

Why are my patients still suffering?

The role of barrier dysfunction in treatment-resistant recurrent UTI and bladder pain syndrome

BAUS Annual Scientific Meeting 2026 | IBSA Educational Symposium

At the 2026 British Association of Urological Surgeons (BAUS) Annual Scientific Meeting, IBSA UK&I hosted an expert educational symposium exploring the emerging understanding of bladder barrier dysfunction and its role in recurrent urinary tract infections (rUTIs) and bladder pain syndrome (BPS).

Chaired by Professor Christopher Chapple, the symposium brought together Professor Christopher Harding, Professor Marcus Drake and Mr Nadir Osman to discuss the latest evidence surrounding bladder barrier dysfunction, non-antibiotic management strategies, intravesical glycosaminoglycan (GAG) replacement therapy and practical considerations for patient selection.

This article summarises the key scientific discussions and clinical insights from the symposium, providing healthcare professionals with a concise overview of the symposium discussions that highlighted some of the latest evidence and its implications for clinical practice.

Symposium summary

Persistent lower urinary tract symptoms remain one of the greatest challenges in functional urology. Many patients with rUTIs and BPS continue to experience symptoms despite repeated treatment, while rising antimicrobial resistance is increasing the need for new management approaches.

Against this backdrop, IBSA UK&I hosted its first

educational urology symposium at the BAUS 2026 Annual Scientific Meeting, marking an important milestone after ialuril®'s transition from Aspire, its previous UK distributor, back into IBSA UK&I's portfolio.

Opening the symposium, Steven Knapp, General Manager of IBSA UK&I, highlighted the company's commitment to supporting healthcare professional education through partnership with leading clinical experts to improve patient care.

Looking beyond symptoms

Chairing the symposium, Professor Christopher Chapple challenged delegates to think differently about persistent lower urinary tract symptoms. He highlighted that many of the complaints clinicians encounter daily have symptomatic diagnostic terms to describe them, e.g. OAB (overactive bladder), BPH (benign prostatic hyperplasia), and BPS as opposed to being standalone conditions. The overlapping nature of bladder storage symptoms across different bladder-associated 'conditions', e.g. urgency, increased frequency and pain, highlights the argument that the bladder is "**an unreliable witness**".¹ Making the effort to investigate

the underlying cause, rather than relying on symptoms alone, is therefore fundamental to selecting the most appropriate management approaches.

Professor Chapple also highlighted the growing understanding of the urothelium (namely the interstitial cells and sub-urothelial layer) being the primary target for therapy, as opposed to the detrusor muscle, due to it being many times more metabolically active than the muscle.²



Caring Innovation

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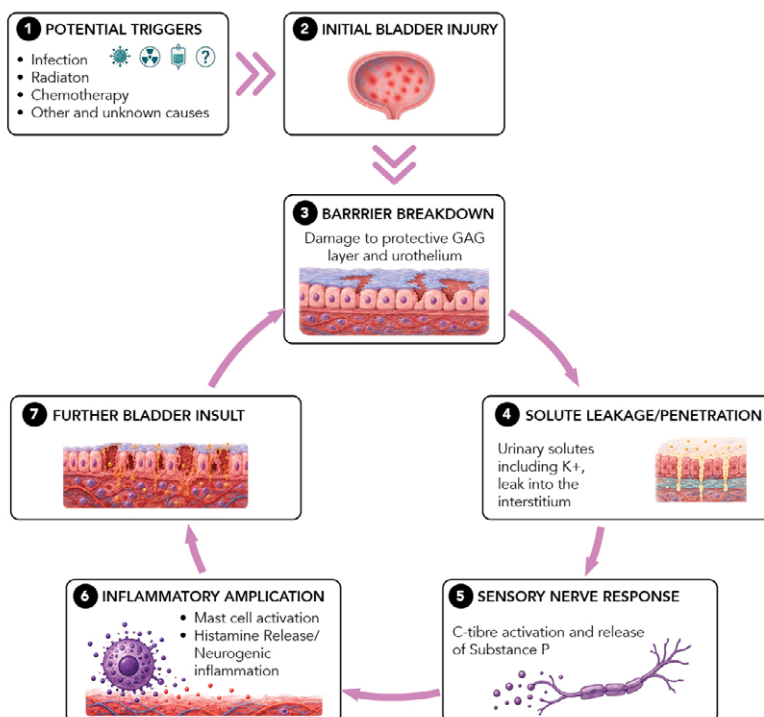
Why current approaches are not always enough

