetes mellitus (T1DM), using continuous glucose monitoring (CGM) to adjust basal insulin (BI). Certain systems, such as the MiniMed™ 780G, also provide automated correction boluses (AB), while manual boluses (MB) are administered in response to carbohydrate intake.

Despite the adaptive nature of these technologies, the influence of variability in individual insulin delivery components on glycemic outcomes remains insufficiently characterized.

---

74. **First-trimester continuous glucose monitoring parameters in preeclamptic and normotensive patients with type 1 diabetes**

Authors: Boroń D., Mantaj U., Sibiak R., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Objective: Preeclampsia disproportionately affects women with pregestational type 1 diabetes (T1D). This study aims to determine whether continuous glucose monitoring (CGM)-derived metrics during the first trimester predict the development of preeclampsia in pregnancies complicated by pregestational T1D, comparing their predictive capability against standard glycemic markers.

---

75. **Harmonising terminology for type 1 diabetes: the EDENT1FI lexicon initiative**

Authors: Vercauteren J.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

As screening and early treatment for type 1 diabetes become more widespread, the European action for the Diagnosis of Early Non-clinical Type 1 diabetes For disease Interception (EDENT1FI) consortium highlights the need for clearer, more consistent terminology. In this context, the group proposes a set of preferred terms to support communication around early-stage type 1 diabetes, including the use of ‘early-stage’ or ‘presymptomatic’ type 1 diabetes for stages 1 and 2, and ‘symptomatic type 1 diabetes’ for stage 3. The term type 1 diabetes is used to describe the full disease spectrum, from early autoimmunity to clinical diagnosis. The consortium aims to emphasise person-first, non-stigmatising language and distinguish between genetic risk screening and autoantibody screening, which indicates the presence of early-stage disease. Reference is made to existing classification systems, such as WHO's International Classification of Diseases, 10th revision (ICD-10) and Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT), which now include codes for early stages of type 1 diabetes. These recommendations aim to support more accurate and accessible communication as early detection becomes part of routine care.

76. **Human factor in the use of automated insulin delivery systems: Real-world effects in children with type 1 diabetes after 2 years of use (AID-A study)**

Authors: Schneidewind J., Von Sengbusch S., Schmidt D., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: This study aimed to assess the metabolic effects, changes in daily life, and diabetes burden associated with automated insulin delivery (AID) systems in children in a real-world setting after 2 years of use.]

---

77. **Identification of clinically meaningful automatically detected postprandial glucose excursions in individuals with type 1 diabetes using personal continuous glucose monitoring**

Authors: Park S.H., Oh R., Kim S., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Subjects**: This study aimed to identify and longitudinally validate characteristics of postprandial glucose excursions detected by the Glucose Rate Increase Detector algorithm (GRID-excursions) that are associated with clinically meaningful glycemic changes in adults with type 1 diabetes.]

---

78. **Improving type 1 diabetes care globally: the importance of medical education**

Author: Marks B.E., Iyer J.R., James S., et al.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

Education is a central pillar of type 1 diabetes care. Health-care professionals must educate people with type 1 diabetes and their carers to make numerous diabetes-related decisions per day pertaining to high-level medical concepts, including the effects of nutrition, exercise, and hormones on insulin needs. Self-management of type 1 diabetes affects glycaemia, which in turn influences acute and chronic type 1 diabetes-related complication risks and quality of life. As approaches to type 1 diabetes diagnosis and therapy rapidly evolve, the interprofessional teams caring for people with type 1 diabetes across the lifespan must absorb new information and incorporate it into practice. Although the composition of diabetes care teams varies worldwide, all members must be well educated themselves so that they can educate people with type 1 diabetes. While few involved in type 1 diabetes would dispute the importance of education, there is little guidance on how to best educate health-care professionals. Optimal training for health-care professionals should align with the principles of educational theory.

79. **Managing adults with screen-detected islet autoantibody positivity: a pragmatic framework**

Authors: Thomas N., Tatovic D., Jones A., et al.

Publication Date: 2025

Journal*Lancet Diabetes & Endocrinology*, 2025, 13(11), pp.980-986.
[New disease-modifying therapies, such as teplizumab, offer opportunities to delay the clinical onset of type 1 diabetes but require islet autoantibody screening to identify individuals at increased risk of progression to diabetes. As type 1 diabetes screening programmes expand, clinicians will increasingly encounter a new group of people: adults who test positive for islet autoantibodies but have not yet been diagnosed with diabetes. Although international guidelines outline management for both children and adults, considerable uncertainties remain, particularly for adults. In adults with islet autoantibody positivity, the lower risk of progression to type 1 diabetes compared with children, combined with the high background prevalence of mild non-autoimmune dysglycaemia, presents substantial challenges for clinical management. This Personal View aims to add clarity to international consensus guidelines, proposing a pragmatic framework for managing adults with islet autoantibody positivity. Although fitting within a UK National Health Service setting, we feel this framework is also relevant to other health systems.]

---

80. **Overweight and macrovascular complications in type 1 diabetes: A nationwide registry study (J-DREAMS)**

Authors: Schneidewind J., Von Sengbusch S., Schmidt D., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To test whether overweight (BMI ≥ 25 kg/m ^{2}) is associated with macrovascular complications in Japanese adults with type 1 diabetes, and to examine long-term effects of overweight at age 20.

---

81. **Predicting stimulated C-peptide in type 1 diabetes using machine learning: a web-based tool from the T1D exchange registry**

Authors: Saygili E.S., Batman A., Karakilic E.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: The mixed-meal tolerance test (MMTT), though considered the gold standard for evaluating residual beta-cell function in type 1 diabetes mellitus (T1D), is impractical for routine use. We aimed to develop and validate a machine learning (ML) model to predict MMTT-stimulated C-peptide categories using routine clinical data.

82. **Regional, age-specific and sex-specific trends in the prevalence of overweight or obesity in type 1 diabetes from 1980 to 2020: a meta-analysis of 78 observational studies with 650,265 participants**

Authors: Guo Y., Lin C., Cai X., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: To investigate the temporal trends in the overweight or obesity prevalence among people with type 1 diabetes (T1D).]

