# Sexually transmitted infections webinar transcript

**Dr Amy Moten (00:00:00):**

We're moving on to introductions. Jean Hailes has partnered with RACGP tonight to deliver this webinar. I would like to thank them for supporting general practice and providing this educational opportunity for us all. We have two presenters here tonight, Dr Lara Roeske and Dr Terri Foran. Dr Terri Foran is a sexual health physician and holds the position of Conjoint Senior Lecturer in the School of Women's and Children's Health at the University of New South Wales, Sydney. She has a special interest in contraception, menopause, and the management of sexually transmitted infections. She's in private clinical practice in Darlinghurst, and is also engaged in research work with the Women's Health and Research Institute of Australia. I'd like to now hand over to Terri to commence tonight's presentations.

**Dr Terri Foran (00:01:04):**

Thank you so much for that lovely introduction. And can I just say that it's an absolute pleasure to be here this evening and to talk to you all about a topic that, I think, I'm very passionate about, and I'm sure you are too. So we're talking about women and STIs. I hope that I'm not patronising by saying this, but it's really important, I think, always to go back to the basics. And when we're taking a sexual history or considering screening for STIs, then I think it's important to take nothing for granted. We need to be flexible with our language and our questions. We need to establish trust. This is obviously a very intimate area of people's lives, and that trust is really important in terms of them sharing their experiences and their honest answers with us.

**Dr Terri Foran (00:01:54):**

I quite like this little acronym, the five Ps. It just reminds us what to ask about, and that's partners, practices, past history of STIs, what they're using to protect themselves from STIs, and of course the prevention of pregnancy. And I think the bottom line is that because most STIs are asymptomatic, those at higher risk should really consider screening at least annually, and additionally have a test if there are any symptoms occur in themselves or their partners. I should also just say right at the very beginning that my presentation is going to take a quite cisgendered approach, and that's because trans issues are much more complex and would probably take the same amount of time to discuss in the sort of detail that it would require to cover those issues as well as I'd like to. I'm also just going to say that my presentation is going to cover some of the risks, or the riskier patients that perhaps you might like to think about when you're considering screening for sexually transmitted infections.

**Dr Terri Foran (00:03:01):**

So I'd like to introduce you to Casey. Casey is 18 years old and she's in her last year of high school. At a party last night, she got absolutely wasted and woke up while having unprotected sex with a boy from her class. She sees her GP for the emergency contraceptive pill, because she stopped the Pill a couple of months ago when she broke up with her boyfriend. She'd actually seen her GP at the time because she was experiencing breakthrough bleeding on the Pill, but testing diagnosed chlamydia, and her boyfriend later admitted to having other partners. So I guess the question here, is Casey at higher risk of sexually transmitted infections? And there's a couple of issues I wanted to cover here. First of all, the whole question of sexual assault and STI risk. I think it's quite alarming to remember or to think about the fact that one in five Australian women, that's 18% or 1.7 million women, had experienced sexual violence defined as the occurrence or threat of sexual assault, according to a safety survey done in 2017.

**Dr Terri Foran (00:04:01):**

Women were most likely to experience sexual assault by a male they knew, 87% of them. The location of the most recent incident was most likely to be in the respondent's home, 40%, or in the perpetrator's home, 17%. And here's the really interesting fact, that nine out of 10 women, 87% of them, did not contact the police. A US study suggested that women who've been forced to have sex are at greater risk for sexually transmitted infections, but unfortunately they're also less likely to be treated. And I think we also need to think about subgroups within the female population. This is US data, but a 2010 US National Intimate Partner and Sexual Violence Survey reported that the lifetime prevalence of rape, physical violence or stalking by an intimate partner with 35% for heterosexual women, 43.8% for lesbian women, and 61.1% for bisexual women.

**Dr Terri Foran (00:05:04):**

Now, why is it important to think about STIs when we're seeing our younger patients? I think it's acknowledged that younger people experience higher rates of STIs than the general population in Australia. Why? Well, they're possibly more sexually active than the average Australian. They may have more partners, or more partners in a short period of time. There may be more use of alcohol or drugs, and it's part of being an adolescent, I think, or a young person generally, to take a few more risks. The other thing, again, we need to look at subgroups. In adolescent LGB groups, research suggests higher rates of substance abuse, higher rates of multiple substance abuse, and higher ongoing use of substances with age. I think the other thing to remember is that any young person with a previous STI is statistically at higher risk of subsequent STIs. So as always, the history is really important.

**Dr Terri Foran (00:06:04):**

The other thing to think about is that young people often have lower STI screening rates than the general population in Australia. Why? That doesn't seem to make any sense. But we think about it as being, or one reason is that they're not generally seen as a priority group by sexual health clinics. And so if they ring one of these clinics, which is often the first thing they'll do, they'll tend to be directed to GP care. But this group is also less likely to attend a GP for sexual healthcare, and that's because of concerns around things like confidentiality, the feeling they may be judged, and that there may be costs involved which they can't cover.

**Dr Terri Foran (00:06:46):**

The other thing, of course, is that most STIs are asymptomatic. So sometimes a young person will wait and see, and think, 'I'll go and do something if I develop symptoms.' And of course that's not the case with about 80% of sexually transmitted infections. So GPs do have a hugely important role to play in delivering a high standard of STI healthcare to this younger group.

**Dr Terri Foran (00:07:08):**

But let's go back to Casey. Casey fortunately has a GP she trusts and who previously managed her chlamydia. They discussed the use of emergency contraception, the pros and cons of the various emergency contraceptive methods that Casey could think about, including IUD insertion, and Casey's ongoing contraceptive needs. They discuss referral to a sexual assault service, but like nine out of 10 young Australian women, Casey says she's not interested. I think the important thing there is to say that counselling services can be undertaken at a later stage, they're not dependent on Casey going along now, and to also reassure her that you are there to support her in whatever decisions she makes or any counselling she needs on an ongoing basis.

