

# MD7009/MD7259 Clinical Presentation & Management in Diabetes: Glycaemic Control, New & Novel Therapies

View Online



1

Richard I. G. Holt, , Clive Cockram, , Allan Flyvbjerg, , and Barry J. Goldstein. Textbook of Diabetes. John Wiley 2016.  
<https://ebookcentral-proquest-com.ezproxy4.lib.le.ac.uk/lib/leicester/reader.action?docID=4769056>

2

Type 2 diabetes in adults: management | Guidance and guidelines | NICE.  
<https://www.nice.org.uk/guidance/ng28>

3

Resources and tools.  
<http://www.idf.org/our-activities/advocacy-awareness/resources-and-tools/78:global-guideline-for-managing-older-people-with-type-2-diabetes.html>

4

Resources and tools.  
<http://www.idf.org/our-activities/advocacy-awareness/resources-and-tools/79:global-guideline-for-type-2-diabetes.html>

5

Resources and tools.  
<http://www.idf.org/our-activities/advocacy-awareness/resources-and-tools/80:the-global-idf-ispad-guidelines-for-diabetes-in-childhood-and-adolescence.html>

6

Crasto W, Jarvis J, Davies MJ. Handbook of insulin therapies. Switzerland: : Adis 2016.  
[http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package\\_service\\_id=5664687440002746&institutionId=2746&customerId=2745](http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5664687440002746&institutionId=2746&customerId=2745)

7

Anthony H. Barnett, Jenny Grice. New Mechanisms in Glucose Control. BMJ Books; 1 edition 2013. <http://ezproxy.lib.le.ac.uk/login?url=http://lib.mylibrary.com?id=478133>

8

WHO 2011 Use of glycated haemoglobin (HbA1c) in the diagnosis of diabetes mellitus.  
[http://www.who.int/diabetes/publications/diagnosis\\_diabetes2011/en/](http://www.who.int/diabetes/publications/diagnosis_diabetes2011/en/)

9

Atkinson MA. The Pathogenesis and Natural History of Type 1 Diabetes. Cold Spring Harbor Perspectives in Medicine 2012;**2**:a007641–a007641. doi:10.1101/cshperspect.a007641

10

Samuel VT, Shulman GI. Integrating Mechanisms for Insulin Resistance: Common Threads and Missing Links. Cell 2012;**148**:852–71. doi:10.1016/j.cell.2012.02.017

11

Beverley M Shields. Can clinical features be used to differentiate type 1 from type 2 diabetes? A systematic review of the literature. BMJ Open 2015;**5**. doi:doi:10.1136/bmjopen-2015-009088

12

Zaccardi F, Webb DR, Yates T, et al. Pathophysiology of type 1 and type 2 diabetes mellitus: a 90-year perspective. Postgraduate Medical Journal 2016;**92**:63–9. doi:10.1136/postgradmedj-2015-133281

13

Jones AG, Hattersley AT. The clinical utility of C-peptide measurement in the care of patients with diabetes. *Diabetic Medicine* 2013;**30**:803–17. doi:10.1111/dme.12159

14

Srinivasan BT, Jarvis J, Khunti K, et al. Recent advances in the management of type 2 diabetes mellitus: a review. *Postgraduate Medical Journal* 2008;**84**:524–31. doi:10.1136/pgmj.2008.067918

15

Copeland KC, Silverstein J, Moore KR, et al. Management of Newly Diagnosed Type 2 Diabetes Mellitus (T2DM) in Children and Adolescents. *PEDIATRICS* 2013;**131**:364–82. doi:10.1542/peds.2012-3494

16

Celia G. Walker. Modelling the Interplay between Lifestyle Factors and Genetic Predisposition on Markers of Type 2 Diabetes Mellitus Risk. *PLoS ONE* 2015;**10**. doi:doi:10.1371/journal.pone.0131681

17

Chatterjee S, Davies M. Type 2 diabetes: recent advances in diagnosis and management. *Prescriber* 2015;**26**:15–21. doi:10.1002/psb.1355

18

Ismail-Beigi F. Glycemic Management of Type 2 Diabetes Mellitus. *New England Journal of Medicine* 2012;**366**:1319–27. doi:10.1056/NEJMcp1013127

19

Nathan DM, Buse JB, Davidson MB, et al. Management of Hyperglycemia in Type 2 Diabetes: A Consensus Algorithm for the Initiation and Adjustment of Therapy: A

consensus statement from the American Diabetes Association and the European Association for the Study of Diabetes. *Diabetes Care* 2006;**29**:1963–72.  
doi:10.2337/dc06-9912

20

Srinivasan BT, Davies M. Glycaemic management of type 2 diabetes. *Medicine* 2014;**42**:711–7. doi:10.1016/j.mpmed.2014.09.011

21

S M Attard. Implications of iron deficiency/anemia on the classification of diabetes using HbA1c. *Nutrition & Diabetes* 2015;**5**. doi:doi: 10.1038/nutd.2015.16

22

Schwartz SS, Epstein S, Corkey BE, et al. The Time Is Right for a New Classification System for Diabetes: Rationale and Implications of the  $\beta$ -Cell-Centric Classification Schema. *Diabetes Care* 2016;**39**:179–86. doi:10.2337/dc15-1585

