

LNG-IUS (Mirena) IUD for emergency contraception

By [Dr. Emma Coffey](https://thischangedmypractice.com/author/ecoffe01/) (https://thischangedmypractice.com/author/ecoffe01/), on April 3, 2023

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What I did before

The copper IUD has a robust evidence base for efficacy for emergency contraception (EC) with an efficacy rate of 99.9% at preventing pregnancy within 7 days of unprotected intercourse (UPI). Its use is supported by SOGC contraception guidelines.¹

However, the copper IUD causes increased menstrual flow, duration, and pain. While there is a niche for copper IUDs, in my experience patients have to be highly motivated to tolerate the menstrual changes. Most patients prefer a levonorgestrel-containing IUS (LNG-IUS; trade names Mirena or Kyleena).

Before, when I saw patients wanting an emergency IUD, I would place a copper IUD, and then if they knew that they didn't want one for the long term or they didn't tolerate it we could remove it after at least one period and place the LNG-IUS they probably wanted in the first place.

This was obviously not ideal as the worst part of an IUD for most folks is of course the insertion process and its immediate aftermath! Not only that, they would then have to pay for two IUDs.

What changed my practice

The 52mg LNG-IUS (Mirena) was found to be non-inferior to the copper IUD for EC within 5 days of UPI in a 2021 NEJM study.²

Patients were randomized to receive either a copper or 52mg LNG-IUS within 5 days of UPI. Among 321 patients who received a copper IUD there were no pregnancies. There was 1 pregnancy in the 317 patients receiving the 52mg LNG-IUS. This met the predetermined criteria for noninferiority. Adverse events were similar in both groups at around 5%.

What I do now

I can now offer patients either the 52mg LNG-IUS (Mirena) or the copper IUD for emergency contraception. I offer copper up to 7 days and Mirena up to 5 days. I tell patients that both are highly effective at preventing pregnancy (>99%). We can now choose an IUD for them in the same way as any other patient, based on their preferences and the side effect profiles of the different options.

Of note, the 19.5mg LNG-IUS (Kyleena) has not yet been studied for EC so I don't offer it in this circumstance. I do reassure patients that the side effect profiles of the 52mg and 19.5mg systems are very similar and most folks will be fine with either.

Many patients don't know that an IUD is a highly effective option for EC. Conversely, most patients (and many clinicians) think that oral EC (LNG or ulipristal acetate) is much more effective than it actually is. UBC CPD has an excellent EC update, a free 75-minute online module (up to 1.25 Mainpro+/MOC Section 3 credits) that goes through the data on this: [Emergency Contraception Update](https://ubccpd.ca/learn/learning-activities/course?eventtemplate=20-emergency-contraception-update) (https://ubccpd.ca/learn/learning-activities/course?eventtemplate=20-emergency-contraception-update).

Make sure your patients using inconsistent or ineffective contraception (condoms, withdrawal) know that an IUD is a great option for EC! In the resources section below there are a few posters or handouts for your practice. I stick these on the wall (along with contraceptive efficacy charts — also in the resources). I find patients often bring up the information since they've been staring at it while they wait for me!

All of us doctors and clinics who insert a lot of IUDs make sure we can accommodate EC patients in a timely manner so if you don't do insertions yourself, don't hesitate to reach out! You can find us on [Pathways](https://pathwaysbc.ca) (<https://pathwaysbc.ca>).

If you don't do insertions but would like to — please consider it! Most parous patients will have a technically easy insertion and you can start with them and build your skills up from there. There is incredible demand and not enough doctors doing insertions. The LARC training courses are in person now. See <https://ubccpd.ca/learn/learning-activities> (<https://ubccpd.ca/learn/learning-activities>) for upcoming workshops. Currently, there is an in-person workshop in Vancouver on May 27: [Implants and IUDs: Comparing and Inserting Long Acting Reversible Contraceptives \(LARC\)](https://ubccpd.ca/learn/learning-activities/course?eventtemplate=489-implants-and-iuds-comparing-and-inserting-long-acting-reversible-contraceptives-larc) (<https://ubccpd.ca/learn/learning-activities/course?eventtemplate=489-implants-and-iuds-comparing-and-inserting-long-acting-reversible-contraceptives-larc>), up to 17.25 Mainpro+ credits.

