

# CLAHRCBITE

Brokering innovation through evidence

---

## Importance of medical adherence for people with type 2 diabetes



### Results

Individuals with good adherence had a significant 10% lower rate of hospitalization events and a significant 28% lower rate of all-cause mortality.

### Who needs to know?

- Healthcare professionals managing people with Cardiometabolic disease
- Researchers with an interest in Cardiometabolic disease

### **What did we do:**

An electronic search was conducted on many electronic databases from inception to 27 April 2016. We selected randomized controlled trials and case-control and cohort studies reporting on all-cause mortality, or hospitalization outcomes by adherence in adults with type 2 diabetes. Two reviewers independently screened for eligible studies and extracted outcome data. Pooled relative risks (RRs) were calculated using a random-effects meta-analysis; risk of bias in the studies was assessed using the GRADE approach.

### **What we found and what does this mean:**

We identified no randomised trials reporting on outcomes by adherence, suggesting a systematic failure to include this information. Pooled estimates from available observational studies suggest that good medication adherence is associated with reduced risk of all-cause mortality and hospitalization in people with type 2 diabetes, although bias cannot be excluded as an explanation for these findings.

### **What next:**

We identified no randomized controlled trial reporting on outcomes stratified by adherence, suggesting a systematic failure to publish this important information. Efforts should be made to report on subgroups by adherence where possible in the clinical trial setting. Finally, high quality studies examining the effectiveness of interventions to improve adherence in chronic disease are needed to guide international efforts to curb the effects of the diabetes epidemic.

### **Evidence:**

Khunti K, Seidu S, Kunutsor S, Davies M. Association between adherence to pharmacotherapy and outcomes in type 2 diabetes: A meta-analysis. *Diabetes Care*. 2017;40(11):1588-96. <http://dx.doi.org/10.2337/dc16-1925>

## **What is NIHR CLAHRC EM?**

NIHR Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) are collaborations between the NHS, universities and local organisations. Our goals are to conduct applied health research across the East Midlands and translate our research findings into improved outcomes for the public.

---

 @clahrc\_em  [www.clahrc-em.nihr.ac.uk](http://www.clahrc-em.nihr.ac.uk)  [clahrc-em@leicester.ac.uk](mailto:clahrc-em@leicester.ac.uk)

This research was funded/supported by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care East Midlands (CLAHRC EM).