

# Evidence Synthesis Ireland Fellowship Scheme 2019

**Review Centre/Group Mentor (RCM)**

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| **Jeremy Grimshaw** |

**Review title** *– please provide the review title*

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| **Quality improvement strategies for diabetes** |

**Review type** *– please identify the type of review in question e.g. qualitative synthesis, Cochrane review of effectiveness, rapid review*

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| **Effectiveness review** |

**Review details***– please identify the topic of the review and a very brief background, objectives and PICO (or other question format details) of the review. Please also include current status of review (e.g. protocol on PROSPERO, searches started etc.)*

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| The incidence of diabetes continues to increase globally, along with diabetes-related health expenditures, complications, and deaths(1). Although there are multiple guidelines defining standards of care to manage diabetes and its complications, health systems struggle to deliver evidence-based diabetes care(2). Some have estimated that there would be greater population benefit by simply reliably delivering existing management approaches than by developing new treatments. To address this gap between what we know, and what we do in diabetes care, researchers are increasingly evaluating quality improvement (QI) strategies designed to implement and/or optimize evidence-based diabetes management practices. Accordingly, there is a growing body of evidence evaluating the effects of QI strategies that could be used to inform initiatives seeking to support the implementation of best practices.  Systematic reviews are the best approach to summarize this body of evidence to inform policy and practice. Traditional systematic reviews, however, are often out of date by the time they are published, making them inaccurate or irrelevant to decision-maker needs. This situation is particularly problematic in fast-moving fields such as diabetes QI. A living systematic review, involving a dedicated review staff, a continuous repository of evidence, and ongoing review updates, would provide stakeholders with access to tailored, rigorous, and timely evidence.  Since 2003, members of our team have been involved in synthesizing evidence on the effectiveness of QI strategies for the management of diabetes. We propose to transition this existing large-scale systematic review (currently 272 included studies) into a living systematic review (LSR).  The LSR is currently funded by Diabetes Canada and will be utilized by this stakeholder as a meaningful source of information for initiatives such as guideline development. The LSR will also allow for ‘on call’ responsiveness to stakeholder-driven queries; supporting the knowledge needs of stakeholders aiming to improve diabetes care through evidence-based QI initiatives. For example, the diabetes QI literature has numerous studies focused on QI strategies for vulnerable populations, which could be uniquely summarized to inform targeted interventions. The benefits of the LSR to knowledge users and other partners include support for incorporating QI evidence into guideline updates (e.g. identifying best practices for implementation of specific guideline recommendations), support for dissemination and implementation teams (e.g. planning new QI strategies based on best evidence), support for policy advocacy teams (e.g. estimating impact of potential strategies), and support for summarizing new implementation evidence beyond trials relevant to emerging strategies. We strongly believe our proposed Cochrane systematic review has the potential to influence best practice in diabetes care; benefitting patients, practitioners, and healthcare systems worldwide.  The objective of this LSR Is to assess the effectiveness of professional/organizational QI interventions in treated diabetes, including HbA1c; LDL and HDL cholesterol; systolic and diastolic blood pressure; use of ASA, statin, and anti-hypertensives; retinal, renal, and foot screening; smoking cessation; harms; and hypertension control.  The population of interest are Diabetes adult patients (type 1 or type 2), and mixed population where ≥90% of the population has diabetes. We will exclude those with gestational diabetes and those with pre-diabetes.  Interventions include: 1) Audit and feedback; 2) Case management; 3) Clinician education; 4) Clinician reminders; 5) Continuous quality improvement; 6) Electronic patient registry; 7) Facilitated relay of clinical information; 8) Financial incentives; 9) Patient education; 10) Patient reminders; 11) Promotion of self-management; 12) Team changes  We are also including interventions involving patient education, self-management, or patient reminders only if the interventions involved at least 1 component directed at clinician behaviour or organizational change, because multiple systematic reviews have already evaluated interventions that consist exclusively of patient-oriented strategies to improve diabetes care  We will compare each EPOC intervention against usual care.  The following outcomes are included: HbA1c levels; LDL cholesterol; HDL cholesterol; Systolic blood pressure; Diastolic blood pressure; ASA use; Statin use; Anti-hypertensive use  Hypertension control; Retinal scan; Foot screen; Renal screen; Smoking cessation; Harms. We will exclude measures of provider or patient understanding, measures of satisfaction, measures of self-efficacy, costs, resource use, provider adherence measured exclusively by provider.  We are including randomised (controlled) trials, including cluster and quasi randomised trials study designs. |