

PC929: Applied Pharmacology and Therapeutics in Diabetes Care

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1.

The Scottish Intercollegiate Guidelines Network website is at <http://www.sign.ac.uk>, <http://www.sign.ac.uk/>.

2.

The American Diabetes Association, <https://www.diabetes.org/>.

3.

The Cochrane collaboration at <http://www.cochrane.org/> helps "healthcare practitioners, policy-makers, patients, their advocates and carers make well-informed decisions about health care, by preparing, updating, and promoting the accessibility of Cochrane Reviews.", <http://www.cochrane.org/>.

4.

NHS Evidence, an offshoot of NICE, provides basic information on evidence-based management of many common conditions, including diabetes, and can be found at <https://www.evidence.nhs.uk/>, <https://www.evidence.nhs.uk/>.

5.

The commercial but not-for-profit Trip database at <http://www.tripdatabase.com> claims to be "the internet's premier source of evidence-based content", <http://www.tripdatabase.com/>.

6.

The International Diabetes Federation (IDF) is at <http://www.idf.org>, <http://www.idf.org/>.

7.

The George Eliot Diabetes Care Team's Alphabet Strategy website is at www.abcdiabetes.co.uk, <http://www.abcdiabetes.co.uk/>.

8.

The Critical Appraisal Skills Programme (CASP) critical appraisal checklists can be downloaded from <http://www.casp-uk.net/>, <https://casp-uk.net/casp-tools-checklists/>.

9.

Essential Values-Based Practice is supported by a website jointly hosted by Cambridge University Press and Warwick Medical School at <http://www.go.warwick.ac.uk/values-basedpractice>, <http://valuesbasedpractice.org/>.

10.

The European Association for the Study of Diabetes (EASD), <http://www.easd.org/>.

11.

Diabetes Care: 40 (Supplement 1). Diabetes Care. 40, (2017).

12.

Zinman, B., Wanner, C., Lachin, J.M., Fitchett, D., Bluhmki, E., Hantel, S., Mattheus, M., Devins, T., Johansen, O.E., Woerle, H.J., Broedl, U.C., Inzucchi, S.E.: Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes. New England Journal of Medicine. 373, 2117–2128 (2015). <https://doi.org/10.1056/NEJMoa1504720>.

13.

Fralick, M., Schneeweiss, S., Patorno, E.: Risk of Diabetic Ketoacidosis after Initiation of an

SGLT2 Inhibitor. *New England Journal of Medicine*. 376, 2300–2302 (2017).

14.

Effects of Liraglutide on Glycemic Control :*Cleveland Clinic Journal of Medicine*. (2015).

15.

Neal, B., Perkovic, V., Mahaffey, K.W., de Zeeuw, D., Fulcher, G., Erond, N., Shaw, W., Law, G., Desai, M., Matthews, D.R.: Canagliflozin and Cardiovascular and Renal Events in Type 2 Diabetes. *New England Journal of Medicine*. 644–657 (2017).

16.

Nauck, M.A.: A Critical Analysis of the Clinical Use of Incretin-Based Therapies: The benefits by far outweigh the potential risks. *Diabetes Care*. 36, 2126–2132 (2013).
<https://doi.org/10.2337/dc12-2504>.

17.

Scirica, B.M., Bhatt, D.L., Braunwald, E., Steg, P.G., Davidson, J., Hirshberg, B., Ohman, P., Frederich, R., Wiviott, S.D., Hoffman, E.B., Cavender, M.A., Udell, J.A., Desai, N.R., Mosenzon, O., McGuire, D.K., Ray, K.K., Leiter, L.A., Raz, I.: Saxagliptin and Cardiovascular Outcomes in Patients with Type 2 Diabetes Mellitus. *New England Journal of Medicine*. 369, 1317–1326 (2013). <https://doi.org/10.1056/NEJMoa1307684>.

18.

