

Online platforms for prescription and supply of hormonal contraception in Australia: a mapping review

Tahlee B. Stevenson^A, Alice Rumbold^{B,C,D}, Emily Callander^E, Pip Buckingham^F, Anisa Assifi^F, Danielle Mazza^F and Luke E. Grzeskowiak^{B,G,*}

For full list of author affiliations and declarations see end of paper

*Correspondence to:

Luke E. Grzeskowiak Flinders Health and Medical Research Institute, College of Medicine and Public Health, Flinders University, Bedford Park, SA. Australia

Email: luke.grzeskowiak@flinders.edu.au

Handling Editor: Jane Hocking

Received: 2 September 2022 Accepted: 13 March 2023 Published: 4 April 2023

Cite this:

Stevenson TB et al. (2023) Sexual Health, **20**(4), 273–281. doi:10.1071/SH22138

© 2023 The Author(s) (or their employer(s)). Published by CSIRO Publishing.
This is an open access article distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (CC BY-NC-ND).

OPEN ACCESS

ABSTRACT

Online platforms have emerged as a convenient way for individuals to access contraception. However, the extent to which such services exist in Australia and how they operate is currently unknown. We aimed to identify Australian online contraception platforms and evaluate the services they provide to determine the degree to which they may facilitate equitable access to contraception. We conducted an internet search to identify online contraception platforms operating in Australia. Data were extracted from each of the platforms relating to operating policies, services provided and associated payment processes, as well as prescribing and screening processes for assessing user suitability. As of July 2022, eight online contraception platforms operating within Australia were identified. All platforms offered oral contraception, with two also offering the vaginal ring, and one emergency oral contraception. None of the platforms provided access to long-acting reversible contraception. Significant variability existed in product and membership costs across platforms, with only one platform providing access to subsidised medicines. Five platforms restricted services to those already using oral contraception. Overall, online questionnaires were deemed to be adequately screening for important contraindications to using oral contraception. While online contraception platforms may be a valuable option for some individuals who face access barriers and are willing to pay out-of-pocket for to have their contraception sent straight to their home, they do not necessarily ensure that individuals can access their contraceptive method of choice or address recognised financial and structural barriers to contraceptive care.

Keywords: contraception access, emergency contraceptive pill, hormonal contraception, online prescriber, online provider, oral contraception, reproductive autonomy, telemedicine.

Introduction

Safe, affordable and timely access to contraception is key to facilitating reproductive autonomy and the prevention of unintended pregnancy. Hormonal contraceptive methods, such as the oral contraceptive pill (OCP), depot injections, implants and intrauterine devices (IUDs) are frequently used by Australian women. Of these, the OCP is the most common hormonal method accessed, accounting for 33% of contraceptive use.

Individuals are required to obtain a prescription to access all forms of hormonal contraception in Australia. This creates several barriers, with previous studies highlighting cost as a major deterrent for accessing primary care services. Furthermore, difficulty identifying a prescriber and accessing appointments, feelings of shame, and lack of awareness of contraceptive options are consistently reported as barriers to accessing and using hormonal contraception. Similar barriers reportedly exist for those seeking emergency contraception. While levonorgestrel (LGN) and ulipristal acetate (UPA) emergency contraceptive pills are available through community pharmacies without prescription, recent research suggests that many Australian women still regard emergency contraception pills (ECPs) as inaccessible and inconvenient to obtain, or fear

T. B. Stevenson et al. Sexual Health

stigma that may be associated with doing so in face-to-face settings.⁶ This highlights the importance and need for strategies that can remove barriers and facilitate improved contraception access.

Online platforms that prescribe and supply hormonal contraception have been proposed as a potential strategy to overcome access barriers. These were first made available in the UK in 2017 and have been associated with shortterm improvements in continuation rates of OCP; however, OCP was provided at no cost limiting the generalisability of the study findings.⁷ A number of online service providers in the USA were identified and evaluated by Zuniga et al., who observed significant variability in prescribing processes, including insurance coverage, raising concerns about whether such services truly expand access for all populations ⁸ Several online platforms have recently emerged in Australia and have been praised both in the mainstream media and anecdotally by service users for providing a discrete and convenient approach to accessing hormonal contraception;^{9,10} however, there has been no in-depth evaluation of these Australian service providers. Therefore, we aimed to identify and compare Australian online platforms offering prescriptions and supply of hormonal contraception, their associated processes and fees and the products they offer in an attempt to determine the degree to which these services promote equitable access to hormonal contraception.

Materials and methods

We identified online platforms offering both prescription and supply of hormonal contraceptives through a Google search conducted on 21 May 2022. The search term used was 'contraception online prescribing Australia'. Electronic searches were undertaken independently by two study authors (TS and LEG), with the first 100 results screened for eligibility. Pre-specified inclusion criteria were online platforms operating in Australia that provided access to both prescriptions and supply of hormonal contraceptives.

