# Contraception update

**Tracie Julian:** Good evening, and welcome to tonight's presentation, a contraception update. My name is Tracie Julian. I work in the public health and education team here at Jean Hailes. I'd like to start by acknowledging the traditional custodians of the land we're presenting on, and the lands we're reaching today. I'm in Melbourne, on the land of the Wurundjeri and the Bunarong peoples of the Kulin nation. I recognise the continuing connection to land, water, and culture and pay respects to Elders past, present, and future. For those who don't know, Jean Hailes for Women's Health was established in 1992 with a vision to provide practical, accessible expert health information for all Australian women and girls. In tandem with our consumer education, the organisation also develops educational resources for health professionals, including our webinar series, tools and online e-learning courses. Tonight, in the resource library tab at the top of your screen, you'll find our presentation slides for tonight, along with other useful resources.

We thank you for sending in your questions for the event, and you can also submit questions tonight via the 'ask a question' button at the top right of your screen. Our presenters will aim to answer as many questions as they can, but please keep in mind we have over 800 registered for tonight. They may not get to all of them. If you require a certificate or RACGP points for tonight's webinar, you need to complete the evaluation questionnaire, and a link for this will come up at the end of tonight. Now, it's my pleasure to introduce our panellists for tonight. From Jean Hailes, we have Dr Sonia Davison, who is an endocrinologist, a current president of the Australasian Menopause Society. From Family Planning Victoria, we have Dr Suzanne Pearson, GP and Senior Medical Educator, and the Medical Director of Family Planning Victoria, Dr Kathleen McNamee. So welcome and thank you. We'll start with Suzanne tonight, who'll be starting the presentation. Thank you.

**Dr Suzanne Pearson:** Great, thanks so much, Tracie. It's lovely to be with you all tonight. Okay. So in the webinar this evening we're going to be talking about, obviously it's a contraception update, I'm going to be talking about the contraception options, and also run through the efficacy of those methods. We'll be touching on the importance of considering diversity of sex and gender for contraception consultations, and I'll also be explaining the UK Medical Eligibility Criteria. Then I'll be passing on to Kathy, who's going to be covering what's new in contraception, with a focus on the contraceptive implant, IUDs and the progestogen-only Pill. We've got three case studies for you tonight, so I hope that you stay on to hear all of the case studies. We're going to be presenting a young person case study. Sonia's got a couple of great case studies which include some more endocrinology-focused type of issues, as well as perimenopausal contraception. We are going to have some time at the end of the session for all of your questions. We'll answer as many as we possibly can, and we will be keeping questions to the end of the session. So again, hoping that you'll stick with us so that we can answer your question.

So what I'd like to do is start off by showing you the Family Planning Alliance Australia contraceptive resource, which has got a focus on efficacy. So this is a resource or card that's been developed to help you to show your patients all of the different contraceptive options and how effective those methods are. So let's have a quick look through this resource. If we have a look at the top row, we've got the most effective methods, so they're over 99% effective. And so for one year of use, the chances of getting pregnant for users of those methods is less than one in a hundred. First of all, we've got the contraceptive implant, which is available as Implanon NXT, and that lasts for up to three years. We've got the hormonal IUDs, which last for up to five years, and Kathy will be telling us more about the two different options that we have available.

We've got the non-hormonal copper IUD. There are various types and they last between five or 10 years. We've also got the permanent methods, so that's tubal surgery and vasectomy. Now if we have a look in the middle row, we've got the methods that are, sort of, medium efficacy and they're between 93 and 99% effective in typical use. So they work well if used perfectly every time, but they're much more vulnerable to user error and to mistakes and forgetting. So that's why part of the reason they have a lower efficacy. So we have here the contraceptive injection or depot injection, which is given every 12 weeks into the muscle. We've got the vaginal ring, which is a combined method, it's got oestrogen and progestogen, and that's a ring that the user inserts into the vagina, leaves it in for three weeks, typically will then remove for a week's break and then insert a new ring after that time.

We've got the Pill, or the combined hormonal pill, which contains the two hormones, oestrogen and progestogen. A we've also got the progestogen-only Pill, which is often referred to as the mini pill. Having a look at the lower row, we've got the less-effective methods, which have got a more variable typical use efficacy. We've got the condoms, both external and internal, and we've also got the diaphragm, which is now only available in Australia as a single size. It's called Caya, and it also comes with a gel that's to be used with the diaphragm. There are also fertility awareness methods, and also 'pulling out' all the withdrawal method. So for these methods in the lower row in one year, the chances of getting pregnant can vary between one to 24 in a hundred. So as you can see, they can be much less effective for some users. This card is available on the Family Planning Alliance Australia website and all of the different Family Plannings in the different state and territories across Australia as well.

Let's have a little look at the long acting reversible contraception methods, or LARC methods. So the LARC methods that we have available are the implant, the IUDs, both hormonal and copper. So the contraceptive implant is inserted under the skin in the upper arm and it lasts for up to three years. It's 99.95% effective, and it is PBS listed. The hormonal IUDs, we've got two different types now, Kyleena and Mirena, and they last up to five years. So 99.7 and 99.9% effective for those two methods. And then we've got the copper IUD, which is 99.5% effective. Most copper IUDs last for five years, but the Copper T standard lasts for 10 years. Now the copper IUD is not PBS listed, so it's private script and is a little more expensive than the hormonal IUDs, which are PBS listed.

Family planning organisations recommend LARCs as first line choices for contraception for people of all reproductive ages. So why do we make this recommendation? There's quite a lot of research to back up the benefits of recommending LARC. So let's just have a look at the contraceptive CHOICE project, which was a large study conducted in the US where they recruited almost 10,000 people who were willing to either change their contraceptive option or to start a new method of contraception. These people were also provided with the information about LARC methods and they were provided their contraception of choice at no cost. So in this study, they found that 75% of people actually chose a LARC when they didn't have any barriers to accessing LARC, and they also found that the users of LARC had the highest satisfaction rates amongst all of the different methods. One of the really key findings of this study was that those who used a non-LARC were actually 20 times more likely to have an unintended pregnancy compared to those who chose a LARC. So you can see that there's a really significant difference in unintended pregnancy rates depending on which method is chosen. Another thing that we know is really important with contraceptive methods is the continuation rate, because that reflects partly satisfaction and ease of use of the method. And so the CHOICE study found that the IUD and the implant had higher continuation rates across the study than, for instance, the Pill or the depot injection.

Now I know that many of the people in the audience will be quite familiar with this information, but I think it's always good to remind ourselves about being inclusive of patients who are diverse in their gender. So when we're thinking about diverse gender, we're thinking about people whose gender identity differs from the gender that was assigned at birth. And for some of these people, they may access gender affirming hormone therapy and/or surgery. So for us, a key thing is to avoid assumptions about people based on their gender. And so asking questions about sexual practices can help, and also remembering to ask people about their fertility plans and desires as well, no matter their gender identity. So one thing that we can do to be inclusive in our practice is to consider this when we're finding out about our patients, and to be respectful about their gender identity and to use the correct pronouns. So recommend that you can ask the individual patient that you have with you what pronouns they use and then continue to use those pronouns for them.

Now I'd like to move on to the UK Medical Eligibility Criteria, which is a really helpful system that helps us to prescribe contraception safely. The UK MEC has got four different categories, so it's MEC 1, MEC 2, MEC 3, and MEC 4. So starting off with MEC 1, for this category, for the condition for the patient, there's no contraindication for use of that method. So an example of that would be, the method of an IUD and a patient who's nulliparous. So there's no contraindication, that's quite safe to use, and so that's something that we would use without concern. MEC 2 is where the benefits generally outweigh the risks. An example of that would be a patient who was wanting to use a progestogen-only method and they had a past history of venous thromboembolism. So in that situation, the benefits will generally outweigh the risks and it would be usable.