23

Nolan CJ, Ruderman NB, Kahn SE, et al. Insulin Resistance as a Physiological Defense Against Metabolic Stress: Implications for the Management of Subsets of Type 2 Diabetes. *Diabetes* 2015;**64**:673–86. doi:10.2337/db14-0694

24

Rizos CV, Kei A, Elisaf MS. The current role of thiazolidinediones in diabetes management. *Archives of Toxicology* 2016;**90**:1861–81. doi:10.1007/s00204-016-1737-4

25

Nissen SE, Wolski K. Effect of Rosiglitazone on the Risk of Myocardial Infarction and Death from Cardiovascular Causes. *New England Journal of Medicine* 2007;**356**:2457–71.  
doi:10.1056/NEJMoa072761

26

Professor Kamlesh Khunti - Coding, Classification and Diagnosis of Diabetes.  
4AD.<https://www.youtube.com/watch?v=AhhWTmEFuag>

27

[ARCHIVED CONTENT] Medicines management: Everybody's business : Department of Health - Publications and statistics.  
[http://webarchive.nationalarchives.gov.uk/20080205142458/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_082200](http://webarchive.nationalarchives.gov.uk/20080205142458/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082200)

28

Vloemans AF, van Beers CAJ, de Wit M, et al. Keeping safe. Continuous glucose monitoring (CGM) in persons with Type 1 diabetes and impaired awareness of hypoglycaemia: a qualitative study. *Diabetic Medicine* 2017;**34**:1470–6. doi:10.1111/dme.13429

29

Sivasubramaniyam S, Amiel SA, Choudhary P. Proportion of daily capillary blood glucose readings required in the target range for target glycaemic control: shift of focus from target range to proportion in range. *Diabetic Medicine* 2017;**34**:1456–60. doi:10.1111/dme.13438

30

Crasto W, Jarvis J, Davies MJ. Handbook of insulin therapies. Switzerland: : Adis 2016.  
[http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package\\_service\\_id=5664687440002746&institutionId=2746&customerId=2745](http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5664687440002746&institutionId=2746&customerId=2745)

31

Inzucchi SE, Bergenstal RM, Buse JB, et al. Management of Hyperglycemia in Type 2 Diabetes, 2015: A Patient-Centered Approach: Update to a Position Statement of the American Diabetes Association and the European Association for the Study of Diabetes. *Diabetes Care* 2015;**38**:140–9. doi:10.2337/dc14-2441

32

Ryder B, McKnight J, Blann A, et al. ABCD position statement on GLP-1 based therapies and pancreatic damage. *Practical Diabetes* 2013;**30**:388–91. doi:10.1002/pdi.1816

33

Garber AJ, King AB, Prato SD, et al. Insulin degludec, an ultra-longacting basal insulin, versus insulin glargine in basal-bolus treatment with mealtime insulin aspart in type 2 diabetes (BEGIN Basal-Bolus Type 2): a phase 3, randomised, open-label, treat-to-target non-inferiority trial. *The Lancet* 2012;**379**:1498–507. doi:10.1016/S0140-6736(12)60205-0

34

Gururaj Setty S, Crasto W, Jarvis J, et al. New insulins and newer insulin regimens: a review of their role in improving glycaemic control in patients with diabetes. *Postgraduate Medical Journal* 2016;**92**:152–64. doi:10.1136/postgradmedj-2015-133716

35

Htike ZZ, Zaccardi F, Chatterjee S, et al. Glucagon like peptide-1 receptor agonist (GLP-1RA) therapy in management of type 2 diabetes: choosing the right agent for individualised care. *British Journal of Diabetes* 2016;**16**. doi:10.15277/bjd.2016.091

36

Davies MJ, Chatterjee S. Trial watch: Insulin initiation for type 2 diabetes mellitus in primary care. *Nature Reviews Endocrinology* 2017;**13**:317–8. doi:10.1038/nrendo.2017.41

37

Gough SCL, Harris S, Woo V, et al. Insulin degludec: overview of a novel ultra long-acting basal insulin. *Diabetes, Obesity and Metabolism* 2013;**15**:301–9. doi:10.1111/dom.12052

38

Ashwell SG, Amiel SA, Bilous RW, et al. Improved glycaemic control with insulin glargine plus insulin lispro: a multicentre, randomized, cross-over trial in people with Type 1

diabetes. *Diabetic Medicine* 2006;**23**:285–92. doi:10.1111/j.1464-5491.2005.01781.x

39

Bretzel RG, Nuber U, Landgraf W, et al. Once-daily basal insulin glargine versus thrice-daily prandial insulin lispro in people with type 2 diabetes on oral hypoglycaemic agents (APOLLO): an open randomised controlled trial. *The Lancet* 2008;**371**:1073–84. doi:10.1016/S0140-6736(08)60485-7

40

Funnell MM. Overcoming Barriers to the Initiation of Insulin Therapy. *Clinical Diabetes* 2007;**25**:36–8. doi:10.2337/diaclin.25.1.36

41

Garber AJ, Wahlen J, Wahl T, et al. Attainment of glycaemic goals in type 2 diabetes with once-, twice-, or thrice-daily dosing with biphasic insulin aspart 70/30 (The 1-2-3 study). *Diabetes, Obesity and Metabolism* 2006;**8**:58–66. doi:10.1111/j.1463-1326.2005.00563.x