The consumer screening questionnaire for each of the identified platforms was assessed and the prescribing policies, terms and conditions, associated costs and types of services and products provided by each platform were recorded using a data extraction template. Data extraction was

undertaken independently by two study authors (TS and LEG). Membership models and associated user fees were also collected for each online platform, in addition to the type of hormonal contraception offered, whether they displayed individual product prices, consultation methods offered and eligibility criteria for service users. To contextualise the search to an Australian setting; we emailed each platform to determine whether Medicare rebates to cover consultation costs were available and whether they offered discounted product pricing for concession card holders. (e.g. Medicare rebates are provided by the Australian government to reduce the cost of accessing healthcare services and providers and the national Pharmaceutical Benefits Scheme (PBS) covers a portion of the cost for a number of 'essential medication' such as some kinds of contraception, meaning that the out of pocket cost to the consumer is lower).

To evaluate how online platforms assess user suitability, we compared online screening questionnaires with the UK's Faculty of Sexual and Reproductive Health Medical Eligibility Criteria (MEC) for Hormonal and Intrauterine Contraception. These guidelines are the standard for evidence-based practice and provision of appropriate contraception in Australia. They stipulate four categories, relating to how appropriate it is to prescribe a medication to a consumer with certain conditions and risk factors (Fig. 1).

In practice, medical conditions within categories 1 and 2 generally do not preclude a person from accessing the medicine in question, and those within categories 3 and 4 indicate the person's use of the medicine would be unsafe.¹¹ We examined the degree to which each questionnaire screened for category 3 and 4 contraindications for oral contraceptives. The questionnaire for each of the platforms was filled out from the perspective of a patient seeking access to oral contraception. For each of these questionnaires, we recorded all screening questions and possible navigation pathways. Stop gap questions, (questions that did not allow consumers to proceed any further if they were answered unfavourably) were highlighted. All questions regarding contraindications were answered twice, initially as a patient without the condition in question, and then as one with the condition; enabling us to track questionnaire navigation and identify further stop gap questions.

Consistent user information regarding demographics and medical history was provided to each platform (Fig. 2).

Categrory 1: A condition for which there is no restriction for the use of the method.

Categrory 2: A condition where the advantages of using the method generally outweigh the theoretical or proven risks.

Categrory 3: A condition where the theoretical or proven risks usually outweigh the advantages of using the method. The provision of a method requires expert clinical judgement and/or referral to a specialist contraceptive provider, since the use of the method is not usually recommended unless other more appropriate methods are not available or acceptable.

Categrory 4: A condition which represents an unacceptable health risk if the method is used.

Fig. 1. Definition of UK MEC categories for contraceptive use. 11

Age	26				
Sex/gender (at birth)	Female				
Height	156 centimetres				
Weight	67 kilos				
Body mass index	<30				
Obstetric history	Nulliparous				
Smoking status	Non-smoker/never smoked				
OCP most recently used	Levlen® (Levonorgestrel 0.15 mg and Ethinyl Estradiol 0.03 mg)				
Recent blood pressure value	110/70				
Current use of medications/supplements/recreational drugs Nothing to disclose					
Significant medical/surgical history Nothing to disclose					

Fig. 2. Demographic information and medical history of user.

Completed questionnaires were not submitted to platforms; therefore, platforms' follow-up and consultation processes were not able to be examined.

Where platforms also offered a delivery service for the ECP, we compared their consumer screening questionnaire against the Pharmaceutical Society of Australia (PSA) Treatment Guidelines for Emergency Contraception. These guidelines outline a workflow, screening questions and additional guidance for community pharmacists on emergency contraception provision (e.g. prompts to refer a person for follow-up sexual and reproductive health care, if appropriate). We examined whether the screening questionnaire followed this suggested workflow, adequately assessed for user suitability and what information it sought to collect from each consumer.

Results

Our search yielded eight online platforms (in alphabetical order): Candor (www.candor.org), Femma (www.femma.com.au), Instant Scripts (www.instantscripts.com.au), Kin (www.kinfertility.com.au), Qoctor (www.qoctor.com.au), Rosemary Health (www.rosemaryhealth.com.au), Simple Online Doctor (www.simpleonlinedoctor.com.au) and YOULY (www.youly.com.au). All of these platforms provided access to prescriptions for and supply of oral contraception (the combined OCP and the progesterone only pill). Two also offered the vaginal ring and one same day delivery of the ECP.