Lipska, K.J., Krumholz, H., Soones, T., Lee, S.J.: Polypharmacy in the Aging Patient. *JAMA*. 315, (2016). <https://doi.org/10.1001/jama.2016.0299>.

19.

Caverly, T.J., Fagerlin, A., Zikmund-Fisher, B.J., Kirsh, S., Kullgren, J.T., Prenovost, K., Kerr, E.A.: Appropriate Prescribing for Patients With Diabetes at High Risk for Hypoglycemia. *JAMA Internal Medicine*. (2015). <https://doi.org/10.1001/jamainternmed.2015.5950>.

20.

Sinclair, A.J., Bode, B., Harris, S., Vijapurkar, U., Shaw, W., Desai, M., Meininger, G.: Efficacy and Safety of Canagliflozin in Individuals Aged 75 and Older with Type 2 Diabetes Mellitus: A Pooled Analysis. *Journal of the American Geriatrics Society*. 64, 543–552 (2016). <https://doi.org/10.1111/jgs.14028>.

21.

Hine, J., Paterson, H., Abrol, E., Russell-Jones, D., Herring, R.: SGLT inhibition and euglycaemic diabetic ketoacidosis. *The Lancet Diabetes & Endocrinology*. 3, 503–504 (2015).

22.

Wanner, C., Inzucchi, S.E., Lachin, J.M., Fitchett, D., von Eynatten, M., Mattheus, M., Johansen, O.E., Woerle, H.J., Broedl, U.C., Zinman, B.: Empagliflozin and Progression of Kidney Disease in Type 2 Diabetes. *New England Journal of Medicine*. 375, 323–334 (2016). <https://doi.org/10.1056/NEJMoa1515920>.

23.

Scheen, A.J.: SGLT2 Inhibitors: Benefit/Risk Balance. *Current Diabetes Reports*. 16, (2016). <https://doi.org/10.1007/s11892-016-0789-4>.

24.

Paul, S.K., Klein, K., Thorsted, B.L., Wolden, M.L., Khunti, K.: Delay in treatment intensification increases the risks of cardiovascular events in patients with type 2 diabetes. *Cardiovascular Diabetology*. 14, (2015). <https://doi.org/10.1186/s12933-015-0260-x>.

25.

Ettehad, D., Emdin, C.A., Kiran, A., Anderson, S.G., Callender, T., Emberson, J., Chalmers, J., Rodgers, A., Rahimi, K.: Blood pressure lowering for prevention of cardiovascular disease and death: a systematic review and meta-analysis. *The Lancet*. (2015). [https://doi.org/10.1016/S0140-6736\(15\)01225-8](https://doi.org/10.1016/S0140-6736(15)01225-8).

26.

Inzucchi, S.E., Zinman, B., Wanner, C., Ferrari, R., Fitchett, D., Hantel, S., Espadero, R.-M., Woerle, H.-J., Broedl, U.C., Johansen, O.E.: SGLT-2 inhibitors and cardiovascular risk: Proposed pathways and review of ongoing outcome trials. *Diabetes and Vascular Disease Research*. 12, 90–100 (2015). <https://doi.org/10.1177/1479164114559852>.

27.

Marso, S.P., Bain, S.C., Consoli, A., Eliaschewitz, F.G., Jódar, E., Leiter, L.A., Lingvay, I., Rosenstock, J., Seufert, J., Warren, M.L., Woo, V.: Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. *New England Journal of Medicine*. 375, 1834–1844 (2016). <https://doi.org/10.1056/NEJMoa1607141>.

28.

Filippatos, T.D., Tsimihodimos, V., Elisaf, M.S.: Mechanisms of blood pressure reduction with sodium-glucose co-transporter 2 (SGLT2) inhibitors. *Expert Opinion on Pharmacotherapy*. 17, 1581–1583 (2016).

29.