42

Gough SCL. A review of human and analogue insulin trials. *Diabetes Research and Clinical Practice* 2007;**77**:1–15. doi:10.1016/j.diabres.2006.10.015

43

Garber AJ, Ligthelm R, Christiansen JS, et al. Premixed insulin treatment for type 2 diabetes: analogue or human? *Diabetes, Obesity and Metabolism* 2007;**9**:630–9. doi:10.1111/j.1463-1326.2006.00654.x

44

Heller SR, Colagiuri S, Vaaler S, et al. Hypoglycaemia with insulin aspart: a double-blind, randomised, crossover trial in subjects with Type 1 diabetes. *Diabetic Medicine* 2004;**21**:769–75. doi:10.1111/j.1464-5491.2004.01244.x

45

Hermansen K, Davies M, Derezinski T, et al. A 26-Week, Randomized, Parallel, Treat-to-Target Trial Comparing Insulin Detemir With NPH Insulin as Add-On Therapy to Oral Glucose-Lowering Drugs in Insulin-Naive People With Type 2 Diabetes. *Diabetes Care* 2006;**29**:1269–74. doi:10.2337/dc05-1365

46

Holman RR, Thorne KI, Farmer AJ, et al. Addition of Biphasic, Prandial, or Basal Insulin to Oral Therapy in Type 2 Diabetes. *New England Journal of Medicine* 2007;**357**:1716–30. doi:10.1056/NEJMoa075392

47

Holman RR, Turner RC. A Practical Guide to Basal and Prandial Insulin Therapy. *Diabetic Medicine* 1985;**2**:45–53. doi:10.1111/j.1464-5491.1985.tb00592.x

48

Horvath K, Jeitler K, Berghold A, et al. Long-acting insulin analogues versus NPH insulin (human isophane insulin) for type 2 diabetes mellitus. In: *Cochrane Database of Systematic Reviews*. Chichester, UK: : John Wiley & Sons, Ltd 1996. doi:10.1002/14651858.CD005613.pub3

49

Marre M, Shaw J, Brändle M, et al. Liraglutide, a once-daily human GLP-1 analogue, added to a sulphonylurea over 26 weeks produces greater improvements in glycaemic and weight control compared with adding rosiglitazone or placebo in subjects with Type 2 diabetes (LEAD-1 SU). *Diabetic Medicine* 2009;**26**:268–78. doi:10.1111/j.1464-5491.2009.02666.x

50

Young LA, Buse JB. GLP-1 receptor agonists and basal insulin in type 2 diabetes. *The Lancet* 2014;**384**:2180–1. doi:10.1016/S0140-6736(14)61409-4

51



Diamant M, Van Gaal L, Stranks S, et al. Once weekly exenatide compared with insulin glargine titrated to target in patients with type 2 diabetes (DURATION-3): an open-label randomised trial. *The Lancet* 2010;**375**:2234–43. doi:10.1016/S0140-6736(10)60406-0

52

Gururaj Setty S, Crasto W, Jarvis J, et al. New insulins and newer insulin regimens: a review of their role in improving glycaemic control in patients with diabetes. *Postgraduate Medical Journal* 2016;**92**:152–64. doi:10.1136/postgradmedj-2015-133716

53

Rosenstock J, Raccach D, Koranyi L, et al. Efficacy and Safety of Lixisenatide Once Daily Versus Exenatide Twice Daily in Type 2 Diabetes Inadequately Controlled on Metformin: A 24-week, randomized, open-label, active-controlled study (GetGoal-X). *Diabetes Care* 2013;**36**:2945–51. doi:10.2337/dc12-2709

54

Evans M, Schumm-Draeger PM, Vora J, et al. A review of modern insulin analogue pharmacokinetic and pharmacodynamic profiles in type 2 diabetes: improvements and limitations. *Diabetes, Obesity and Metabolism* 2011;**13**:677–84. doi:10.1111/j.1463-1326.2011.01395.x

55

Home PD. The pharmacokinetics and pharmacodynamics of rapid-acting insulin analogues and their clinical consequences. *Diabetes, Obesity and Metabolism* 2012;**14**:780–8. doi:10.1111/j.1463-1326.2012.01580.x

56

Richter B, Neises G. 'Human' insulin versus animal insulin in people with diabetes mellitus. In: *Cochrane Database of Systematic Reviews*. Chichester, UK: : John Wiley & Sons, Ltd 1996. doi:10.1002/14651858.CD003816.pub2

57

Swinnen SG, Simon AC, Holleman F, et al. Insulin detemir versus insulin glargine for type 2

diabetes mellitus. In: Cochrane Database of Systematic Reviews. Chichester, UK: : John Wiley & Sons, Ltd 1996. doi:10.1002/14651858.CD006383.pub2

58

Yki-Järvinen H, Kauppinen-Mäkelin R, Tiikkainen M, et al. Insulin glargine or NPH combined with metformin in type 2 diabetes: the LANMET study. *Diabetologia* 2006;**49**:442–51. doi:10.1007/s00125-005-0132-0

