A practice tool for initiating and managing combined hormonal contraceptives for contraception: Assessment, decision-making and monitoring

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Background

It is estimated that over 40% of pregnancies in Canada are unintended, and nearly half of unintended pregnancies are in individuals on some form of contraception.[1] Effective contraception, such as combined hormonal contraceptives (CHCs), are underused in Canada.[1] Identified barriers to obtaining effective contraceptives include individuals not being adequately informed or educated, not having trained health care professionals and difficulty accessing a prescriber.[2] Adherence to contraceptives is poor, with approximately 60% of patients using them incorrectly or inconsistently,[3] and the most common reason for discontinuation of CHCs are side effects.[4]

Pharmacists play a key role in reproductive health services worldwide.[5] Pharmacists in the community provide a convenient location for access to effective contraception, but they are often an underused resource.[6-8] Pharmacists' expanded scope of practice in many Canadian provinces provides opportunity for them to improve contraceptive access.[6] Pharmacists can now prescribe contraceptives in Alberta, Saskatchewan, Nova Scotia, Quebec and most recently New Brunswick and British Columbia.[6,9,10]

A practical, evidence-based practice tool can help pharmacists in making CHC prescribing decisions. The purpose of the CHC Practice Tool is to provide a framework to support pharmacists at the point of care with managing CHC for contraceptive purposes. We present a case to highlight how pharmacists can apply the systematic approach featured in the tool (Figure 1).

Case

SL, a 24-year-old, asks the pharmacist in their community pharmacy to prescribe an oral contraceptive. The pharmacist practises in a province that has regulations permitting pharmacists to prescribe contraceptives. The pharmacist recognizes SL and knows the following: pronouns she/her, biologic sex is female, gender-identifies as a woman and ethnicity is of South Asian descent.

Development of the CHC Practice Tool

The content of the CHC Practice Tool was informed by current contraception guidelines, published literature and research team experience.[11] The pocket card version was developed and then incorporated into an online version (https://srhresearch.ca/hormonal-contraceptive-tool/). The tool was initially developed and available in January 2021 and revised in June 2023. The developed prototype for the pocket card was reviewed by experts in the field ($n=2$) and then pilot tested in a cohort of community pharmacists ($n=10$) for acceptability, visual appeal and applicability. A similar pilot was completed for the online version ($n=10$). Feedback from the initial pilot was that the tool had applicability to practice, it was comprehensive and

Gender statement: *Gender-inclusive language has been used throughout this article to refer to reproductive health and services for all people who may benefit from them. Sometimes the term "woman" is used to maintain accuracy with what is reported in the literature.*

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FIGURE 1 CHC Practice Tool

A Practice Tool for Combined Hormonal Contraceptives

ABBREVIATIONS

BTB	breakthrough bleeding
CHC	combined hormonal contraceptive
COC	combined oral contraceptive
Cu-IUD	copper intrauterine device
CVD	cardiovascular disease
EE	ethinyl estradiol
HFI	hormone free interval
IHD	ischemic heart disease
IUC	intrauterine contraception
LARC	long acting reversible contraceptive
LNG-IUS	levonorgestrel intrauterine system
MI	myocardial infarction
VTE	venous thromboembolism

Initiating and Managing Combined Hormonal Contraceptives (CHC)

Step 1: Assess if CHC is Appropriate

- ☐ Gather patient history
- ☐ Screen for contraindications
- ☐ Screen for drug interactions
- ☐ Perform blood pressure measurement
- ☐ Refer if required

Step 2: Initiate a CHC Product

- ☐ Select a product
- ☐ Choose a regimen

Step 3: Patient Education for CHC

- ☐ Choose a start date
- ☐ Provide general patient education on:
  - how to use CHC
  - adherence and missed CHC
  - side effects and management
  - back-up contraception
- ☐ Create a follow-up plan

Step 4: Follow-up Monitoring of CHC

- ☐ Assess patient satisfaction
- ☐ Check adherence
- ☐ Ask about side effects
- ☐ Check if changes with health status
- ☐ Perform blood pressure measurement

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This Practice Tool is intended to support pharmacist assessment and prescribing of combined hormonal contraceptives. Users of the tool do so at their own risk.