When we have a couple of MEC 2 categories for the same patient for the method, then we need to think about whether those MEC 2s are related or whether they're sort of separate and don't increase the risks. So just a bit of an example, if we were to have this patient who's looking for the implant and has a history of VTE, if they also had a MEC 2 category for being a carrier of a BRCA gene for instance, so that would be relevant to their breast cancer risk, then we wouldn't be concerned that those two MEC 2 would be combining, because one's about VTE and one's about breast cancer risk. Whereas another example where we would be more concerned would be, for instance, an example where we had a patient who was looking to start the combined Pill and they had several MEC 2 risk factors for arterial disease.

So as an example, if they had a young person who was a smoker, they also had diabetes and they also had a BMI between 30 to 34, they're all MEC 2, and so because they're all relevant to arterial disease, we would be concerned that the risk is higher and it would be equivalent to a MEC 3 or 4. So a MEC 3 is where the risks generally outweigh the benefits, and in this situation we need to be careful about prescribing. We may want to consider specialist input. And also really key is thinking, is there another method of contraception that would be more suitable and safer for our patient? So an example would be a patient for the combined hormonal method like the Pill and their BMI is over 35, so that would be a relatively strong contraindication for that method. Lastly, we've got the MEC 4, which is an absolute contraindication, and these are fairly straightforward because we would not be prescribing in this situation.

And a really common example that we see quite a lot in our clinics, and I'm sure you do too, is patients who have migraine with aura who might be either on or starting looking to start the combined hormonal pill or ring. And so that would be an absolute contraindication and definitely worth looking then for another method, like a progestogen-only or potentially a non-hormonal method for that patient. So I just wanted to show you what the MEC tables look like. This is a screenshot taken from part of the UK MEC summary tables, and here I've highlighted the condition of venous thromboembolism. Across the top row we've got the different contraceptive options listed, and if you look down the table, you can see that for a person with a history of VTE who's looking for a progestogen-only method like the levonorgestrel IUDs, the Implanon, the depot injection or the progestogen-only Pill, but they are a MEC 2, which means the benefits generally outweigh the risks, whereas if we were to look at the copper IUD for the same patient, it's a MEC 1 which is suitable for use, whereas the combined hormonal methods are MEC 4, which means it would be an absolute contraindication.

So at this point I'm going to pass across to Dr. Kathy McNamee. Kathy's the Medical Director of Family Planning Victoria, and she's going to be speaking with us now about what's new in contraception with a focus on the implant IUDs and progestogen-only Pill.

**Dr Kathleen McNamee:** Thanks Suzanne, and thanks to Jean Hailes for asking you to be here tonight. So I'm just going to cover a couple of different things that are reasonably new about contraception. Some of them you might have heard of, some of them you might not have. Just wanted to point out that there was an update to the Implanon NXT product information in early 2020, and that there's a change to the way you position the arm and where you insert the implant. So you have the non-dominant arm flexed at the elbow, and the hand underneath the head. You actually insert the Implanon 8 to 10 centimetres proximal to the medial epicondyle, 3 to 5 centimetres posterior to the sulcus, over the tricep. So previously we were inserting them in the sulcus, and you can see from the second picture there, it's actually below the sulcus and over the triceps. The reason for the change in this was that there were extremely rare cases of intravascular implant placement and the Implanons ending up in the lungs.

This site was chosen to try and reduce the risk, to minimise it as much as possible. And that was done through a big study looking, or not such a big study, but a study looking at arm vessels, cadaver samples, and seeing where the vessels were. So if you're replacing it, a new implant can be inserted in the same arm and through the same incision if the site's correct. Otherwise you need to re-site the implant. If you can't find the implant in the arm, and we've seen all sorts of things, I saw one woman who had this massive scar, like at least two feet long scar, looking for the implant on one side of her arm and it was actually in the other side and actually easily palpable. So I think that's really important. But if you can't actually feel it and you've got the correct side, you need to think about chest radiography to see if the implant's there. You can actually have blood sent to get etonogestrel levels, but it actually has to be sent to Denmark and it's quite a complex process. And you can see there's a link to videos for the implants there.

Just another thing, Family Planning Australia has a clinical reference group and we've put out a number of statements, and you can see those on most of the family planning organisation's website. You can see them on ours. And we put out one in relation to obesity and contraceptive implant use. You may be aware that the product information suggests that you should replace the implant in the second year of use, after the second year of use, in heavier women. It doesn't actually define what a heavier woman is. So our recommendation is that regardless of BMI, the implant should be changed every three years. There's no indication to insert two implants, and the implant is an effective method of contraception for people who have a raised BMI. The reason that we decided on this is that overweight people aren't overrepresented in the failures, and the implant actually has a fairly good safety level in terms of looking at the hormone levels of the implant. People who have a high BMI tend to have a slightly higher hormone, lower hormone level of etonogestrel, the implant, but we think it should be high enough to suppress ovulation.

So as many of you will be aware, Kyleena came onto the market in 2020, the 19.5 milligram levonorgestrel IUD. In a head-to-head study, the efficacy was similar to the levonorgestrel IUD, 99.7% versus 99.9%. It's licensed for five years of use, PBS listed, and there's a silver ring at the neck of the stem. So on an X-ray that would actually show up if you are wondering exactly what type of IUD the person had in there. FPV has developed a hormonal IUD comparison chart and there's a link there. So just comparing the hormonal IUDs, they perform pretty similarly. There are some key differences. They both reduce bleeding and spotting days with time. After five years of use, the 19.5 milligram levonorgestrel IUD has an amenorrhoea rate of about 23%, whereas the 52 milligram is 30 to 40%. They're slightly more likely to have irregular bleeding with the 19.5 milligram levonorgestrel IUD.

It's really important to explain the bleeding pattern beforehand, and likely to have around about three months of a lot of bleeding in between their periods, and gradually their periods get lighter and lighter, and most people live with a light regular bleed or no bleed at all. In the head-to-head study, there was a similar reduction in pain in those who used the 19.5 versus the 52 milligram. However, people weren't specifically chosen for dysmenorrhoea. The study wasn't looking at dysmenorrhoea. And of those who had dysmenorrhoea, 45% had no dysmenorrhoea baseline, and this improved to 80% having no dysmenorrhoea by three years. In the study, the hormonal side effects were very similar between the two IUDs, which is a little bit surprising because the 19.5 milligram levonorgestrel IUD has about half the serum level of levonorgestrel as 52 milligram does. But the way the study is done may have had something to do with that. People will ask pretty basic questions about whether they had any acne or not, or whether they had any breast tenderness or not. It was quite a digital thing, whereas perhaps within more nuanced studies specifically looking at those areas, it's possible that we might see a difference. We don't really know yet.

So this is just looking at the mean bleeding and spotting days. And you can see that the blue are the bleeding days and the orangey colour is the spotting days. So you can see that most people are getting a big reduction in their bleeding and spotting days. And you can see that it's just a little bit better for the 52 milligrams compared to the 19.5 milligrams. But they're a fairly similar sort of pattern. In terms of head-to-head and the number of people who discontinued in each arm, and this study was only up to three years though, very similar numbers in both. And for me that's always a really good indicator of how, people are voting with their feet there. So there may be some reasons that people stopped using the 19.5 milligrams that were different to the 52, but overall the number who discontinued were very similar.