59

Zinman B, Fulcher G, Rao PV, et al. Insulin degludec, an ultra-long-acting basal insulin, once a day or three times a week versus insulin glargine once a day in patients with type 2 diabetes: a 16-week, randomised, open-label, phase 2 trial. *The Lancet* 2011;**377**:924–31. doi:10.1016/S0140-6736(10)62305-7

60

Horvath K, Jeitler K, Berghold A, et al. Long-acting insulin analogues versus NPH insulin (human isophane insulin) for type 2 diabetes mellitus. In: Cochrane Database of Systematic Reviews. Chichester, UK: : John Wiley & Sons, Ltd 1996. doi:10.1002/14651858.CD005613.pub3

61

Rosenstock J, Davies M, Home PD, et al. A randomised, 52-week, treat-to-target trial comparing insulin detemir with insulin glargine when administered as add-on to glucose-lowering drugs in insulin-naïve people with type 2 diabetes. *Diabetologia* 2008;**51**:408–16. doi:10.1007/s00125-007-0911-x

62

Raskin P, Allen E, Hollander P, et al. Initiating Insulin Therapy in Type 2 Diabetes: A comparison of biphasic and basal insulin analogs. *Diabetes Care* 2005;**28**:260–5. doi:10.2337/diacare.28.2.260

63

Davies M, Storms F, Shutler S, et al. Improvement of Glycemic Control in Subjects With

Poorly Controlled Type 2 Diabetes: Comparison of two treatment algorithms using insulin glargine. *Diabetes Care* 2005;**28**:1282–8. doi:10.2337/diacare.28.6.1282

64

Htike ZZ, Zaccardi F, Papamargaritis D, et al. Efficacy and safety of glucagon-like peptide-1 receptor agonists in type 2 diabetes: A systematic review and mixed-treatment comparison analysis. *Diabetes, Obesity and Metabolism* 2017;**19**:524–36. doi:10.1111/dom.12849

65

Htike ZZ, Zaccardi F, Papamargaritis D, et al. Efficacy and safety of glucagon-like peptide-1 receptor agonists in type 2 diabetes: A systematic review and mixed-treatment comparison analysis. *Diabetes, Obesity and Metabolism* 2017;**19**:524–36. doi:10.1111/dom.12849

66

Amori RE, Lau J, Pittas AG. Efficacy and Safety of Incretin Therapy in Type 2 Diabetes. *JAMA* 2007;**298**. doi:10.1001/jama.298.2.194

67

Buse JB, Drucker DJ, Taylor KL, et al. DURATION-1: Exenatide Once Weekly Produces Sustained Glycemic Control and Weight Loss Over 52 Weeks. *Diabetes Care* 2010;**33**:1255–61. doi:10.2337/dc09-1914

68

Buse JB, Bergenstal RM, Glass LC, et al. Use of Twice-Daily Exenatide in Basal Insulin-Treated Patients With Type 2 Diabetes. *Annals of Internal Medicine* 2011;**154**. doi:10.7326/0003-4819-154-2-201101180-00300

69

Buse JB, Rosenstock J, Sesti G, et al. Liraglutide once a day versus exenatide twice a day for type 2 diabetes: a 26-week randomised, parallel-group, multinational, open-label trial (LEAD-6). *The Lancet* 2009;**374**:39–47. doi:10.1016/S0140-6736(09)60659-0

70

Nauck MA, Meier JJ. The incretin effect in healthy individuals and those with type 2 diabetes: physiology, pathophysiology, and response to therapeutic interventions. *The Lancet Diabetes & Endocrinology* 2016;**4**:525–36. doi:10.1016/S2213-8587(15)00482-9

71

Marso SP, Daniels GH, Brown-Frandsen K, et al. Liraglutide and Cardiovascular Outcomes in Type 2 Diabetes. *New England Journal of Medicine* 2016;**375**:311–22. doi:10.1056/NEJMoa1603827

72

Liraglutide and Cardiovascular Outcomes in Type 2 Diabetes. *New England Journal of Medicine* 2016;**375**:1797–9. doi:10.1056/NEJMc1611289

73

Courtney H, Nayar R, Rajeswaran C, et al. Long-term management of type 2 diabetes with glucagon-like peptide-1 receptor agonists. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy* 2017;**Volume 10**:79–87. doi:10.2147/DMSO.S126763

74

Rotz ME, Ganetsky VS, Sen S, et al. Implications of incretin-based therapies on cardiovascular disease. *International Journal of Clinical Practice* 2015;**69**:531–49. doi:10.1111/ijcp.12572

75

Levin PA, Nguyen H, Wittbrodt E, et al. Glucagon-like peptide-1 receptor agonists: a systematic review of comparative effectiveness research. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy* 2017;**Volume 10**:123–39. doi:10.2147/DMSO.S130834

76

Riddle MC, Aronson R, Home P, et al. Adding Once-Daily Lixisenatide for Type 2 Diabetes Inadequately Controlled by Established Basal Insulin: A 24-week, randomized, placebo-controlled comparison (GetGoal-L). *Diabetes Care* 2013;**36**:2489–96. doi:10.2337/dc12-2454

