Therapeutics Today

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Persistence of potentially inappropriate medication (PIM) in older people.

In general, older adults have chronic conditions which require the use of multiple medications, however the use of **PIM (defined as medications whose risks outweigh the benefits**) is common among older adults living in the community. Studies on the prevalence and trend of PIM have been published (including from Ireland), however there is a paucity of data published on the persistence of PIM. A Canadian study of adults ≥66 years living in the community in Quebec aimed to 1) determine the 1-year persistence of PIM use and 2) investigate factors associated with persistence of PIM use ***(Br J Clin Pharmacol 2020;86:1062-1080)***. Persistence was defined as continuous treatment with at least one PIM, starting at the date of initiation of the PIM up to a year of follow up; individuals were considered persistent with PIMs if there was no period of interruption >60 days between prescription refills of any PIM for a year. The Quebec Integrated Chronic Disease Surveillance System (which links patient level records of five health administrative databases) was used for this retrospective population-based cohort study of adults with chronic diseases. The study population included those who were: ≥66 years on the 1st April 2014, who initiated a PIM from the 1st April 2013 to the 31st March 2015 and were followed up for 1 year. The 2015 Beers criteria which was adapted to the Canadian market was used to identify PIMs. The study included 75,844 individuals who initiated a PIM during the study period; the mean age was 74.3 years and 56.1% were women. Up to 86.6% of the study population received ≥5 and 46.7% received ≥10 medications the year before initiating the PIM. **The most frequently initiated PIM classes were benzodiazepines (33.9%), proton pump inhibitors (PPIs), skeletal muscle relaxants (10.9%), antipsychotics (6.1%), tricyclic antidepressants and paroxetine (4.2%) and long-duration sulphonylureas (2.9%).** The study found that 25% of individuals (n=19,051) had persistent use of at least one PIM at 1 year. The proportion of individuals with 1-year persistence was higher for those initiated the following PIMs: antipsychotics (43.9%), long-duration sulphonylureas (40.2%), antiarrhythmics/immediate-release nifedipine (36.5%) and PPIs (36%). **The factors associated with 1–year persistence with any PIM were an increased age, being male, having a higher number of chronic diseases (e.g. cardiovascular diseases, diabetes, Alzheimer's disease and related dementia) and being on a higher number of medications**. The authors of the study conclude that 25% of the population of older adults were persistently exposed to at least one PIM. The authors recommend that further interventions that target those most at risk of persistent PIM use are needed to limit the initiation of PIMs and to deprescribe the existing PIMs that are most likely to be continued.

Recurrent vulvovaginal candidiasis (RVVC) affects approximately 9% of women aged 25 to 34 years. The assessment and management of a woman in primary care with RVVC was recently reviewed ***(BMJ 2020;369:m1995)***. Symptoms of RVVC include vulval itching, non-offensive vaginal discharge, soreness, superficial dyspareunia and a cyclical pattern of symptoms. There are various underlying causes and triggers that may predispose women to RVVC including 1) antibiotics (RVVC occurs in 30% of women taking a course of antibiotics), 2) oestrogen states (RVVC is more common in reproductive years and in pregnancy), 3) hormone replacement therapy (HRT) (RVVC is more likely to develop in women who use HRT), 4) co-morbidities (e.g. diabetes or cystic fibrosis), 5) non–breathable clothing (e.g. tight-fitting, synthetic clothing may predispose to RVVC), 6) behavioural (e.g. vaginal douching increases the risk of infection), 7) sexual activity (limited evidence in this area), 8) iron deficiency (conflicting evidence of a link between low ferritin levels and RVVC) and 9) contraceptives (contradictory evidence as to whether they increase the risk of RVVC). Assessment includes examination and laboratory testing (e.g. vaginal swab for microscopy and culture); swabs for sexually transmitted infections should be considered based on individual risk assessment and clinical features. It is estimated that 80% of VVC is caused by *Candida albicans*; other causes include *C glabrata, C tropicalis, C krusei* and *C parapsilosis*. **Guidelines define RVVC as ≥ 4 episodes of VVC in 12 months**, with 2 episodes confirmed by microscopy/culture in symptomatic patients. Asymptomatic colonisation with candida species occurs in up to 20% of women of reproductive age. The management of a patient with confirmed RVVC should include advice on the avoidance of scented soaps; the external use of emollients as soap substitutes should be encouraged. If *C albicans* is confirmed or empirical treatment is agreed, oral fluconazole should be offered in 2 phases; **1) induction: oral fluconazole 150mg once daily every 3 days for 3 doses and 2) maintenance: oral fluconazole 150 mg weekly for 6 months**. For patients where fluconazole is contraindicated or not tolerated, topical imidazole for 7 to 14 days should be considered, followed by maintenance with clotrimazole pessary 500 mg intravaginally once weekly or oral itraconazole 50-100mg daily. Oral therapy should be avoided in pregnancy and breastfeeding. For patients where non-albicans candida is identified, nystatin pessaries 100,000 units intravaginally at night for 14 consecutive nights per month for 6 months are recommended. **Partial or no response to treatment may be due to a number of factors including non-albicans species, azole resistance or an alternative diagnosis**; referral to a gynaecology or genitourinary medicine clinic should be considered. There is no high-quality evidence to support the use of probiotics, tea tree oil (which is associated with adverse reactions) or dietary changes. The treatment of male sexual partners does not prevent the recurrence of candidiasis in women.

Coronavirus
COVID-19

Updated evidence for the use of antivirals in the treatment of COVID-19. The COVID-19 Evidence Review Group for Medicines recently updated the "Clinical evidence for the use of antivirals in the treatment of COVID-19" (version 10 26th June 2020), available on (http://www.ncpe.ie/wp-content/uploads/2020/06/Antivirals-for-treatment-of-COVID-19-A-Rapid-Evidence-Review_V10.pdf). This latest update reviews recent changes in the evidence of antiviral treatment for COVID-19 including emerging evidence which increasingly shows a lack of benefit for hydroxychloroquine in the treatment of COVID-19. On the 25th June 2020, the European Medicines Agency (EMA) granted a conditional marketing authorisation for remdesivir for the treatment of COVID-19 (in adults and adolescents >12 years with pneumonia who require supplemental oxygen). Other guidance documents that the COVID-19 Evidence Review Group for medicines recently updated includes the use of pharmacological prophylactic in healthcare workers or contact of cases with COVID-19 (updated 9th June 2020) and thromboprophylaxis in patients with COVID19 (updated 7th May 2020) – these updated documents are available on http://www.ncpe.ie/research/covid-19/]

[**Editors' note**: further information on the EMA's recommendation for a conditional authorisation for remdesivir is available on https://www.ema.europa.eu/en/news/first-covid-19-treatment-recommended-eu-authorisation.]

Every effort has been made to ensure that this information is correct and is prepared from the best available resources at our disposal at the time of issue. References are available on request. **This newsletter is produced by the National Medicines Information Centre, St. James's Hospital (SJH) Dublin 8 and Dept. of Therapeutics Trinity College, Trinity Centre, SJH.** Tel: Direct Line (01) 473 0589 or 1850 727 727 Email: nmic@stjames.ie @NationalNmic