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FIGURE 1 (continued)

STEP 1: Assess If CHC is Appropriate

☐ Gather patient history

Patient Demographics
☐ Age ☐ Weight ☐ Height

Medical History
☐ Screen for risk of VTE, CVD, breast cancer, migraines with aura, liver disease - see contraindications.

Social History
Do you currently smoke?
How many cigarettes do you smoke per day?

Menstrual History
When was your last menstrual period?
How often do you get your periods? Are they regular or irregular? Are your periods heavy?
Do you get spotting or bleeding in between periods? Has it been assessed?

Past & Current Contraceptive Use
What type of contraception are you currently using? Have you been on hormonal contraception in the past?
Which ones and for how long? Did you have any side effects?
Were you satisfied with past contraceptives? Why or why not?

Possibility of Pregnancy
Have you had unprotected intercourse since your last menstrual period?
Is there a possibility of pregnancy? Recommend pregnancy test.*

* If possibility of pregnancy → Refer.

Assess if a LARC is appropriate
Do you want to become pregnant in the next year?
How important is it for you not to be pregnant right now?
Would you be interested in using a LARC?*

* If interested in LARC → Refer.

If the woman is seeking contraception, consider LARC, such as an IUC or implant as very effective, reversible, and longer-term form of contraception. IUCs include LNG-IUS and Cu-IUD.

NOTE: Pelvic exam and pap smear are NOT required prior to providing CHC, though should be part of a woman's normal reproductive care.

☐ Screen for contraindications:*

Cardiovascular Disease Risk	• Smokes ≥ 15 cigarettes/day and over the age of 35 years • Cardiovascular disease (MI, IHD etc) • Hypertension (systolic ≥ 140 mmHg or diastolic ≥ 90 mmHg)	• History of stroke • Migraines with aura • Diabetes with microvascular complications
VTE Risk	• VTE – current or past history	• Thrombophilia
Breast cancer	• Breast Cancer – current or past history	
Liver Disease	• Active or past liver disease	
Other	• Given birth in the last 3 weeks • Breastfeeding <6 weeks postpartum • Rheumatic diseases such as lupus	• Other active cancers/chemotherapy • Undiagnosed abnormal uterine bleeding

* If contraindications are present → Refer.

☐ Screen for drug interactions:*

Screen for inducers of EE/progestins:	• Anticonvulsants (phenytoin, carbamazepine, primidone, topiramate, phenobarbital, oxcarbazepine) • Rifampin • Antiretrovirals (efavirenz, nevirapine ritonavir) • St John's Wort
Other interactions:	• Lamotrigine (EE can induce metabolism) • Concurrent use of potassium sparing drugs (i.e. ACE inhibitors, spironolactone) with drospirenone containing CHC

* If drug interactions are present → Refer.

☐ Perform Blood Pressure Measurement*

* If BP ≥140/90 → Refer.

☐ Refer if any of the following:

☐ BP is ≥ 140/90 mmHg
☐ One or more contraindications listed above
☐ Smoker and over 35 years
☐ Potential for drug interaction(s)
☐ Abnormal uterine bleeding
☐ Possibility of pregnancy

The questions provided above are suggestions to guide patient assessment, rather than an all inclusive list. In addition, clinicians may expand assessment to include sexual history, etc.

STEP 2: Initiate a CHC Product

☐ Select a Product:

CHC products contain an estrogen and a progestin.

- Progestin is responsible for the main contraception effect.
- Estrogen helps stabilize endometrium and helps with menstrual cycle control.

There are no advantages of the multiphasic products over monophasic. All CHC options are equally effective in preventing pregnancy.

CHC route options include: oral tablets, transdermal patch, and vaginal ring.