---

83. **Self-efficacy among parents of children and adolescents with type 1 diabetes: a systematic review**

Authors: Arcangeli I.C., Ciavatta V., Celia G.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Parental self-efficacy in caring for children and adolescents with type 1 diabetes (T1D) plays a crucial role in effective diabetes management and the overall well-being of both the parent and the child. This systematic review aims to synthesize research on parental self-efficacy in managing children and adolescents with T1D, focusing on factors influencing self-efficacy, outcomes associated with high or low self-efficacy, and interventions designed to improve it. In accordance with PRISMA guidelines, a systematic review of the PubMed, PsycINFO, Web of Science, and Scopus databases was conducted. A total of 19 articles met the inclusion criteria and were included in the review. The results indicate that lower parental self-efficacy is often associated with psychological factors such as depression and stress, while higher self-efficacy is linked to better quality of life, glycemic control, and dietary management in children with T1D. Health education and social support, particularly from online health communities, significantly enhance self-efficacy. Family dynamics, including better organization and reduced conflict, are crucial in promoting higher parental self-efficacy, thereby improving disease management in their children.

---

84. **Sex hormone binging globulin as an indicator of insulin resistance in type 1 diabetes**

Authors: Januszewski A.S., Rankin W.A., O'Neal D.N., et al.

Publication Date:

Journal: *Diabetes Research and Clinical Practice* 2025, 229: 112935.
[**Background**: Sex hormone-binding globulin (SHBG) regulates sex hormone bioavailability and is a marker of hepatic insulin resistance.
Aim: Determine the relationship of circulating SHBG concentration with components of the metabolic syndrome (MetS) and estimated insulin sensitivity (eIS) in adults with and without T1D.]

Diabetes mellitus Type 2

85. **Adjunctive pancreatin therapy enhances glycemic and metabolic outcomes in type 2 diabetes mellitus: the modifying role of exocrine pancreatic function**

Authors: Koca N. and Yalçın N.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Objective**: Exocrine pancreatic dysfunction is an underrecognized comorbidity in type 2 diabetes mellitus (T2DM) that may impair glycemic control via malabsorption, vitamin D deficiency, and reduced incretin stimulation. We evaluated the effect of adjunctive pancreatin therapy on metabolic outcomes in T2DM and examined the modifying role of exocrine function.]

---

86. **Altered BAG3-insulin colocalization is associated with impaired first phase insulin secretion in humans**

Authors: Damiani V., Di Giuseppe G., Gliozzo G., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[**Aims**: Alterations in first-phase insulin secretion are pivotal in the early development of T2DM. BAG3 has been implicated in regulating insulin secretion in murine models, but its role in humans remains unexplored. This study investigates BAG3 expression in human pancreatic islets and its relationship with β-cell functionality.]

---

87. **Association between SGLT2 inhibitor therapy and prolonged dementia-free survival in older adults with type 2 diabetes: a retrospective cohort study from Germany**

Authors: Sarabhai T., Zingel R., Bohlken J., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Background: Patients with type 2 diabetes mellitus (T2DM) are at increased risk of dementia due to hyperglycemia, insulin resistance, and vascular dysfunction. Sodium-glucose cotransporter-2 inhibitors (SGLT2i) may have neuroprotective effects beyond glucose control, but evidence remains limited. This study aimed to assess whether SGLT2i use is associated with a lower incidence of dementia compared to dipeptidyl peptidase-4 inhibitors (DPP-4i) in older adults with T2DM.

88. **Association of SGLT2 inhibitors and GLP-1 receptor agonists with the risk of Parkinson's disease in patients with type 2 diabetes: A propensity score–matched cohort study with meta-analysis**

Authors: Yeh J.A., Lin S.M., Liu Y.C., et al.

Publication Date:: 2025

Journal: Diabetes Research and Clinical Practice

Aims: This study aimed to investigate the association between sodium-glucose cotransporter 2 inhibitors (SGLT2is), glucagon-like peptide-1 receptor agonists (GLP-1RAs), and the risk of Parkinson's disease (PD) in patients with type 2 diabetes (T2D).

---

89. **Combination therapy with sodium-glucose cotransporter 2 inhibitors and glucagon-like peptide-1 receptor agonists in heart failure patients with type 2 diabetes**

Authors: Kishimori T., Kato T., Wada A., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

Introduction: Sodium-glucose cotransporter 2 inhibitors (SGLT2i) and glucagon-like peptide-1 receptor agonists (GLP-1 RAs) improve cardiovascular outcomes in type 2 diabetes (T2D), and SGLT2i reduces events in heart failure (HF). However, the benefit of their combination in patients with both conditions remains unclear. This study assessed the risk of all-cause death and hospitalization with combination therapy versus SGLT2i monotherapy.

---

90. **Effects of home-based exercise training on gut microbiota and possible relations with cognitive function and metabolic health in postmenopausal women with type 2 diabetes mellitus: a randomized control trial**

Authors: Vahed A., Shamsi M.M., Siadat S.D., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aim: Evidence suggests that the gut microbiome is involved in type 2 diabetes mellitus (T2DM). This study investigates the association between gut microbiota composition, cognitive function, and metabolic health in postmenopausal women with T2DM following a 12-week home-based multi-task exercise intervention.

91. **Evidence-based tests to monitor adults with type 2 diabetes mellitus in primary care: rapid reviews and consensus process**.

Authors: Elwenspoek M.M.C., O'Donnell R., Jackson J., et al.

Publication Date: 2025

Author: British Journal of General Practice

Background: When monitoring long-term conditions, both over- and undertesting can risk patient harm and increase healthcare costs.
Aim: To evaluate the evidence base for type 2 diabetes mellitus (T2DM) monitoring tests and develop methods for creating evidence-based testing strategies.

---

92. **Examining the Relationship Between Weight Stigma, Diabetes Stigma, and HbA1c in Adults with Type 2 Diabetes**

Authors: Sims T.J., Chinthammit C., Constantine M.L., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Introduction: This study aims to examine the extent to which experienced and/or internalized weight stigma and diabetes stigma may be associated with HbA1c level in adults with type 2 diabetes mellitus.