Summary of online contraception provision platforms

Table 1 summarises the costs, services and products provided and eligibility and access requirements of each online platform. All demonstrated similar processes for prescribing in that the consumer would initially answer a questionnaire to provide personal and medical details, the responses would be reviewed by a doctor and then the product or prescription provided if deemed appropriate. Five of the platforms stipulated that consumers would be required

to pay access and product costs upfront before a decision on eligibility had been finalised, and that a refund would be processed if they were deemed ineligible. All online platforms advertised that there may be a need for further consultation with a doctor 'if required' to further assess eligibility, but the consultation medium varied. These ranged from text or web-based messenger to telehealth or video based, depending on both provider and consumer preference.

All platforms required consumers to set up a membership profile to access their service. While personal details were requested, only one platform required photographic identification be provided and two provided an option for the consumers to link their Medicare card details to their profile. Despite this, none of the platforms offered Medicare rebates for consultation or prescription fees, and only one offered PBS subsided costs for their products. All of the platforms were based within Australia and stipulated that products would be shipped from an Australian pharmacy.

Most (five of the eight) online platforms required the consumer to be currently using oral contraception or to have used it in the past in order to access OCP supply. These five had current or past OCP use as a stop gap question, meaning that the consumer was unable to proceed any further with the questionnaire if they did not meet this specific criterion. With regard to blood pressure monitoring, only three of the eight online platforms would not let the consumer proceed if they were unable to provide a recent blood pressure result. The other five questioned whether there had been regular or recent monitoring, but did not use this as a stop gap question.

Comparison to UK MEC screening criteria for contraceptive use

It was evident that the consumer screening questionnaires for all of the online platforms had been designed based on the UK MEC criteria (Table 2). A total of 42 category 3 and 4 conditions where the risks of oral contraception are considered to outweigh their benefits were identified; however, none of the platforms screened for all of 42.

T. B. Stevenson et al.

Table 1. Summary of online contraception provision platforms: costs, services and products provided and eligibility and access requirements.

Online platform	Α	В	С	D	E	F	G	Н	
Subscription model (in AUD)	No ongoing subscription fee	No ongoing subscription fee	\$55 annual subscription fee (charged upon sign up)	Optional \$9.90 subscription fee (provides access to additional features such as educational content)	No ongoing subscription fee	No ongoing subscription fee	No ongoing subscription fee	No ongoing subscription fee	
New prescription consultation fee (in AUD)	50	25	Not applicable – included within subscription fee	\$39	Free consultation (initial and follow up)	\$22.99–29.99	\$22.99–29.99 \$49		
Displays product costs	Yes	Yes	Yes	No	Yes	No	Partially	No	
Offers PBS pricing	No	No	No	No	No	No	Yes	No	
Identification requirements	None	None	None	None	None	None	None	Photographic ID	
Eligibility – previous OCP use	Must be currently using OCP (and disclose which)	Must be currently using OCP or have used in the past	Must be currently using OCP or have used in the past	Must be currently using OCP or have used in the past	Must be currently using OCP and have been using the same pill for 12 months	Not required	Not required	Questions previous OCP use, but not a requirement to proceed	
Contraception methods offered	COCP and POP	COCP and POP Vaginal ring ECP	COCP and POP	Does not explicitly list	COCP and POP	COCP and POP	COCP and POP Vaginal ring	COCP and POP	
Education provided on/mention of other contraceptive options	None	None	None	COCP and POP LARC (UD Copper and hormonal, hormonal implant) Depot Ralovera Vaginal ring Contraceptive patch Emergency contraception Condoms Fertility awareness Sterilisation	LARC (IUD Copper and hormonal, contraceptive implant) Depot Ralovera Vaginal ring Fertility awareness Condoms Emergency contraception Sterilisation	LARC (IUD - copper and hormonal, hormonal implant) Depot Ralovera Vaginal ring Diaphragm sterilisation	LARC (hormonal IUD and hormonal implant)	None	
Consultation medium	Dr 'may' contact via phone call or text ('where required') Optional IM with a nurse	Text-based consultation ('where required') Optional to IM the Dr with any issues or questions	Free and unlimited, text-based consults with Dr ('where required')	Mandatory text or video-based consultation	Optional video consult	Telephone or video consults ('where required')	Optional telephone consult	Online IM consult ('where required')	
Recent blood pressure check	Within last 6 months	Within last 6 months	Recommended; no specified timeframe	Recommended; no specified timeframe	Recommended; no specified timeframe	Within last 12 months	Within last 6 months	Within last 6 months	
Mandatory to provide blood pressure reading	No	No	No	No	Yes	Yes	No	Yes	
Age restriction	≥18 years	≥18 years	≥16 years	≥18 years	≥18 years	≥18 years	≥18 years	≥18 years	

COCP, combined oral contraceptive pill; POP, progesterone only pill; LARC, long acting reversible contraception; IUD, intrauterine device; IM, instant messenger.

