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Title	Dispensing and practice use patterns and facilitators and barriers for uptake of ulipristal acetate emergency contraception in British Columbia: a mixed methods study
Authors	Michelle C. Chan MD MHSc, Sarah Munro PhD, Laura Schummers ScD, Arianne Albert PhD, Frannie Mackenzie BA, Judith A. Soon RPh PhD, Parkash Ragsdale BSc(Bioc) BSc(Pharm) RPh, Brian Fitzsimmons MD, Regina Renner MD MPH
Reviewer 1	Dr. Jeanelle Sabourin
Institution	Faculty of Medicine and Dentistry, University of Alberta, Edmonton, Alta.
General comments (author response in bold)	This study uses mixed methods with dispensing/prescribing data and interviews to report UPA/LNG emergency contraceptive (EC) use in BC and explore barriers to its use. It reports the following: 1.UPA use has been increasing but is much lower than LNG. 2. Barriers are as predicted - lack of knowledge, stigma and access barriers. **We thank the reviewer for their review.** I invite the authors to reflect of the following: 1. There is no comparison of patient/prescriber characteristics for UPA/LNG. No other EC are mentioned. There is a lack of "context" (ie what do these numbers mean within the BC population, size, location, access, cost etc). What is the goal of showing this data? (ie. compare UPA to other EC? Illustrate if the correct population is able to access or getting the "best" drug? Explain a trend or a finding from the qualitative findings?) **We thank the reviewer for their questions.** **We clarified and quantified the interest in comparing oral medications indicated for emergency contraception (UPA and levonorgestrel) in the introduction: *This study aimed to describe dispensing patterns of UPA compared to the less effective and levonorgestrel oral option primarily indicated for emergency contraception and explore facilitators and barriers to use with prescribers, pharmacists, and patients, the key stakeholders involved in the prescription and medication process in British Columbia. [introduction, last paragraph, last sentence]*** **The qualitative findings identified barriers associated with low use. Using the Theoretical Domains Framework** 2. The results from the barriers/facilitators section as presented do not add to the literature about emergency contraception use. They are neither specific to UPA use nor EC/UPA use within Canada/BC. Would you like the audience to focus on all emergency contraction or UPA use only? In any setting or in a Canadian setting? Are the interview quotes you presented illustrating your findings well? Can they be more specific to UPA use? **We thank the reviewer for their questions. We have added quantifying information surrounding the oral medications with primary indication for emergency contraception in the results: *There was low awareness of UPA, participants were only able to answer to their experiences primarily with levonorgestrel oral emergency contraception. Given, such low awareness of UPA, we could not compare barriers and facilitators to UPA and levonorgestrel separately. [results, 2nd paragraph, last sentence]*** 3. The lack of awareness about UPA despite its efficacy/indication in Canada/BC is an important point that merits attention. Can your data illustrate this in a better

	way? How can your data be used to increase UPA knowledge/use and address the barriers? **We thank the reviewer for their questions. We have added information how the data can be used to increase UPA knowledge in the conclusion:** ***Opportunities for knowledge translation to improve access to emergency contraception include: provider and pharmacist continuing medical education on emergency contraception, healthcare professional curricular training to address shame and stigma, education of the public on emergency contraception, and advocating health policy initiatives for subsidized, non-prescription 'over the counter' emergency contraception. [conclusion, last sentence]***
Reviewer 2	Dr. Jack Charles Collins
Institution	University of Sydney, Sydney, Australia
General comments (author response in bold)	This is a well-written manuscript with a strong methodological approach which is generally well-described (notably, the inclusion of a completed GRAMMS checklist is a strength). The findings are novel in Canada and are of interest to not only a Canadian audience, but to an international audience as well given the findings are likely to be applicable in other contexts. The sample for each of the participant categories is not large, however, the data appears to be rich. The findings of this study have direct implications for practice, highlighting an underutilisation of UPA in BC and identifying some barriers to accessing emergency contraception and misconceptions about emergency contraception in general. I have several comments for the authors' consideration, which may improve the quality and clarity of the manuscript prior to publication. I appreciate the tight word limit within which the authors are working, and I commend them on describing and reporting a mixed-methods study within this limit. **We thank the reviewer for this complementary summary and statement of novelty. We have addressed the specific comments below.** Abstract: 1) Line 12: first use of BC, please add in parentheses after the first instance of British Columbia in Line 8. **We have amended this accordingly.** Introduction: 2) The introduction could be better aligned with the abstract; particularly mention of OTC LNG as this provides context for an audience less familiar with supply restrictions in BC. **We have added language to provide context:** ***Ulipristal acetate 30 mg (UPA) became available as prescription-only emergency contraception in British Columbia, Canada September 2015, in addition to over-the-counter levonorgestrel emergency contraception. [page 3, first sentence]*** 3) If words permit, it may also be worthwhile mentioning an additional advantage of UPA is its efficacy up to 120 hours vs. 72 for LNG. **We have added wording to mention the additional advantage as suggested:** ***UPA is more effective up to 120 hours from intercourse compared with 72***