---

93. **Finnish diabetes risk score (findrisc) for type 2 diabetes screening compared with the oral glucose tolerance test: A systematic review and meta-analysis of diagnostic test accuracy**

Authors: Acosta-Reyes J., Garrido D.P.R., Vergara T.A., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To determine the accuracy of the FINDRISC score compared with the oral glucose tolerance test for the detection of type 2 diabetes (T2D).

94. **Gut microbial signatures in type 2 diabetes are highly associated with geographic region, diet habits and common comorbidities: Insights from a bioinformatics analysis of Chinese population**

Authors: Li X., Ding K., Ma Y., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: Emerging evidence implicates the gut microbiota in type 2 diabetes (T2D) development and their association with multiple host factors. This study aimed to explore the differences in gut microbiota between T2D patients and non-diabetic controls, and to estimate the relationship between host factors and specific microbial signatures in T2D.

---

95. **The impact of sleep status on lipid profiles and incident type 2 diabetes mellitus: a mediation analysis in a Chinese population cohort**

Authors: Li W., Zhao Q., Chen Y., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: This study aimed to examine the association between sleep status and T2DM incidence and explore the potential mediating role of lipid profiles.

---

96. **Low *Bacteroides* abundance is related to endothelial dysfunction in type 2 diabetes**

Authors: Omura-Ohata Y., Son C., Makino H., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aim: Gut microbiota dysbiosis causes atherosclerosis. Patients with atherosclerosis and type 2 diabetes mellitus (T2D) often have low *Bacteroides* abundance, potentially increasing atherosclerosis risk. This study investigated the association between low *Bacteroides* abundance and endothelial dysfunction in patients with T2D.

97. **A machine learning algorithm for the prediction of complications incorporated in electronic medical records improves type 2 diabetes care**

Authors: Nicolucci A., Vespasiani G., Mannino D., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: Early identification of patients with type 2 diabetes (T2D) at high risk for complications may help reduce clinical inertia and improve care quality. This study assessed the clinical impact of integrating a machine learning-based prediction tool into electronic medical records (EMRs) in Italian diabetes clinics.

---

98. **The miR-200 family in the context of obesity and type 2 diabetes**

Authors: Lambert C., Villa-Fernández E., García A.V., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

The miR-200 family is a highly conserved group of five microRNAs (miRNAs) extensively studied in cancer biology. However, its role in metabolic-related diseases remains poorly understood. This study aimed to evaluate the expression patterns of the miR-200 family in visceral white adipose tissue (vWAT) from individuals with different metabolic statuses. Expression levels of miR-200 family members were analyzed in vWAT samples from 94 participants divided into three groups: normal weight without type 2 diabetes (noOB-noT2D;n = 19), individuals with obesity and without T2D (OB-noT2D;n = 45), and individuals with both obesity and T2D (OB-T2D;n = 30). PCA, correlation analysis, and functional enrichment were performed to explore the biological roles of the miR-200 family in metabolic dysfunction. Significant differential expression was observed for hsa-miR-200b-3p ($p = 0.010$), hsa-miR-200c-3p ($p = 0.002$), and hsa-miR-141-3p ($p = 0.004$) across groups. Specifically, hsa-miR-200b-3p was upregulated only in the OB-noT2D group compared to noOB-noT2D, whereas hsa-miR-200c-3p and hsa-miR-141-3p were significantly upregulated in both groups of individuals with obesity relative to normal weight individuals. Additionally, positive correlations were found between BMI and the expression of hsa-miR-200c-3p, hsa-miR-141-3p, and hsa-miR-429. Distinct expression patterns emerged when miRNAs were grouped based on chromosomal location or functional classification. Functional enrichment analysis revealed pathways associated with insulin signaling, inflammation, and immune response. These results highlight the potential of miR-200 family members as biomarkers and therapeutic targets in metabolic disease.

99. **One-hour plasma glucose defining stages of type 2 diabetes − The ELSA-Brasil study**

Authors: Feter J., De Paula D., Bracco P., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To evaluate a previously proposed type 2 diabetes staging schema by examining the decline in oral beta-cell compensation and the increase in diabetes risk.

---

100. **Prevalence, Demographic and Clinical Characteristics of Individuals with Early Onset Type 2 Diabetes in the USA: an NHANES Analysis 1999-2020**

Authors: Lee C.J., Bergman B.K., Gou R., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Introduction: Early onset type 2 diabetes (T2D), diagnosed before age 40 years, is potentially more aggressive than later-onset disease and is increasing in prevalence globally. We examined the prevalence of early onset T2D in the USA and characterised this population.

---

101. **The Relationship Between PSQI Scores and Glucose Metabolic Dysfunction in Patients with Newly Diagnosed T2DM: The Mediating Role of Body Composition**

Authors: Wen Z., Ma M., Zhang D., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Introduction: Type 2 diabetes mellitus (T2DM) is a chronic metabolic disorder characterized primarily by insulin resistance and hyperglycemia, often leading to multiple complications. Sleep disturbances, including insomnia and sleep apnea, are prevalent in patients with T2DM and are associated with poorer glucose metabolism. Despite research examining the relationship between glucose metabolism, body composition, and sleep quality, the underlying mechanisms remain unclear, particularly within patients with T2DM.

102. **Resistance training enhances metabolic and muscular health and reduces systemic inflammation in middle-aged and older adults with type 2 diabetes: a meta-analysis**

Authors: Wang J., Fan S., Wang J.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

This meta-analysis evaluated the effects of resistance training on insulin resistance, muscle function, and systemic inflammation in middle-aged and older adults (aged 50 years and older) with type 2 diabetes mellitus (T2DM). PubMed, Web of Science, Scopus, and Cochrane CENTRAL were systematically searched from their inception to May 20, 2025. Forty-three randomized controlled trials (n = 2012 (55.8 % women); mean age 57.8 ± 8.4 years; mean BMI 30.9 ± 3.8 kg/m ^{2}) were included. Resistance training was associated with improvements in markers of insulin resistance, including insulin (mean difference: MD −1.35 μIU/mL), HOMA-IR (MD −1.15), fasting glucose (MD −6.99 mg/dL), and HbA1c (MD −0.55 %), as well as a modest reduction in BMI (MD −0.37 kg/m ^{2}). Furthermore, resistance training increased muscle mass (MD 0.89 kg) and both upper-body (standardized mean difference: SMD 2.28) and lower-body strength (SMD 2.02). A significant reduction in C-reactive protein (CRP; SMD −0.80) was observed, though no significant changes were found for tumor necrosis factor-α (TNF-α) or interleukin-6 (IL-6). Overall, resistance training provides consistent benefits for insulin sensitivity, muscle function, and systemic inflammation in middle-aged and older adults with T2DM, supporting its role as an important adjunct to lifestyle-based diabetes management strategies aimed at promoting healthier aging.