So just choosing between IUDs, there's a number of things to consider. One of the things that we're seeing at the moment is, particularly in young people, we seem to be seeing it, they just don't want hormones. So really they only have a copper IUD. And sometimes they'll come in with very heavy bleeding but they're very determined and want a copper, and I suppose as long as they can keep up with their iron, it is really their choice. So the duration of use, most of them are five years, although as Suzanne mentioned, the Copper T has 10 years use. In general practice, we generally recommend using a Load IUD and that's a five-year one. It's a good all-rounder. We have the luxury of being able to choose the IUD after we've examined the person and sounded their uterus, which you usually don't have in general practice.

The other thing to consider is that you can have extended use. With the 19.5. you can't. With the 52 milligram levonorgestrel Mirena IUD, if someone's 45 or older at the time, you basically leave it in until they're 55. You can make a case for continuing beyond 55, for example, if they're continuing to have regularly periods or regular symptoms that suggest that they're ovulating, family history of late menopause, but generally we'd say it would be safe to take out at 55 years. The exception to that is if they're using menopausal hormone therapy, and in that case the Mirena must be replaced every five years. Copper IUDs, once someone turns 40, whether it's a five or 10 year copper IUD, it can be left in until menopause, basically.

I've really covered this, that the 52 milligram levonorgestrel IUD is licensed for endometrial protection with menopausal hormonal therapy. Frame size. The Kyleena has a slightly smaller frame size than the Mirena, and with the copper it varies between the devices. The Mirena is licensed for heavy menstrual bleeding. We don't really know how Kyleena will perform in those with heavy menstrual bleeding. We know it certainly reduces menstrual bleeding, but it hasn't been specifically studied in populations who have heavy menstrual bleeding. People with a Mirena are more likely to have ovarian cysts on ultrasound. We think these are harmless, and if you happen to actually do an ultrasound on someone with a Mirena, they're more likely to have a cyst than someone with a Kyleena. And someone with a Kyleena is more likely to have a cyst than someone without a levonorgestrel IUD.

There's no evidence that these people are more likely to need treatment for ovarian cysts, and it's normal for ovarian cyst to come and go. One problem with IUDs, if someone conceives, is that particularly for the hormonal IUDs, there's a very good chance that the pregnancy will be ectopic, and you really need to have your eye on the ball for that. Particularly as sometimes the bleeding can be a little bit confusing and you may not actually think of pregnancy straight up. So we'd say it's really important if someone has a change in their bleeding or pain with a hormonal IUD to think of a pregnancy test, it's cheap and simple. With the copper IUDs, it's lower, it's about 15%, but because menstruation is not affected, it should be easier to diagnose. So just in terms of choosing between them, the Kyleena does seem to be a little bit easier to insert than the Mirena.

I felt a little bit cynical about this because it was a non-blinded study. The inserters knew which IUD they were actually inserting, and one of the difficulty is that most of the insertions for IUDs are easy, so you need a very large number to tell whether there's a difference. And the biggest difference was that the pain was mild or none in 58% of the Kyleena insertions, compared with 72% of the Mirena. So you've got a, and the other thing was this study was that the diameter of the Mirena was slightly wider than the diameter of the Mirena that we have today. But since I've been using the Kyleenas, I actually feel they're very easy to insert, and I've had a couple of circumstances now, we actually have spare IUDs at our clinic where I haven't been able to get a Mirena in and I was able to get a Kyleena in.

So I think that's something to consider. Whether they're going to be better for nullips, we don't really know. You'd think logically because they're a smaller device, they might be, but we're not sure. So which may be preferred? So if someone's 45 or older, obviously you're going to go for the one with the extended use, if they're using menopausal hormonal therapy. If they have very heavy bleeding, although we can't be sure that Kyleena doesn't work in this circumstance, we certainly know that Mirena does. Not needing contraception, so if it's for another indication. So Mirena has an indication for heavy menstrual bleeding, whereas Kyleena doesn’t'. If they have endometriosis, adenomyosis, dysmenorrhoea interfering with daily activities, the Mirena is preferred. It's actually been studied in all of these populations and as shown to be effective, whereas we don't really know with the Kyleena. You might choose the Kyleena if they're concerned about hormone exposure, they've had a previous painful insertion or they're particularly concerned about the pain associated with insertion, and that can be quite a barrier to some people. Perhaps if they're nulliparous, we don't really know yet. Copper IUDs, non-hormonal, so there are no hormonal contraindications that you need to consider, for example, current breast cancer is a MEC 4, past breast cancer is a MEC 3, and they also can be used for very effective emergency contraception.

Just a few IUD myths that we hear, that they must be inserted during menstruation. We just basically insert them anytime we can exclude pregnancy, and we've never actually had, that I know of, a pregnancy, an inadvertent pregnancy with an IUD. We are very particular about trying to exclude pregnancy, I mean, someone who was actually pregnant at the time the IUD was inserted. Cannot be inserted in nullips, the last time we looked, and that was a few years ago, more than 60% of ours were in nullips. I'd say it's probably more like about the 70% mark now. We do most of our IUD training in nulliparous women. Can't insert with a past history of PID, it's actually a MEC 1. Cannot insert if there's a past history of an ectopic, that's actually a MEC 1 . Although if someone has had an ectopic, I would actually talk to them about it because it is a risk factor for ectopic pregnancy, but because they're such extremely effective methods of contraception, they might be better than a method, say, that the Pill, that's less effective but just has the standard rate of ectopic pregnancy if someone conceives. We think that we are very likely to get a new progestogen-only Pill in Australia, which is actually very exciting.

A number of you will be familiar with Cerazette, which is available in a number of countries and which primarily acts by stopping ovulation. There's no sign that we're going to get Cerazette, this is something completely different. It's a drospirenone Pill, 4 milligrams. It's a 24/4 formulation, so 24 days of active pills, four days of no pills or sugar pills. We think it's going to be a private script if it becomes available, and the cost's unknown. And its primary action is to inhibit ovulation. So unlike the current progestogen-only Pills, which have a three-hour leeway to take, this will have a 24-hour window. So if you take your pill at 8:00am, you take it Monday, forget Tuesday, wake up at 7:30 on Wednesday, that's still absolutely fine because you're within the 24-hour period. There haven't been any head-to-head trials with the combined Pill, but it may be a little less effective than the combined Pill.

There were two studies, one that showed quite a similar efficacy to the combined Pill, maybe just a tiny bit, like 99.2, whereas we would say the Pill is 99.5. The other one which had a number of problems associated with it, very high dropout rate, it was 97, but we're expecting a reasonably high efficacy with it. The cycles are usually acceptable. You won't have the same regular bleeding pattern as you would have with the combined Pill, and by cycle 13 about 40% will have unscheduled bleeding or spotting, but it's usually light and infrequent. And about 25% are amenorrhoeic, and there's a decline in dysmenorrhea. So we are looking forward to this hopefully coming onto the market. Okay, back to Suzanne. Oh, you are on mute, Suzanne.

**Dr Suzanne Pearson:** Thanks Kathy. Sorry. So we're going to go through our first case study now, which is Maddy. So Maddy's a young person, she's age 16. She comes into the consultation on her own today. Maddy uses pronouns 'she/her', and when you take a sexual history from Maddy, she tells you that she's been sexually active for six months and that she uses condoms most of the time. She's coming to see you today because she's recently had a pregnancy scare. She was doing exams at school and her period was a week late and it made her very stressed. So even though her periods now come and she's not pregnant, she's come in because she thinks she would like to start a more reliable method of contraception.

So a little bit more about Maddy. She lives with her parents, doesn't have siblings. Her parents are not aware that she's sexually active. She's a school student keeping up with studies and has a friendship group. Although she doesn't have any hobbies, she works casual shifts at a local supermarket. Maddy tells you that she has two male partners. She currently has a boyfriend and the sex is consensual. And she estimates that they use condoms about 90% of the time that they have vaginal intercourse. Maddy's periods are usually regular and she does have some dysmenorrhea for one to two days of each cycle. Her BMI is 24 and she is a bit worried about weight, so that's a concern for her with her contraceptive choice. And she's non-smoker. No significant medical history, and there's a family history where her maternal grandmother was fairly recently diagnosed of breast cancer at age 65. And just wondering, Kathy, is that something that you'd be concerned about, that family history?

