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**VIRTUAL
ROUND TABLE**

The current landscape surrounding use of probiotics to support women's health

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Brief summary of background to the project

On 11 March 2026, a virtual roundtable was held to discuss the current evidence and expert outlook surrounding use of probiotics to support women's health. Six international experts in the field attended – including clinicians specialising in gynaecology and obstetrics, general practitioners (GPs), academic researchers, and dietitians. Attendees were based across the UK, US, Belgium, and Sweden. Discussion focused on the current weight of evidence for recommending probiotics to support women's health, current prioritisations and considerations relating to probiotic selection, and methods to improve confidence in probiotics.

The Advisors discussed in which women's health conditions there may be a role for probiotics and considered the importance of strain specificity, bacterial community, and mechanistic understanding of probiotics. Looking ahead, discussions expanded into how to increase the evidence base and awareness around probiotics, as well as how to overcome institutional and regulatory obstacles to their uptake.

The opinions and recommendations of the Advisors are summarised herein.

Abbreviations

Abbreviation	Definition
BV	bacterial vaginosis
GP	general practitioner
HCP	healthcare practitioner
PCOS	polycystic ovary syndrome

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*Dr Ugwumadu was interviewed and shared insights prior to the roundtable as he could not attend on the day.

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● Executive summary

Evidence is emerging to support the recommendation of probiotics to benefit women's health. However, owing to the reduced regulatory requirements for marketing probiotics vs medicines, it is important to differentiate probiotic products that are supported by robust clinical evidence from those that are marketed without strong evidence. Additionally, the vast selection of probiotics on the market creates a minefield for healthcare professionals (HCPs) looking to identify evidence-based strains to recommend to their patients.

Women's health conditions for which there is some evidence to support incorporation of probiotics into the treatment plan include bacterial vaginosis (BV), vaginal dysbiosis, persistent and recurrent gynaecological issues, and *Candida* infections. It is vital to focus on probiotics that use strains present in the vaginal microbiome, with *Lactobacillus* regarded as the most beneficial genus for women's health, as the predominant bacteria found in the vaginal microbiome.

In the absence of guidelines for HCPs to support probiotic use, it was acknowledged that educational assets are required. Strategies were suggested to include short-form assets, such as an evidence summary website with regular updates, detailed recommendations for strain and strength of probiotics, and educational symposiums.



● Multiple considerations are required for HCPs when recommending probiotics

Probiotics can be beneficial for some areas of women's health

Experts determined that certain aspects of women's health can potentially be improved through probiotic use. Specifically, experts expressed that strongest evidence exists for the use of *Lactobacillus* strains in this context, as the predominant bacteria in the vaginal microbiome.

BV

There is evidence to support use of probiotics – specifically *Lactobacillus* strains – against recurrent BV infections. While there is interest in vaginally administered probiotics for women's health, the regulations surrounding probiotics and live probiotic strains differ globally and evidence-based products are not currently widely available in the UK. Further evidence supporting the use of oral probiotics would be beneficial.

Yeast infections

The evidence base surrounding use of probiotics against yeast infections (for example, *Candida*) was not considered as strong as for BV infection. The relationship between the vaginal microbiome and yeast infections is considered a paradox. While laboratory-based observations note that *Lactobacilli* control

yeast production, and there is a high incidence of yeast infections in women who have reduced vaginal *Lactobacilli* populations following antibiotic administration, in clinical observations, there is an abundance of *Lactobacilli* in women with *Candida* infections.

Yeast was additionally noted to be hard to sequence. Improved sample preparation for yeast DNA extraction (as opposed to bacterial DNA extraction) is needed to enable accurate sequencing and better understanding of yeast infections. Despite these concerns, some HCPs would be prepared to trial the use of probiotics for women with yeast infections, based on evidence available from small trials, and depending on patient preference.

Menstrual difficulties

While vaginal dysbiosis and low *Lactobacillus* levels are often seen in women with endometriosis, Advisors were unaware of strong evidence to support use of probiotics to help manage this condition. The Advisors therefore stated that recommendation of probiotics for women with endometriosis would often not be considered without clear supportive clinical evidence.

Systematic reviews and meta-analyses were cited to demonstrate positive associations between probiotics and

polycystic ovary syndrome (PCOS) management. Which specific strains to recommend for this condition was not clear, however, resulting in Advisors stating that there is “nothing prescriptive as yet for this”. Advisors supported patients with PCOS trialling probiotics for a 12-week period if desired – potentially as a third-line option.