**Dr Terri Foran (00:07:57):**

They do discuss Casey's alcohol and recreational drug use. Casey's got no current symptoms of STIs, but her GP does arrange an initial STIs testing, screening. And the good news about that is that generally it's recommended that, two to three months after chlamydia has been treated in the past, that a follow-up test be done, a test of cure. So that will sort of kill two birds with one stone in this particular instance. But it's also really important to arrange further screening for chlamydia, and of course pregnancy testing, in two to three weeks. Because the incident last night, the assault last night, if Casey has contracted chlamydia or gonorrhoea, will not be positive so early in the piece. Casey's GP also provides her with some really good web links, which she may wish to explore for more information on STIs and safer sex. And I've given a list of web links that I think are really important, at the end of the presentation. I hope you find them useful too.

**Dr Terri Foran (00:09:00):**

Now why is STI prevention so important in young women? I think that, historically, women have not been seen as a priority population in Australian STI health planning. Effective treatment, including of their contacts, is important to prevent ongoing community transmission. And the reality is that untreated chlamydia and gonorrhoea can lead to pelvic inflammatory disease, chronic pelvic pain, and more rarely to disseminated symptoms such as reactive arthritis, which is more common in males but can in fact occur in young women as well. There are also the pregnancy-related issues. Chlamydia and gonorrhoea are associated with higher rates of infertility, higher rates of ectopic pregnancy, and adverse birth outcomes. Herpes, trich and bacterial vaginosis are also associated with adverse birth outcomes. And although the Australian rates of congenital syphilis are small, they are rising, and I'm sure that Lara will talk to us a little bit more about this in her presentation. But in 2020 there are a total of 19 cases of congenital syphilis in this country.

**Dr Terri Foran (00:10:09):**

I'd like to introduce you to Sigrun. Sigrun is 30. She's had a number of male sexual partners in her teens, but she's identified as a lesbian for the last 10 years. She lives in a committed but open relationship with her female partner of six years. She says sex with her occasional casual and short-term partners is usually protected. So is Sigrun at higher rate a risk of sexually transmitted infections? This allows us, I think, in this presentation to just look at this a bit more closely, and look at the STI risk in women who have sex with women. Now, I think the bottom line is that disclosure to a health provider can be difficult for many women who have sex with women, as there's no certainty of practitioner attitudes before disclosure occurs. And it has to be said that some GPs are less comfortable advising women who have sex with women.

**Dr Terri Foran (00:11:01):**

And of course risk factors go a lot further than just what the woman who's sitting in the chair in front of you is doing, because we have to, although she identifies as a lesbian, she may well have sex with men, which increases her risks, smoking increases her risk, drug use, whether she uses safer sex practices consistently. And then, of course, beyond that there are, of course, her regular partners' risks of sexually transmitted infection as well. Now the prevalence of STIs among lesbian women is similar to that of the heterosexual population, and possibly higher among bisexual women, although it has to be said that the evidence is somewhat limited. But the rates of STIs tend to differ.

**Dr Terri Foran (00:11:48):**

So this is mostly Australian data. Bacterial vaginosis is more common in women who have sex with women. And the treatment of symptomatic partners is advised where it's not with male partners. Chlamydia, gonorrhoea and bloodborne viruses, except in IV drug users, bloodborne viruses I'm referring to, appear less common in women who have sex with women. However, at least one more recent study, this is a US study, indicates higher rates of chlamydia in younger women who have sex with women. And of course the rates of genital warts, genital herpes and trichomoniasis are quite similar. Women who have sex with women have similar rates of cervical dysplasia, the carriage of oncogenic HPV, to age-matched heterosexual women, indicating and underlining the need for cervical screening at the recommended intervals.

**Dr Terri Foran (00:12:44):**

This is Mandy. She's a 65-year-old woman and she was divorced from her husband of 20 years five years ago. She's had a number of short-term relationships with male partners of a similar age since then. Safer sex is not practiced with most of her partners, as they've been reluctant to use condoms and Mandy hasn't insisted. Is Mandy at higher risk of STIs? Well, probably yes. And we're looking at a change here. This is some work done by a researcher called Bourchier only two years ago. And although it's still the case that the highest burden of sexually transmitted infections is in Australian women aged 15 to 24, which is there arrowed on the highest part of the graph, the chlamydia incidents declined in this group from 2014 to 2018, as you can see here. Rates, and I haven't given you the other graphs, but rates of gonorrhoea increased least in this age group, and rates of syphilis increased least in this age group.

**Dr Terri Foran (00:13:51):**

But let's have a look at the blacker line just below that. The absolute rates are still low in older women in Australia, and I've circled that because I think the graph can be a bit misleading at first glance. You'll see that the graph on both sides is somewhat different. Okay, so this is rates per 10,000 women, and this is rates per 100,000 women, okay, so we are talking a very different graph on both sides. But what this allows us to do is to look at an increasing rate of infection. And you can see that rate is actually going up higher than it is for the younger group at the top. And from 2014 to 2018, the chlamydia rates increased the most. Among those aged 55 to 64. Gonorrhoea rates increase the most among those 65 to 74, and syphilis rates increase the most among those aged 55 to 64.

**Dr Terri Foran (00:14:55):**

Now recognising that there was an issue, this is from a few years ago in the UK, and I suspect that most of those in the audience maybe don't remember wearing this, but the ad was going to the fact that if you can remember wearing this, you do need to remember to use a condom. So it's targeting that older group, and recognising the fact that they are at risk of sexually transmitted infections, particularly as many older people are now repartnering. And the risk of sexually transmitted infections in heterosexuals over the age of 50 is generally perceived by most health professionals as low. Now the trouble is, if you don't ask and don't test, you don't find. The other problem is that knowledge of STIs may be less than in the younger groups due to a lack of public health messaging. And unlike the UK's ads that I just showed you, little of the Australian patient literature on this subject targets this sector. This is a mock-up I made, because you're not going to get information like this in the Australian health system.

