- Previously published indirect comparisons of the dipeptidylpeptidase-4 (DPP-4) inhibitors, used to treat patients with type 2 diabetes, have reported little or no differences with regard to efficacy and overall safety.
- We conducted a systematic review of randomized controlled trials (RCTs) of five licensed DPP-4 inhibitors (alogliptin, linagliptin, saxagliptin, sitagliptin, vildagliptin) in patients with type 2 diabetes and inadequate glycemic control, receiving any type of pharmacologic anti-diabetic treatment.
- Eighty-three RCTs meeting the review criteria were included in mixed treatment comparison meta-analyses (MTCs) and secondary frequentist direct-comparison meta-analyses for four outcomes: mean change from baseline in glycosylated hemoglobin (HbA_{1c}) or body weight, and the proportions of patients achieving HbA_{1c} <7%, or experiencing a hypoglycemic event.
- From available data, MTCs demonstrated no differences between the DPP-4 inhibitors, either as mono, dual or triple therapy, apart from in patients on alogliptin plus metformin, who achieved HbA_{1c} <7% more frequently than those treated with saxagliptin plus metformin.

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