Dauriz, M., Targher, G., Laroche, C., Temporelli, P.L., Ferrari, R., Anker, S., Coats, A., Filippatos, G., Crespo-Leiro, M., Mebazaa, A., Piepoli, M.F., Maggioni, A.P., Tavazzi, L.: Association Between Diabetes and 1-Year Adverse Clinical Outcomes in a Multinational Cohort of Ambulatory Patients With Chronic Heart Failure: Results From the ESC-HFA Heart Failure Long-Term Registry. *Diabetes Care*. 40, 671–678 (2017). <https://doi.org/10.2337/dc16-2016>.

30.

Wu, J.H.Y., Foote, C., Blomster, J., Toyama, T., Perkovic, V., Sundström, J., Neal, B.: Effects of sodium-glucose cotransporter-2 inhibitors on cardiovascular events, death, and major safety outcomes in adults with type 2 diabetes: a systematic review and meta-analysis. *The Lancet Diabetes & Endocrinology*. 4, 411–419 (2016). [https://doi.org/10.1016/S2213-8587\(16\)00052-8](https://doi.org/10.1016/S2213-8587(16)00052-8).

31.

Filippatos, T.D., Tsimihodimos, V., Elisaf, M.S.: Mechanisms of blood pressure reduction with sodium-glucose co-transporter 2 (SGLT2) inhibitors. *Expert Opinion on Pharmacotherapy*. 17, 1581–1583 (2016).

32.

Marso, S.P., Bain, S.C., Consoli, A., Eliaschewitz, F.G., Jódar, E., Leiter, L.A., Lingvay, I., Rosenstock, J., Seufert, J., Warren, M.L., Woo, V.: Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. *New England Journal of Medicine*. 375, 1834–1844 (2016). <https://doi.org/10.1056/NEJMoa1607141>.

33.

Maruthur, N.M., Tseng, E., Hutfless, S., Wilson, L.M., Suarez-Cuervo, C., Berger, Z., Chu, Y., Iyoha, E., Segal, J.B., Bolen, S.: Diabetes Medications as Monotherapy or Metformin-Based Combination Therapy for Type 2 Diabetes. *Annals of Internal Medicine*. 164, (2016). <https://doi.org/10.7326/M15-2650>.

34.

Zinman, B., Wanner, C., Lachin, J.M., Fitchett, D., Bluhmki, E., Hantel, S., Mattheus, M., Devins, T., Johansen, O.E., Woerle, H.J., Broedl, U.C., Inzucchi, S.E.: Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes. *New England Journal of Medicine*. 373, 2117–2128 (2015). <https://doi.org/10.1056/NEJMoa1504720>.

35.

Pfeffer, M.A., Claggett, B., Diaz, R., Dickstein, K., Gerstein, H.C., Køber, L.V., Lawson, F.C., Ping, L., Wei, X., Lewis, E.F., Maggioni, A.P., McMurray, J.J.V., Probstfield, J.L., Riddle, M.C., Solomon, S.D., Tardif, J.-C.: Lixisenatide in Patients with Type 2 Diabetes and Acute Coronary Syndrome. *New England Journal of Medicine*. 373, 2247–2257 (2015).

36.

Kosiborod, M., Cavender, M.A., Fu, A.Z., Wilding, J.P., Khunti, K., Holl, R.W., Norhammar, A., Birkeland, K.I., Jørgensen, M.E., Thuresson, M., Arya, N., Bodegård, J., Hammar, N., Fenici, P.: Lower Risk of Heart Failure and Death in Patients Initiated on Sodium-Glucose Cotransporter-2 Inhibitors Versus Other Glucose-Lowering DrugsClinical Perspective. *Circulation*. 136, 249–259 (2017).

37.

Pieber, T.R., Marso, S.P., McGuire, D.K., Zinman, B., Poulter, N.R., Emerson, S.S., Pratley,

R.E., Woo, V., Heller, S., Lange, M., Brown-Frandsen, K., Moses, A., Barner Lektordf, J., Lehmann, L., Kvist, K., Buse, J.B.: DEVOTE 3: temporal relationships between severe hypoglycaemia, cardiovascular outcomes and mortality. *Diabetologia*. 61, 58–65 (2018).