**Dr Terri Foran (00:16:02):**

The other thing to remember is that postmenopausal women may actually be more susceptible to infection due to thinning of the vaginal skin, reduced lubrication and vulnerability to microtrauma during intercourse. And certainly most studies suggest that the rates of condom use are lower in older Australians. Now the thing about condoms, there's a Family Planning survey from a few years ago now, in 2014, of 2500-odd heterosexual men who were using a dating app. And the findings are a little bit alarming, because men aged 50 or over were less likely to use condoms, and more likely than younger men to think that condoms reduced sexual pleasure. 49% of men over 60 didn't know that chlamydia usually causes no symptoms, and older men with a higher number of sexual partners were more likely, not less likely, to take more risks when it came to safer sex.

**Dr Terri Foran (00:16:57):**

Now the bottom line is that condoms may make erections more difficult to maintain in older men, and this is where a PDE5 inhibitor may be a useful thing to cover in the discussion. The other thing, of course, is that very few couples routinely use condoms or dams when engaging in oral sex. And, like Mandy, a 2012 FPA study indicated that women over 40 were knowledgeable, but they were less likely to refuse sex without a condom than their younger counterparts under the age of 40.

**Dr Terri Foran (00:17:32):**

I'd like to introduce you to Kirra. Kirra is a 40-year-old indigenous woman who works as an admin assistant in a metropolitan aboriginal legal centre. Divorced, she's a single mum to two kids who are now in their late teens. She's been in an on-and-off relationship with a male partner of similar age for the last two years. Her partner's reassured her that this is a monogamous relationship, but Kirra's not so sure, and she's insisted on condom use whenever they have intercourse. So is Kirra at higher risk of STIs? Well, Kirra would be identified as being in an at-risk group, but I want to go into that a little bit more because I do think that where Kirra is living, and the fact that she is insisting on safer sex, may in fact make her at no more risk than most of those around her.

**Dr Terri Foran (00:18:19):**

But this is why we wonder and worry about rates of STIs in our indigenous population. So this is all over the country, this is a graph that shows all chlamydia notification rates per 100,000 population. And you can see that I've arrowed Aboriginal and Torres Strait Islander women in the red, and non-indigenous women in the green there. And there is quite a discrepancy between those rates. Gonorrhoea, similar, so Aboriginal and Torres Strait Islander women at the top, non-indigenous women in the green. And syphilis, which, as I said, Lara will be talking to us about, red for the Aboriginal and Torres Strait Islander women, and a very low rate in the non-indigenous female women.

**Dr Terri Foran (00:19:12):**

Since data has been stratified in this country, notification rates for chlamydia, gonorrhoea and infectious syphilis in remote communities have been between three and 50 times that of non-indigenous Australians. 16- to 19-year-old indigenous Australians carry the greatest burden of these infections, with almost half this group living in remote communities having one or more of gonorrhoea, chlamydia and trichomonas infections. The rates of infectious syphilis notifications, and this is another paper, so it's a little different from the graphs I've just shown, you are up to 300 times higher in indigenous Australians, with up to 70% of infections among those aged 15 to 29. Roughly equal numbers of male and female patients are affected. The disparity between remote Aboriginal people and their peers, both Aboriginal and non-indigenous, in urban and regional settings, is far greater than for gonorrhoea and infectious syphilis than it is for chlamydia. And in a study of 67 remote communities, the prevalence of chlamydia in those age 16 to 24 was 21%, compared with a rate of 5%, and that's a general rate, in an urban GP community health setting.

**Dr Terri Foran (00:20:28):**

But I do think we have to put this into context. So STI transmission is largely determined by community prevalence, and those living in remote areas have poorer general determinants of health, such as education, healthcare access, income and employment, all of which are associated with higher rates of STIs. Age is also a specific risk factor for STI transmission, as we've discussed. Only one third of non-indigenous Australians are aged under 25, compared with over half of Aboriginal people. Specific determinants of STI risks, such as poverty, age of sexual debut, number of sexual partners, mobility of population, substance abuse and lack of condom use may all contribute to the higher incidence of STIs in Aboriginal people. And the other thing is systemic. Follow-up, contact tracing and access to appropriate treatment may be much more difficult in more remote areas where temporary clinics and high staff turnover is unfortunately very common.

**Dr Terri Foran (00:21:26):**

This is Ketifa. She's a 42-year-old woman. She's recently arrived as a refugee from Syria, and she's pregnant with her fifth child. She attends the local hospital for antenatal care. She's 20 weeks pregnant. She speaks no English. An interpreter has been arranged, but Ketifa is very quiet and provides only a very limited medical history. So the question is, is Ketifa at higher risk of STIs? Now, one in four Australians was born overseas and another 20% has a parent born overseas. Researchers indicated that those from culturally diverse groups may have less knowledge about STIs and different perceptions of their risks, limited access to culturally linguistically appropriate information on sexual and reproductive health, a higher prevalence of some STIs than the general Australian population, and perhaps also higher levels of shame, stigma and embarrassment. The other thing, of course, we must remember is that migration-related inequity and discrimination may intersect with family violence and reproductive coercion.

**Dr Terri Foran (00:22:33):**

There's no doubt, too, that barriers exist to accessing appropriate healthcare. And I think this just indicates the need to improve sexual health literacy and access to appropriate and culturally secure health services for this very important population. Immigrant and refugee women are at greater risk of suffering poorer maternal and child health outcomes. They're less likely than Australian-born women to have adequate information and familiarity with modern contraceptive methods. They're less likely to be using effective contraception. A 2012 general practice study found that the use was half that reported in English speaking households. They're at greater risk of contracting STIs and HIV, especially those from countries where the condition has a high prevalence, and their partners may travel home, putting them at risk. They're less likely to use health and social support services, less likely to have access to evidence-based and culturally relevant information which will enable them to make these important decisions about their health.