---

103. **Sex-specific protective role of lower-body fat in type 2 diabetes: mediation through insulin resistance in a BMI-matched population**

Authors: Wang Q., Chen P.P., Wei W., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

Introduction: The prevalence of type 2 diabetes (T2D) has surged, yet body mass index (BMI) fails to explain the 30%–40% of cases that occur in individuals with a healthy weight. Emerging evidence suggests that regional fat distribution differentially impacts glucose metabolism, independent of total adiposity. This study investigated the independent association between regional body composition and T2D risk using BMI-matched National Health and Nutrition Examination Survey (NHANES) data to identify sex-specific effects and the mediating role of insulin resistance.

104. **Type 2 diabetes subtypes classification: a global reckoning with heterogeneity**

Authors: Jagannathan R., Staimez L.R., Venkat Narayan K.M.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

For decades, type 2 diabetes has been managed as a monolithic condition, defined by hyperglycaemia and treated via uniform, stepwise algorithms. Although operationally convenient, this practice increasingly fails to account for the biological heterogeneity of type 2 diabetes. Just as oncology evolved from treating cancer as a single disease to recognising distinct malignancies with targeted therapies, a similar transformation is now underway in the field of type 2 diabetes. [1] A syndromic framework grounded in molecular pathophysiology could ultimately reorient diabetes care towards precise, stratified risk prediction, personalised prevention, and targeted therapy.

Diagnosis

105. **Endocrinologist-led genomic testing for monogenic diabetes in adult diabetes clinics: a feasibility and outcome study**

Authors: Balasingam D., Moxham R., Devery S., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: Monogenic diabetes (MGD), such as Maturity-Onset Diabetes of the Young (MODY), is under-recognised and under-diagnosed. Accurate diagnosis of MGD requires genetic testing and has important treatment implications. Integrating MGD testing within diabetes clinics can increase testing uptake and MGD diagnosis. We aimed to explore the feasibility and psychosocial outcomes of endocrinologist-led MGD testing.

---

106. **The need for improved diabetes detection and treatment**

Authors: Sørensen H.T.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

Diabetes, a public health challenge affecting millions of people worldwide, is associated with severe complications such as heart disease, kidney failure, retinopathy, neuropathy, and premature mortality. 12 Diabetes profoundly affects quality of life. According to the Global Burden of Diseases, Injuries, and Risk Factor Study (GBD), 561 million people worldwide were living with diabetes in 2023. 34 This number is projected to rise to 1·3 billion by 2050, [4] which illustrates the enormous challenges faced by health-care systems and societies globally. The increasing number of young people with type 2 diabetes is particularly worrying.

Glucose monitoring and control

107. **Comparative effectiveness of OW GLP-1 RAs and other glucose-lowering therapies among Medicare beneficiaries with T2D and ASCVD**

Authors: Tan X., Harton J., Gutierrez C., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To compare the incidence rates for cardiovascular (CV) outcomes and healthcare resource utilization (HCRU) and costs among patients treated with once-weekly (OW) glucagon-like peptide-1 receptor agonists (GLP-1 RAs) compared with other non-insulin glucose lowering therapies (ONIGLTs).

---

108. **Continuous Glucose Monitoring as an alternative for Cystic Fibrosis Related diabetes screening and diagnosis**

Authors: García I.A., Pérez P.V., Plaza B.L., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Background and aims: The data regarding the capacity of HbA1c and Continuous Glucose Monitoring (CGM) to diagnose Cystic Fibrosis Related Diabetes (CFRD) are uncertain. We studied HbA1c, classical CGM indexes, and novel glucodensities CGM metrics' ability to distinguish CFRD based on Oral Glucose Tolerance Test (OGTT) results.

---

109. **Delayed breakfast in type 2 diabetes: Critical gaps and translation barriers**

Authors: Mondal H. and Dhanvijay A.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

We respond to the article "Modifying the timing of breakfast improves postprandial glycaemia in people with type 2 diabetes: A randomised controlled trial" by Bravo-Garcia et al. While the study introduces an intriguing strategy for postprandial glycemic control, several methodological modification and detailed reporting could be done. Key variables such as participants' sleep-wake timing, daily schedules, and evening routines, which influence glucose metabolism, could be reported. Limited details on medication timing and exercise standardization could be taken care of. Additionally, cultural and socioeconomic factors, particularly in developing countries like India, challenge the practicality of delayed breakfast protocols. The physiological implications of fasting, including the Somogyi effect, warrant further exploration. These highlight the need for more comprehensive studies addressing

individual, cultural, and socioeconomic factors to enhance the translational potential of breakfast timing interventions for glycemic control.

---

110. **Response to letter to the editor by Mondal H et al. “Delayed breakfast in type 2 diabetes: Critical gaps and translation barriers”**

Authors: Bravo-Garcia A.P. and Parr E.B.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

Firstly, thank you to both the authors of this letter for aiding in further discussion of our work and the editors for allowing us to respond. We appreciate the constructive comments to improve study protocols and the collective effort to explore alternative strategies for improving glucose management in people with type 2 diabetes (T2D).

---

111. **Effects of continuous glucose monitoring on dietary behavior and physical activity: A systematic review and *meta*-analysis**

Authors: Zhang D., Huang J., Zhang Y., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

This systematic review and *meta*-analysis examined the impact of continuous glucose monitoring (CGM) on dietary behaviors and physical activity. A comprehensive search of six databases was conducted up to May 3, 2025, identifying 21 trials involving 1,488 adults with type 1 or type 2 diabetes, overweight, or obesity. Most studies used real-time CGM systems. Compared with control groups, CGM users showed a significantly lower proportion of energy intake from carbohydrates, although no significant differences were observed in total energy intake or in the proportions of energy from fat or protein. Pre-post analyses within intervention groups revealed significant reductions in total energy intake and changes in macronutrient composition. However, CGM use did not result in significant improvements in sedentary time or time spent in light or moderate physical activity. These findings suggest that CGM may facilitate healthier dietary behaviors through real-time, individualized feedback, though its effects on physical activity are limited. Further research is needed to evaluate the integration of CGM with AI-based interventions and to address the role of user health literacy in optimizing outcomes.