Pregnancy loss and complications

Patients experiencing recurrent implantation failure or pregnancy loss often present with vaginal dysbiosis and low levels of *Lactobacillus* species. Advisors suggested that for patients with *Lactobacillus* levels lower than ~90%, *Lactobacillus* strain probiotics could be worth trialling to support fertility, with follow-up assessment after 12 weeks.

Menopause

Menopause was not considered a condition that currently has evidence for benefit of probiotics. A post hoc analysis of a randomised controlled trial revealed microbiome changes with administration of oestrogen that were unrelated to symptom improvement. Advisors considered that the microbiome may be a marker, not an actor in menopause; however, as this discussion was based upon a single study, more evidence is needed to explore the potential beneficial role of probiotic use in menopause.

Patient considerations

Specific patient populations were considered during discussion. Advisors described women experiencing infertility as often open to trying probiotics when their options feel limited. Additionally, immunocompromised patients receiving probiotics containing only *Lactobacillus* strains were regarded as lower risk for developing bacteraemia, with Advisors noting that in their experience, “you don’t get *Lactobacillus* bacteraemia”. Ultimately, HCPs must consider all individual patient factors in the decision to consider probiotics for their immunocompromised patients on a case-by-case basis.

The Advisors stated that more clinical trials are required to translate laboratory support for microbial communities to women in the clinic; however, **these preliminary studies support the idea of using probiotics to support women’s health**. While the evidence for oral probiotics would benefit from some further studies, the Advisors agreed that “some women would like to try” before reaching the “end of their tether” with symptoms. Emphasis was also placed on remaining transparent with patients where there is emerging evidence for the use of probiotics to support management of certain conditions. **Recommendation of probiotics was therefore often encouraged as an exploratory option for patients** where desired.

Strain specificity and bacterial community are important considerations for probiotic recommendation

Discussion of strain specificity, bacterial community, and mechanistic understanding are important when considering potential benefits of probiotic use for women’s health. Advisors further specified the importance of using vaginal isolates in this context to ensure optimal functionality.

Location of residence and ethnicity of women were considered key considerations when exploring probiotic strains. For example, while some ‘cosmopolitan’ strains are present in

the vagina of women across different countries, some species are exclusively identified in women from specific countries. **The vaginal microbiome can therefore vary between patients and can make it difficult to understand what is considered a ‘healthy environment’ for each woman**. This disparity, and the variation in sequencing technologies, resulted in Advisors not recommending routine microbiome testing when considering treatment. Outcomes would likely remain comparable whether testing was performed or not – rendering this stage unnecessary in the clinic. The Advisors did, however, emphasise the importance of enabling patients to decide whether testing would help them to feel more comfortable during their treatment, and specified a use for microbiome testing during clinical trials, to enable smaller cohorts to be studied.

In addition to understanding what individual strains do, it is important to also view the microbes as a community to understand potential interactions. This approach shows promise against some vaginal pathogens in laboratory studies. The importance of microbial communities to support women’s health is further upheld by promising data from ongoing studies focusing on microbiome vaginal transplantation. The Advisors stated that more clinical trials are required to translate laboratory support for microbial communities to women in the clinic; however, these preliminary studies support the idea of **using probiotic combinations to support women’s health**.

Additional trials can improve the evidence base, guiding which probiotic strains are most able to support specific women’s health needs

With guidelines and clinicians requiring strong evidence to support decision-making, Advisors emphasised that “it is the [clinical] trials we need to filter through to clinical practice”. Advisors further stated that “the reasons I recommend [treatment options] are because of data” and ranked priorities for determining which probiotic(s) to recommend as:

- 1 presence of strong data
- 2 least burdensome option
- 3 cost

This emphasises how essential it is to conduct well-structured clinical trials, with large sample sizes, to gain evidence that can encourage use of probiotics.

Advisors suggested expanding from previous trials, utilising **better technologies that have since become available to improve analyses**. Dual purpose new studies performed with novel technologies could explore the underlying mechanisms of action of probiotic colonisation as well as the efficacy at treating patients. This approach could also lend itself to validating that taking the probiotic results in vaginal colonisation of the probiotic in patients.