CHC products in Canada contain:

Estrogen:
- EE 10 – 35 µg
- estetrol 15 mg

Progestins:
- 1st generation – norethindrone, ethynodiol
- 2nd generation – levonorgestrel
- 3rd generation – norgestimate, desogestrel
- 4th generation – drospirenone

☐ Choose a Regimen:

Regimen (COC, patch or ring)	
Cyclic (21/7):	Taken for 21 days followed by 7 day HFI
Shortened HFI (24/4):	Taken for 24 days followed by 4 days HFI (COC only)
Extended Cycle or Continuous Dosing:	• **Extended Cycle:** taken every day with 7 day HFI every 3 months • **Continuous:** taken every day with no HFI

Tips in choosing products:

- Most often clinicians start with EE 20 µg, and adjust dose based on side effect or BTB. Lower doses of EE are associated with fewer adverse effects but more breakthrough bleeding. For youth, consider starting with products of 30 µg or 35 µg EE. For women ≥ 35 years, consider products with less than or equal to 20 µg EE.
- All CHC's can improve acne. Antiandrogenic progestins (drospirenone, cyproterone) can also be considered with severe acne. Most of the variability with the CHC's is with the progestins.
- 1st and 2nd generation progestins may have a lower VTE risk compared to the other progestins. Study results have been inconsistent and this remains controversial. Canadian guidelines do not recommend preferential prescribing based upon progestin type.
- The transdermal contraceptive patch may be less effective in women with a weight ≥ 90kg.

Combined Hormonal Contraceptives in Canada

Composition	Product
Monophasic	
1st generation progestins	
EE 10 µg/norethindrone 1 mg x 24d, then EE 10 µg x 2d + HFI x 2d	LoLo
EE 35 µg/norethindrone 0.5 mg	Brevicon 0.5/35
EE 35 µg/norethindrone 1 mg	Brevicon 1/35 Select 1/35
2nd generation progestins	
EE 20 µg/levonorgestrol 0.1 mg	Alesse, generics
EE 30 µg/levonorgestrel 0.15 mg	Min-Ovral, generics
3rd generation progestins	
EE 30 µg/desogestrel 0.15 mg	Marvelon, generics
4th generation progestins/antiandrogenic progestins	
EE 20 µg/drospirenone 3 mg x 24d (HFI 4d)	Yaz, generics
EE 20 µg/drospirenone 3 mg + levomefolate 0.45 mg x 24d (HFI 4d with levomefolate tabs)	Yaz Plus
EE 30 µg/drospirenone 3 mg	Yasmin, generics
Estetrol 15 mg/drospirenone 3 mg x 24d (HFI 4d)	Nextstellis
Biphasic	
EE 35 µg/norethindrone 0.5 x 12d, 1mg x 9d	Synphasic
Triphasic	
EE 30 µg x 6d, EE 40 µg x 5 d, EE 30 µg x 10d/levonorgestrel 0.05 mg x 6d, 0.075 mg x 5d, 0.125 mg x 10d	Triquilar
EE 25 µg/desogestrel 0.1mg x 7d, 0.125 mg x 7 d, 0.15 mg x 7d	Linessa
EE 35 µg/ norgestimate 0.18mg x 7d, 0.215 mg x 7d, 0.25 mg x 7d	Tricira, Tri-Jordyna
EE 25 µg/ norgestimate 0.18mg x 7d, 0.215 mg x 7d, 0.25 mg x 7d	Tricira Lo
Extended Cycle Hormonal Contraceptive	
EE 30 µg/levonorgestrel 0.15 mg x 84d	Seasonale, generic
EE 30 µg/levonorgestrel 0.15 mg x 84d, then EE 10 µg x 7d	Seasonique
Combined Hormonal Contraceptive Patch	
EE 35 µg/norelgestromin 0.15 mg	Evra
Combined Hormonal Contraceptive Vaginal Ring	
EE 15 µg/etonogestrel 0.12 mg	Nuvaring, generics

Products listed in this table are based on current resources. Please check for any changes in availability.

FIGURE 1 (continued)

STEP 3: Patient Education for CHC

☐ Choose a start date

Quick Start:	Sunday Start:	First Day Start:
Start any day of the week (start as soon as pick up prescription). **Back-up** contraception is required for **7 days.***	Start on first Sunday after menstrual period begins. **Back-up** contraception is required for **7 days.***	Start on the first day of the menstrual period. Back-up contraception is **not** required.