**Dr Kathleen McNamee:** No, we would look at that as a MEC 1.

**Dr Suzanne Pearson:** Yeah, great. So I guess being just one family member at that age, it doesn't increase her risks. That's not a barrier to her accessing different methods. That's great. So we do often get asked at Family Planning about, how do you do contraceptive consultations with young people? They can be, sometimes feel a bit of a challenge. So I think these are some of the things just to consider in your consultations. First of all, really, confidentiality is key. So, one thing that I'd really encourage you to do with your young patients is to explain at the start of the consultation that it is a confidential or private consultation and that you won't share the information with others unless there is an exception. Typically I'd say something to Maddy like, 'What we discuss today is private or confidential, only the clinical staff have access to the records where I'm going to be making some notes.

It's possible that I may need to talk to someone else if there's a significant risk of harm to you or to someone else, but I'd have a conversation with you if I felt that that was the case,' so that they know that if we did have concerns that we're going to involve them in that information. For young people, we can do a mature minor assessment, which is where we can, this is for patients who are under the age of 18 years, to see if they can consent to medical treatment without involving a parent or carer. So to be assessed as a mature minor, the person needs to be able to understand the nature and the consequences of what's being prescribed. So we do that throughout the consultation with our history taking, discussing the options to see whether they are able to have that understanding. And I think typically we find, is that someone of the age of around 16 who is presenting because they're concerned about their risk of pregnancy, and they're seeking that out for themselves, that's a really good sign that they're pretty likely to be a mature minor.

And then of course we need to keep in the back of our mind that, as healthcare professionals, that we have mandatory reporting of any child abuse. So we do need to consider that when we are seeing young people. So generally that's around the risk of harm or abuse. So if we are concerned that there is that significant risk of harm or abuse, then we may need to report. So it's not about underage sex per se. If it's consenting then it may not be required for mandatory reporting. And then I've just put a link there to the Australian Government website because, in fact, there are some differences in mandatory reporting requirements depending on which state or territory you're working in.

So what would be the approach to Maddy? So as I've mentioned, I think it's a really good practice to explain confidentiality at the start of the consultation, and as you are doing the consultation you'll be doing things to make that mature minor assessment. You might do a HEADSS assessment, you'll find out a bit more about Maddy and get a sense of whether she is understanding her options. It's a really good opportunity to provide information about emergency contraception and condom use. Many people don't know that emergency contraceptive pills are available over the counter without a prescription, and so it's just good for people to be aware of that. Also that condom use would be good to continue for someone like Maddy because it will help to reduce her risk of sexually transmissible infections. So also a good opportunity to talk about STI screening. And so for someone like Maddy, I'd be interested in offering her, for instance, a chlamydia screen with a first pass urine or vaginal swab, which could be self-collected or collected by the doctor.

With any patient with contraception, but obviously particularly with a young person, I would want to routinely discuss LARC with my patients. So the sorts of things that I would do in a consultation to discuss LARC would be to normalise the use of LARC. So let my patient know that many other young people are choosing LARC methods, implants and IUDs, to normalise that sort of choice. It's really important to provide accurate information to patients and to dispel any myths that they might have about the methods. They might've heard some stories through friends or family, and just to find out what they know and to try and provide evidence-based information there. It's really great, I find it's really helpful just to explain to people that LARC methods are really convenient, so they don't need to remember something on a daily basis or necessarily have that something associated with sex that they might be needing to remember to have that contraceptive method. And that they've got really quite good protection from pregnancy, which can really reduce that sort of stress level that Maddy's having at the moment For young people, if they're not quite sure about contraceptive choice, I say look, it's not a big commitment to choose a LARC method, we can always remove them.

So if the person's not liking their LARC, if they're having side effects that they're unhappy with, obviously I'd be very happy to remove that LARC when they choose to do so. So it's not a big commitment. And then also with discussing LARC, let your patient know how they can access their LARC and what the timing of that might be. So is that something that can do through you, or do you think that, will they need a referral for that? So all of that's going to be really good things to include in a consultation with Maddy. And then we're also going to be thinking about whether there's any medical eligibility criteria that might affect the choice as well from a safety point of view. So we're going to have a think about that. I'm actually going to pass to you, Kathy if I can now just to talk through Maddy's case, with regards to MEC and contraceptive options.

**Dr Kathleen McNamee:** Thanks Suzanne. So you can see from this, it's all looking pretty good for Maddy, it's either MEC 1 or MEC 2. I've got the implant at the top of the list because that's just so straightforward. Often with a LARC it comes down to a choice between a hormonal IUD and an implant. And I'd usually say to the person that if a hundred people your age had the implant put in, a hundred had the hormonal IUD put in, at the end of the year, most people would be happy with their choice, but there would be more people who were happy with their choice in the hormonal IUD group. However, Implanon is so straightforward, I can, sort of, put it in today. I can guarantee almost that I'll get it in without a complication, not that you likely to have an IUD complication, but about 5% we can't get in.

So I always encourage that it's worth a try, because there's a good chance they'll be one of the ones that it suits. The IUD is also a first line method even though it's a MEC 2 for people under 20. And the reason for that is just from an epidemiological point of view, that they're at a high risk of chlamydia. That's a little, sort of, odd because we are not even sure that having chlamydia, we know that if you have a hundred people with an IUD with chlamydia and a hundred people without an IUD without chlamydia, that the outcomes for them are the same, that we wouldn't expect that there'd be more PID or tubal damage in the group with the IUD. But there's still just a little bit of concern over that, so that's why it's MEC 2, not the fact that she's nulliparous, and it's certainly a first line method in young people, and we insert quite a few in teenagers, occasionally 14, a few 15, quite a few 16 and 17 year olds.

The combined Pill is MEC 1, and it has the advantage of that she can stop it and start it whenever she likes. We might not see that as an advantage, but she might, and she's got that good cycle control and there may be some benefits in terms of acne. The depot injection is a MEC 2 and it's quite low towards my choice as a first line. It's got some excellent qualities in that there's quite a high chance of amenorrhoea, it's a very private method of contraception. But the thing that I really don't like about depot is that it's got quite a low continuation rate, and the problem with that is that people don't have a timeframe that it runs out in. Well, if they remember that it stops working after 12 weeks they might, but people often don't think with that, like whereas with the Pill, if you stop that you know you've stopped,

if you've had your implant out or your IUD out, you know that it's out, whereas the depot just slowly wears out. The other disadvantage with depot is that it's the only method that we know is associated with weight gain. There's about a 25% chance that she will gain more than 10% of her body weight in the first year of use. And the reason it is MEC 2 is that depot reduces bone density. We know it reduces it in all users. We think it recovers. The limited information that we have for people under 18 is that the bone density should recover. It's not such a concern about fractures. We don't have good evidence that depot increases the risk of current fractures. It's more about when someone gets to 65, if they had a depot injection when they were 15, whether that makes any difference to their bone density, and we don't think it does. Progestogen-only Pill, the ones that we have available in Australia are MEC 1, but I would look at that as a real second line as well.

The limited evidence we have suggests that it's less effective in younger, more fertile people, and the three-hour leeway is very strict with the progestogen-only Pill. So just thinking in things specific to Maddy, it would be great to get her a method that she could start straight away. So we would often quick-start the implant. We've got a pharmacy nearby and we've often got the flexibility to get the implant in the same day. If you haven't excluded pregnancy, it doesn't matter, because we think the unintended pregnancy rate, if you send people off and get them to come back with their period, is higher than if you insert on the day even though you don't exclude pregnancy, because it's hard for them to get back at the right time. So we would insert on the day, we'd do a pregnancy test, insert on the day and we would give her a pregnancy test to take home and do in four weeks’ time and we would send her a HotDoc text reminder.