38.

Zeitler, P., Fu, J., Tandon, N., Nadeau, K., Urakami, T., Bartlett, T., Maahs, D.: Type 2 diabetes in child and adolescent. *Pediatric Diabetes*. 15, 26–46 (2014).

39.

Pediatric Diabetes. 15,.

40.

Bangstad, H.-J., Danne, T., Deeb, L., Jarosz-Chobot, P., Urakami, T., Hanas, R.: Insulin treatment in children and adolescents with diabetes. *Pediatric Diabetes*. 10, 82–99 (2009). <https://doi.org/10.1111/j.1399-5448.2009.00578.x>.

41.

ABIOLA, D., SATHYAPALAN, T., HEPBURN, D.: Management of type 1 and type 2 diabetes requiring insulin. *Prescriber*. (2016).

42.

ABIOLA, D., SATHYAPALAN, T., HEPBURN, D.: Management of type 1 and type 2 diabetes requiring insulin. *Prescriber*. (2016).

43.

Rang, H.: Pharmacokinetics. In: Rang & Dale's pharmacology. pp. 123–131. Elsevier/Churchill Livingstone, Edinburgh (2012).

44.

Fadini, G.P., Bonora, B.M., Avogaro, A.: SGLT2 inhibitors and diabetic ketoacidosis: data from the FDA Adverse Event Reporting System. *Diabetologia*. 60, 1385–1389 (2017).

45.

Young, L.A., Buse, J.B., Weaver, M.A., Vu, M.B., Mitchell, C.M., Blakeney, T., Grimm, K., Rees, J., Niblock, F., Donahue, K.E.: Glucose Self-monitoring in Non-Insulin-Treated Patients With Type 2 Diabetes in Primary Care Settings. *JAMA Internal Medicine*. 177, (2017). <https://doi.org/10.1001/jamainternmed.2017.1233>.

46.

The Action to Control Cardiovascular Risk in Diabetes Study Group: Effects of Intensive Glucose Lowering in Type 2 Diabetes. *New England Journal of Medicine*. 358, 2545–2559 (2008).

47.

Crowley, M.J., Diamantidis, C.J., McDuffie, J.R., Cameron, C.B., Stanifer, J.W., Mock, C.K., Wang, X., Tang, S., Nagi, A., Kosinski, A.S., Williams, J.W.: Clinical Outcomes of Metformin Use in Populations With Chronic Kidney Disease, Congestive Heart Failure, or Chronic Liver Disease. *Annals of Internal Medicine*. 166, (2017). <https://doi.org/10.7326/M16-1901>.

48.

Green, J.B., Bethel, M.A., Armstrong, P.W., Buse, J.B., Engel, S.S., Garg, J., Josse, R., Kaufman, K.D., Koglin, J., Korn, S., Lachin, J.M., McGuire, D.K., Pencina, M.J., Standl, E., Stein, P.P., Suryawanshi, S., Van de Werf, F., Peterson, E.D., Holman, R.R.: Effect of Sitagliptin on Cardiovascular Outcomes in Type 2 Diabetes. *New England Journal of Medicine*. 373, 232–242 (2015).

49.

Marso, S.P., McGuire, D.K., Zinman, B., Poulter, N.R., Emerson, S.S., Pieber, T.R., Pratley, R.E., Haahr, P.-M., Lange, M., Brown-Frandsen, K., Moses, A., Skibsted, S., Kvist, K., Buse, J.B.: Efficacy and Safety of Degludec versus Glargine in Type 2 Diabetes. *New England Journal of Medicine*. (2017).

50.