*Back-up contraception includes abstinence and barrier methods, such as condoms.

☐ Provide general patient information on:

- ☐ How to use CHC (see table below for route specific information)
- ☐ When to start CHC (Quick start is recommended method)
- ☐ When contraceptive efficacy starts
- ☐ How long to use back-up contraception when starting (for example 7 days after starting)
- ☐ Tips to help remember CHC
- ☐ What to do when CHC dose is missed or delayed
- ☐ Common side effects and management strategies, as well as risks of CHC
- ☐ Safe sex practices regarding STI prevention
- ☐ When to seek medical attention

☐ Create a follow-up plan:

- ☐ Follow-up at 1-3 months or next refill

Route specific patient education information:

COC	Take one pill daily at same time depending on regimen (see Regimens). Discuss daily routines and tips for adherence (e.g. take pill at the same time each day).
Patch	Apply new patch once a week depending on regimen (see Regimens). Apply at 1 of 4 sites: the buttock, abdomen, upper outer arm, upper torso (Do not apply to breasts).
Vaginal ring	Insert a new ring vaginally for three weeks depending on regimen (see Regimens). Rings should not interfere with intercourse. If ring is bothersome to either partner during intercourse, it may be removed and re-inserted after intercourse. Ring should not be left out of vagina for more than 3 hours.

Missed Combined Oral Contraceptive*

1 pill Delayed <24 hours	1 or more pills missed in 1st week	1-2 pills missed in weeks 2 or 3	3 or more pills missed in weeks 2 or 3
Take pill as soon as possible and continue taking pill once daily.	Take one pill as soon as possible and continue to end of pack. Use back-up contraception for 7 days or emergency contraception if unprotected intercourse in the past 5 days.	Take one pill as soon as possible and once daily until the end of the pack. Start the next cycle without a hormone free interval.	Take one pill as soon as possible and once daily until the end of the pack. Start the next cycle without a hormone free interval. Use back-up contraception for 7 days and consider emergency contraception if unprotected intercourse in the past 5 days.

*Refer to the appropriate product monograph for information regarding patch or vaginal ring.

Side Effects

Estrogen Related	Estrogen Deficiency	Progestin Related	Progestin Deficiency
• Nausea • Breast tenderness • Fluid retention • Headaches • Chloasma • Poor contact lens fit	• Early or micycle BTB/ spotting • Hypomenorrhea • Menopausal symptoms (vasomotor, insomnia) • Mood (irritability, depression)	• Breast tenderness • Fluid retention • Bloating • Mood (irritability, depression) • Headache • Appetite changes	• Late BTB/spotting • Heavy menstrual flows • Delayed menses

STEP 4: Follow-up Monitoring of CHC

☐ Assess patient satisfaction:

How do you like your current method of contraception?

☐ Check adherence:

How many pills have you missed in the last week? How have you responded with regards to missed doses?

If using the patch or ring, have you missed any days applying a new patch or inserting a ring?

☐ Ask about side effects:

Have you experienced any side effects? When did they occur?

Have you had any breakthrough bleeding?

How have you been managing these side effects?

☐ Check if changes with health status:

Have you had any changes to your health, such as new medical conditions or new medications?

Has there been a change to your smoking status?

Has there been a change in weight?

☐ Perform Blood Pressure Measurement*

*If BP ≥140/90 → Refer.

Managing Side Effects:

- Most minor side effects will disappear in the first few cycles.
- Always assess for other potential causes of a side effect. These should be ruled out prior to making changes to the CHC.