Maddy has some dysmenorrhea, so all of the methods there except for copper IUD, which at best will not improve dysmenorrhea, may make it a little worse, will actually help with dysmenorrhea. The progestogen-only Pills that we currently have available in Australia won't help with dysmenorrhea. The implant is excellent for dysmenorrhea, as other hormonal IUDs. Bleeding. The advantage of the Pill, which we'll talk about in a minute, is that she has the ability to control her cycles. With the implant she's got about a 55% chance of getting quite a good bleeding pattern, either no bleeding or quite limited bleeding. She's got about a 20 to 25% chance of having probably a quite unacceptable bleeding pattern where she gets frequent or prolonged episodes of bleeding. Unfortunately, there's nothing we can do to predict who will get what. Weight gain we've mentioned. Privacy, depot is the most private method, and IUD is very private as well, although there might be some difficulties getting time off school for the insertion, whereas I suppose with the Pill there's always that concern that someone's going to find the Pill packet. And then you need to consider the other benefits of the methods, which I think we've largely discussed in terms of acne, with the Pill cycle control, and dysmenorrhea and decreased bleeding.

So if Maddy chooses the implant, if we quick start, if she's day one to five of her cycle it's immediately effective, but if not, if we can't exclude pregnancy, and just to remember, a negative pregnancy test doesn't exclude pregnancy because it can take up to three weeks from an active of unprotected sex for a pregnancy test to become positive. We've mentioned the bleeding patterns. Other side effects are things like breast tenderness, headaches, acne, although it may actually help with acne. People do also complain of weight gain and mood changes. However, overall there's no evidence of weight gain. Although some people might lose weight, some people might gain weight. In terms of risk, the only real risk is the deep insertion, that we know of. It's been around for about 20 years now and we aren't finding out that there are serious risks with the implant.

If she chooses an IUD, you'd need to explain the procedure, just the importance of interim contraception because we can't quick start an IUD. We really do need to exclude pregnancy before inserting the IUD unless we're using it as emergency contraception. We talk about the expected pain, bleeding patterns. For nullips, I usually say that they're most likely to be uncomfortable for one or two days. Sometimes that stretches out a bit and it's not unusual to have crampy pain that goes on for a few months. It's usually not dreadful pain, but it's just letting them know that the IUD is there. Talk about the possibility of hormonal side effects if she chooses a levonorgestrel. And my experience is they're more common at the start if they're going to get them, when the hormone levels systemically are a little bit higher.

So things like headaches, acne, breast tenderness. We need to talk about checking for the string. Really important to do that. The risks, mostly perforation, expulsion and us being unable to get the IUD in. And how an IUD insertion can be accessed. In Victoria we have 1800 My Options, where you can look up practitioners who insert IUDs. If she chooses the combined Pill, you need to do a BMI and a blood pressure as examination. You need to consider contraindications. And in terms of the implant and the hormonal IUD, the only real contraindications are current, or MEC 3 or 4 are current or recent breast cancer or past history of breast cancer in the person themselves. Severe liver disease. So there's very few. There are some drug interactions to consider with all the methods except with depot. Whereas the Pill, there are quite a few more contraindications that you need to consider.

And the other thing that I think is really important is the family history. That doesn't really matter for the other methods, but if they have a first degree relative under 45 with their first blood clot, that's actually a MEC 3 to use the Pill, at a minimum. So we would generally quick start with the Pill even if we can't exclude pregnancy. Again, ask them to do a pregnancy test. Starting with an active Pill, effective after seven days. Talk about side effects. They're similar to the general ones that we've already mentioned and it's quite common to get some irregular bleeding at the start, in particular, it generally settles down. The risks are deep vein thrombosis, very small increased risk in heart attack and stroke. We do think there probably is a small increase in the risk of breast cancer, but for someone her age, because their background risk is so low, it's sort of negligible.

And there is a small increase in the risk of cervical cancer, however, Australia, we have excellent screening, excellent vaccine programs, that's probably not such an issue here. You need to think about things that can make the Pill less effective. Number one, not taking it. And the other things to consider are vomiting within three hours of a pill, very severe diarrhea, drug interactions. That's mostly some of the antiepileptics which induce liver enzymes. St John's wort, which you can buy from Woolworths. Continued supply. They can actually go to the pharmacy and get a continued supply if they've run out. And last thing I want to talk about is tailored regimes and skipping periods. So the standard way to take the Pill, depending on how they're packaged, is usually a 21 or 24 day active Pills followed by four to seven day hormone-free interval. You can take the Pill in all sorts of different ways. One of the things that's gaining traction, particularly in the UK, is actually just changing packets yourself, or if someone understands this and actually changing it from rather than having a seven day hormone-free break, just having four days, because the vulnerability of the Pill in terms of missed Pills is missing Pills either side of the sugar Pills.

So obviously if you shorten that to four days there's less risk and there's a little bit of evidence that supports that. The other possibility is just extended use, classically, we call that 'tri-cycling', where you run three Pill packets together and then have four to seven days of sugar pills or no pills. You can take the Pill continuously for years and years without having a sugar pill break. The main thing that's going to limit that is irregular bleeding. Some people will get spot bleeding at all sorts of times, about 50% don't, but some do. So in between is what we call 'flexible extended use'. So they take the Pill continuously, and as long as they've had at least 21 active pills in a row, if they get some breakthrough bleeding over a couple of days, they can then have a four day break of no pills, or four days of sugar tablets, whatever's sort of easy for them, and then they would just go back onto their active pills. Okay, so we're over to Sonia now.

**Dr Sonia Davison:** Hello everyone. I'm very happy to be speaking with you today. I'm going to talk about a couple of different cases with a different focus, and I'd like to introduce you to Anna. Anna comes along to you, she's 28, she's a teacher and also completing her Masters and has been in a long-term relationship. She's getting married next year. She has erratic cycles, she's following them on a P tracker, they can be between 35 and 90 days, and can be heavy at times. She also tells you that she has cystic acne, and in your careful questioning you find that she has hirsutism and she's currently having laser hair removal, which is useful but expensive, and she'd rather not do that, especially as she's getting married and is looking towards photos. Well we hope she's getting married and hope Covid doesn't interrupt that plan. You notice that her weight is 95 kilograms and her BMI is 32, but happily she's a non-smoker. She is also worried about fertility and wants to conceive, but not within the next two years. She'd like to get married, like to do the Masters and then like to do it, like to have pregnancy in her own timing.

So when we talked to Anna about contraception and about her history, she did have an etonogestrel implant but gained weight. She's very frightened of going there again and she doesn't want to be overweight, and she's got the wedding, remember. And with weddings there are usually wedding photos and this is a great opportunity to intervene. 21sts, 18ths, engagements and weddings are a great time to be trying to lose weight if someone is overweight and worries about that. She also had a trial of Diane 35 ED and stopped that because she was worried about VTE concern. There was an article in the media and she thought, oh no, I'm going to get a clot, I'm going to stop that. She's a little bit hit-and-miss with condoms, and she's currently using withdrawal as a mechanism of contraception. When you talk to her, her concerns are acne, the hirsutism, the weight excess, the getting married part and her longer-term prospects of fertility.