Advisors recommended confirming the mechanism of action and presence of orally administered probiotics in the vaginal microbiome through further clinical studies. This was deemed important to confirm desired functionality. Understanding the dose of oral probiotics required to colonise the vagina through clinical trials was also advised to guide clinical decisions.

Further well-designed studies would be welcome. Randomised controlled trials including a placebo arm would exclude the placebo effect; extended follow up would enable focus on durable outcomes (e.g., BV recurrence). Real-world data would additionally support use of probiotics outside the clinical study environment.

Education is essential to enhance clinical and patient awareness of probiotics

Existence of evidence is meaningless unless it is disseminated to the right people. As HCPs work within specialties, those unclear on the available literature outside of their specialties will not recommend probiotics to patients. HCPs therefore need to be directed towards evidence to enable them to explain probiotics and make appropriate recommendations to their patients.

Advisors supported that, while confidence levels in probiotics are not currently expressed among colleagues, interest is high. **HCP education was therefore recommended to disseminate current evidence** and promote uptake of probiotics to support certain women's health conditions. Education was advised to include conference-style presentations; HCP-approved, regularly updated evidence summaries; and strain- and dose-recommendation guidelines.

Interest in probiotics extends to patients, with some admitting to importing probiotics from areas in which they are approved, based on advertisements seen online. Patient trust in probiotics could therefore be supported by messaging from trusted HCPs, through discussions or social media posts.

Advisors stated that "utilising the probiotics could mean a lesser reliance on [antibiotics] in the future". This was judged as particularly relevant to use of probiotics for the prevention of BV recurrence – the probiotic use supported most strongly by Advisors. As a result, the Advisors believed that it could be beneficial to include mention of antimicrobial resistance prevention as secondary messaging within HCP- and patient-focused education about probiotics.

Clinical guidance is needed to support more widespread probiotic use

Education and guidelines were discussed by Advisors to be useful to support recommendation of probiotics for women's health – particularly in the UK, where there are no current, recognised guidelines supporting probiotic use.

Advisors particularly emphasised the **benefits of guidelines to increase confidence in making recommendations of probiotics**. Such assets would support selection of strains, based on evidence for certain conditions, to ensure clinically beneficial recommendations. Guidelines were described as something that dietitians and GPs "would love" – especially following the removal of the *UK probiotic guide*.

With limited specialist care available, patients need other support

With a "postcode lottery" of sparse specialised clinics, GPs are sometimes unaware who to refer their patients to and patients may face a significant wait to receive care. In the case of gynaecological care, women's health conditions often "**fall through the cracks**" **between sexual health clinics and surgery-focused gynaecological care in the UK**.

Women are therefore searching for HCPs who will listen, do research, and have answers. Education and guideline establishment initiatives could support HCPs throughout the referral process to gain knowledge, support care, and potentially limit the need for specialised care.

Proactive probiotic progression – next steps

Experts emphasised the importance of education and guideline establishment initiatives to support clinical decision making,



as well as solidifying evidence around potential benefits of probiotics through further clinical trials with large sample sizes.

Assets marked as important to encourage recommendation of probiotics included an evidence summary website with regular updates, detailed recommendations for strain and strength of probiotics, and educational symposiums. This highlights the importance placed on short-form education of HCPs to encourage uptake of probiotics within the clinic.

Guidelines were suggested to summarise such evidence into recommendations of strains and CFU counts to consider for management of specific women's health conditions.

Trials were recommended to include parallel mechanistic investigations, utilising advanced technologies. The roundtable attendees placed importance on development of a pragmatic trial design template for more standardised reporting of results to allow comparison across trials of similar species or therapeutic targets.

Summary

The roundtable offered expert discussion of the current evidence base surrounding use of probiotics to support women's health, as well as barriers preventing their recommendation to patients. Some evidence exists for probiotic use to support certain women's health conditions. These include BV infections, menstrual difficulties such as PCOS, and pregnancy loss.

Key barriers to probiotic use:

- 1 absence of clinical guidelines
- 2 limited clinical awareness of evidence-backed strains

Ultimately, **development of guidelines and educational materials was advised to aid understanding and confidence of recommendations in the clinic**. Through strategic dissemination of which probiotics could improve certain conditions, probiotics may reach more women sooner and reduce the number of those who could "fall through the cracks" – enabling potential restoration of their vaginal microbiome, which could improve health.