Table 2. Evaluation of platforms screening questions against the UK MEC category 3 and 4 conditions for the use of oral contraceptives.

Comparison of platforms screening questions against the UK MEC category 3 and 4 conditions for the use of combined oral contraceptives	A	В	С	D	E	F	G	Н
Personal characteristics and reproductive history								
Breastfeeding – 0–6 weeks postpartum	X	X	Х	X	Х	X^{I}	O^3	×
0–6 weeks postpartum in non-breastfeeding women, with other risk factors for VTE		Х	Х	Χ		OI		С
Over 35 years of age, current smoker	Х	Х	Х	0	0	OI	X^3	X
Over 35 years of age, ceased smoking within the last year		Χ	Χ					X
BMI greater than 35	Х	Х	Х	Х	Х	X^{I}		×
History of bariatric surgery, with a BMI greater than 35	0							
Organ transplant	0							
Cardiovascular disease								
Two or more risk factors: smoking, diabetes, hypertension, obesity and dyslipidaemias	Х	Х	Х	Х	Х	X^3	X^3	X
Hypertension: systolic BP $>$ 140–159 mm Hg or diastolic BP $>$ 90–99 mm Hg	Х	Х	Х	Х	0	OI	X^3	Х
Current or history of ischaemic heart disease ^a	Х	0	Х	Х	0	X^3		Х
History of cerebrovascular accident including stroke or TIA ^a	Х		Х	Х		X^3	X^3	Х
History of or current VTE	Х	Х	Х	Х	Х	X_3	X_3	Х
Family history of VTE, first degree relative over 45 years of age	0	Х	Х	Х		X^3		
Major surgery, with prolonged periods of immobilisation	0	Х	Х	Х		X^3		C
Immobility (unrelated to surgery - eg wheelchair use, debilitating illness)						X_3		
Known thrombogenic mutations	Х	Х	Х			X^3		Х
Valvular and congenital heart disease	0	0	Х		0	O^3		С
Cardiomyopathy, impaired cardiac function	0	0	0		0	O^3		С
Neurological conditions (headaches)								
Migraine (with or without aura)	Х	Х	Х	Х	Х	X^3	X^3	Х
Breast conditions								
Undiagnosed breast mass/symptoms	Х							
Carriers of known gene mutations associated with breast cancer (eg BRACA1/BRACA2)					Х	X^3		
Current or previous breast cancer ^a	Х	Х	Х	Х	Х	X^3	X^3	X
Endocrine conditions – diabetes								
Nephropathy/retinopathy/neuropathy and other vascular disease	0	0	0	0	0	O^3		С
Gastrointestinal conditions								
Gallbladder disease		Х	Х					
History of cholestasis related to past OCP use			0			O^3		
Viral hepatitis	0	0	0	0	0	X^3	O^3	С
Cirrhosis, severe (decompensated) ^a	0	0	Х	0	0	X^3	O_3	С
Liver tumours – benign ^a	0	0	Х	0	0	X^3	O^3	C
Liver tumours – malignant ^a	0	Χ	Χ	0	0	X^3	O_3	C
Rheumatic diseases								
Systemic lupus erythematosus with/OR positive antiphospholipid antibodies				0		O^3		

X, asked about condition explicitly; O, conditions not explicitly screened for but could potentially be screened for if patient reports the condition in a probing question; blank space, condition not adequately screened for.

 X^a , category 3 or 4 condition for progestin oral contraceptive (POP) use also.

Some platforms separate COCP and POP questionnaires: X/O^1 , asked about in COCP specific questionnaire only; X/O^3 , asked about in both COCP and POP questionnaires.

 $[\]dot{\text{VTE}}$, venous thromboembolism; BMI, body mass index; TIA, transient ischaemic attack.

T. B. Stevenson et al. Sexual Health

A mixture of free text responses or open-ended questions that prompted consumers to disclose or 'provide further information' and checkbox style questions were used across all platforms. The conditions that were screened for by all eight included: (1) postpartum status; (2) smoking status; (3) hypertension; (4) previous or current blood clots; (5) migraines; (6) current or previous breast cancer; (7) liver conditions; and (8) possible drug interactions. All platforms required consumers to answer a question regarding current drug use (prescription, over the counter and recreational), two provided a 'free text response' option, while six provided a list of specific medications or supplements.

All eight online platforms in some way also asked the consumer 'if there is anything else they would like the doctor to know' prior to concluding the questionnaire, an opportunity for more information to be provided regarding the consumers' health status. The stop gap format was used to prevent consumers from progressing further if they answered 'yes' to having a diagnosed health condition or using incompatible medications with four of the platforms, while the other four let the consumer proceed but prompted for 'more information' to be provided. Only three of the online platforms asked questions regarding gastrointestinal disorders and severe and ongoing vomiting and diarrhoea as per UK MEC additional considerations.