So she definitely wants to conceive, she doesn't want to do it now, and there are other things on her agenda. So you can see that Anna has a few more things to consider than Maddy. And this is what happens in life, you get different concerns when you're in your twenties or thirties or forties compared to when you're in your teenage years, and all sorts of other things such as BMI come into play, and there's lots to discuss, often, with these ladies. So you are very diligent and you organise a gynaecological ultrasound which shows that she has a regular endometrium of eight millimetres. Of course you are worried about the erratic cycles, you don't want her to have endometrial hyperplasia or thickening. So with an eight millimetre endometrium and ongoing periods, that's reasonable. Both ovaries have more than 25 follicles peripherally and are enlarged, and that is a criteria for polycystic ovaries.

You also note that her testosterone is above range at 3.5 with the upper range of normal being 2.5. Her binding protein, so that's SHBG, the sex hormone binding globulin, that is low, and that's a typical feature with weight excess, but also in polycystic ovary syndrome. As that binding hormone tends to be low, there'll be more free or active testosterone available. And you can see there that she also has a raised DHEAS level, and that is a hormone that goes on to make testosterone, and that can be found in polycystic ovary syndrome. You also note that her insulin is 39 and should be a 25, that's her fasting insulin, and everything else is in range. So you've had a nice discussion, you've taken a lovely history, you've done all of the right tests. In terms of diagnosis, she fits a diagnosis of PCOS.

So we're currently using the Rotterdam criteria and with that set of criteria you need to have two out of three as a criteria. So that is androgen excess, she has that both clinically and she has that biochemically. Anovulation or irregular periods, you can see that she has those erratic cycles. And she also has polycystic ovaries on an ultrasound. So she has all three of the criteria, but you can just have two of the three criteria and fit that diagnosis. She's very well read and she's asking you about metformin as well. She's heard that that might help with insulin resistance, might be useful in PCOS, and might also be useful for weight loss. So you've got a lot to discuss with Anna. So I thought that her contraception options, and I think in the interest of time we'll probably discuss this later. Kathy was going to help me along with this, but I think we are running a little short for time.

So as an endocrinologist, and there's no right answer here, but looking at Anna and looking at all of the different things there, I think a low dose combined oral contraceptive pill is going to give her cycle control, it's going to provide contraception, it's going to reduce the androgen excess, both clinical and biochemical. On the negative side, there is a VTE risk. There is also the issue of worsening of insulin resistance and potential weight gain. And we also know that the BMI is already 32. So when we are looking at combined oral contraceptive pill in this context, I would always look with PCOS at the very lowest dose oral contraceptive pills, they are much more likely to be favourable with insulin resistance rather than be a negative effect on the insulin resistance picture. So I would always use one of the very lowest Pills such as Zoely or the Femme-tab type category as well.

And that's where I would start if I was looking at the low dose oral contraceptive pill for her. It theoretically will nail a number of her issues in one. I'd also love to take the opportunity to focus on diet and exercise and weight loss strategies. This is an excellent opportunity. She's motivated, she wants to get married and she wants to look at future fertility, so you can tell her that even a five to 10% of loss of body weight can optimise her fertility. Cosmetic things, hair removal, acne management, just the normal general things that you advise women about, and that's useful. So fertility advice, her longer-term fertility, I always would say, don't delay pregnancy plans if possible until the mid to late thirties. If circumstances are right, the partner is there, everything else is okay, I would usually try and get ladies to conceive at least in their early thirties, because if they do need assistance, they're going to have more likelihood of getting successful assistance and having an earlier pregnancy if they do that younger, rather than later when fertility will decline.

If we are looking at metformin, we need to discuss, there will be an increase in fertility. It can regulate cycles, but it's certainly because it's targeting the insulin resistance problem in PCOS, certainly fertility can be increased and she is more at risk of an unintended pregnancy. Hence, you do need to definitely discuss with that first. And I always start with a very low dose, take it with food, and gradually build up that dose, if she's looking at that. I wouldn't start contraception and the metformin exactly together. I'd start one first and I'd probably do the low dose oral contraceptive pill first, if that's what she would like to do. And then I would do the metformin four or six weeks down the track just to make sure if there's a side effect, we know which one is working there.

She could certainly have the Mirena or the Kyleena, there's no problems. That will help cycle regularity or give her a very good contraception, but she may get an androgenic burst of hormone delivery systemically when that device is inserted, and that will go against the androgen excess problem. But otherwise, that would be a very good option for her. With the Implanon, I do worry about her gaining weight, and I see the ones who do gain weight, but it might be a good option for her. I'm going to go ahead to case study 3. So we're going into our forties now with Belinda. Belinda is 49. She's a nurse and she attends for cervical screening. She has three children in their twenties. She clearly says to you that she has no need for another child. Her periods have been erratic for 18 months and the last one was 11 months ago and quite heavy. She has flushes and sweats, sleep disturbance, but they occur at times and then they don't occur at times.

She has joint aches and pains and some lability of mood, and vaginal dryness. She also, to make it a little bit more challenging, has a recent onset of migraine with aura. And her friend, happily or unhappily enough, just had a baby at age 47 years. So her comment in the pink under her picture there is, 'I can't get pregnant, can I? That would be a disaster. Should I be back on the Pill? I was on that for years in my twenties.' So that's the context of dealing with Belinda. So Belinda has hormonal fluctuations of perimenopause as she's approaching that last period, which is median age 51 to 52 years, and that's menopause. So she's perimenopausal. It's a time of erratic hormone secretion and fluctuating symptoms and can be very messy with new onset of migraine, with heavy bleeding and one third of cycles can be ovulatory in perimenopause.

So we do definitely need to talk about contraception. There's a lovely information page which is very comprehensive and actually is useful for all of the ages even though it's on the Australasian Menopause Society website. So it goes through the pros and cons in a lot of detail of all the contraception options, you do need to talk about fertility, and she is at risk of an unintended pregnancy for 24 months after the last period if she's younger than 50, which she is, or for 12 months if she's over the age of 50 years. So it's about important information and advice and about watching her symptoms as well, because they're very important. If they're bothersome, she needs some action. So my option, and I love using the levonorgestrel IUD in perimenopause, as you know it's set-and-forget, bleeding will be dealt with, contraception will be dealt with, and then add any form of oestrogen if required for bothersome symptoms.

And there is no contraindication to using hormone therapy. Hormone therapy is very different when compared with the Pill. We know we're all told to not use the Pill if there's migraine with aura. Hormone therapy at the doses used in hormone therapy for menopause or perimenopause is not a contraindication to hormone therapy use. So oestrogen at low dose and probably transdermal can be added at any point for bothersome symptoms. And I wouldn't go near the combined oral contraceptive pill because she asked, 'Can I be back on the Pill again?' We need to stop it at age 50, she has the migraine with aura, so I wouldn't be going in that direction. There are some lovely health professional resources out there, as I've mentioned, on the left of that slide, that lovely comprehensive guide to contraception from the Australasian Menopause Society. I know that's a little bit of a no-brainer, but it's very comprehensive.

I think it's at least eight pages. There's also a lovely information page on migraine headaches, menopause and hormone therapy, which explains what happens with hormones and migraine before menopause as well. So it's useful for premenopausal women. And there's also a lovely webinar on the Jean Hailes website devoted to migraine and hormones, and that's very useful as well, and you can freely gain access to that. Jean Hailes has a lovely menopause tool. It's on the right of the slide there. It's one of those foldout tools. It's very useful. It talks about how to manage bothersome symptoms, how to look at contraception, how to look at different options for women with different problems, and I can highly recommend it. It's been very carefully scrutinised. It doesn't always focus on hormones, but other non-hormonal options as well. I'm handing back to Suzanne now. Thank you very much for listening and we will be dealing with as many questions as you can, but I'm handing over to my excellent colleagues at Family Planning and thank you to them both for being involved, but I'm handing back to Suzanne with pleasure.