Scirica, B.M., Bhatt, D.L., Braunwald, E., Steg, P.G., Davidson, J., Hirshberg, B., Ohman, P., Frederich, R., Wiviott, S.D., Hoffman, E.B., Cavender, M.A., Udell, J.A., Desai, N.R., Mosenzon, O., McGuire, D.K., Ray, K.K., Leiter, L.A., Raz, I.: Saxagliptin and Cardiovascular Outcomes in Patients with Type 2 Diabetes Mellitus. *New England Journal of Medicine*. 369, 1317–1326 (2013).

51.

Gæde, P., Lund-Andersen, H., Parving, H.-H., Pedersen, O.: Effect of a Multifactorial Intervention on Mortality in Type 2 Diabetes. *New England Journal of Medicine*. 358, 580–591 (2008).

52.

Zinman, B., Wanner, C., Lachin, J.M., Fitchett, D., Bluhmki, E., Hantel, S., Mattheus, M., Devins, T., Johansen, O.E., Woerle, H.J., Broedl, U.C., Inzucchi, S.E.: Empagliflozin, Cardiovascular Outcomes, and Mortality in Type 2 Diabetes. *New England Journal of Medicine*. 373, 2117–2128 (2015). <https://doi.org/10.1056/NEJMoa1504720>.

53.

Gæde, P., Oellgaard, J., Carstensen, B., Rossing, P., Lund-Andersen, H., Parving, H.-H., Pedersen, O.: Years of life gained by multifactorial intervention in patients with type 2 diabetes mellitus and microalbuminuria: 21 years follow-up on the Steno-2 randomised trial. *Diabetologia*. 59, 2298–2307 (2016). <https://doi.org/10.1007/s00125-016-4065-6>.

54.

The ADVANCE Collaborative Group: Intensive Blood Glucose Control and Vascular Outcomes in Patients with Type 2 Diabetes. *New England Journal of Medicine*. 358, 2560–2572 (2008).

55.

Chen, L., Pei, J.-H., Kuang, J., Chen, H.-M., Chen, Z., Li, Z.-W., Yang, H.-Z.: Effect of lifestyle intervention in patients with type 2 diabetes: A meta-analysis. *Metabolism*. 64, 338–347 (2015).

56.

Ismail, K., Winkley, K., Rabe-Hesketh, S.: Systematic review and meta-analysis of randomised controlled trials of psychological interventions to improve glycaemic control in patients with type 2 diabetes. *The Lancet*. 363, 1589–1597 (2004).

57.

Effects of Intensive Glucose Lowering in Type 2 Diabetes. *New England Journal of Medicine*. 358, 2545–2559 (2008). <https://doi.org/10.1056/NEJMoa0802743>.

58.

Vaccaro, O., Masulli, M., Nicolucci, A., Bonora, E., Del Prato, S., Maggioni, A.P., Rivellese, A.A., Squatrito, S., Giorda, C.B., Sesti, G., Mocarelli, P., Lucisano, G., Sacco, M., Signorini, S., Cappellini, F., Perriello, G., Babini, A.C., Lapolla, A., Gregori, G., Giordano, C., Corsi, L., Buzzetti, R., Clemente, G., Di Cianni, G., Iannarelli, R., Cordera, R., La Macchia, O., Zamboni, C., Scaranna, C., Boemi, M., Iovine, C., Lauro, D., Leotta, S., Dall'Aglia, E., Cannarsa, E., Tonutti, L., Pugliese, G., Bossi, A.C., Anichini, R., Dotta, F., Di Benedetto, A., Citro, G., Antenucci, D., Ricci, L., Giorgino, F., Santini, C., Gnasso, A., De Cosmo, S., Zavaroni, D., Vedovato, M.: Effects on the incidence of cardiovascular events of the addition of pioglitazone versus sulfonylureas in patients with type 2 diabetes inadequately controlled with metformin (TOSCA.IT): a randomised, multicentre trial. *The Lancet Diabetes & Endocrinology*. 5, 887–897 (2017). [https://doi.org/10.1016/S2213-8587\(17\)30317-0](https://doi.org/10.1016/S2213-8587(17)30317-0).

59.

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