Provision of the ECP

With regard to ECP provision, only one online platform was identified as providing a service that delivered the product directly to the consumer. Their screening questionnaire initially followed the format of the PSA's treatment guidelines, asking questions pertaining to medical and menstrual history, age, pregnancy and breastfeeding status and time since unprotected sexual intercourse. However, there were no questions about the consumer's weight. They did ask whether emergency contraception was requested following a missed pill or sexual assault, but answering yes did not trigger any follow-up questions specific to circumstances. If consumers selected contraception was not used, they were encouraged to consider the range of contraception services also offered by the same online platform. It was unclear what actual medication was being provided (i.e. UPA or LNG) as this was not stated and users were provided with one final cost.

There was no option for the user to determine which product was most appropriate to use in their circumstances and no mention of the copper IUD as an alternative and higher-efficacy emergency contraceptive option compared to ECPs. There was also no discussion of how or when to take the medication, efficacy rates of what was being provided, adverse effects or the risk of exposure to sexually transmitted infection. Users were encouraged to provide their contact details when ordering ECP, but this was not mandatory. The consumer was able to select from three desired shipping timeframes with variable shipping fees

depending on proximity to partner pharmacies; 2 h (AUD50 shipping fee), 4 h (AUD40 shipping fee) or 'same day' (AUD30 shipping fee), the product itself then cost an additional AUD30. One of the other platforms did offer a service for the provision of a script for ECP, but the consumer was still required to present to a pharmacy to collect the product; as such, we did not assess their screening questionnaire.

Discussion

Eight platforms offering online prescription and provision of contraception were identified within Australia; they all provide access to the OCP, additionally two also provided access to the vaginal ring and a further one to the ECP. All platforms offered private, full cost products and the consultation requirements and costs varied noticeably across all eight, with only one also offering PBS subsidised prices on some medications. None of these eight screened for all of the listed contraindications for OCP use highlighted within the UK MEC and a further five of the platforms would only supply to consumers who were already using oral contraception or had used it in the past.

This is the first study to explore and describe the landscape of online contraception access within Australia. There has been limited evaluation of online platforms for prescribing and supply of hormonal contraception. Zuniga et al. completed a similar study evaluating online platforms available to those living in the USA.8 As of February 2018, they identified nine online platforms that prescribed oral contraception. Similar to our study, they identified significant variability in prescribing processes, including limited coverage by health insurance. Recent research by Nitkowski further highlighted that within the US setting, while these online platforms address some of the identified barriers to access, that the high out-of-pocket costs associated with their use continues to limit their accessibility. 13 Rezel-Potts et al. evaluated how online provision of OCP in the UK could help overcome physical barriers; for example the inability to access a GP or pharmacy.¹⁴ Compared with those seeking contraception in-person, online provision was associated with higher continuation rates of OCP after 4 months (adjusted OR 2.94, 95% CI 1.52 to 5.70). Most notably, this occurred in the context where OCP is available for free in the UK, so is not directly generalisable to the Australian setting.

As identified by Nitkowski, unless financial accessibility issues are addressed, online contraception platforms have the potential to widen pre-existing inequalities.¹³ These platforms provide a solution for those who are financially able, to continue using oral contraception in a convenient way, but they do not serve the needs of all people who require contraception; for example, those with concession cards, those trying to initiate hormonal contraception use

for the first time or those who may not find that OCPs best suit their needs. In terms of addressing financial barriers alone, within Australia Medicare rebates for medical consults and the PBS subsidies for medications mean that for those who hold concession status, and access the OCP, it could cost as little as AUD6.80 for a 4-month supply (based on 2022 PBS co-payment fees). Only one of the identified platforms provided access to PBS subsidies; however they still charged other fees that were not eligible for Medicare rebates.

Alternative approaches to improving access to hormonal contraception include making them available in community pharmacies without the need for a prescription, which has been successfully implemented in the UK and some areas of the USA. ^{15,16} These provision models are associated with an increase in adherence to regimens and continuation of OCP use, likely as a result of the barriers to access they remove. ¹⁷ Evidence so far also suggests that providing these services in the pharmacy setting is comparatively as safe as doing so in general practice. ^{17,18} Despite this, efforts to down schedule oral contraceptives in Australia to make them available without prescription have so far been unsuccessful. ¹⁹