112. **First-trimester continuous glucose monitoring parameters in preeclamptic and normotensive patients with type 1 diabetes**

Authors: Boroń D., Mantaj U., Sibiak R., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Objective: Preeclampsia disproportionately affects women with pregestational type 1 diabetes (T1D). This study aims to determine whether continuous glucose monitoring (CGM)-derived metrics during the first trimester predict the development of preeclampsia in pregnancies complicated by pregestational T1D, comparing their predictive capability against standard glycemic markers.

---

113. **Glycemic status, early-onset and late-onset dementia, dementia-free lifespan, and brain structure: A population-based cohort study**

Authors: Li C., He D., Yang C., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To evaluate associations of glycemic status with incident early-onset dementia (EOD) and late-onset dementia (LOD), dementia-free life expectancy, brain MRI structure measures, as well as the mediation pathway of depressive episode.

---

114. **Impact of transitioning from conventional blood glucose monitoring to continuous glucose monitoring on glycemic control and self-management in adults with type 2 diabetes on oral glucose-lowering medications**

Authors: Al Hayek A., Klonoff D.C., Al Zahrani W.M., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Background: Despite advances, glycemic control in people with type 2 diabetes (PwT2D) treated with oral antidiabetic medications (ADMs) often remains suboptimal. Continuous glucose monitoring (CGM) has shown promise in diabetes management, offering real-time insights into glucose trends. This study evaluates the impact of transitioning from conventional self-monitoring of blood glucose (SMBG) to CGM on glycemic outcomes and self-management in PwT2D receiving oral ADMs.

115. **Low dose pioglitazone (7.5 mg) provides efficacious glycemic control in Asian Indian patients with poorly controlled diabetes compared to 15 mg: A pilot randomized controlled parallel-group open-label trial over 12 months**

Authors: Barnabas R., Bhide S., Memon S.S., et al.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

Aims: We aimed to compare the 1-year efficacy and safety of 7.5 mg versus 15 mg pioglitazone in Asian Indian patients with type 2 diabetes due to lack of long-term data in lower doses.

---

116. **Rapid improvements in glycemic management with use of continuous glucose monitoring in adults with type 2 diabetes treated with basal insulin: 3-month analysis of the MOBILE study**

Authors: Martens T.W., Beck R.W., Griffen C., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

Introduction: This analysis investigated whether use of real-time continuous glucose monitoring (CGM) compared with blood glucose monitoring (BGM) results in rapidly improved glycemic management in adults with type 2 diabetes (T2D) treated with basal insulin.

---

117. **Text messaging interventions are associated with reductions in HbA1c among patients with diabetes: a systematic review and meta-analysis**

Authors: Pirouzmand N., Ko G.S., Godoy L.C., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

Introduction: Achieving optimal glycemic control remains challenging for many patients with diabetes. Text message-based interventions offer a scalable approach to enhance management. This systematic review and meta-analysis evaluated the impact of texting interventions on glycemic control in adults with diabetes.

Hyperglycaemia

118. **Performance of an individualized, subcutaneous, basal-bolus insulin regimen for the management of prednisolone-associated hyperglycemia in hospitalized patients: a proof-of-concept study**

Authors: Chen A.X.N., Radhakutty A., Thompson C., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

Introduction: Prednisolone is widely prescribed to hospitalized patients for a range of conditions. Up to 40% of hospitalized patients treated with prednisolone will experience hyperglycemia. Current guidelines recommend management of acute hyperglycemia in hospitalized patients with subcutaneous basal-bolus insulin (BBI), but the optimum treatment strategy has not been defined. We aimed to assess the performance of an individualized subcutaneous BBI regimen for management of prednisolone-associated hyperglycemia in hospitalized patients.

Insulin therapies

119. **Beyond bolus variability: User interaction is the final frontier in automated insulin delivery**

Author: Scarmorzes A.E.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

To the Editor, We commend Papa and colleagues for their crucial analysis quantifying the impact of insulin delivery variability on glycemic outcomes in MiniMed™ 780G users. Their work elegantly demonstrates that high variability in user-initiated manual boluses (MB-V%) is detrimental to Time in Range (TIR), whereas high variability in automated correction boluses (AB-V%) is beneficial, reflecting an appropriately adaptive algorithm.[1] This finding isolates the human-system interface—specifically, meal management—as a primary source of suboptimal control.

120. **Corrigendum to “Automated insulin delivery for safe fasting and exercise during Ramadan in patients with type 1 diabetes: The active fast study”. [DIAB 226 (2025) 112353]**

Authors: Baagar K., Ali H., Ata F., et al.

Publication Date: 2025

Journal: 2025

The authors regret to inform that the following information was missing in the published article. The use of the “Diabetes Treatment Satisfaction Questionnaire - DTSQ” was licensed as mentioned in the publication on page 3 under section (8. ***Patient-Reported Outcomes):*** “We were granted a license from Health Psychology Research LTD (Ref: CB1300), on 13 December 2022, to use the DTSQ”. However, the paper was published before giving enough time to the copyright holder to review the manuscript as required by the licence agreement between **HEALTH PSYCHOLOGY RESEARCH LTD and me.**

---

121. **Corrigendum to “Patients with type 2 diabetes who achieve reduced postprandial glucose levels during insulin intensive therapy may have a better recovery of β-cell function”. [Diabetes Res. Clin. Pract. 215 (2024) 111805]**