**Dr Terri Foran (00:23:36):**

But these women are uniquely placed to improve sexual and reproductive health for themselves, their children and their communities, through preventative health education and access to appropriate services. So we really need to be putting some energy into providing these services within our country.

**Dr Terri Foran (00:23:56):**

I just wanted to have a very brief word on self-collected testing, because I think this can be a revolution in terms of increasing women's access to STI testing. Cervical screening, as you all know, since July 2022, self-collected cervical screening tests have been available to all Australian women without the previous restrictions. And Lara is very much involved with this, and I hope we all get to ask her some questions later. Clinicians should be, we think, proactive in offering self-collected testing as an option, but currently only 52% are screened as per guidelines. So this should be able to improve that.

**Dr Terri Foran (00:24:40):**

It might be more acceptable to women who find conventional testing either painful, embarrassing, culturally inappropriate, and again, overcoming the current barriers to screening that we all know exist. To overcome our reluctance, it's important to recognise that these tests are as effective in detecting HPV as a clinician-collected sample. But unfortunately you don't get a cytology report, and that means we need different follow-up guidelines for HPV, particularly HPV-other, and for indigenous women or those at higher risk. I'd also like to put in a bit of a plug for a self-collected chlamydia or gonorrhoea PCR vaginal swab. These are actually only slightly less sensitive than a cervical specimen, and they're really, really useful for screening and for follow-up after treatment. And the other one I think is really important to remember is the HSV, herpes simplex, PCR swabs. Again, these are almost as effective as a physician-collected sample, and they're really, really useful for confirming HSV, which may not in fact be around long enough for the person to get to us and have it confirmed in a clinic setting.

**Dr Terri Foran (00:25:51):**

They can also be used very effectively for typing long-standing or quickly-resolving HSV. Sexually transmitted infections comprise about 40% of all reported notifiable conditions in Australia, and unfortunately some infection rates are continuing to increase. But I did want to end not on a gloomy note, because we've got some significant runs on the board, mainly due to the work of clinicians like yourselves. We've seen a marked decrease in clinical genital warts in those under 25 years old, following the launch of HPV vaccines in Australia in female adolescents in 2007. Following that, we saw genital warts down 60% in our young females, and down 30% in heterosexual young males, as a result of herd immunity. We saw no such decrease in the older population or in homosexual males. There's been, as a result of that, a concurrent decrease in high-grade intraepithelial lesions of the cervix in younger Australian women.

**Dr Terri Foran (00:26:59):**

We've seen the virtual elimination of mother-child transmission of HIV, and we see that, now, many are successfully treated for Hep C, following the availability of direct-acting antiviral treatment on the PBS. I promised to you a list of resources. These are some of my faves. The most important one, if you're seeking guidelines for the treatment of sexually transmitted infections, is the Australian Treatment Guidelines, which I've given you there. And it does have a specific section for women who have sex with women. The RACGP Red Book is fabulous. Melbourne Sexual Health has great information for health professionals. Kirby Institute Data is really useful if you're looking for trends and information. Young Deadly Free provides a range of useful information and resources for young people, Elders, parents, and other adults, for those working in indigenous health. Girl2Girl, as the name would imply, is for women to have sex with women. There's a really useful site there for anonymous partner notification for STIs called Let Them Know. And Full Stop Australia is dedicated to reducing the rates of domestic and sexual violence in this country. So thanks for listening, and Lara and I will be answering your questions after her presentation. So I'll stop sharing at this stage and turn over to Amy.

**Dr Amy Moten (00:28:25):**

Thank you so much, Terri. And I think it's been a really important reminder that we need to look at specific patients in front of us in regards to their risk, and not make assumptions, and think about screening guidelines. So I'd now like to welcome our second presenter this evening, Dr Lara Roeske. Lara is a current member of the Ministerial Advisory Group on Sexually Transmissible Infections and Bloodborne Viruses. She's a GP and practice owner, Chair of the RACGP Specific Interest Group Council, and an RACGP Board Director. With the career spanning more than 20 years, Dr Roeske has worked in advisory roles to key stakeholders on steering committees, guideline working parties, representing the RACGP across a range of domains relevant to sexual reproductive health practice, cervical cancer prevention and translation of evidence into practice at state and national levels. And just before I throw back to Lara, I'd just like to remind everyone, please put your questions into the Q&A, and upvote the questions you'd like answered in case we have more questions than we have time for, as our presenters do need to finish promptly on time today. So thank you very much, Lara.

**Dr Lara Roeske (00:29:36):**

Thank you very much, Amy, and I too would like pass on my greetings from the Wurundjeri lands of the Kulin nation, pay my respects to Elders past, present and emerging, and extend that respect and acknowledgement to any Aboriginal and Torres Strait Islander people who have joined us this evening. Next slide please. So I've popped this slide up because at the outset I do want to state that, as GPs, we work across a diverse setting. We work everywhere. Remotely, rurally, regionally, outer metro and metro. We are context-driven and locally responsive, and we take care of patients at all ages and stages, backgrounds and presentations. So general practice is the first point of contact for people with personal health matters. We see 2 million Australians each week, and we know that about 90% of STIs are treated and managed in general practice settings. So into this very busy place, we need to elevate your actions around both the early detection and treatment of syphilis. Next slide please.

