Embase, MEDLINE, Web of Science and International Pharmaceutical Abstracts were searched from 1996 – February 2020. Additional references were identified from reference lists of included articles. Abstracts and titles were screened and potentially relevant articles received full text screening. Inclusion criteria were quantitative, qualitative and mixed-methods literature on deprescribing in primary care. The exclusion criteria were conference papers, non-English language papers and literature on palliative care/life-limiting illness, patient self-discontinuation, withdrawal of medicine due to ADR, substance misuse, and long-term care facilities.

For intervention studies; country, study design, aims, population, intervention, education used, follow-up used and findings were collected. For non-interventional studies; study design, aims, population and themes identified were collected. For the deprescribing trials, barriers and facilitators to implementing the intervention were identified.

Results: 4612 articles were identified and 72 articles included (32 intervention studies; 40 non-intervention). The majority of articles were from the Netherlands (15), Canada (13), USA (10), and UK (seven). Study designs included 12 RCTs, 11 quasi-experimental studies, six follow-up papers, three protocols, 19 surveys studies, eight interview studies, two observational studies, a meta-ethnography, a Q-methodology study, a process evaluation and eight narrative reviews.

Five studies documented providing patient support post-deprescribing with little description of what this consisted of. The provision of patient education or clinician training was used in 14 studies. Six of seven studies incorporating patient education into their intervention were able to safely deprescribe for a significant proportion of patients. Research on the barriers and facilitators to implementing deprescribing into primary care was not routinely reported with a greater focus on the process of deprescribing, rather than implementation.

Conclusion: There is a paucity of research on the fundamental characteristics required for deprescribing to be routinely and safely implemented in primary care. There is a lack of description on what type of education and support patients need, and training that clinicians require, for routine safe deprescribing. Future research is needed to identify and address these factors for the benefits of deprescribing to be realised.

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Oral papers 3: Antimicrobial stewardship

ANTIMICROBIAL CONSUMPTION IN HOSPITALISED COVID-19 PATIENTS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Despite COVID-19 being a viral illness, antibiotic use has been more prevalent. In addition, co-infection (3.5%) and secondary infection (14.3%) were relatively low in hospitalised patients with COVID-19. A major concern is the increased risk of antimicrobial resistance (AMR) due to inappropriate antibiotic consumption (1).

Aim: This review aims to evaluate antimicrobial consumption (excluding repurposed drugs such as remdesivir) in hospitals and determine the prevalence of COVID-19 patients who received antibiotic therapy using meta-analysis.

Methods: The review was conducted according to PRISMA guidelines (2). The two investigators independently developed and applied eligibility criteria to examine original articles. Studies were eligible for inclusion if they met the following criteria: (i) original research studies with a minimum sample of 50 patients; (ii) focussed on antibiotic consumption (AMC); (iii) patients with COVID-19 or consumption amid COVID-19 pandemic; (iv) any age group or gender; and (v) reported in the English language. The included articles were retrieved from MEDLINE, CINAHL, WHO COVID-19 databases, including studies published in EMBASE, Scopus, WHO-COVID, and LILACS between December 2019 to July 2021. The modified version of Newcastle-Ottawa Scale (NOS) was used to measure biases in included studies after the consensus by both authors. The random-effects model was used to estimate the pooled prevalence or proportion of AMC among hospitalized COVID-19 patients.

Results: A total of 34 studies conducted among hospitalised COVID-19 patients were included. The extracted studies presented AMC in defined daily doses (DDD) or frequency and percentages. Azithromycin was the most frequently prescribed antibiotic in almost all studies. The meta-analysis that examined overall AMC using data from 25 studies (17 studies from high income countries and eight from low-middle income countires) revealed 69% (95% CI:63%-74%) of hospitalized COVID-19 received at least one course of antibiotics. The sub-group analysis of studies from high income countries (HICs) revealed 59% (95% CI: 51%-66%) consumed antibiotics compared with 89% (95% CI: 82% to 94%) among hospitalised COVID-19 patients in low-middle income countries (LMICs).

Conclusion: This review highlights the trend of antibiotic consumption in hospitalised COVID-19 patients. A significant rise in antibiotic consumption was observed in LMICs and increased antibiotic consumption in the first few months of the COVID-19 pandemic in HIC. The review outcomes emphasised the importance of rational and judicious use of antimicrobial therapy as well as to strenghting the antimicrobial stewardship policies and activities, particularly during a global pandemic. The limitation of the review undertaken was not identified incidence of co-infection and don't include studies on reported AMC in immunocompromised patients.

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