Technologies in Health (CADTH) was selected a priori as data source for this review of systematic reviews. The review was limited to high quality SRs of interventions targeting clinicians.

**Results** A total of 12 SRs met study inclusion criteria. These SRs suggest that implementation strategies, such as audit and feedback, academic detailing, and educational meetings, are generally effective in improving providers' behaviours, with small to moderate effect sizes.

**Discussion** This review of SRs provides support for the overall efficacy of guideline implementation strategies, while highlighting the need for further comparative and cost-effectiveness research to address gaps in the knowledge identified (e.g., limited information on head-to-head comparisons between strategies, clinical context, and cost of interventions).

**Implications for Guideline Developers/Users** Guideline developers should include recommendations for guideline implementation in their future guidelines. Making specific recommendations on choosing one implementation strategy over the others should be avoided until further head-to-head comparisons are available.

**References**

1. A Gudzuniewicz, H Rodseth, T Kealy, D Rudoler. University of Toronto, Toronto, Canada; 2. Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, Canada; 3. University of KwaZulu Natal, Durban, South Africa

**Abstracts**

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**THE EFFECT OF PRINT OR ONLINE EDUCATIONAL MATERIALS FOR PRIMARY CARE PHYSICIANS: A SYSTEMATIC REVIEW**

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**Background** Print and online materials such as guideline summaries are commonly used to distribute evidence to primary care physicians; they are easy to implement and scale across many primary clinics.

**Objectives** We sought to determine: 1) if providing primary care physicians with print and online educational materials has an effect on physician behaviour or on patient outcomes, 2) how these materials were developed, and 3) whether design attributes impact outcomes.

**Methods** We systematically identified studies that reported a print or online educational intervention for primary care physicians. Studies were identified by searching four electronic databases, scanning reference lists, and contacting experts. A sub-analysis was conducted to collect data on how these materials were developed and on their use of design principles.

**Results** Thirty studies met eligibility criteria after full-text screening. Studies targeted physician advice-giving behaviour, diagnostic procedures, prescribing behaviour, change in knowledge, and clinical patient outcomes. Results suggest that print and online materials targeted at primary care physicians have little to no effect on outcomes.

**Discussion** Print and online educational materials provided to primary care physicians have little effect on physician or patient outcomes. This is concerning as they are a common method of disseminating evidence. Most studies do not describe how interventional materials were developed or whether design principles were applied.

**Implications for Guideline Developers/Users** Design principles should be considered when developing evidence-based materials and the development processes should be described in order to determine if better designs influence uptake and use of evidence.