**Dr Lara Roeske (00:31:08):**

So I would like to put to you, and I do want to pause for a moment and also acknowledge the extraordinary work that many of you have been conducting through the pandemic, through bushfires and floods, and that we ourselves have felt this, and there is a general level of fatigue, and probably a reduction in our wellbeing. And I did want to acknowledge that. However, we also think that Covid has obscured an alarming expansion of syphilis across this country. And indeed last year the then Minister Hunt's advisory committee met at a round table to discuss the concerning data around what we now know is an epidemic in this country. Disappointingly, Australia will no longer be able to meet its WHO 2030 target around elimination of syphilis, and we're seeing syphilis continue to increase across Australia at an alarming rate. We know that the emergence now from the Covid pandemic means there are more opportunities for travel, forming new partnerships and casual sex. And we also understand that there's been a change in the geography and distribution, with syphilis moving out of remote and rural Northern Australia, and notably indigenous communities, into major cities across this country, outer regional and urban areas. Next slide please.

**Dr Lara Roeske (00:32:54):**

So we, GPs, are absolutely critical to controlling syphilis. We have a key role, not only because we see so many Australians, but we know that it is in primary care where the opportunity exists for early detection and also effective treatment. We also know anecdotally that many of you here, and many GPs, are completely unaware of the extent of this epidemic, and many of you may also lack current experience in managing syphilis. So for us today, I'm actually going to focus on two things. One, really making you aware of the grave situation that we are in. We actually currently in Australia have cases of congenital syphilis and neonatal deaths, which is really unacceptable in a country such as ours. We also know that our colleagues aren't necessarily confident in the injection of penicillin for the management of syphilis, and that many of us haven't had recent experience in managing syphilis and may well turn away patients or send them on to tertiary centres, and I think sending them somewhere is better than nothing.

**Dr Lara Roeske (00:34:25):**

But today, rather than focusing on serological interpretation and ordering tests, I'm going to really focus on early identification, and then I'm going to take you through the best I can do, which is an interactive presentation on how to inject long-acting penicillin for the management of infectious syphilis. So that's going to be my focus for today. It will take us up pretty close to the eight o'clock mark. I hope we'll have time for some questions, and if not, or if we're limited in time, we will definitely try to answer the questions in the Q&A and get back to you after the webinar. Next slide please.

**Dr Lara Roeske (00:35:13):**

So the next two slides are just going to show you that there's been a steady and alarming rise in notification rates, but in the very top light green line, we can see that indigenous, our indigenous population has notification rates that far exceed those of non-indigenous people. Interesting fact for you, current Australian data has actually shown that indigenous people actually attend GP services across this country, on average, at a higher rate than non-indigenous people. And I'd really ask you to think about how proactive you are at identifying indigenous people, how well your practices are set up to be culturally safe and responsive, and what sort of practice policies that you have in place to support you to provide care to our Aboriginal and Torres Strait Islander patients. Next slide.

**Dr Lara Roeske (00:36:25):**

And we'll just continue. That slide hasn't panned out too well. So let's go on to the next slide please. Now this takes me now to the main part of the presentation. So I'm just going to pause for a moment and perhaps you'd all like to have a think. When was the last time you treated a patient with syphilis, or indeed, diagnosed syphilis? Maybe it was never, maybe it was a few years ago. Or maybe you've shelved syphilis in the old medical books back in the shelf behind you. So today we are going to absolutely assure you that syphilis is back, and we're going to take you now through a step-by-step guide so that you can be confident in your management of syphilis. Next slide please.

**Dr Lara Roeske (00:37:17):**

Hopefully at the end of this short presentation, you'll be confident about accessing the right penicillin formulation, using a correct treatment dose, and also in such a way that you're minimising patient distress and pain. That you're going to apply the correct recommended dosage interval for acute, early-latent and latent, and of-unknown-duration syphilis and that you know the number of doses to use. I have a table that briefly talks to what to do in those that are allergic to penicillin, or have other complications, or who are pregnant. And we'll focus a little bit on how you can ensure that you're addressing patient comfort, pain relief and management, safety and education. So let's get started and onto the next slide.

**Dr Lara Roeske (00:38:11):**

So the most important thing is to make sure the patient is well prepared. So that really means informing them about the reasons for the risks and the benefits and any side effects of treatment, ensuring that you're doing so in a way that meets their health literacy needs and is culturally safe. Please allow time for questions during the consultation, and please document that you've received verbal consent for management and for injection. I think it's always a good idea to offer a support person, and your practice nurse is absolutely invaluable, and even more so if she's able to and is trained to assist you in the injection procedure. Please remind the patients that they need to stay for about 20 minutes or so to be observed afterwards.

**Dr Lara Roeske (00:39:08):**

Checking that you've got the right patient and the right medication is important, as is really thinking about how you're going to optimise both patient anxiety, we know that 90% of patients exhibit anxiety in relation to a painful procedure like an injection, and there are a number of strategies you can use. But I've quoted this one for you, ICE, the ICE trial, which was published this year. It really showed that the application of an ice pack both before and after a vaccination significantly reduced the experience of pain. And we know that ice packs are cheap and readily available in a general practice. So that's something that you might consider using. Of course, paracetamol can be used before and after the procedure as well. And we'll talk about some of the distraction techniques that you can use. Next slide.

**Dr Lara Roeske (00:40:12):**

There's probably one other thing you do need to tell your patients about how things may go after the injection and after they've gone home after a period of observation. And one of those is the Jarisch-Herxheimer reaction. The reason it's got an unusual name, and you might think it's rare, but it's actually not that rare, and it's a fairly common non-allergic transient reaction. However, it can be quite alarming for patients. So it's usually fairly acute in onset, in terms of getting a fever, feeling quite unwell, sweaty, headachey, perhaps having joint pains and a tachycardia as well. And these symptoms can occur within about two to 12 hours after injection. And there's really no definitive treatment. It's about reassurance, rest, plenty of fluids and paracetamol. And of course letting patients know that if they're at all concerned about how they're feeling, they should either make an appointment, come in or perhaps discuss this with you over a video conference or a telehealth. So next slide.