As the management of urinary tract infections (UTIs) has evolved significantly over recent decades, due to increasing antimicrobial resistance (AMR), Professor Christopher Harding highlighted that antibiotic exposure, even low-dose prophylactic antibiotics, is a key driver of AMR. While some antibiotic classes have historically maintained relatively low resistance rates, rising resistance patterns are now being observed across multiple regions worldwide. In response to these challenges, Professor Harding explored a range of reliable non-antibiotic strategies for reducing the risk of rUTIs, including increased fluid intake, cranberry products, vaginal oestrogen, immunoprophylaxis and methenamine hippurate.³

He further explored intravesical therapies as an alternative approach for rUTI prevention, particularly intravesical GAG replenishment therapy. Emerging evidence was discussed suggesting that intravesical GAG therapy may reduce UTI recurrence more effectively than intravesical antibiotic approaches in some patient populations, while sparing the gut microbiome.⁴ However, Professor Harding emphasised that the existing evidence base is characterised by considerable heterogeneity, highlighting the need for more robust, high-quality clinical data.

Looking ahead, the ongoing UK-based VESPER trial, a multi-centre, randomised controlled study, was identified as a potentially important source of evidence that may help further define the role of intravesical GAG therapy in rUTI prophylaxis.⁵

Figure 1- Proposed pathophysiological cycle of urothelial and GAG-layer damage



Understanding bladder barrier dysfunction

Building on this theme, Professor Marcus Drake explored the role of bladder barrier dysfunction in rUTI and BPS. The bladder's GAG layer, secreted by the urothelium, is an important, yet sometimes overlooked, part of the bladder's protective mechanism. The ionic nature of the GAG layer helps to repel the electrolyte-heavy, charged, acidic urine; however, it is a fragile barrier, and when compromised, urinary irritants can trigger toxic effects, stimulate underlying sensory and inflammatory pathways, contributing to the typical bladder symptoms urgency, frequency and bladder pain^{6,7}

[Figure 1].

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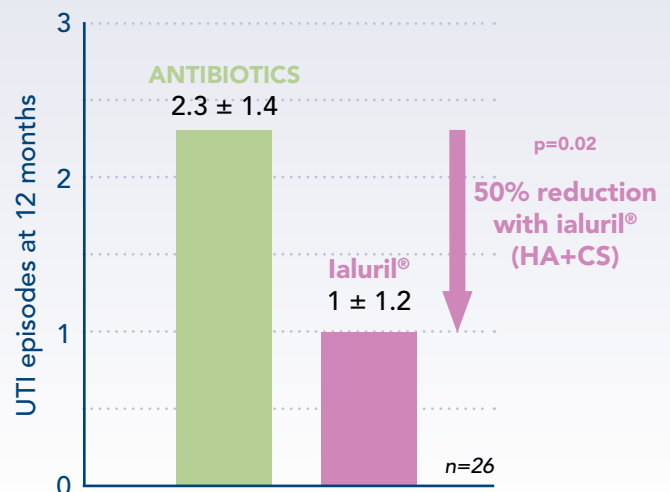
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Understanding bladder barrier dysfunction

Professor Drake reviewed clinical evidence supporting intravesical GAG replacement therapy, including randomised controlled trials, systematic reviews and meta-analyses. Collectively, these studies suggest that restoring the bladder's GAG barrier can have the effect of reducing rUTI episodes, improve BPS symptoms and improve quality of life in appropriately selected patients, although further high-quality research is needed [Figure 2].

He also emphasised that intravesical GAG replacement therapy should not be judged too early. Patients should be counselled that symptom improvement may take time and that completing the induction course, followed by maintenance therapy, is important before assessing treatment response.

Figure 2 – De Vita 2012 results graph⁸



Data from De Vita et al. 2012. UTI episodes at 12 months in women receiving intravesical HA+CS or antibiotic prophylaxis. De Vita D, et al. *Int Urogynecol J.* 2012;23:1707-1713.

What does this mean for clinical practice?

Drawing the scientific discussions together, Mr Nadir Osman focused on how the evolving understanding of bladder barrier dysfunction can influence clinical practice. He described a familiar group of patients who continue to experience urgency, increased frequency, bladder pain and recurrent symptoms despite repeated antibiotic treatment, often with negative or low-count urine cultures.

