



# **HEALTH IMPACTS AND CHARACTERISTICS OF DEPRESCRIBING INTERVENTIONS IN OLDER ADULTS : A SYSTEMATIC REVIEW**

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## Knowledge user team/ Collaborators

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- Dr Stéphane Lemire, geriatrician and founder of « Ages »
- Mr Jean-Louis Bazin, Cap Diamant foundation for services
  
- Dr Lisa Dolovitch, OPEN and
- Dr Kristin Anderson, Brisbane, Australia

## Polypharmacy

- 90s: (potentially) inappropriate prescribing (PIP) /medication use
- 90s: First trials to improve PIPs including « discontinuation »
- 2003: « Deprescribing » (Woodward, Australia)
- 2004: « Déprescrire » (Queneau, France)

## Polypharmacy

- In Canada, over 65% of SENIORS (persons aged 65 or older) had  $\geq 5$  prescription medications in 2012.
- Polypharmacy increases health risks in seniors.
  - Changes in physiology
  - Higher prevalence of comorbidity
  - Medication interactions

## Definition of deprescribing

- Not all chronic medications may actually benefit seniors.
- Deprescribing has been defined as the **PROCESS of tapering, stopping, discontinuing or withdrawing medications** with the goal of managing polypharmacy and improving outcomes (Farrell 2013).
- It aims at **balancing the expected benefits from medications against their risks.**

## Evidence from recent reviews

- 2016: Page et al (up to 02-2015)
- **The feasibility and effect of deprescribing in older adults on mortality and health: a systematic review and meta-analysis (BJCP)**
- Subgroup analyses on **10 trials to deprescribe polypharmacy**
- Significant **reduction in mortality (HR=0.62, CI: 0.43-0.88) among 8 RCTs with investigator led interventions using patient-specific interventions.**

## Evidence from recent reviews

- 2016: Page et al
- In studies using generalized educational programmes for deprescribing, mortality was unchanged (OR 1.21, 95% CI 0.86–1.69).
- Overall, **deprescribing was not shown to alter mortality in randomized studies.**



## PROSPERO International prospective register of systematic reviews

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### Health impacts and characteristics of deprescribing interventions in older adults: a systematic review

*Edeltraut Kroger, Anik Giguere, Danielle Laurin, Barbara Farrell, Caroline Sirois, Andre Tourigny, Isabelle Vedel, Martine Marcotte, Pierre-Hugues Carmichael*

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#### Review question(s)

What are the health outcomes of interventions to deprescribe, i.e. reduce the number or dosage of chronic medications, in seniors?

## Methods

- Cochrane method for systematic reviews of interventions/PRISMA
- Search for all relevant scientific databases and websites & grey literature.
- Study selection, data extraction, intervention content and quality assessment conducted independently by **2 reviewers**