**Dr Lara Roeske (00:41:31):**

I'm showing this to you because I don't how many of you are familiar with what benzathine penicillin. So it's not benzylpenicillin, it is benzathine penicillin G, or BPG, also known as Bicillin. I wish it was easier but it's not. And so each, you'll see that the packs come with two prefilled syringes, and actually a treatment dose is two syringes, not one syringe. Each syringe contains 1.2 million international units of benzathine penicillin. And the syringes are ready to go when you take them out of the packaging. So there's no need to reconstitute the syringes, and please do not mix or combine the syringes. The doses need to be given separately, either sequentially at different sites, or simultaneously if you've got someone like a practice nurse helping you. Now the penicillin should be kept, long-acting penicillin such as this should be refrigerated. But it is always appropriate and considered for you to allow the penicillin to come closer to room temperature before injecting, because it reduces pain. This is not an intravenous or a subcutaneous formulation. It should be given by deep intramuscular injection. Once you've, obviously, injected, you should safely discard all needles and syringes. Next slide please.

**Dr Lara Roeske (00:43:22):**

So I've mentioned to you that a treatment dose is in fact two of these syringes, and that is an adequate dosage for primary, secondary or early latent syphilis. So we say that you only need to give one treatment dose, that would be two syringes, STAT, given either sequentially or simultaneously at different sites. For late latent or unknown duration, you would proceed that way, giving that treatment dose, and then you would need a further two treatment dose for three weeks, one each week. Another important point is that you shouldn't add local anaesthetic to these syringes or to the formulation. It can interfere with the absorption and the effectiveness. And the reason why I'm really impressing this upon you today is that penicillin injection, long-acting penicillin injection in a correct treatment dose is lifesaving. It will treat the foetus, it can cure. But if you don't get it right, it leaves the situation open for further transmission of syphilis, disease progression and potentially catastrophic outcomes. Now could we go on to the next slide.

**Dr Lara Roeske (00:45:03):**

So where should you inject penicillin? And I'll talk to this in a little more detail, but the choice of site does actually depend on a number of factors, including your own experience, the patient preference, and the weight and the age of the patient, and I would also argue their mobility. Usually they'll be lying on their side or prone. Most importantly, however, you want a site that presents more muscle, less subcutaneous fat, more muscle because it's a deep intramuscular injection and that is free from large blood vessels or nerves. So over time, actually, there's just been one site now that's really emerging as the best site, and it's known as the 'ventrogluteal site', which is the top of the hip. So let's go to the next slide.

**Dr Lara Roeske (00:46:00):**

Just before we show you how you're going to locate that site, I do want to make the point that of course you'll be observing your patient throughout. There are a number of ways patients can manage their anxiety and pain. They should be given those options as part of the consultation. Some like to hold a hand, so nurse handy or support person, others want to wriggle their toes throughout the procedure. Some might whistle or hum or even watch a phone. You will be swabbing the injection site with alcohol. Make sure you let it dry, because it's painful if you don't. And when you do enter the skin, the needle needs to be at 90 degrees. The injectable volume needs to be kept to what's in the syringes. So don't reconstitute, don't combine, don't add local anaesthetic, because you're reducing effectiveness and absorption and you're possibly increasing pain. Don't rush to inject the contents, so you need to slowly inject. Now let's go to the next slide.

**Dr Lara Roeske (00:47:06):**

So if you can imagine here, and in this situation I've got my patient lying on their left side, they're presenting their right hip, and I've got my left hand over their right hip. And what I do is I place my left palm at the top of the hip, over the greater trochanter, with my thumb facing forwards, and I then extend my index finger towards the anterior superior iliac spine. Once I've located that there, I leave that there and I then fan my middle finger backwards along the iliac crest, thereby creating a triangle between the third finger, the middle finger and the index finger. And it is at the midpoint of that triangle that you would inject penicillin, place your injection right there. A couple of quick tips. Of course you're wearing gloves, and the other is it's quite nifty to use the syringe cap. You just compress it down onto the skin where you think the midpoint is, and you'll have a nice marker without having to mark the patient, or it can get a bit tricky because of course you've got one hand to inject with and one hand to find the correct anatomical site. Next slide please.

**Dr Lara Roeske (00:48:28):**

So where can you get benzathine penicillin? Please call ahead to your pharmacy. I, in preparing this talk, did some research and I found it pretty easy. Most pharmacists had some in stock, but sometimes they don't. You can pre-order it for the doctor's bag. When you do, you'll get 10 prefilled syringes, which remember is equal to five doses, two syringes per dose. Try to get it on a PBS script, it's about $48 to $53. Privately it can get quite expensive, upwards of $80. It should be kept refrigerated, as I've mentioned. Next slide please.

**Dr Lara Roeske (00:49:09):**

So some special treatment situations. Pregnancy and syphilis is always an emergency. You'll have others involved in the care. Really we are talking about a woman and a foetus. And in that situation, if there's an allergy, there'll be a process to desensitise and hopefully be able to treat with penicillin. In other situations, with a penicillin allergy, you can certainly consider a course of doxycycline and I've provided that information. Anyone who has HIV co-infection should be managed in consultation with a sexual health specialist. And anyone who has complications of syphilis should be referred on to your local sexual health service, infectious diseases clinic, or to your local specialist. Next slide please.

**Dr Lara Roeske (00:50:03):**

So I'm tough. I actually think that if I'm wanting good clinical support and advice at the time that I'm with a patient, I rang a whole bunch of services across this country and there was only one that stood out, in that my call was answered by a doctor within minutes, and they were able to provide with real-time, sound clinical advice. And I have to commend, I'm in Victoria, but look, I gave everyone a fair go. I can't trawl through websites for hours trying to find a number and then get either a message, or perhaps speak to someone who doesn't have the clinical knowledge to speak to me, and I make no apology for that. So I use the 1800 number, and I know the sexual health physicians there take that number. It's available Monday to Friday, and they're rostered to take our clinical queries at those times. But to be fair, next slide.