**Dr Suzanne Pearson:** Great, thank you so much Sonia. They were great cases. So we've just got some quick key messages for you from our session today before we go onto our questions. So as we discussed, patient choice is so important for contraception, but as is, of course, the medical eligibility. So there are things that can help to decide, to guide decision making around contraceptive choice. Really recommending that you offer LARC routinely to all patients as a first line option. Do provide evidence-based information, there's lots of resources out there for that information, and it's really great that we've got a few new contraception options available and hopefully to come soon, which will increase the choice for our patients. As Sonia's told us, it is important that we continue to discuss contraception for our patients over 40 into the perimenopause, because they may still have an unintended pregnancy at that age.

In terms of web-based resources, Sonia's mentioned some. I'll also just let you know that the family planning organisations have got lots of information on their websites. FPV, we have a clinical resources page which you can access from a button on our homepage, and that's got lots of contraception resources. And as well as that we've got a contraception course that's an RACGP-accredited course that's online, as well as the FPA national certificate that you can do in many of the different states around Australia. So of course, lastly, you can phone a friend. So if you've got a tricky question, contact your local family planning organisation or local specialist for advice or referral for those complex cases. So we're going to jump right onto our questions because we've had quite a few come through the chat. We've also had some that were asked for us when you registered. So I'm going to jump into the ones that were asked tonight, and I'm going to start with Kathy if I can. A quick question to you, Kathy. Can Zoely, one of the types of combined Pill, can that be used for patients with migraine with aura?

**Dr Kathleen McNamee:** No, it can't. There was some hope that Zoely, being an oestradiol-based Pill, would be associated with lower risk of things like stroke, DVT, but we don't have the evidence for that yet. So at the moment we are treating all the oestrogen-based Pills, whether ethinylestradiol, oestradiol, as the same in terms of the MEC. Okay, thanks Kathy. Now a question for perhaps Sonia and Kathy. So thinking about a patient with polycystic ovarian syndrome and endometrial protection, is Implanon something that can be used?

**Dr Sonia Davison:** I've always got a bias here because I always see the ladies with Implanon who've gained a lot of weight and who aren't very happy with it. So I think Kathy is probably a better person to ask. It can be used, I just don't think, in terms of favourably affecting metabolic parameters and weight, et cetera, it wouldn't be my first choice. But I do see the small percentage of women who do have weight gain. I try to look at the papers on this, and there's no papers that look at dummy treatment or placebo compared with Implanon. There's only Implanon compared with another implant they have overseas. So the weight gain with Implanon, on the product information is, if you look very deeply, is 10% versus the other implant was 7%. So I don't think it's a huge weight gain for many women, but it can be. And I'm now going to, having put that spanner in the works, going to hand to Kathy who will reassure us that it can be used in most women.

**Dr Kathleen McNamee:** Look, we do use it a bit in women with polycystic ovarian syndrome, and I suppose what I'd feel is, it is the most effective reversible method of contraception, and I wouldn't want to deny that to them. In terms of the weight gain, overall, there's no weight gain, but I think it's very difficult because of course if you gain weight you're probably going to drop out of the trial so your numbers aren't actually included in it. So I always feel a little bit cynical, a little bit, don't feel like I have a really solid feeling about it, even though the party line is that there is no weight gain. If they're amenorrhoeic, the UK faculty has recently put out a statement saying that you don't actually need to induce a bleed, which I think is something people worry about with Implanon.

**Dr Suzanne Pearson:** Okay, so that's for a person who has polycystic ovarian syndrome and is on the Implanon—

**Dr Kathleen McNamee:** And amenorrhoea.

**Dr Suzanne Pearson:** And amenorrhoea, okay.

**Dr Sonia Davison:** Certainly it won't do anything to help hormones, so it won't reduce androgens, it won't do anything like that, just to reassure people.

**Dr Suzanne Pearson:** Great. Okay, so Kathy, I might go to you for this one. We've had a question about whether you can just clarify what the expected bleeding rates are with the contraceptive—

**Dr Kathleen McNamee:** Oh, sorry, yes, I saw that come up in the chat, and what I meant was that about 55% have a really good bleeding pattern. About 20 to 25% have a bad bleeding pattern. The rest is sort of somewhere in between where it's probably okay, you might be able to get by with, if there's no contraindication to the Pill, getting them to take intermittent months of the Pill here and there. So yeah, that's what I meant.

**Dr Suzanne Pearson:** Great, thanks Kathy. And we've also had a question about copper IUDs. Kathy, you mentioned that there can be that concerned around iron levels and anaemia. Can you just explain a little bit more about what you mean.

**Dr Kathleen McNamee:** Yeah, it's just that on average there's about a 50% increase in blood loss. There is some waning of that over time, but they just might find it a little bit more difficult to keep up with their iron levels if they've got heavy bleeding that's becoming 50% heavier again.

**Dr Suzanne Pearson:** And once the copper IUD is removed, obviously we would expect the patient to go back to whatever their regular bleeding was.

**Dr Kathleen McNamee:** Yes.

**Dr Suzanne Pearson:** Great. Okay. Now we've got a good question about contraindications to contraception. So is gastric sleeve surgery a relative contraindication to the combined Pill? Kathy, are you able to comment on gastric sleeve or bariatric surgery?

**Dr Kathleen McNamee:** Yeah, we've sort of ended up having this slightly 'fencey-sitting' thing in that it might affect the efficacy. We don't really know, to be honest, that's the bottom line, and we would say that a LARC would be a better option in that situation. And the other thing is, after surgery it's really important that they don't conceive for a year, so they need really effective contraception.

**Dr Suzanne Pearson:** So I guess we'd be concerned about absorption of the combined pill.

**Dr Kathleen McNamee:** That's right. Yeah.

**Dr Suzanne Pearson:** Okay, fair enough. Good. Okay, great. So we are getting some more questions coming through and I will try and come back to them, but let me jump to a couple of questions that we had that were put with the registrations. So I might start with Kathy if I can. We had quite a few questions about emergency contraception, which we haven't covered much tonight. So I'm just wondering, Kathy, couple of things. Can you give us a brief overview on what's available for emergency contraception, and also the question, is Mirena likely to be approved for emergency contraception in future?

**Dr Kathleen McNamee:** So we have the copper IUD, a stat dose of levonorgestrel 1.5, and ulipristal acetate. The ulipristal, which is sold as EllaOne, and the levonorgestrel, you can get over the counter without a prescription. We'd look at the copper being very much the most effective. Next would come the ulipristal acetate and last would be the levonorgestrel. The levonorgestrel is quite a bit cheaper though, so it's difficult. You can use the levonorgestrel up to four days, the other's up to five days. In terms of, the other thing is that the levonorgestrel is more likely to be affected by weight, and we actually say that they should have a double dose if their weight is more than 70 kilos or they've got a BMI of more than 26.

You're probably referring to the Lancet study about the levonorgestrel IUD. I don't think we've got enough information to say that you can use it for emergency contraception at the moment. There is actually a statement from Sphere, which is a national organisation looking at all things contraception, and basically the conclusion was that, although it did look very effective from the studies, there are a number of problems with the study design that didn't give us the confidence to say that it can be used as emergency contraception. So yeah, more data.

**Dr Suzanne Pearson:** Okay, great, thank you. I might go to you Sonia, now. We've had a few questions come in about acne and the contraceptives, particularly the combined Pill. So one question, is Diane 35 still the best Pill for acne? Is there an alternative that has a lower risk of clotting?