References

1. Canadian Contraception Consensus Chapter 3 Emergency Contraception. *J Obstet Gynaecol Can.* 2015;37(10 Suppl):S20-S28. doi:10.1016/S1701-2163(16)39372-0 (View with [CPSBC](https://www.cpsbc.ca/proxyauth?url=https%3A%2F%2Fwww.clinicalkey.com%2Fplaycontent%2F1-s2.0-S1701216316393720) (<https://www.cpsbc.ca/proxyauth?url=https%3A%2F%2Fwww.clinicalkey.com%2Fplaycontent%2F1-s2.0-S1701216316393720>) or [UBC](https://go.exlibris.link/fWFRhsy5) (<https://go.exlibris.link/fWFRhsy5>).
2. Turok DK, Gero A, Simmons RG, et al. Levonorgestrel vs. Copper Intrauterine Devices for Emergency Contraception. *N Engl J Med.* 2021;384(4):335-344. doi:10.1056/NEJMoa2022141 (View (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7983017/pdf/nihms-1675637.pdf>).

Resources for patients

EC posters/information:

1. Emergency contraception poster. Contraception and Abortion Research Team – Groupe de recherche sur l'avortement et la contraception, UBC Faculty of Medicine. Accessed Feb 26, 2023. <https://cart-grac.ubc.ca/about-us/emergency-contraception-poster/> (<https://cart-grac.ubc.ca/about-us/emergency-contraception-poster/>).
2. Emergency Contraception: Which EC is Right for Me? The Reproductive Health Access Project (RHAP). Updated October 2022. Accessed Feb 26, 2023. <https://www.reproductiveaccess.org/resource/emergency-contraception-ec-right/> (<https://www.reproductiveaccess.org/resource/emergency-contraception-ec-right/>). Also available in [Spanish](https://www.reproductiveaccess.org/wp-content/uploads/2014/12/emergency-contras_sp.pdf) (https://www.reproductiveaccess.org/wp-content/uploads/2014/12/emergency-contras_sp.pdf), [Simplified Chinese](https://www.reproductiveaccess.org/wp-content/uploads/2013/11/EmergencyContraception_zhCN.pdf) (https://www.reproductiveaccess.org/wp-content/uploads/2013/11/EmergencyContraception_zhCN.pdf), [Traditional Chinese](https://www.reproductiveaccess.org/wp-content/uploads/2013/11/EmergencyContraception_zhTW.pdf) (https://www.reproductiveaccess.org/wp-content/uploads/2013/11/EmergencyContraception_zhTW.pdf), [Vietnamese](https://www.reproductiveaccess.org/wp-content/uploads/2013/11/2016-06_EmergencyContraception-vie.pdf) (https://www.reproductiveaccess.org/wp-content/uploads/2013/11/2016-06_EmergencyContraception-vie.pdf), [Hindi](https://www.reproductiveaccess.org/wp-content/uploads/2013/11/2016-06_EmergencyContraception-hin-copy.pdf) (https://www.reproductiveaccess.org/wp-content/uploads/2013/11/2016-06_EmergencyContraception-hin-copy.pdf).
3. Canadian Guide to Emergency Contraception. Division of Continuing Professional Development, UBC Faculty of Medicine. Revised Feb 22, 2023. Accessed Apr 5, 2023. <https://ubccpd.ca/sites/default/files/documents/Canadian-Guide-to-EC.pdf> (<https://ubccpd.ca/sites/default/files/documents/Canadian-Guide-to-EC.pdf>).
4. Emergency Contraception Patient Handout. Division of Continuing Professional Development, UBC Faculty of Medicine. Revised Dec 16, 2022. Accessed Apr 5, 2023. <https://ubccpd.ca/media/1460/download?inline=> (<https://ubccpd.ca/media/1460/download?inline=>).

Contraceptive efficacy charts:

1. How well does birth control work. Beyond the Pill. UCSF School of Medicine Bixby Center and Bedsider. Updated April 2019. Accessed Feb 26, 2023. *This work by the UCSF School of Medicine Bixby Center and Bedsider is licensed as a Creative Commons Attribution – NonCommercial – NoDeriv 3.0 Unported License.* https://beyondthepill.ucsf.edu/sites/beyondthepill.ucsf.edu/files/Tiers%20of%20Effectiveness_English-043019.pdf

(https://beyondthepill.ucsf.edu/sites/beyondthepill.ucsf.edu/files/Tiers%20of%20Effectiveness_English-043019.pdf).

2. It's a plan — Contraception — Which birth control method is right for you. The Society of Obstetricians and Gynaecologists of Canada (SOGC). Accessed Feb 26, 2023. <https://www.sexandu.ca/wp-content/uploads/2018/09/Its-a-Plan-How-Effective-is-my-Birth-Control-E-1.pdf> (<https://www.sexandu.ca/wp-content/uploads/2018/09/Its-a-Plan-How-Effective-is-my-Birth-Control-E-1.pdf>).