A potential criticism of online contraception platforms is that questionnaire-based consultation shifts the focus from person-centred care and options-based counselling and directs consumers to use only one of many potential methods because it is all that is available. Comprehensive, contraceptive options counselling should be individualised and provide the consumer with information pertaining to advantages and disadvantages and safety and efficacy of all available methods.²⁰ Only three of the platforms asked the consumer whether they had experienced any side effects while using oral contraception and none prompted changing methods or discontinuation if they had. Working with consumers to empower and provide them with information and an understanding of their contraceptive options tailored to their individual needs and circumstances is the foundation of person-centred care. 21 This holistic approach appears to be missing within these online platforms as they only offer and direct consumers to oral contraceptive methods or the vaginal ring. None of the identified platforms appeared to offer access to long-acting reversible contraception (LARC) or refer to providers that would, with only two platforms mentioning LARC as a possible alternative contraceptive method. LARC recognised as one of the most effective forms of reversible contraception with a reported failure rate of less than 1%.²² LARCs are suitable for women of all ages and reproductive status, have few contraindications and have high rates of acceptability and continuation, as compared with other contraceptive methods such as the OCP.²³ The use of these methods is demonstrated to substantially reduce the rates of unintended pregnancy; however, the uptake rates are low within Australia with an estimated prevalence of 11% among women aged 15-44 years.²⁴ Commonly reported barriers to LARC uptake include lack of awareness and misconceptions about user suitability.²³ By failing to present and discuss all available contraceptive options, online platforms fail to identify situations where more effective LARC methods may be preferred by the consumer and refer them on to the appropriate providers of these services.

With regard to the online platform that offered ECPs, consumers were not given information about or a choice between the two available ECP options, despite these differing greatly in terms of use and effectiveness.²⁵ For example, UPA is more effective than LNG regardless of time taken (up to 120 h following sexual intercourse); however, it is considerably more expensive and research has demonstrated that it is seldom offered as an ECP option through Australian community pharmacies, 26 potentially as a result of this cost difference. Further, despite the fact that the copper IUD is the most effective form of emergency contraception, ²⁷ there was no mention of the copper IUD, how it functions as emergency contraception or where a consumer may be able to access one. Given a lack of knowledge of the copper IUD use as emergency contraception among the Australian public, 28 online prescription platforms could serve as a key information source about this option. Other issues that emerged related to online ECP provision included the lack of information provided regarding factors that may reduce ECP effectiveness (e.g. obesity or drug interactions) or discussion about safety, efficacy and timing of resuming OCP use after taking the ECP. While requests are submitted pending pharmacist review and these issues may be addressed during the review process, it was not mandatory for users to supply any contact details and they are required to pay in advance, prior to pharmacist review. Therefore, it is unclear what processes the pharmacist follows should they have any concerns regarding the suitability of the emergency contraception request.

There have been concerns regarding the safety and appropriateness of these online platforms, specifically pertaining to the risks of removing the face-to-face consultation and the aspects of a comprehensive sexual health check-up that may be missed as a result; such as blood pressure monitoring and sexually transmitted infection testing and cervical screening.²⁹ Only two of the platforms asked about sexually transmitted infections and whether consumers had recently engaged in testing. None of the platforms discussed the risks or prevalence of these types of infections with consumers or provided an option to complete screening as a part of their consultation. Similar to findings by Zuniga et al. in their evaluation of online platforms in the US, in general, we found the online platforms' screening process for user suitability as adequate, although opportunities were identified to improve the rigour of the online questionnaires. Considerations surrounding medical suitability are particularly pertinent in the context of the online platform not necessarily having access to the users' full medical history and being reliant on the accuracy of information supplied when completing a

T. B. Stevenson et al. Sexual Health

questionnaire, as medical consultations were not necessarily mandatory. Without this in-person aspect, prescribers are unable to confirm the validity of the information that is provided or opportunistically request additional tests or screening that may benefit the consumer. It also decreases the likelihood of there being further conversations regarding finding an alternate method of contraception for the user should they be deemed ineligible for the OCP and have their request declined.

A limitation of this study is that it is possible that we may have missed some platforms that provide online contraception. Second, we did not submit the client screening questionnaires or see the response or consultation that followed, meaning that we were unable to capture the entire assessment process. This is significant as although half of the platforms used stop gap questions and prohibited consumers from proceeding any further if there were contraindications, the other half simply asked the consumer to 'provide more information; and relied on a doctor assessing the responses to make the final call. Without this information, we are unable to comment on the true extent of the assessment processes.

Conclusion

While a number of online contraceptive platforms exist in Australia, the majority only provide access to a limited range of private, full-cost oral contraceptives. Although this may provide a level of convenience for some, it does not necessarily ensure that individuals can access their contraceptive method of choice or address recognised financial and structural barriers to accessing contraceptive care. High out-of-pocket costs, the requirement of current or previous OCP use and the limited range of contraception methods discussed suggests these platforms may function as more of a luxury opposed to a way by which to facilitate equitable care access. While there is potential that online access to contraception could be used to address barriers, further research examining how telehealth and online prescribing platforms can be optimised to facilitate comprehensive, person centred, contraception options counselling, whilst also remaining equitable and cost effective is required. It would also be valuable to further examine user's experiences of engaging with online based healthcare providers in comparison to traditional primary health settings to determine whether the standard, quality and safety of care provided by each are comparable.