77

Dungan KM, Povedano ST, Forst T, et al. Once-weekly dulaglutide versus once-daily liraglutide in metformin-treated patients with type 2 diabetes (AWARD-6): a randomised, open-label, phase 3, non-inferiority trial. *The Lancet* 2014;**384**:1349–57. doi:10.1016/S0140-6736(14)60976-4

78

Nauck M, Weinstock RS, Umpierrez GE, et al. Efficacy and Safety of Dulaglutide Versus Sitagliptin After 52 Weeks in Type 2 Diabetes in a Randomized Controlled Trial (AWARD-5). *Diabetes Care* 2014;**37**:2149–58. doi:10.2337/dc13-2761

79

Effects of intensive glucose control on microvascular outcomes in patients with type 2 diabetes: a meta-analysis of individual participant data from randomised controlled trials-  
ClinicalKey.  
<https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S2213858717301043?returnurl=null&referrer=null>

80

Safety and insulin: Implementation of national guidance at a local level | Journal Content | Diabetesonthenet.com.  
<http://www.diabetesonthenet.com/journal-content/view/safety-and-insulin-implementation-of-national-guidance-at-a-local-level>

81

Davies M, Dahl D, Heise T, et al. Introduction of biosimilar insulins in Europe. *Diabetic Medicine* 2017;**34**:1340–53. doi:10.1111/dme.13400

82

Crasto W, Jarvis J, Davies MJ. Handbook of insulin therapies. Switzerland: : Adis 2016.  
[http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package\\_service\\_id=5664687440002746&institutionId=2746&customerId=2745](http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5664687440002746&institutionId=2746&customerId=2745)

83

Standards of Medical Care in Diabetes--2015: Summary of Revisions. *Diabetes Care* 2015;  
**38**:S4-S4. doi:10.2337/dc15-S003

84

Minimizing Hypoglycemia in Diabetes: Table 1. *Diabetes Care* 2015;**38**:1583-91.  
doi:10.2337/dc15-0279

85

Grammes J, Stock W, Mann CG, et al. Focus group study to identify the central facets of fear of hypoglycaemia in people with Type 2 diabetes mellitus. *Diabetic Medicine* Published Online First: 30 August 2017. doi:10.1111/dme.13506

86

Carver C. Insulin Treatment and the Problem of Weight Gain in Type 2 Diabetes. *The Diabetes Educator* 2006;**32**:910-7. doi:10.1177/0145721706294259

87

Mäkimmattila S, Nikkilä K, Yki-Järvinen H. Causes of weight gain during insulin therapy with and without metformin in patients with Type II diabetes mellitus. *Diabetologia* 1999;**42**:406-12. doi:10.1007/s001250051172

88

Villani M, de Courten B, Zoungas S. Emergency treatment of hypoglycaemia: a guideline and evidence review. *Diabetic Medicine* 2017;**34**:1205-11. doi:10.1111/dme.13379

89

Simmons RK, Borch-Johnsen K, Lauritzen T, et al. A randomised trial of the effect and cost-effectiveness of early intensive multifactorial therapy on 5-year cardiovascular outcomes in individuals with screen-detected type 2 diabetes: the Anglo-Danish-Dutch Study of Intensive Treatment in People with Screen-Detected Diabetes in Primary Care (ADDITION-Europe) study. *Health Technology Assessment* 2016;**20**:1–86. doi:10.3310/hta20640

90

Kamlesh Khunti. Systematic Review and Meta-Analysis of Response Rates and Diagnostic Yield of Screening for Type 2 Diabetes and Those at High Risk of Diabetes. *PLoS ONE* 2015; **10**. doi:doi: 10.1371/journal.pone.0135702

91

Tao L, Wilson ECF, Wareham NJ, et al. Cost-effectiveness of intensive multifactorial treatment compared with routine care for individuals with screen-detected Type 2 diabetes: analysis of the ADDITION-UK cluster-randomized controlled trial. *Diabetic Medicine* 2015;**32**:907–19. doi:10.1111/dme.12711

92

Gray LJ, Khunti K, Wilmot EG, et al. External validation of two diabetes risk scores in a young UK South Asian population. *Diabetes Research and Clinical Practice* 2014;**104**:451–8. doi:10.1016/j.diabres.2014.03.018

93

Gray LJ, Khunti K, Edwardson C, et al. Implementation of the automated Leicester Practice Risk Score in two diabetes prevention trials provides a high yield of people with abnormal glucose tolerance. *Diabetologia* 2012;**55**:3238–44. doi:10.1007/s00125-012-2725-8

94

Johnston BC, Kanters S, Bandayrel K, et al. Comparison of Weight Loss Among Named Diet Programs in Overweight and Obese Adults. *JAMA* 2014;**312**. doi:10.1001/jama.2014.10397

95

Steven S, Hollingsworth KG, Al-Mrabeh A, et al. Very Low-Calorie Diet and 6 Months of Weight Stability in Type 2 Diabetes: Pathophysiological Changes in Responders and Nonresponders. *Diabetes Care* 2016;**39**:808–15. doi:10.2337/dc15-1942

96

Steven S, Taylor R. Restoring normoglycaemia by use of a very low calorie diet in long- and short-duration Type 2 diabetes. *Diabetic Medicine* 2015;**32**:1149–55. doi:10.1111/dme.12722