MANAGING SIDE EFFECTS*	
Breakthrough Bleeding:	BTB is common in the first 3 months after starting a new CHC. If BTB continues past the 3 months or if new onset: • Switch to CHC with higher EE dose OR change type of progestin **NOTE: if on continuous CHC regimen**, hold CHC for 3-4 days to see if BTB resolves (back-up contraception is not required during this timeframe if on continuous regimen). Refer if: ☐ Identified other possible causes for BTB ☐ BTB is heavy and occurs throughout the cycle ☐ BTB continues for longer than 3 months after adjustments in product/dose
Nausea	• Take at bedtime with food. • Change to CHC with lower estrogen dose if possible.
Water Retention	• Watch salt intake. • Change to CHC with lower estrogen doses. • Change to CHC with different progestin, consider antimineralocorticoid progestin (i.e. drospirenone) if fluid retention continuous.
Headache	• Assess when headache occurs, is it while on the CHC or during the HFI with cyclic? • If during the HFI, use continuously. • If while on CHC, switch to CHC with lower estrogen dose if possible. **If severe headache or migraine → Refer.**
Mood Changes	• Switch to CHC with different progestin. **If mood effects continue with switch → Refer.**
Acne	• Acne usually improves with time as most CHC will help improve acne. • If acne continues, switch to CHC with antiandrogenic properties. **If acne severe or continues → Refer.**
Weight Gain	• Assess for other causes of weight gain. • Assess if weight gain is from water/fluid retention. • In studies, weight gain has not been associated with CHC. **If weight gain continues → Refer.**

*Most of these recommendations apply more specifically to COC.

the information flowed well. The pilot participants had additional suggestions that were addressed with subsequent revisions, including a figure with the overall framework and a table of CHC products. The pilot of the online version had similar findings, with the additional recommendation of providing a tool to document assessments and prescribing decisions. Of note, a documentation tool aligning with the practice tool has now been developed and is available at the URL given above.

CHC Practice Tool framework

The CHC Practice Tool follows a systematic approach to take the pharmacist through the steps in assessing patients, initiating a product and providing patient education and follow-up. Pharmacists can use this tool to help guide them in initiating prescriptions for CHC or for ongoing management. The tool also captures when patients should be referred to their primary care provider.

STEP 1: Assess if CHC is appropriate

Taking a patient history is the first step in assessing if CHC is appropriate. Patient demographics include age, as well as weight and height (note that weight and body mass index [BMI] are not needed to determine eligibility for CHC as obesity is not a contraindication).[11,12] A detailed medical history, including current conditions and medications, helps screen for CHC contraindications and tailor the CHC to the individual. Additional information regarding the patient, such as more detailed demographics (e.g., sex, gender, ethnicity), social history (e.g., smoking history) and drug benefit plans, may also need to be gathered if not captured already.

Questions on menstrual history will help identify the timing of the last menstrual period as well as baseline information about the regularity of menstrual periods and the presence of abnormal uterine bleeding, which should be referred. The possibility of pregnancy should be ruled out by inquiring about unprotected intercourse since their last menstrual period. A home pregnancy test can be recommended if there is a possibility of pregnancy, but patients should be referred if there is any uncertainty.

Inquiring about contraceptive use is important to capture what has been used in the past, satisfaction with the method and experience of side effects. This information will help decide among the different CHC products and tailor patient-specific education. It is also a good opportunity to inquire if the patient is interested in a long-acting reversible contraceptive (LARC), as these are the most effective contraceptive options.[11] Common questions to identify if LARC is appropriate include when the patient wants to get pregnant (e.g., not in the next year) and how important it is that they do not get pregnant.[13] Patients who are interested in a LARC should be referred.

Screening should focus on medical conditions that are considered contraindications based on the World Health Organization/Centers for Disease Control and Prevention US medical eligibility.[14,15] Contraindications to CHC should be referred and include conditions that increase the risk of venous thromboembolism (VTE) or cardiovascular disease (CVD) or breast cancer history. Current smoking of 15 cigarettes or more in individuals over the age of 35 is considered an absolute contraindication, as it can increase the risk of VTE and CVD. A history of hypertension or diabetes with complications can increase the risk of CVD. Migraines with aura are absolute contraindications as they are a risk factor for stroke. Since the estrogen and progestins in CHC are metabolized in the liver, severe liver disease is a contraindication.