**Dr Lara Roeske (00:51:07):**

There are a range of other excellent services available according to where your practice is. And if we could go to the next slide, I think we're getting to the end. I've also provided a range of resources that you may want to look into. Next slide. And also we've got some RACGP resources. I should note that at GP22 we will be featuring an on-demand webinar, which actually shows me doing injection live. There's a real paucity of educational videos that actually demonstrate how to inject. So you'll be able to access that video as part of registering for GP22, which I encourage you all to do. Next slide please.

**Dr Lara Roeske (00:51:58):**

So my key messages for you are, syphilis is no longer a rare STI. You should consider it in all your sexually active patients. And, in fact, please consider sexual health checkup as part of an annual check for all adult Australians. Include a test for syphilis, it's as simple as ordering RPR as part of your STI check, and that's actually recommended in guidelines. Take a sexual history for all patients, at least annually, and remember that antibiotics can cure syphilis if found early. Next slide.

**Dr Lara Roeske (00:52:36):**

For genital ulcers and lesions, don't just think herpes, test for syphilis too. The guidelines around antenatal care and syphilis testing we're waiting on, but we urge you to be proactive. Test all pregnant women at least once, and more if they are at risk. Pregnancy and syphilis requires urgent referral. Congenital syphilis can be lethal. And, look, in the pregnancy guidelines, there is consideration now to test for syphilis at least each time that you're doing blood tests for another reason. So we're, again, waiting for that to be enshrined in guidelines, but for people at risk, I think you will be well within your rights to do so. Next slide. And that's my final message to you. It's never been more important for GPs to detect and treat syphilis. Thank you very much.

**Dr Amy Moten (00:53:35):**

Thanks so much Lara, and I really appreciate that practical guide for penicillin injection, because it isn't something that you always get taught, either in medical school or even in general practice. And so to the participants, we've had a few questions come through and it looks like they're increasing. I know Lara answered a few in this presentation, but we'll start with the top ones. Now, one of the first questions was from Steven who asked, when should we test for syphilis with PCR in patients with symptoms suggestive of STI?

**Dr Lara Roeske (00:54:09):**

So Amy, the question again, sorry? When should we test for syphilis? Sorry?

**Dr Amy Moten (00:54:14):**

—PCR in patients with symptoms suggestive of an STI.

**Dr Lara Roeske (00:54:18):**

Look, I tend to take a very broad approach to that. If someone has symptoms of an STI, they may have more than one STI, and it would be as simple as an RPR test at that time, and that's what I would recommend. Yep.

**Dr Amy Moten (00:54:37):**

Okay. There were also some questions about undersupply of penicillin. I believe there was a shortage a couple of years ago. Is that no longer the case?

**Dr Lara Roeske (00:54:47):**

Yeah, so Amy, thank you. And I think that does vary greatly as to where you're practicing. I think if you want to be serious about offering a good service, perhaps you could ask tomorrow, the next day, put it on your to-do list, ask your practice manager or nurse to ring around the local pharmacies, just so you know what's happening and whether they have anything available. If you haven't ordered it in already as part of your doctor's bag, I would certainly recommend that one of the doctors at a practice does that, or that your practice manager organises that for you, and so that you've got it in the fridge on stock ready to go, or at least the local pharmacy's got it ready for you should you need it.

**Dr Amy Moten (00:55:32):**

Great. And I guess this is a question for both of you. There was an earlier question about doing test of cure for all STIs, and then another one about following up to check for eradication of syphilis.

**Dr Lara Roeske (00:55:47):**

I'll start and then we'll get Terri to contribute. So I did provide an answer around chlamydia of course, which is the most common bacterial, well, it's not quite a bacteria, it's in between. But look, it is one of our most common STIs, and there was a time some years ago where we were encouraging a test of cure at around three months. But what the research has shown us, that what's much more likely and worrying is reinfection. And most chlamydia reinfections tend to occur at about four to five months after the index presentation. So the recommendation is to consider a test of reinfection for chlamydia somewhere around four to five months in those that have tested positive. The other thing, of course, is to put them on a recall for 12 months, because if they're sexually active Australians and they're under 30, that's what the guidelines recommend. So that'll keep us busy. With syphilis, it's a little bit tricky, because if you've ever had syphilis, and even if it's been treated, some of the blood test results will always remain positive. So I'll pause there and see if Terri's got anything to add.

**Dr Terri Foran (00:57:04):**

Not really, Lara, you've covered it. I guess my only suggestion is not to test too early for a chlamydia test of cure, because if you test too early you'll almost always get a positive, because you're looking for dead DNA. Certainly don't test two or three weeks after. I often test around the three month mark. And the reason for that, personally, is if they're still with the person, it's my way of checking that everybody's been tested and treated. But I agree with you, I think you can't test often enough in a sexually active population, and especially these days with self-collected swabs, I think it makes it a lot easier. And certainly they're using a lot more of that in overseas countries than we seem to in this country.

**Dr Terri Foran (00:57:50):**

Syphilis, I just say one thing, too, when you were talking, is to remember that you can also get syphilis orally. So it's not just genital ulcers, it's also oral. I hardly ever see anything visible in women, because it's often hidden way up inside. So yes, I think that's the case. But it's back to the old days, I feel like it's almost buttoned up boots, but whenever you see something that's not quite right, if you see a painless ulcer, if you see someone where the history doesn't seem quite right and there's a whole constellation of odd symptoms, I think these days you have to think, or at least eliminate syphilis, I agree. And then I guess the other thing you were saying is, you're quite right, interpretation of the test for syphilis, I reckon, is quite difficult. And I think sometimes if there are questions around that, that's the best time to ring one of the sexual health clinics and get some help.

**Dr Terri Foran (00:58:48):**

And the other thing, too, is of course we have other non-sexually transmitted syphilis infections. So when I was mentioning, one of my patients came from Syria, there's quite a high incidence of endemic syphilis over there, which is transmitted from person to person and not sexually. So it can get quite tricky in terms of interpreting the tests. And yes, the message is, I think, probably to get some expert advice when it's not quite obvious what's going on.