Authors: Chen P., Sun Q., Xu L., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[1. Dr. Hao L is the main corresponding author (first corresponding author). In the notes section of the paper regarding the corresponding author: “Corresponding authors at: Department of Endocrinology, Nanjing First Hospital, Nanjing Medical University, No. 32 Gongqingtuan Road, Nanjing 210012, China. E-mail addresses: lifengfei2005@126.com (F. Li), luckylhao@163.com (H. Liu).” should be “**Corresponding authors at: Department of Endocrinology, Nanjing First Hospital, Nanjing Medical University, No. 32 Gongqingtuan Road, Nanjing 210012, China. E-mail addresses: luckylhao@163.com (H. Liu), lifengfei2005@126.com (F. Li).**”]

---

122. **Effect of daily insulin delivery variability on glycemic outcomes in patients with type 1 diabetes mellitus using an automated insulin delivery system**

Authors: Papa G., Cannarella R., Gusmano C., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Background: Automated insulin delivery (AID) systems are central to managing type 1 diabetes mellitus (T1DM), using continuous glucose monitoring (CGM) to adjust basal insulin (BI). Certain systems, such as the MiniMed™ 780G, also provide automated correction

boluses (AB), while manual boluses (MB) are administered in response to carbohydrate intake. Despite the adaptive nature of these technologies, the influence of variability in individual insulin delivery components on glycemic outcomes remains insufficiently characterized.

---

123. **Efficacy and Safety of Once-Weekly Insulin Icodec in Indian Participants with Diabetes: Results from ONWARDS 1, 4, and 6 Studies**

Authors: Mohan V., Kesavadev J., Murthy L.S., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Introduction: These analyses explored the efficacy and safety of once-weekly insulin icodec (icodec) in Indian participants with type 1 or type 2 diabetes (T1D/T2D) from the global ONWARDS 1, 4, and 6 studies.

---

124. **Human factor in the use of automated insulin delivery systems: Real-world effects in children with type 1 diabetes after 2 years of use (AID-A study)**

Authors: Schneidewind J., Von Sengbusch S., Schmidt D., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: This study aimed to assess the metabolic effects, changes in daily life, and diabetes burden associated with automated insulin delivery (AID) systems in children in a real-world setting after 2 years of use.

---

125. **A real-world study assessing the efficacy and safety of switching from basal bolus insulin therapy to once daily iGlarLixi in people with type 2 diabetes mellitus: soli de-escalation**

Authors: Giorgino F., Taybani Z., Cheng A., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aim: To compare glycemic outcomes in adults with type 2 diabetes mellitus (T2DM) switching from basal-bolus insulin (BBI) to once-daily iGlarLixi.

126. **Sociodemographic and biological determinants of insulin initiation in type 2 diabetes: a cohort study using routinely collected primary care data**

Authors: Alfaraj S.A., Vos R.C., Spruit M., et al.

Publication Date: 2025

Journal: British Journal of General Practice

Background: Timely initiation of insulin is critical to prevent long-term complications associated with poor glycaemic control. A better understanding of the factors influencing insulin initiation is essential to guide person-centred treatment and reduce disparities.

Aim: To examine factors associated with insulin initiation within 5 years after starting metformin in adults with type 2 diabetes mellitus (T2DM).

---

127. **Trends in mean serum insulin and hyperinsulinemia among US adults without diabetes 1999–2018**

Authors: Johnson T.M. and Churilla J.R.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

Purpose: The purpose of this study is to examine trends for mean serum insulin concentration (pmol/L) and prevalence of hyperinsulinemia (≥4.358 pmol/L fasting insulin) in US adults without diabetes.

Management of diabetes (diet, exercise, lifestyle)

128. **Changes in 24-hour daily movement associated with reduced 5-year diabetes risk in the 1970 British Cohort Study**

Authors: Mitchell J.J., Blodgett J.M., Koemel N.A., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Within the 1970 British Cohort Study, we investigate how reallocating daily time across movement behaviours and sleep relates to 5-year diabetes risk in midlife. Only increasing moderate-to-vigorous physical activity in place of other daily behaviours and sleep was consistently linked to lower odds of diabetes.

129. **Delayed breakfast in type 2 diabetes: Critical gaps and translation barriers**

Authors: Mondal H. and Dhanvijay A.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

We respond to the article “Modifying the timing of breakfast improves postprandial glycaemia in people with type 2 diabetes: A randomised controlled trial” by Bravo-Garcia et al. While the study introduces an intriguing strategy for postprandial glycemic control, several methodological modification and detailed reporting could be done. Key variables such as participants' sleep-wake timing, daily schedules, and evening routines, which influence glucose metabolism, could be reported. Limited details on medication timing and exercise standardization could be taken care of. Additionally, cultural and socioeconomic factors, particularly in developing countries like India, challenge the practicality of delayed breakfast protocols. The physiological implications of fasting, including the Somogyi effect, warrant further exploration. These highlight the need for more comprehensive studies addressing individual, cultural, and socioeconomic factors to enhance the translational potential of breakfast timing interventions for glycemic control.

---

130. **Response to letter to the editor by Mondal H et al. “Delayed breakfast in type 2 diabetes: Critical gaps and translation barriers”**

Authors: Bravo-Garcia A.P. and Parr E.B.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

Firstly, thank you to both the authors of this letter for aiding in further discussion of our work and the editors for allowing us to respond. We appreciate the constructive comments to improve study protocols and the collective effort to explore alternative strategies for improving glucose management in people with type 2 diabetes (T2D).

---

131. **Effectiveness of low-carbohydrate diets on type 2 diabetes: A systematic review and *meta*-analysis of randomized controlled trials in Eastern vs. Western populations**

Authors: Mongkolsucharitkul P., Surawit A., Pimsen A., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: Low-carbohydrate diets (LCDs) have emerged as a potential dietary intervention for managing glycemic control, but their effectiveness across different cultural contexts remains unclear. To evaluate the efficacy of LCDs in managing type 2 diabetes, with attention to cultural context, and to clarify how variability in carbohydrate definitions affects interpretation.

Mental health and diabetes

132. **Associations between perceived stress and glycemic measures: gender and age as moderators**

Authors: Tsai M.H., Goh C.E., Lee M.H., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care

Introduction: Prediabetes presents an opportunity for early intervention. Growing evidence suggests that psychological stress may contribute to glucose dysregulation, but the findings are inconsistent. This study aimed to clarify the association between perceived stress and glycemic measures, by first testing gender as a moderator, and then examining age as a moderator within each gender group.

