

Diabetes drug trial needs to widen participants to understand full impact of drugs

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Credit: University of Surrey

More work needs to be done to examine the real world effects of the commonly prescribed diabetes drug empagliflozin, new research in the journal *Diabetes Therapy* finds.

Examining data from over 60,000 patients with type 2 diabetes,

researchers from the University of Surrey discovered that the highly-publicised cardiovascular benefits of the popular diabetes drug empagliflozin cannot be applied to the vast majority of patients with the illness.

An international safety trial of empagliflozin, and other drugs in the sodium-glucose co-transporter 2 (SGLT2) inhibitor drug class, made the surprising discovery that these medications positively impact upon the workings of cardiovascular systems, including a decreased risk of heart attacks. Despite being hailed as ground-breaking, limitations of the trial were identified due to its focus on patients identified as [high risk of cardiovascular disease](#).

Equipped with this knowledge, researchers from the University of Surrey examined the potential impact of this drug on those deemed at lower risk of cardiovascular [disease](#). Researchers found that only 11 per cent of patients with type 2 diabetes who were prescribed [empagliflozin](#) were identified as being at as high a risk of cardiovascular disease as those in the trial. They concluded that these patients may not see any cardiovascular improvements from the drug. Similarly, only 16 per cent of patients with type 2 diabetes who were not prescribed the drug were identified as being as high a risk of cardiovascular disease as those in the trial.

Such findings highlight the limitations of clinical trials which are often only directly applicable to a small proportion of people whom the medications are prescribed for and often leads to misconceptions about the workings of the drug.

Lead author of the paper, Dr Andy McGovern, from the University of Surrey said: "The benefits of this drug for patients at high risk of cardiovascular disease are clear. However what we have found a major limitation of the clinical trial; it can only be applied to a small proportion

of people with type 2 [diabetes](#).

"Recognising this shortcoming will help clinicians better explain to patients how this [drug](#) will benefit them."

More information: Andrew McGovern et al. Sodium-Glucose Co-Transporter-2 (SGLT2) Inhibitors: Comparing Trial and Real World Use (Study Protocol), *Diabetes Therapy* (2017). [DOI: 10.1007/s13300-017-0229-8](#)

Provided by University of Surrey

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