	hours for levonorgestrel and in those who are overweight (1,5). [page 3, line 6] Methods – Setting 4) Line 34, page 1 of manuscript body: First use of BC, please state in full. This sentence appears incorrect. Please re-phrase for clarity. **Thank you, we spelled out British Columbia on first use and rephrased for clarity: *This study is British Columbia focused because health care delivery is provincially organized. In 2018, 35.8% (n=174 300) females in British Columbia aged 18-34 self-reported being overweight or obese(28).*** 5) – Data sources – Quantitative: Paragraph beginning line 45, page 1: some additional description regarding the IQVIA data for clarity would be useful for the reader. My understanding is this data is wholesale units to the pharmacy as opposed to units sold to consumers, is this correct? Are prescription numbers for LNG captured at all? **This reviewer's understanding is correct, there is no prescription data for LNG because LNG is not by prescription. We amended for clarity: *[page 3, quantitative data source paragraph, last 3 sentences] As Levonorgestrel is over the counter, we could not use prescriptions to measure its use. Rather, we obtained the volume of UPA and levonorgestrel emergency contraception wholesale units sold in BC during the study period from IQVIA. IQVIA is a privately held market research and consulting firm serving the Canadian healthcare market with their own auditing processes (30).*** 6) Line 28, page 2: should read 'protocol for ACCESS' **We have amended this accordingly** 7) Line 30, page 2: should read 'patient' **We have amended this accordingly** 8) Line 44, page 2: should read 'SM'? **We have amended to FM for Frannie Mackenzie** Results 9) Did repeat users share any common characteristics or have any common responses in their interviews? **The data collection did not include repeat use; therefore, we do not have data on common responses. The quantitative data analysis was not stratified by repeat use. The qualitative analysis focused on the facilitators and barriers to oral emergency contraception access.** 10) I acknowledge that a reference is cited in the method to justify the sample of 12/12/12 for each of the participant categories (keeping in mind 6 were recruited from rural/urban), was there a sense from the interviews that data saturation was indeed obtained from this sample? **We had a sense from the interviews that data saturation was obtained from this sample. We have amended the second paragraph in results: *The qualitative analysis reached saturation and identified more barriers than facilitators to emergency contraception use.*** 11) – last sentence – Line 4, page 7: 'Although UPA may be…' is inconsistent with the earlier statement 'However, because there was such low awareness of UPA …

	UPA and levonorgestrel separately.' **We have amended for clarity: *Although UPA is more effective in preventing pregnancy, multiple barriers exist to access it.*** Interpretation – 2nd last paragraph 12) Line 40, page 7: This sentence reads a little colloquial in nature, suggest rephrasing. **Thank you for the suggestion, we have amended accordingly: *Quantitatively, UPA is use less frequent than levonorgestrel, identifying a need for additional strategies to support expanded implementation.*** 13) This study is restricted to BC. Is there any comment to be made on its applicability to other settings in Canada **We added a sentence in the conclusion: *Our data reflects the use of UPA in BC. Nevertheless, the barriers related to UPA prescription status are likely applicable to the rest of Canada due to similar provincial health systems, the date of Health Canada authorization of UPA, and prescription coverage across the provinces.*** Tables 14) Table 2: demographics are not reported for non-patient participants. Were these captured? Age/time in practice could possibly have some effect on healthcare professionals' knowledge/practice. **We did not capture age or time in practice for health care professionals. Our sample was not large enough to quantitatively explore the possible impact of age or year in practice on the prescribers' or pharmacists' knowledge or practice. We explored the impact of experience and training qualitatively in our interview questions: "share with us your experience and training". We added Table 3 to further highlight the differences in information we have about patient versus prescriber/pharmacist participants.**