As mentioned, obesity is not necessarily a contraindication to using CHC. However, some studies have indicated that the transdermal contraceptive patch may be less effective in individuals who are ≥90 kg.[11] The effect of combined oral contraceptives on contraceptive efficacy in women with BMI over 30 is unclear.[11]

Patients with clinically important drug interactions should also be referred. Estrogen and progestins are metabolized by the liver cytochrome P450 (CYP) isoenzymes, specifically CYP3A4 and CYP1A2; therefore, drugs that induce metabolism of these enzymes could reduce contraceptive efficacy. These include drugs such as anticonvulsants (i.e., phenytoin, carbamazepine, etc.), rifampin, St. John's wort and some antiretrovirals.[11,12] The estrogen in CHC can also induce the metabolism of the anticonvulsant lamotrigine, which may result in loss of anticonvulsant efficacy.[16]

It is important to get a baseline blood pressure (BP) measurement, which can be easily measured in the community pharmacy. BP that is 140/90 or over should be referred.

Of note, a progestin-only contraceptive (such as progestin-only pill) may be considered instead of a CHC in situations where estrogen needs to be avoided, for example, in individuals who smoke and are over the age of 35 years or who have migraines with aura.[17] In addition, these are often recommended for individuals who are postpartum and breastfeeding.[17] Most provinces with regulations for pharmacist prescribing of contraceptives include prescribing of progestin-only contraceptives in addition to CHC.[6] A detailed overview of the assessment and management of progestin-only contraceptives is beyond the scope of this article.

Application to your patient: *The pharmacist collects the relevant patient assessment. SL is 136 lb/5′4″ (BMI 23.3). A BP measurement is within the normal range at 122/76. Her medical history includes asthma, headaches and dysmenorrhea. She is currently on budesonide/formoterol inhaler 200/6 mcg 1 inhalation twice daily and salbutamol HFA as needed for asthma and uses ibuprofen as needed for dysmenorrhea and headaches. She does not smoke. SL reports that her last menstrual period was 1 week ago. SL has not had intercourse since her last menstrual period and is not pregnant. SL notes that she sometimes gets mild headaches but has no history of migraines. It is important to clarify headache type, as CHCs should not*

be used in those with migraines with aura. However, benefits of use are considered to outweigh the risks of use in those with migraine without aura, and there are no restrictions for use in those with nonmigraine headaches. SL was previously on the triphasic product containing ethinyl estradiol/levonorgestrel (Triquilar) for 2 months about a year ago. She stopped it because of breakthrough bleeding (BTB) and reports no other side effects. The pharmacist reviews LARC therapy, but SL prefers an oral pill. From the pharmacist's assessment, SL has no apparent contraindications, and there are no reasons that she would need to be referred. The pharmacist considers initiating a prescription for CHC.

STEP 2: Initiate a CHC product

Once the shared decision has been made to start a CHC, a product can be selected. CHCs are available in oral formulations, transdermal patch and vaginal rings. Selection of a specific product should take into consideration *external evidence* (e.g., efficacy, safety), *pharmacist's judgment* (e.g., expert knowledge, experiences) and *patient preferences* (e.g., adherence, noncontraceptive benefits, costs, previous experiences).[11,18]

External evidence

CHC products in Canada contain a progestin and an estrogen. The progestin binds to progesterone receptors and provides the main contraceptive effect by inhibiting ovulation.[19] Progestins bind with various affinity to other steroid receptors, such as androgen receptors.[19] The 6 different progestins used in CHCs in Canada may be categorized by their chemical structure as an estrane (norethindrone, ethynodiol) or a gonane (levonorgestrel, desogestrel, norgestimate). The sixth progestin (drospirenone) is derived from spironolactone and has antimineralocorticoid and antiandrogenic activity. Alternatively, progestins can be categorized based on when they were developed, with the oldest being the first generation (norethindrone, ethynodiol), followed by the second generation (levonorgestrel), then the third generation (norgestimate, desogestrel) and finally the fourth generation (drospirenone). First- and second-generation progestins have higher affinity for androgen receptors and thus may cause more androgenic side effects.[19]

There are 2 different estrogens available in CHC products in Canada: ethinyl estradiol (found in most CHC products) and estetrol. While the estrogen component may add some contraceptive activity, it is mainly used to improve vaginal bleeding patterns.[11]

In general, all CHC methods are equally effective, with 9 pregnancies reported per 100 women in 1 year with typical use.[15] In terms of safety, factors such as adverse effects, contraindications and drug interactions must be considered. Side effects can be estrogen or progestin related or due to estrogen or progestin deficiency.

