Tools and guidelines to assess the appropriateness of medication and aid the deprescribing: an umbrella review

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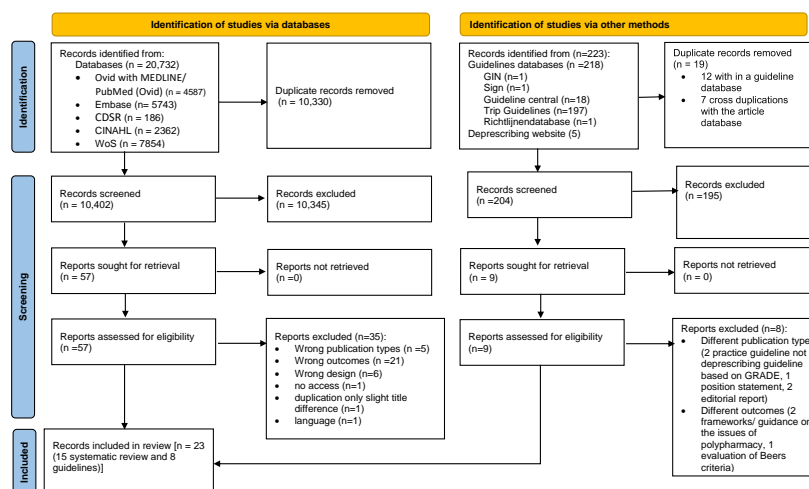[2]University of Antwerp
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Abstract

AIMS The aim of this umbrella review was to identify tools and guidelines available to aid the deprescribing process of potentially inappropriate medications (PIM), evaluate their methods of development and validation, and describe at what level of evidence medications are included in the tools and guidelines. METHODS Searches were conducted on MEDLINE(Ovid), Embase.com, Cochrane CDSR, CINAHL (EBSCO), Web of Science Core Collection, and guideline databases from the date of inception to July 7, 2022. We described and compared the different characteristics and contents of tools and guidelines. RESULTS From 10,606 records screened, 23 systematic reviews and guidelines met the inclusion criteria. We then identified 90 tools (67 explicit, 12 mixed, 11 implicit), and 9 guidelines. The majority were developed for use in older adults (n = 74). Nineteen tools targeted older adults with limited life expectancy (LLE), and 7 targeted children <18 years. The majority (97%) of explicit/mixed tools were validated through Delphi techniques (n = 61). Two tools and eight guidelines provided information on the level of evidence for the included medications, of which less than a quarter were included based on high-quality evidence. CONCLUSION Existing tools are available for a diversity of populations. Discrepancies identified in categorizing medications as appropriate or not can be a result of low quality evidence. Particularly, tools for patients with LLE were developed based on very limited evidence, and research to generate this evidence is highly needed. Our medication lists, along with the level of evidence, could facilitate efforts to strengthen the evidence.

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Figure 1: PRISMA 2020 flow diagram for the study selection process in the umbrella review, 2022 *From:* Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: http://www.prisma-statement.org/