Resources for health-care providers

CPD learning activities:

1. Online module [Emergency Contraception Update](https://ubccpd.ca/learn/learning-activities/course?eventtemplate=20-emergency-contraception-update) (<https://ubccpd.ca/learn/learning-activities/course?eventtemplate=20-emergency-contraception-update>), up to 1.25 Mainpro+/MOC Section 3 credits
2. In-person workshop, Vancouver, May 27, 2023: [Implants and IUDs: Comparing and Inserting Long Acting Reversible Contraceptives \(LARC\)](https://ubccpd.ca/learn/learning-activities/course?eventtemplate=489-implants-and-iuds-comparing-and-inserting-long-acting-reversible-contraceptives-larc) (<https://ubccpd.ca/learn/learning-activities/course?eventtemplate=489-implants-and-iuds-comparing-and-inserting-long-acting-reversible-contraceptives-larc>), up to 17.25 Mainpro+ credits

Find IUD clinics and physicians:

1. PathwaysBC <https://pathwaysbc.ca> (<https://pathwaysbc.ca>).

<p>Please indicate how this article will change your practice:</p> <p style="text-align: center;">IUD for emergency contraception</p> <p><input type="radio"/> I disagree with this approach</p> <p><input type="radio"/> I will consider changing my practice, but need more information/time</p> <p><input type="radio"/> I will likely change my practice</p> <p><input type="radio"/> I will definitely change my practice</p> <p><input type="radio"/> I already do this</p> <p style="text-align: center;"><input type="button" value="Vote"/></p> <p style="text-align: center;">View Results</p>
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7 responses to “LNG-IUS (Mirena) IUD for emergency contraception”

James [Permalink](#)
~~April 5, 2023 (Wednesday, April 5th, 2023, 5:14 pm)~~ at ~~5:14 pm (Wednesday, April 5th, 2023, 5:14 pm)~~
While this study did show non-inferiority, it is still only a preliminary result. No major North American society or governing body (SOGC, ACOG, CDC, Health Canada) has yet to formally endorse the Mirena IUD for emergency contraception, though they do for the Copper IUD.

If one does choose to, pardon the pun, change their practice based on this one study and offer a Mirena IUD for emergency contraception, it would be very wise to council the patient on both the results of the study, and this factoid (and of course, document your counseling).

Manijeh Ghafourian [Permalink](#)
~~April 10, 2023 (Monday, April 10th, 2023, 2:15 pm)~~ at ~~2:15 pm (Monday, April 10th, 2023, 2:15 pm)~~
I am not sure if Mirena is covered by MSP as of Apr 1st, 2023 .

Madeleine [Permalink](#)
~~April 10, 2023 (Monday, April 10th, 2023, 9:27 pm)~~ at ~~9:27 pm (Monday, April 10th, 2023, 9:27 pm)~~
Interesting view.

Emma Coffey [Permalink](#)

~~April 14, 2023 (Friday, April 14th, 2023, 8:17 am) at 8:17 am (Friday, April 14th, 2023, 8:17 am)~~

Hi James, you are correct and I should have explicitly mentioned this in the article – this is an off label and preliminary use of the Mirena IUD based on limited data and I certainly discuss that with my patients and document this discussion. It is not currently a guideline-based use of the device.

We do have a lot of indirect data over the years that supports the idea of a LNG-IUS working as EC – this is the first actual study designed to assess this outcome that I am aware of, but we have a lot of good data that any-day placement in the menstrual cycle, in the presence of a negative urine pregnancy test, has very low pregnancy rates even if the patient has had recent UPI.

Manijeh – this article was written before the announcement of free contraception in BC! All IUDs (Mirena, Kyleena and copper) are covered for all patients as of April 1.

Kirsten Duckitt

[Permalink](#)

~~April 28, 2023 (Friday, April 28th, 2023, 1:44 pm) at 1:44 pm (Friday, April 28th, 2023, 1:44 pm)~~

Very important article as I agree that patients (and some doctors) very unaware of the efficacy of IUD as EC. Most only know about Plan B and not even Ella. Maybe uptake and knowledge will increase now cost is covered.

Katharine Poulter

[Permalink](#)

~~May 14, 2024 (Tuesday, May 14th, 2024, 3:02 pm) at 3:02 pm (Tuesday, May 14th, 2024, 3:02 pm)~~

Is the Mirena in Canada the same as the Mirena in U.K.?

Kirsten Duckitt

[Permalink](#)

~~May 17, 2024 (Friday, May 17th, 2024, 2:39 pm) at 2:39 pm (Friday, May 17th, 2024, 2:39 pm)~~

Yes the Mirena in Canada, the UK and the US is the same but there are now generic versions in the UK, although they are not called Mirena.