## Methods

### Studies to be included

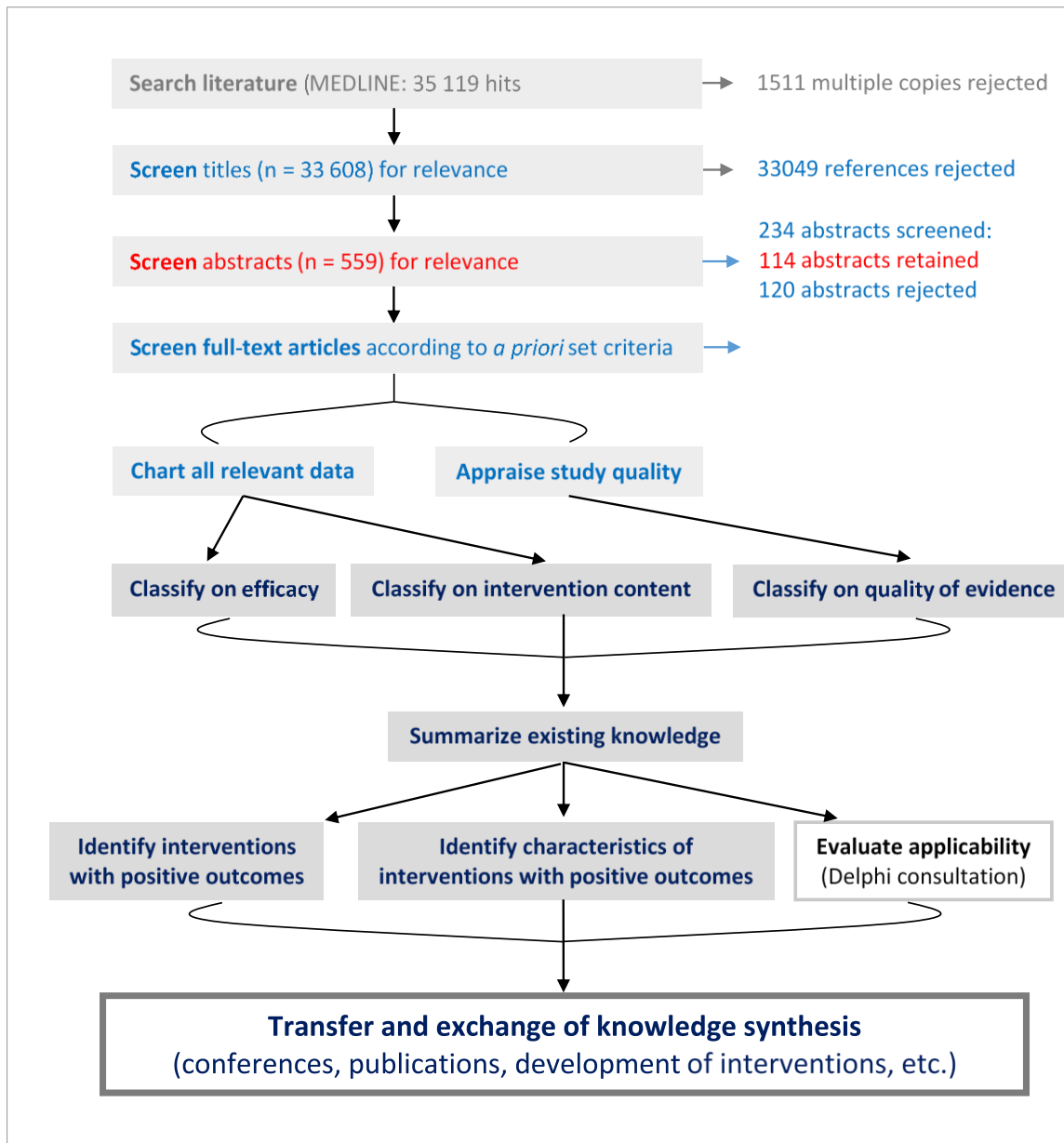
- P** Seniors had at least one prescribed chronic medication
- I** Interventions aimed at reducing the dose/withdrawing at least one medication
- With **C** Comparison groups
- O**utcomes: 1ary quality of life, blood pressure, etc; 2ary medication-related

## Methods

- For relevant outcomes reported with sufficient frequency meta-analyses will be performed.
- Comparisons will be performed between interventions on one outcome at a time, e.g quality of life, mortality, etc.
- A risk ratio will be estimated for the studies comparing an intervention group with a usual care or control group.
- A Delphi panel will determine which successful intervention elements are applicable to the Canadian context.

## Where we are now

- The search strategy was inspired by the review from Page et al. (Br J Clin Pharmacol, 2016).
- Since “deprescribing” has only recently been added to the controlled vocabulary and as we wanted to also include deprescribing interventions on one medication or one class of medications, the preliminary search resulted in **over 30 000 results.**



Search by one research professional, screening and charting by the research professional and one graduate student, classification mainly by research team, synthesis and recommendations will involve all knowledge users as well as researchers.

## Sofar identified/included (abstracts partly screened)

- 3 Reviews (PPIs - systematic, geriatric PIP, mini-review on choosing wisely in seniors regarding hypertension, hyperlipidemia and diabetes)
- 6 Randomized trials (effect of withdrawal of meds on falls or cognition -2-; reducing PIPs -2-; discharge meds -1-; antidementia meds -1-)
- We will be including studies published **up to 02-2018**

# Thank you 😊

- Any questions?
- Please let us know about YOUR deprescribing trial 😊