97

Persaud SJ, Jones PM. A Wake-up Call for Type 2 Diabetes? *New England Journal of Medicine* 2016;**375**:1090–2. doi:10.1056/NEJMcibr1607950

98

Dhatariya KK, Skedgel C, Fordham R. The cost of treating diabetic ketoacidosis in the UK: a national survey of hospital resource use. *Diabetic Medicine* 2017;**34**:1361–6. doi:10.1111/dme.13427

99

Crasto W, Jarvis J, Davies MJ. *Handbook of insulin therapies*. Switzerland: : Adis 2016. [http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package\\_service\\_id=5664687440002746&institutionId=2746&customerId=2745](http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5664687440002746&institutionId=2746&customerId=2745)

100

Davies MJ, Heller S, Skinner TC, et al. Effectiveness of the diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme for people with newly diagnosed type 2 diabetes: cluster randomised controlled trial. *BMJ* 2008;**336**:491–5. doi:10.1136/bmj.39474.922025.BE

101

Gallwitz B, Rosenstock J, Rauch T, et al. 2-year efficacy and safety of linagliptin compared with glimepiride in patients with type 2 diabetes inadequately controlled on metformin: a randomised, double-blind, non-inferiority trial. *The Lancet* 2012;**380**:475–83.



doi:10.1016/S0140-6736(12)60691-6

102

Diamant M, Van Gaal L, Stranks S, et al. Once weekly exenatide compared with insulin glargine titrated to target in patients with type 2 diabetes (DURATION-3): an open-label randomised trial. *The Lancet* 2010;**375**:2234–43. doi:10.1016/S0140-6736(10)60406-0

103

Marso SP, Daniels GH, Brown-Frandsen K, et al. Liraglutide and Cardiovascular Outcomes in Type 2 Diabetes. *New England Journal of Medicine* 2016;**375**:311–22. doi:10.1056/NEJMoa1603827

104

Wanner C, Inzucchi SE, Lachin JM, et al. Empagliflozin and Progression of Kidney Disease in Type 2 Diabetes. *New England Journal of Medicine* 2016;**375**:323–34. doi:10.1056/NEJMoa1515920

105

Empagliflozin and Progression of Kidney Disease in Type 2 Diabetes. *New England Journal of Medicine* 2016;**375**:1799–802. doi:10.1056/NEJMc1611290

106

Bethel MA, Engel SS, Green JB, et al. Assessing the Safety of Sitagliptin in Older Participants in the Trial Evaluating Cardiovascular Outcomes With Sitagliptin (TECOS). *Diabetes Care* Published Online First: 5 January 2017. doi:10.2337/dc16-1135

107

Merlin C. Thomas. Systematic Literature Review of DPP-4 Inhibitors in Patients with Type 2 Diabetes Mellitus and Renal Impairment. *Diabetes Therapy* 2016;**7**. doi:doi:10.1007/s13300-016-0189-4

108

Paul Craddy. Comparative Effectiveness of Dipeptidylpeptidase-4 Inhibitors in Type 2 Diabetes: A Systematic Review and Mixed Treatment Comparison. *Diabetes Therapy* 2014; **5**. doi:doi: 10.1007/s13300-014-0061-3

109

Bennett WL, Maruthur NM, Singh S, et al. Comparative Effectiveness and Safety of Medications for Type 2 Diabetes: An Update Including New Drugs and 2-Drug Combinations. *Annals of Internal Medicine* 2011; **154**.  
doi:10.7326/0003-4819-154-9-201105030-00336

110

Green JB, Bethel MA, Armstrong PW, et al. Effect of Sitagliptin on Cardiovascular Outcomes in Type 2 Diabetes. *New England Journal of Medicine* 2015; **373**:232–42.  
doi:10.1056/NEJMoa1501352

111

Min SH, Yoon J-H, Hahn S, et al. Comparison between SGLT2 inhibitors and DPP4 inhibitors added to insulin therapy in type 2 diabetes: a systematic review with indirect comparison meta-analysis. *Diabetes/Metabolism Research and Reviews* 2017; **33**.  
doi:10.1002/dmrr.2818

112

Capehorn M, Polonsky WH, Edelman S, et al. Challenges faced by physicians when discussing the Type 2 diabetes diagnosis with patients: insights from a cross-national study (IntroDia ). *Diabetic Medicine* Published Online First: March 2017.  
doi:10.1111/dme.13357

113

Deacon CF, Lebovitz HE. Comparative review of dipeptidyl peptidase-4 inhibitors and sulphonylureas. *Diabetes, Obesity and Metabolism* 2016; **18**:333–47.  
doi:10.1111/dom.12610

114

Mishriky BM, Cummings DM, Tanenberg RJ. The efficacy and safety of DPP4 inhibitors compared to sulfonylureas as add-on therapy to metformin in patients with Type 2 diabetes: A systematic review and meta-analysis. *Diabetes Research and Clinical Practice* 2015;**109**:378–88. doi:10.1016/j.diabres.2015.05.025

115

Daly H, Davies M, Barnett J, et al. Development of a self-management education module for those with type 2 diabetes on injectable therapies. *Practical Diabetes* 2015;**32**:305–310a. doi:10.1002/pdi.1979