References

Dixon SC, Herbert DL, Loxton D, Lucke JC. 'As many options as there are, there are just not enough for me': contraceptive use and barriers to access among Australian women. Eur J Contracept Reprod Health Care 2014; 19(5): 340–51. doi:10.3109/13625187.2014.919380

2 Wright SM, McGeechan K, Bateson D. Assessing prevalence and trends in contraceptive use of Australian women using a market research dataset. Sydney: Family Planning NSW; 2020.

- 3 Claringbold L, Sanci L, Temple-Smith M. Factors influencing young women's contraceptive choices. Aust J Gen Pract 2019; 48(6): 389–94. doi:10.31128/AJGP-09-18-4710
- 4 Callander EJ, Corscadden L, Levesque J-F. Out-of-pocket healthcare expenditure and chronic disease – do Australians forgo care because of the cost? Aust J Prim Health 2017; 23(1): 15–22. doi:10.1071/ PY16005
- Goldhammer DL, Fraser C, Wigginton B, Harris ML, Bateson D, Loxton D, et al. What do young Australian women want (when talking to doctors about contraception)? BMC Fam Pract 2017; 18(1): 35. doi:10.1186/s12875-017-0616-2
- 6 Mooney-Somers J, Lau A, Bateson D, Richters J, Stewart M, Black K, et al. Enhancing use of emergency contraceptive pills: a systematic review of women's attitudes, beliefs, knowledge, and experiences in Australia. Health Care Women Int 2019; 40(2): 174–95. doi:10.1080/07399332.2018.1526286
- 7 Rezel-Potts E, Palmer MJ, Free CJ, McCulloch H, Baraitser P. Contraception in person-contraception online (CiP-CO) cohort study. BMJ Sex Reprod Health 2022; 48(2): 93–102. doi:10.1136/bmjsrh-2021-201168
- 8 Zuniga C, Grossman D, Harrell S, Blanchard K, Grindlay K. Breaking down barriers to birth control access: An assessment of online platforms prescribing birth control in the USA. *J Telemed Telecare* 2020; 26(6): 322–31. doi:10.1177/1357633X18824828
- 9 Bedo S. Australian-first morning after pill delivery service launches for International Women's Day; 2021. Available at https://www. news.com.au/lifestyle/health/health-problems/australianfirst-morningafter-pill-delivery-service-launches-for-international-womens-day/newsstory/89a32c9d2fcc221566d1a96781ebbe32 [accessed July 2022]
- Wellings H. Contraceptive pill can now be home delivered, saving women having to visit the doctor for a fresh script; 2020. Available at https://7news.com.au/lifestyle/health-wellbeing/ contraceptive-pill-can-now-be-home-delivered-saving-women-havingto-visit-the-doctor-for-a-fresh-script-c-694314 [accessed July 2022]
- 11 The Faculty of Sexual and Reproductive Healthcare. UKMEC summary table hormonal and intrauterine contraception. London: The Faculty of Sexual and Reproductive Healthcare of the Royal College of Obstetricians and Gynaecologists; 2019.
- 12 Pharmaceutical Society of Australia. Non-prescription medicine treatment guideline: Emergency Contraception. Pharmaceutical Society of Australia; 2022.
- 13 Nitkowski J. Qualitative analysis of user reviews from Nurx and Planned Parenthood Direct: what user experiences reveal about telecontraception apps. *Sex Health* 2022; 19(5): 417–426. doi:10.1071/SH22005
- 14 Rezel-Potts E, Palmer MJ, Free C, Baraitser P. A cohort study of the service-users of online contraception. *BMJ Sex Reprod Health* 2020; 46(4): 287–93. doi:10.1136/bmjsrh-2020-200610
- Mitchell M, Stauffenberg C, Vernon V, Mospan CM, Shipman AJ, Rafie S. Opposition to pharmacist contraception services: evidence for rebuttal. *Pharmacy* 2020; 8(4): 176. doi:10.3390/pharmacy 8040176
- Burns C. Community pharmacies in England to carry out contraception checks to free up GP time. *Pharm J* 2021; 307(7954). doi:10.1211/PJ.2021.1.108660
- 17 Rodriguez MI, Edelman AB, Skye M, Anderson L, Darney BG. Association of pharmacist prescription with dispensed duration of hormonal contraception. *JAMA Netw Open* 2020; 3(5): e205252. doi:10.1001/jamanetworkopen.2020.5252
- 18 Rafie S, McIntosh J, Shealy KM, Borgelt LM, Forinash A, Shrader SP, et al. Roles of the pharmacist in the use of safe and highly effective long-acting reversible contraception: an opinion of the women's health practice and research network of the american college of clinical pharmacy. *Pharmacotherapy* 2014; 34(9): 991–9. doi:10.1002/phar.1457
- 19 Therapeutic Goods Administration. Notice of interim decisions to amend (or not amend) the current Poisons Standard (oral contraceptive substances). Woden, ACT: Australian Government Department of Health; 2021.