---

133. **Disconnect between advanced diabetes technology and psychological well-being among young people: a cross-sectional analysis**

Authors: Ernst G., Kim-Dorner S.J., Hampel M., et al.

Publication Date: 2025

Journal: BMJ Open Diabetes Research and Care
Introduction: Diabetes technologies may improve glycemic control and psychological well-being among adolescents and young adults (AYA) with type 1 diabetes. This cross-sectional study examines perceptions of automated insulin dosing (AID) systems and their association with glycemic and psychological outcomes compared with multiple daily insulin injections (MDI) and continuous subcutaneous insulin infusion (CSII).

Pharmacological management of diabetes

134. **A comparative analysis of cost-utility: Chiglitazar vs. sitagliptin in patients with type 2 diabetes in China**

Authors: Xie Z., Liang X., Zheng G., et al.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

Background: As a structurally unique peroxisome proliferator-activated receptor pan-agonist, chiglitazar has showed dual therapeutic benefits for glycemic control and lipid management in type 2 diabetes mellitus (T2DM). Despite these clinical advantages, comprehensive pharmacoeconomic evaluations comparing chiglitazar with conventional therapies like sitagliptin remain unavailable for China's healthcare system.
Objective: This study aimed to conduct a comparative cost-utility analysis of chiglitazar versus sitagliptin for T2DM treatment in China, evaluating long-term clinical and economic outcomes from a healthcare system perspective.

135. **Gliclazide in type 2 diabetes: Cost-effective and clinically relevant in resource-limited settings**

Authors: Saboo B., Kapoor N., Jaganmohan B., et al.

Publication Date: 2025

Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews

Sulfonylureas (SUs) continue to play a crucial role in the management of type 2 diabetes, particularly in low- and middle-income countries, where cost remains a significant determinant of treatment access. Among SUs, gliclazide remains a preferred option due to its proven efficacy, low risk of hypoglycemia, and affordability.

---

136. **GLP-1 receptor agonists and sarcopenia: Weight loss at a cost? A brief narrative review**

Authors: Pantazopoulos D., Gouveri E., Papazoglou D., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) and dual agonists targeting both GLP-1 and glucose-dependent insulinotropic polypeptide receptors (GLP-1/GIP RAs) are established therapies for type 2 diabetes mellitus (T2DM) and obesity. However, there is evidence that treatment with these agents may lead to significant loss of muscle mass, potentially resulting in sarcopenia or sarcopenic obesity. This brief narrative review explores the complex relationship between GLP-1 based therapies and muscle health. Some studies have linked GLP-1 RAs and dual GLP-1/GIP RAs with significant reductions in lean mass, and sarcopenia. However, preclinical evidence suggests that these agents can attenuate skeletal muscle atrophy, improve muscle function, and enhance mitochondrial health. Moreover, limited clinical data indicate a potential role in preserving muscle mass under certain conditions. Management includes optimised diet, targeted exercise, and novel pharmacological interventions, such as blockade of growth differentiation factor-8 (GDF8) and activin A (ActA). These measures hold potential to preserve muscle mass and to improve patient outcomes. Further research is warranted to clarify these mechanisms and to evaluate combination therapies aimed at preventing sarcopenia in patients receiving GLP-1 RAs.

---

137. **Impact of Tirzepatide on diet-related quality of life and treatment satisfaction in people with type 2 diabetes mellitus: a retrospective cross-sectional study**

Authors: Mongkolsucharitkul P., Surawit A., Pimsen A., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Aims: To explore how Tirzepatide (TZP) treatment influences diet-related quality of life (QoL) and thus treatment satisfaction.

138. **Methodological considerations in tirzepatide–bariatric surgery comparative study**

Authors: Chin S.Y., Yeh W.B., Chang R.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Dear Editor, We read with interest the study comparing tirzepatide and bariatric metabolic surgery (BMS) in patients with obstructive sleep apnea and obesity [1]. While the authors' findings contribute valuable insights, we would like to raise three considerations that may enhance interpretation.

---

139. **Once-weekly semaglutide 7·2 mg in adults with obesity (STEP UP): a randomised, controlled, phase 3b trial**

Authors: Wharton S., Freitas P., Hjelmesæth J., et al.

Journal: 2025

Publication Date: Lancet Diabetes & Endocrinology

Background: Once-weekly subcutaneous semaglutide 2·4 mg is approved for weight management in people with obesity and related complications; however, some individuals do not reach their therapeutic goals with this dose. We aimed to test the efficacy and safety of a higher dose of semaglutide (7·2 mg) in people with obesity.

---

140. **Once-weekly semaglutide 7·2 mg in adults with obesity and type 2 diabetes (STEP UP T2D): a randomised, controlled, phase 3b trial**

Authors: Lingvay I., Bergenheim S.J., Buse J.B., et al.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

[**Background**: Semaglutide 2·4 mg is approved for weight management in adults with obesity or overweight in the presence of at least one obesity-related complication; however, many people with obesity and type 2 diabetes do not reach their bodyweight reduction goals with this dose. We aimed to investigate the efficacy and safety of a new 7·2 mg maintenance dose of once-weekly subcutaneous semaglutide in people with obesity and type 2 diabetes.]

141. **Pharmacokinetic Characteristics of a Once-Weekly Combination Therapy of Insulin Icodec and Semaglutide Versus Its Separate Components in Chinese Individuals with Type 2 Diabetes**

Authors: Wang F., Luan Z., Maltesen R., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Introduction: IcoSema is under development as a once-weekly injectable combination therapy of icodec (basal insulin) and semaglutide (glucagon-like peptide 1 receptor agonist). This study assessed the pharmacokinetic characteristics of icodec and semaglutide following IcoSema administration vs. administration of icodec and semaglutide alone in Chinese individuals with type 2 diabetes (T2D).

---

142. **Real-World Effectiveness of Tirzepatide versus Semaglutide on HbA1c and Weight in Patients with Type 2 Diabetes**

Authors: Hoog M.M., Vallarino C., Maldonado J.M., et al.