116

Nauck M. Incretin therapies: highlighting common features and differences in the modes of action of glucagon-like peptide-1 receptor agonists and dipeptidyl peptidase-4 inhibitors. *Diabetes, Obesity and Metabolism* 2016;**18**:203–16. doi:10.1111/dom.12591

117

Frandsen CSS, Madsbad S. Efficacy and safety of dipeptidyl peptidase-4 inhibitors as an add-on to insulin treatment in patients with Type 2 diabetes: a review. *Diabetic Medicine* 2014;**31**:1293–300. doi:10.1111/dme.12561

118

Hadjiconstantinou M, Byrne J, Bodicoat DH, et al. Do Web-Based Interventions Improve Well-Being in Type 2 Diabetes? A Systematic Review and Meta-Analysis. *Journal of Medical Internet Research* 2016;**18**. doi:10.2196/jmir.5991

119

Young-Hyman D, de Groot M, Hill-Briggs F, et al. Erratum. Psychosocial Care for People With Diabetes: A Position Statement of the American Diabetes Association. *Diabetes Care* 2016;**39**:2126–2140. *Diabetes Care* 2017;**40**:287.1–287. doi:10.2337/dc17-er02

120

Tanner M. Review: In type 2 diabetes, adding dipeptidyl peptidase-4 inhibitors to sulphonylureas increases hypoglycemia. *Annals of Internal Medicine* 2016;**165**.  
doi:10.7326/ACPJC-2016-165-4-020

121

Mishriky BM, Cummings DM, Tanenberg RJ. The efficacy and safety of DPP4 inhibitors compared to sulfonylureas as add-on therapy to metformin in patients with Type 2 diabetes: A systematic review and meta-analysis. *Diabetes Research and Clinical Practice* 2015;**109**:378–88. doi:10.1016/j.diabres.2015.05.025

122

Bailey CJ, Gross JL, Pieters A, et al. Effect of dapagliflozin in patients with type 2 diabetes who have inadequate glycaemic control with metformin: a randomised, double-blind, placebo-controlled trial. *The Lancet* 2010;**375**:2223–33.  
doi:10.1016/S0140-6736(10)60407-2

123

Nauck MA, Meininger G, Sheng D, et al. Efficacy and safety of the dipeptidyl peptidase-4 inhibitor, sitagliptin, compared with the sulfonylurea, glipizide, in patients with type 2 diabetes inadequately controlled on metformin alone: a randomized, double-blind, non-inferiority trial. *Diabetes, Obesity and Metabolism* 2007;**9**:194–205.  
doi:10.1111/j.1463-1326.2006.00704.x

124

Marso SP, Bain SC, Consoli A, et al. Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. *New England Journal of Medicine* 2016;**375**:1834–44.  
doi:10.1056/NEJMoa1607141

125

Anderson B, Funnell M, American Diabetes Association. *The art of empowerment: stories and strategies for diabetes educators*. 2nd ed. Alexandria, Va: : American Diabetes Association 2005.

126

Crasto W, Jarvis J, Davies MJ. Handbook of insulin therapies. Switzerland: : Adis 2016. [http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package\\_service\\_id=5664687440002746&institutionId=2746&customerId=2745](http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5664687440002746&institutionId=2746&customerId=2745)

127

Schauer PR, Kashyap SR, Wolski K, et al. Bariatric Surgery versus Intensive Medical Therapy in Obese Patients with Diabetes. *New England Journal of Medicine* 2012;**366**:1567-76. doi:10.1056/NEJMoa1200225

128

Leff DR, Heath D. Surgery for obesity in adulthood. *BMJ* 2009;**339**:b3402-b3402. doi:10.1136/bmj.b3402

129

Sjöström L, Lindroos A-K, Peltonen M, et al. Lifestyle, Diabetes, and Cardiovascular Risk Factors 10 Years after Bariatric Surgery. *New England Journal of Medicine* 2004;**351**:2683-93. doi:10.1056/NEJMoa035622

130

Schauer PR, Bhatt DL, Kirwan JP, et al. Bariatric Surgery versus Intensive Medical Therapy for Diabetes — 5-Year Outcomes. *New England Journal of Medicine* 2017;**376**:641-51. doi:10.1056/NEJMoa1600869

131

Schauer PR, Kashyap SR, Wolski K, et al. Bariatric Surgery versus Intensive Medical Therapy in Obese Patients with Diabetes. *New England Journal of Medicine* 2012;**366**:1567-76. doi:10.1056/NEJMoa1200225

132

Brown J, Alwan NA, West J, et al. Lifestyle interventions for the treatment of women with gestational diabetes. In: *Cochrane Database of Systematic Reviews*. Chichester, UK: : John Wiley & Sons, Ltd 1996. doi:10.1002/14651858.CD011970.pub2

133

Kenneth Hodson. Gestational diabetes: emerging concepts in pathophysiology. *Obstetric Medicine* 2010;**3**. doi:doi: 10.1258/om.2010.100025

134

Latika Sahu. Comparison of the American Diabetes Association and World Health Organization criteria for gestational diabetes mellitus and the outcomes of pregnancy. *Obstetric Medicine* 2009;**2**. doi:doi: 10.1258/om.2009.080049

135

Moreno-Castilla C, Mauricio D, Hernandez M. Role of Medical Nutrition Therapy in the Management of Gestational Diabetes Mellitus. *Current Diabetes Reports* 2016;**16**. doi:10.1007/s11892-016-0717-7