Pharmacist's judgment

The pharmacist can use the patient information, along with knowledge of CHCs (such as product availability, differences in products), as well as past experience to make choices. The Canadian Contraception Consensus does not recommend a specific CHC product with which to start.[11] Some resources suggest starting with a low (20 mcg) ethinyl estradiol (EE) product to minimize risks, although there are limited data that these are safer than those containing 30 or 35 mcg EE.[12,20] The patient can be followed to see how they tolerate this lower dose. A change to a product with a higher estrogen dose can be made as needed if, for example, intolerable unscheduled bleeding occurs. The Canadian Pediatric Society recommends starting with a product that contains ≥30 mcg EE, as lower doses have been linked to poorer bone mineralization in youth.[21] In terms of the progestin component, some resources suggest that a CHC product that contains a first- or second-generation progestin may be associated with a lower VTE and CVD risk.[22,23] However, other references suggest that the data regarding these risks with different progestin generations are conflicting and the evidence is not strong enough on which to base prescribing practices.[11,20] Although no major differences have been found when comparing monophasic to multiphasic CHCs, some clinicians recommend starting with a monophasic, as these products may have advantages such as use for extended- or continuous-use regimens.[12,20]

Regimens for CHC include cyclic, extended or continuous dosing. The original CHC regimen is 21 days of the CHC, followed by 7 days of a hormone-free interval (HFI), but many new products are using shortened HFI of 4 days or with estrogen only during the HFI. Continuous dosing of CHC is daily dosing without a HFI, and extended dosing is having a 7-day HFI every 3 months. Shortening or eliminating the HFI has some advantages for those individuals who report problems during the HFI or in individuals who do not want a withdrawal bleed. Additionally, shortening or eliminating the HFI may have better contraceptive efficacy in situations where adherence is a concern, as it helps maintain follicular suppression as overall hypothalamic-pituitary-ovarian axis suppression is achieved.[12,24]

Patient preference

As noted in Step 1, data should be obtained from the patient. These data can be used to help determine if there are any patient factors that might affect selection of a CHC product.

Application to your patient: *Based on available evidence, any CHC product would be appropriate for SL. SL has stated that she wants the pill. As noted, SL had taken Triquilar for 2 months but stopped because of BTB. BTB is a common adverse effect of CHCs, especially in the first 3 months of use. If it continues, a change in CHC may be warranted. However, SL stopped the CHC after 2 months, so it is not clear if the BTB would have continued. At this point, this history of BTB does not affect the*

selection of CHC. CHCs may provide relief of dysmenorrhea, so using a CHC may provide a noncontraceptive benefit for SL.

Applying the above information and the "tips in choosing products" in the tool, the pharmacist suggests starting with a CHC monophasic product that contains 20 mcg EE with a first- or second-generation progestin. They choose the combination of 20 mcg EE and levonorgestrel 0.1 mg (Alesse, Alysena), which is the same progestin found in Triquilar. The patient is interested in a cyclic regimen, so the 21/7 regimen is chosen. This can be achieved with a 21-day package of pills (patient restarts the next package of pills after a 7-day HFI) or a 28-day package of pills that contains 7 placebo pills during the HFI. As per the prescribing regulations in their province, the pharmacist prescribes the appropriate amount of combined oral contraceptive.

STEP 3: Patient education for CHC

It is important to discuss when to start CHC, when contraceptive efficacy starts and how long to use abstinence or backup contraception when starting a new CHC. Backup contraception is the use of barrier methods such as condoms to prevent unintended pregnancy. As it will take 7 consecutive days taking the CHC for contraceptive efficacy, backup contraception or abstinence is recommended for 7 days when first starting the CHC.[11] The preferred method to start CHC is the Quick Start as the delay in waiting for a period, such as with the Sunday or First Day starts, can affect continuation rates.[25,26] With Quick Start, the CHC is started on any day of the week as soon as they pick up their prescription, with backup contraception or abstinence required for 7 days after starting.