**Dr Sonia Davison:** So all of the Pills will reduce androgen levels. They'll sort of shut down the ovaries and the ovaries will reduce their amounts of testosterone and similar hormones. So in theory, any Pill that's a combined oestrogen and progestogen Pill will reduce androgen levels, and the androgen levels at the skin will reduce, well, the reduced levels will reduce the sebum production. So anything that reduces oil production should in theory reduce acne. There's been a lot of thought that the ones with cyproterone acetate and the testosterone-blocking progestogens are better for acne. In clinical practice, you can get a benefit with a lower-dose Pill and I think it's always kinder to try a lowest-dose Pill or a lower-dose Pill, rather than those higher-dose Pills that do have a higher VTE risk, especially if you're looking at risk factors with overweight et cetera. So it's a little bit of a myth that you need a Pill like Estelle, Brenda, Diane, any Pill can be effective. But if you start on a lower-dose one and it's not effective, you may need to work up to either a different Pill, trying to avoid the Pills with androgenic progestogen, and then at the extent of that, try the ones like Diane that have the anti-androgenic progestogens.

**Dr Suzanne Pearson:** Great, thanks Sonia. And I guess for some patients, cost is going to come into the equation as well, so thinking about that as well, potentially. Great. Now we did have quite a few questions about contraception during lactation, so I've got a little bit of information that I can give you about that. So first of all, in terms of for patients who are breastfeeding, there are lots of different options available. We would use the UK MEC criteria, so you can look up the MEC tables for postpartum lactation. But just to give you a little bit of information, we would say that the implant and the progestogen-only Pill can be used immediately postpartum for those who are breastfeeding. And the depot injection can be used as a MEC 1 after six weeks, but actually between delivery and six week it's a MEC 2, so it still may be usable for many people.

The combined Pill is something that people often are a bit unsure about. So what the MEC says about the combined Pill for lactation is that from six months it's actually a MEC 1, but between six weeks and six months it's a MEC 2. So it may be a very reasonable choice for many people who are breastfeeding and baby is over six weeks of age. Until six weeks, the baby is six weeks, it's actually a MEC 4. So we wouldn't be using the combined Pill for those who are breastfeeding. I won't go through all of the different options, but FPV does have a 'contraception after pregnancy' card on our website. So that might be just a really quick way to get a summary of all of these. I find I need to look them up. It's very hard to remember all of the different MECs, so it's worth looking up a resource. I might now jump to a question that's come through tonight through the chat, which is, this could go to either Kathy or Sonia, can the Implanon on be used continually until menopause for women that have no contraindication? So I guess this is not necessarily asking about extended use, but can we continue to use the implant, changing every three years, for someone until menopause?

**Dr Kathleen McNamee:** I'd say yes.

**Dr Sonia Davison:** I also thought that you would say yes, and I'm not saying no. So it could be, but if you're looking at adding hormone therapy to the equation, in terms of adding oestrogen, for bothersome perimenopausal symptoms, I would be looking at another option. I would be looking at Mirena or some other form of progestogen to protect the endometrium.

**Dr Suzanne Pearson:** Okay. Now this is a question, again could go to either, and we do hear this question quite a lot. So how long can the Pill be used safely? Do people need to change to another type of contraception at a certain age? So I know that we've already discussed tonight that we would recommend not using the combined hormonal methods from the age of 50 and over. Is there anything else we need to think about in terms of age there, Kathy?

**Dr Kathleen McNamee:** Well, I think once you get to the age of 40, your baseline is actually a MEC 2 with the Pill. So you need to consider other risk factors quite carefully at that stage. But it's got a number of advantages in terms of cycle regularity, when cycles are starting to become a bit more irregular. So if there aren't any contraindications, it's fine to use it until 50.

**Dr Suzanne Pearson:** Okay, great. Another question about the Pill is, do young people under the age of 25 need to have at least 30 micrograms of oestrogen in their Pill rather than the lower dose 20 microgram Pills?

**Dr Kathleen McNamee:** No, there's no evidence that the 20 microgram Pills are less effective than the 30. You're more likely to have break through bleeding but no evidence of less efficacy.

**Dr Suzanne Pearson:** Great. Okay, so we're getting quite a few questions about medical eligibility criteria. I'm just going to clarify that when we're talking about medical eligibility, we're referring to the UK MEC summary sheets, and so you can find those, there was a link that was on the relevant slide in the presentation today. So if you go to download the presentation slides, you'll see the link. It's the UK MEC summary charts that we are referring to. So another question around MEC is, what contraception would you recommend for a woman who has had pulmonary embolism with combined Pill, has a genetic tendency to thrombosis and has acne? Any thoughts on that one, Kathy?

**Dr Kathleen McNamee:** Well, none of the progestogen-only methods are going to help with the acne and there's some chance that they'll make them worse. But all of the progestogen-only methods would be a MEC 2 in that situation. Copper IUD is not going to change your acne one way or another, and that would be a MEC 1 in that situation.

**Dr Suzanne Pearson:** Okay. I think we've probably only got time for two more questions. So I might do one for Kathy and one for Sonia to wrap up. So Kathy, quick question. This came through our registration questions. If the IUD strings are not seen but the position is confirmed on ultrasound, can the IUD be kept in?

**Dr Kathleen McNamee:** Yes, it can. Yes, basically that's what we would normally do. Just leave it there and deal with the problem at the time it's due to come out.

**Dr Suzanne Pearson:** Okay, thank you. And Sonia, we did have some questions about migraine and contraceptions, so I might ask you this one. The person who submitted the question says that they can see that certain specialists will still prescribe the combined Pill for patients with migraine with aura. What would your practice be with that?

**Dr Sonia Davison:** So it's really difficult, and there is a lovely paper out there that's, in recent years, whereby they've really looked at this again. The evidence about migraine with aura and stroke risk and the Pill is very scanty. It's mostly based on historical evidence whereby the Pills, when we first used the Pill, huge doses of oestrogen and progestogen. So that's where the historical link lies with migraine with aura. So yes, some specialists, including me, will sometimes say that the best thing for someone might be the oral contraceptive pill when they do have migraine with aura. I will only ever use it when I've extinguished every other avenue, when I think their overall risks are very low, if they're a slim build, they're not a smoker, and there's no great big family history of stroke, et cetera. I will always use Zoely, being the lowest dose oral contraceptive pill, if the other options are just not there. And I know that's a difficult decision and I'm not saying that this is for routine use. As a specialist, you do make tough decisions at times, and often when I make this decision I will make it in conjunction with a neurologist to make sure that they have no problems with using that Pill. And if they do, I'll say, well, we can't use this Pill. But being a specialist is tricky and sometimes you get to tricky questions, and that's one of them.

**Dr Suzanne Pearson:** Absolutely is. Thank you Sonia. That's great. I think we've run out of time for questions, but we were able to answer most of them that came through in the chat. Sorry if yours wasn't specifically answered. And so I think I might be passing on to Tracie now just to conclude the webinar.

**Tracie Julian:** Yes, thank you. That was such a fantastic presentation tonight for all, of you and very insightful questions. There have still been a lot of questions still coming through and we will do our best to get them answered, and when we release the recording onto the Jean Hailes webinar library we will hopefully get some of those answers and have them up there on the website as well for you.

So we are wrapping up now. Thank you so much everyone for joining us tonight. In the presentation handout there are links to our Jean Hailes resources and to Family Planning resources, and please don't forget to complete the evaluation. That should pop up shortly to you if you're requiring CPD points or a certificate for tonight. So thanks again to our fantastic expert panel, and we look forward to seeing you next time. Goodnight.

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Information about the podcast

This podcast series has been made possible by the NSW Government's Menopause Awareness Campaign. For help talking about menopause, download the [Perimenopause and Menopause Symptom Checklist](https://www.jeanhailes.org.au/resources/perimenopause-and-menopause-symptom-checklist) and take it with you to your next medical appointment. For more information visit: <https://www.nsw.gov.au/women-nsw/toolkits-and-resources/perimenopause-and-menopause-toolkit>

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