136

Postnatal testing following gestational diabetes- ClinicalKey.  
<https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S2213858715003228?returnurl=null&referrer=null>

137

Birkeland KI. Hyperglycaemia in pregnancy: still a lot to learn. *The Lancet Diabetes & Endocrinology* 2015;**3**:752–3. doi:10.1016/S2213-8587(15)00282-X

138

Rinki Murphy. Monogenic diabetes and pregnancy. *Obstetric Medicine* 2015;**8**. doi:doi: 10.1177/1753495X15590713

139

Stewart ZA, Wilinska ME, Hartnell S, et al. Closed-Loop Insulin Delivery during Pregnancy in Women with Type 1 Diabetes. *New England Journal of Medicine* 2016;**375**:644–54.

doi:10.1056/NEJMoa1602494

140

Yeh JS, Kushner RF, Schiff GD. Obesity and Management of Weight Loss. *New England Journal of Medicine* 2016;**375**:1187–9. doi:10.1056/NEJMclde1515935

141

Unit 3 – Special care groups: A practical guide to pregnancy complicated by diabetes - Diabetes & Primary Care.  
<http://www.diabetesandprimarycare.co.uk/journal-content/view/unit-3-special-care-groups-a-practical-guide-to-pregnancy-complicated-by-diabetes/?preview>

142

Henson, Joseph. Associations of Sedentary Time with Fat Distribution in a High-Risk Population. Published Online First: 10 November 2014. <https://ira.le.ac.uk/handle/2381/32505>

143

Crasto W, Jarvis J, Davies MJ. *Handbook of insulin therapies*. Switzerland: : Adis 2016.  
[http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package\\_service\\_id=5664687440002746&institutionId=2746&customerId=2745](http://le.alma.exlibrisgroup.com/view/action/uresolver.do?operation=resolveService&package_service_id=5664687440002746&institutionId=2746&customerId=2745)

144

Srinivasan P, Huang GC, Amiel SA, et al. Islet cell transplantation. *Postgraduate Medical Journal* 2007;**83**:224–9. doi:10.1136/pgmj.2006.053447

145

Choudhary P, Parrott NR, Birtles L, et al. Islet cell transplantation: current status in the UK (2012). *Practical Diabetes* 2012;**29**:280–5. doi:10.1002/pdi.1707

146

Amy Kennedy. Does Exercise Improve Glycaemic Control in Type 1 Diabetes? A Systematic Review and Meta-Analysis. PLoS ONE 2013;**8**. doi:doi: 10.1371/journal.pone.0058861

147

Chimen M, Kennedy A, Nirantharakumar K, et al. What are the health benefits of physical activity in type 1 diabetes mellitus? A literature review. Diabetologia 2012;**55**:542–51. doi:10.1007/s00125-011-2403-2

148

Umpierre D. Physical Activity Advice Only or Structured Exercise Training and Association With HbA<sub>1c</sub> Levels in Type 2 Diabetes. JAMA 2011;**305**. doi:10.1001/jama.2011.576

149

Avery L, Flynn D, van Wersch A, et al. Changing Physical Activity Behavior in Type 2 Diabetes: A systematic review and meta-analysis of behavioral interventions. Diabetes Care 2012;**35**:2681–9. doi:10.2337/dc11-2452

150

Barry VW, Baruth M, Beets MW, et al. Fitness vs. Fatness on All-Cause Mortality: A Meta-Analysis. Progress in Cardiovascular Diseases 2014;**56**:382–90. doi:10.1016/j.pcad.2013.09.002

151

Qin L, Knol MJ, Corpeleijn E, et al. Does physical activity modify the risk of obesity for type 2 diabetes: a review of epidemiological data. European Journal of Epidemiology 2010;**25**:5–12. doi:10.1007/s10654-009-9395-y

152

Lee I-M. Physical Activity and Weight Gain Prevention. JAMA 2010;**303**. doi:10.1001/jama.2010.312



153

John M Jakicic. Physical activity considerations for the treatment and prevention of obesity. The American Journal of Clinical Nutrition 2005;**82**:226S-229S.<http://ajcn.nutrition.org/content/82/1/226S>

154

Heinonen I, Helajärvi H, Pahkala K, et al. Sedentary behaviours and obesity in adults: the Cardiovascular Risk in Young Finns Study. BMJ Open 2013;**3**. doi:10.1136/bmjopen-2013-002901

155

Sallis JF, Bull F, Guthold R, et al. Progress in physical activity over the Olympic quadrennium. The Lancet 2016;**388**:1325–36. doi:10.1016/S0140-6736(16)30581-5

156

Hartman YAW, Jansen HJ, Hopman MTE, et al. Insulin-Associated Weight Gain in Type 2 Diabetes Is Associated With Increases in Sedentary Behavior. Diabetes Care 2017;**40**:e120–1. doi:10.2337/dc17-0787

157

Michael Riddell. Exercise and Glucose Metabolism in Persons with Diabetes Mellitus: Perspectives on the Role for Continuous Glucose Monitoring. Journal of diabetes science and technology (Online) 2009;**3**. doi:doi: 10.1177/193229680900300439