Discussing what to do with missed doses of CHC is important so patients are prepared if they miss 1 or more doses depending on the cycle week.[11] The most important consideration for missed doses with cyclic 21/7 regimens is not extending the HFI beyond 7 days. If the HFI is extended beyond the 7 days, this could lead to follicular development, enough to result in breakthrough ovulation.[11] Missing pills in the first or third week is the greatest risk for extending the HFI beyond the 7 days.

Common side effects of CHCs and their management strategies should be discussed so that patients know what to expect and how to manage them. It is also important that patients know when to seek medical attention for common side effects or any other side effect that may be indicative of more serious health risks. Patients should be reassured that the risks of CHC such as VTE, heart attacks and stroke are low in healthy individuals, but they should be aware of what to watch for, including pain or swelling in legs or arms, numbness, severe headache, sudden loss or change in vision, chest pain or shortness of breath.[11,12]

Consider follow-up with the patient in 1 to 3 months after they have started the CHC. A good approach for assessment at follow-up is when they come in for their next refill.

Application to your patient: *Using the patient education checklist, the pharmacist covers the important points. The pharmacist indicates that headaches can be a side effect with CHC and usually will dissipate after the first few cycles. For headaches, it would be important to assess if the headache is while on the CHC or during the HFI. The pharmacist is reassured that SL did not experience a headache on her previous CHC. The pharmacist also clarifies that BTB is one of the most common side effects, especially the first 3 months after starting CHC. If BTB continues beyond the first 3 months or if it is a new onset beyond the 3 months, then adjustments to the CHC may need to be considered.*

STEP 4: Follow-up monitoring of CHC

Monitoring of the patient's use and experience with the CHC should be completed as per the follow-up plan in step 3. Patients should be asked about their *satisfaction* with the product and if they like this method of contraception. In terms of *adherence*, several questions can be asked. Instead of asking an open-ended question about adherence, more direct questions may be more helpful, such as, "How many pills have you missed in the last week?" or "How have you responded with regards to missed doses?" Patients should be asked about the occurrence of *side effects*, when they occurred and how they were managed. The pharmacist should also be prepared to provide information to help a patient with side effects they have experienced. The pharmacist should also ask the patient about any *changes in health status*, for example, new medical conditions, changes to weight, changes to smoking status and any changes to medications. Finally, a BP measurement should be taken to monitor for any changes. If the pressure is ≥140/90, the patient should be referred.

Application to your patient: *SL returns to the pharmacy in 3 months for her refill. She has had no headaches with the CHC that was prescribed and is happy with the product. She had some initial light BTB while taking the pills for the first month, but this has now resolved. She has not missed any pills during this time. Her blood pressure is 124/78. As per the prescribing regulations in their province, the pharmacist provides the appropriate amount of CHC for the next refill. The pharmacist mentions that they will follow-up with her at her next refill and to call if she has any concerns.*

Limitations of the tool

Limitations of the practice tool include that it only addresses prescribing of CHC for contraceptive purposes and not for other possible conditions (e.g., acne, dysmenorrhea, endometriosis). This is to align with regulations in some provinces that allow pharmacist to prescribe CHC for contraception only. In addition, the tool provides a series of questions to guide patient assessment, but it is not an all-inclusive list. Pharmacists may need to expand questions in some areas for a more

comprehensive assessment. Another limitation is that the tool will need to be updated at regular intervals to incorporate new evidence, recent guidelines or product changes. Finally, the tool does not cover the assessment and management of other hormonal contraceptives, such as progestin-only contraceptives. This could be a consideration for future iterations of the tool.

Summary

Pharmacists are well positioned to manage contraception. This article describes the development and application of a CHC Practice Tool to support pharmacists in this management. This tool reinforces a systematic approach that considers evidence, pharmacists' expertise and patient preferences. ■

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