**Dr Lara Roeske (00:59:20):**

Yes, just following on from that, Terri, you're quite right. The majority of syphilis in pregnant women is asymptomatic, so don't look for symptoms. It's your sexual history, but it's also just having that elevated level of monitoring. And this is where we're perfectly placed in general practice. I would say to us, our job is to make the diagnosis. Be proactive. There's a lot of good support. I still tend to speak to my local sexual health physician and service, just to help me with staging. And sometimes if I feel that I just need just a bit of a guide, I talk through what I'm intending to do around management. And so don't feel that you're alone, but making the diagnosis, early detection, that is so important and it's within our remit, and we can do that.

**Dr Terri Foran (01:00:15):**

Absolutely.

**Dr Amy Moten (01:00:17):**

Excellent. I think we've got time for maybe two more questions. So I might just address syphilis again. Can you explain the duration of doxycycline use in syphilis, e.g. how to know if it is infectious syphilis or not?

**Dr Lara Roeske (01:00:34):**

Well, that's a hard question and I think I tend to break down syphilis into early, as we said, early latent, late latent, and stage it. Essentially, you know it's infectious based on both serology results, history and presentation. If you know someone's allergic, I would still be seeking advice. I need to think about whether this is someone that might need follow-up after treatment, someone that has a particular complication, be it HIV or pregnancy or something else, that would really make me feel that perhaps they're a candidate for desensitisation. Some people actually want that option, because we know penicillin is so effective. I guess they're my initial thoughts and reactions. Terri, I don't know if you've got anything else you want to add, but yeah.

**Dr Terri Foran (01:01:38):**

No.

**Dr Lara Roeske (01:01:38):**

It's not cut-and-dry, and because syphilis is, it's a tricky disease, I think your best approach is to sort of go with first principles, but also consult. I've also found that when I do ask the questions, I get some really good tricks around how to stage. Perhaps someone's been pregnant in the past and there's some old antenatal serology you can look for. I've been told how to quickly physically stage, by looking for Argyll Robertson pupil, by listening for an aortic regurg murmur, and looking for some skin signs, and perhaps looking for some vestibular balance issues. So there's quick ways you can actually stage it physically if you really wanted to, but most of it is asymptomatic. And of course looking for lesions, in the mouth and genitally. I think that's probably it, Amy, from me.

**Dr Amy Moten (01:02:42):**

Okay. Alright. Well I know Lara might have to leave right now, so thank you very much. I just maybe have one more question for Terri if you've got time.

**Dr Terri Foran (01:02:50):**

I'll try.

**Dr Amy Moten (01:02:51):**

Which was around, because you mentioned the self-collected swab efficacy, someone has asked, Jesse has asked, how does the sensitivity of urinary PCR compare to a self-collected vaginal swab for chlamydia or gonorrhoea?

**Dr Terri Foran (01:03:04):**

They're all pretty close. So the most sensitive is in fact a physician-collected sample from the cervix, if we're talking women. And then closely followed, we're only talking a percentage or two decrease in sensitivity, for vaginal. And then followed again very closely, again, maybe a one or 2% decrease again, for urine. I think the couple of things I should say there, the best test for males this urine. So that's where we go for men. And these days it doesn't have to be, you don't have to not go for an hour and a half beforehand. The test these days are so sensitive that if you just collect a sample, a first pass sample, a first bit of urine, that's considered adequate. So look, I think once people realise that they can do a quick self-collected test for any of these things, it does overcome some of the barriers, to getting undressed, having examination, taking longer.

**Dr Terri Foran (01:04:07):**

And I just think, particularly for an asymptomatic person who you think may be in a slightly at risk category, I think promoting it and getting the test and discussing the issues around the test is a really important message to get out there. As I said, in places like the UK, they're available from pharmacies, where people can go in and do a self-collected test and get the result back. And if it's positive, they're then asked to talk to their health provider. And it'd be nice if we could perhaps do a little bit more of that in terms of being proactive again around testing in this country.

**Dr Lara Roeske (01:04:43):**

Amy and Terri, I just will interject and say, I can see there are two quick questions I can answer. One was, what position should I get my patient into for IM injection of penicillin? And look, I would commend to you what is the ventrogluteal site, and really lying on the side is best. Prone is never a nice position, but some patients prefer it. So that's the other thing. You can give them a choice, but really, on the side, and then over to the other side.

**Dr Lara Roeske (01:05:18):**

You've also asked, can we do a webinar on syphilis cases? And we've done it, and I will ask our organisers tonight, we had that a couple of months back, to send the link to that webinar where you'll have a number of other experts speaking. I do want to tell you that I do live with my self-collection swap. Here it is. It's on my desk at home, it's in my basket. And really it's a wonderful choice and an enabler. It means our male GPs can get back involved in cervical screening. It's also going to save many plastic specula and it's good for the environment. So there's lots of reasons to be proactive about self-collection as part of cervical screening. Couldn't help myself, Amy and Terri.

**Dr Amy Moten (01:06:05):**

That's all right. We know how passionate you are. And I'm afraid that is all we have time for. On behalf of our webinar partner, Jean Hailes, thank you very much to everyone for attending, and you will get access to the recording, and also you'll be emailed the links to the resources. Massive thank you to Lara and Terri for your wonderful, passionate presentations. And yes, I'm sure we'll see you again at some point in the future, providing more education around this.

**Dr Terri Foran (01:06:31):**

Thanks Amy.

**Dr Lara Roeske (01:06:32):**

Thank you Amy.

**Dr Terri Foran (01:06:33):**

And thanks Laura.

**Dr Lara Roeske (01:06:33):**

Thanks Terri.

**Dr Amy Moten (01:06:36):**

Have a good night everyone. Bye.

**End of transcript**

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