- 20 Stewart M, Black K. Choosing a combined oral contraceptive pill. Aust Prescr 2015; 38(1): 6–11. doi:10.18773/austprescr.2015.002
- 21 Dehlendorf C, Fox E, Sobel L, Borrero S. Patient-centered contraceptive counseling: evidence to inform practice. *Curr Obstet Gynecol Rep* 2016; 5(1): 55–63. doi:10.1007/s13669-016-0139-1
- 22 Bahamondes L, Fernandes A, Monteiro I, Bahamondes MV. Longacting reversible contraceptive (LARCs) methods. Best Pract Res Clin Obstet Gynaecol 2020; 66: 28–40. doi:10.1016/j.bpobgyn.2019.12.002
- 23 Mazza D, Bateson D, Frearson M, Goldstone P, Kovacs G, Baber R. Current barriers and potential strategies to increase the use of long-acting reversible contraception (LARC) to reduce the rate of unintended pregnancies in Australia: an expert roundtable discussion. *Aust N Z J Obstet Gynaecol* 2017; 57(2): 206–12. doi:10.1111/ajo.12587
- 24 Grzeskowiak LE, Calabretto H, Amos N, Mazza D, Ilomaki J. Changes in use of hormonal long-acting reversible contraceptive methods in Australia between 2006 and 2018: A population-based study. Aust N Z J Obstet Gynaecol 2021; 61(1): 128–34. doi:10.1111/ajo.13257

- 25 Grzeskowiak LE, Roberts CT, Calabretto HE. Emergency contraception – an evidence-based practice guide. *J Pharm Pract* Res 2017; 47(6): 486–93. doi:10.1002/jppr.1416
- 26 Collins JC, Schneider CR, Moles RJ. Emergency contraception supply in Australian pharmacies after the introduction of ulipristal acetate: a mystery shopping mixed-methods study. *Contraception* 2018; 98(3): 243–6. doi:10.1016/j.contraception.2018.04.020
- 27 Black KI, Hussainy SY. Emergency contraception: oral and intrauterine options. *Aust J Gen Prac* 2017; 46: 722–6.
- Dorney E, Botfield JR, Robertson S, McGeechan K, Bateson D. Acceptability of the copper intrauterine device as a form of emergency contraception in New South Wales, Australia. Eur J Contracept Reprod Health Care 2020; 25(2): 114–9. doi:10.1080/13625187.2020.1726888
- 29 Tsirtsakis A. Concerns over online contraceptive pill subscription service; 2020. Available at https://www1.racgp.org.au/newsgp/ clinical/concerns-over-online-contraceptive-pill-subscripti [accessed July 2022]

Data availability. Data sharing is not applicable as no new data were generated or analysed during this study.

Conflicts of interest. TS, AR, EC, PB, AA, and LEG report no conflicts of interest. DM has previously received honoraria and research funding from Bayer and MSD (manufacturers of LARC). All authors declare no financial relationships with any organisations that might have an interest in the submitted work in the previous 3 years; no other relationships or activities that could appear to have influenced the submitted work.

Declaration of funding. L.E. Grzeskowiak was supported by a Channel 7 Children's Research Foundation Fellowship. E. Callander was supported by a National Health and Medical Research Council (NHMRC) Fellowship. The funding source(s) had no involvement in the conduct of the research and/or preparation of the article.

Author affiliations

^AFaculty of Health and Medical Sciences, School of Public Health, University of Adelaide, Adelaide, SA, Australia.

BSAHMRI Women and Kids, South Australian Health and Medical Research Institute, Adelaide, SA, Australia.

^CAdelaide Medical School and the Robinson Research Institute, University of Adelaide, Adelaide, SA, Australia.

^DWomen's and Babies Division, Women's and Children's Hospital, North Adelaide, SA, Australia.

ESchool of Public Health and Preventative Medicine, Monash University, Clayton, Vic., Australia.

FSPHERE CRE, Department of General Practice, Monash University School of Public Health and Preventive Medicine, Melbourne, Vic., Australia.

GFlinders Health and Medical Research Institute, College of Medicine and Public Health, Flinders University, Bedford Park, SA, Australia.