Publication Date: 2025

Journal: Diabetes Therapy

Introduction: To evaluate real-world hemoglobin A1c (HbA1c) and weight change in adults initiating treatment with tirzepatide (dual glucose-dependent insulinotropic polypeptide and glucagon-like peptide-1 receptor agonist [GLP-1 RA]) or injectable semaglutide (GLP-1 RA) indicated for type 2 diabetes (T2D) management.

---

143. **Response to comments on tirzepatide versus bariatric metabolic surgery in adults with obstructive sleep apnea and obesity**

Authors: Wu J.Y., Lin Y.M., Hsu W.H., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

We appreciate the interest of Chin and colleagues in our article, [1] and thank them for their thoughtful comments highlighting several methodological considerations [2].

144. **Semaglutide 7·2 mg: another step towards tackling diseases mediated by obesity**

Authors: Sattar N. and Lean M.E.J.

Publication Date: 2025

Journal: Lancet Diabetes & Endocrinology

In *The Lancet Diabetes & Endocrinology*, the STEP-UP T2D and STEP-UP trial groups present new findings on the efficacy and safety of higher-dose semaglutide (7·2 mg once weekly) in individuals with obesity, both with and without type 2 diabetes. 1 2 These trials build upon the foundational evidence supporting semaglutide 2·4 mg as an effective bodyweight management drug for people with diseases mediated by obesity. The clinical trials of semaglutide, and its main incretin-based alternative tirzepatide, have consistently shown very substantial and well sustained bodyweight loss and major therapeutic benefits across a range of secondary conditions—notably type 2 diabetes, prediabetes, hypertension, sleep apnoea, and heart failure. [3] Treatment-related adverse events are mostly dose-related, and overall safety records are good. Perhaps surprisingly, weekly self-injection regimens have proved highly acceptable, and they have gained unprecedented private markets. However, use within medical practice is still very limited, largely by price.

---

145. **Semaglutide and the retina: Weighing evidence against concern**

Authors: Muzurović E., Zečević K., Maggio V., et al.

Publication Date: 2025

Journal: Journal of Diabetes and Its Complications

The prevalence of type 2 diabetes mellitus (T2DM) is rapidly increasing worldwide. [1, 2] Diabetic retinopathy (DR), a leading cause of blindness among working-age adults, affects about a third of those with diabetes. 123 This underscores the urgent need for strategies to prevent diabetic retinopathy and its progression. [3] Semaglutide, a glucagon-like peptide-1 (GLP-1) receptor agonist (RA), has proven effective in managing T2DM, obesity and related cardiovascular risk, [1, 2, 4] but concerns about its impact on retinal health are emerging. [3, 5] The SUSTAIN 6 trial initially raised alarms about a higher rate of DR complications in patients on semaglutide compared to those on placebo, sparking multiple studies to explore this potential association.

---

146. **SGLT-2 inhibitors beyond diabetes: a new frontier in cancer treatment**

Authors: Nakhaei A., Delavar K., Azim A.S., et al.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

Sodium-glucose co-transporter 2 (SGLT-2) inhibitors, a new class of antidiabetic medications including canagliflozin, dapagliflozin, ipragliflozin, and empagliflozin, recently came to light as possible anti-cancer therapeutics. The confirmed presence of SGLT-2 in many cancer cell lines further substantiates their potential as therapeutic targets. Because many cancer cells

change their metabolism to become more glucose-dependent, blocking glucose absorption with SGLT-2 inhibitors is an intriguing anti-cancer therapy. In addition to their physiological function in renal proximal tubules, SGLT-2 has been identified in specific tumor cells. Clinical trials have shown that SGLT-2 inhibitors are safe and well-tolerated in individuals with diabetes and heart failure. Significantly, these medicines demonstrate antiproliferative effects across multiple cancer types, as substantiated by both in vitro and in vivo models, frequently via mechanisms that are independent of SGLT-2 itself. They seem to regulate a diverse array of intracellular and extracellular signaling pathways, encompassing those associated with microRNAs, AMPK, ERK, DNA and RNA metabolism, ATP homeostasis, and mitochondrial function. These data collectively underscore the potential of SGLT-2 inhibitors in clinical oncology and elucidate the processes driving their anti-cancer efficacy.

Prevention of diabetes (diet, exercise, lifestyle)

147. **Preventing type 2 diabetes: a qualitative study exploring the complexity of health-related practices in people with prediabetes.**

Authors: Barry E., Greenhalgh T., Papoutsi C., et al.

Publication Date: 2025

Journal: British Journal of General Practice

Background: Despite the introduction of primary care-based diabetes prevention strategies, labelling people with prediabetes and encouraging behaviour change, type 2 diabetes continues to rise, causing significant morbidity and mortality.

Aim: To examine how a prediabetes diagnosis influences a person's health-related practices.

Teenagers with diabetes

148. **Self-efficacy among parents of children and adolescents with type 1 diabetes: a systematic review**

Authors: Arcangeli I.C., Ciavatta V., Celia G.

Publication Date: 2025

Journal: Diabetes Research and Clinical Practice

[Parental self-efficacy in caring for children and adolescents with type 1 diabetes (T1D) plays a crucial role in effective diabetes management and the overall well-being of both the parent and the child. This systematic review aims to synthesize research on parental self-efficacy in managing children and adolescents with T1D, focusing on factors influencing self-efficacy, outcomes associated with high or low self-efficacy, and interventions designed to improve it. In accordance with PRISMA guidelines, a systematic review of the PubMed, PsycINFO, Web of Science, and Scopus databases was conducted. A total of 19 articles met the inclusion criteria and were included in the review. The results indicate that lower parental self-efficacy is often associated with psychological factors such as depression and stress, while higher self-efficacy is linked to better quality of life, glycemic control, and dietary management in children with T1D. Health education and social support, particularly from online health communities, significantly enhance self-efficacy. Family dynamics, including better organization and reduced

conflict, are crucial in promoting higher parental self-efficacy, thereby improving disease management in their children.]

Disclaimer:

Royal United Hospital Bath Healthcare Library will endeavour to use the best, most appropriate and most recent sources available to it, but accepts no liability for the information retrieved, which is subject to the content and accuracy of databases, and the limitations of the search process. The library assumes no liability for the interpretation or application of these results, which are not intended to provide advice or recommendations on patient care.