He went on to highlight the historic ways of diagnosing and defining rUTIs and BPS⁹⁻¹¹, and proposed that using these as blanket methods may not be the most effective strategy, in light of recent knowledge, for both patients and clinicians.¹²

Rather than viewing rUTI and BPS as completely unrelated conditions, clinicians should consider whether bladder barrier dysfunction may be contributing to symptomatic persistence in both patient groups.¹³ Careful assessment remains essential to exclude alternative pathology and guide an individualised, multimodal management approach.

Patient counselling is also central to successful management. Setting realistic expectations, explaining that symptom improvement may take time, and monitoring symptoms, treatment response, quality of life and antibiotic use can help optimise long-term outcomes.

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Key clinical take-home messages

The symposium highlighted several key considerations for clinicians managing rUTIs and BPS:

- Symptoms of lower urinary tract conditions frequently overlap, making careful assessment and history taking essential for effective management approach selection
- Repeated or prophylactic antibiotic treatment alone may not be sufficient for all patients with persistent symptoms, reinforcing the need to consider appropriate non-antibiotic management strategies.
- Bladder barrier dysfunction provides a biologically plausible explanation for persistent symptoms in certain patient groups and is an increasingly important area of clinical research.
- Intravesical GAG replacement therapy may have a role within an individualised, multimodal management strategy for patients.
- Patient counselling, realistic expectation setting and ongoing monitoring are important to support successful treatment outcomes.

Conclusion

The symposium reinforced the importance of looking beyond symptoms alone and instead encouraging clinicians to consider root causes that don't always show up in standard diagnostic assessments, notably dysfunction of the bladder's mucosal barrier, which can help to form more personalised, evidence-informed approaches for managing patients. As research continues to evolve, improving understanding of the bladder barrier and the clinical benefit of replacement therapy has the potential to influence both patient selection and future treatment strategies.

To explore these topics in more detail, including evidence on intravesical GAG replacement therapy and practical clinical resources, [visit the ialuril® website resource section here.](#)

References:

1. Chapple C. Pathophysiology of the lower urinary tract and CNS. *Can Urol Assoc J.* 2011;5(5 Suppl 2):S126–S127.
2. Fowler CJ, Griffiths D, de Groat WC. The neural control of micturition. *Nat Rev Neurosci.* 2008;9:453–466.
3. Harding C, Mossop H, Homer T, Chadwick T, King W, Carnell S, et al. Alternative to prophylactic antibiotics for the treatment of recurrent urinary tract infections in women: multicentre, open label, randomised, non-inferiority trial. *BMJ.* 2022;376:e068229.
4. Kwon M, Ahmad A, Lott N, Blatt A. Intravesical therapy for recurrent urinary tract infection: a systematic review and meta-analysis. *BJU Int.* 2026;138:33–44.
5. The Newcastle upon Tyne Hospitals NHS Foundation Trust. Intravesical preparations for recurrent urinary tract infection prevention (the VESPER trial): a multi-arm, multi-site open label randomised superiority trial. Protocol version
6. Costantini E, Lazzeri M, Porena M. GAGs and GAGs diseases: when pathophysiology supports the clinic. *Urologia.* 2013;80(3):173–178.
7. Van Ginkel C, Hurst RE, Janssen D. The urothelial barrier in interstitial cystitis/bladder pain syndrome: its form and function, an overview of preclinical models. *Curr Opin Urol.* 2024;34:77–83.
8. De Vita D, Giordano S. Effectiveness of intravesical hyaluronic acid/chondroitin sulfate in recurrent bacterial cystitis: a randomized study. *Int Urogynecol J.* 2012;23:1707–1713.
9. Hughes T, Juliebø-Jones P, Saada L, Saeed K, Somani BK. Recurrent urinary tract infections in adults: a practical guide. *Br J Hosp Med (Lond).* 2021;82(12):1–11. doi:10.12968/hmed.2021.0337.
10. Kass EH. Asymptomatic infections of the urinary tract. *Trans Assoc Am Physicians.* 1956;69:56–64. Reprinted in: *J Urol.* 2002;167(2 Pt 2):1016–1020.
11. van de Merwe JP, Nordling J, Bouchelouche P, Bouchelouche K, Cervigni M, Daha LK, et al. Diagnostic criteria, classification, and nomenclature for painful bladder syndrome/interstitial cystitis: an ESSIC proposal. *Eur Urol.* 2008;53(1):60–67. doi:10.1016/j.eururo.2007.09.019.
12. Stamm WE, Counts GW, Running KR, Fihn S, Turck M, Holmes KK. Diagnosis of coliform infection in acutely dysuric women. *N Engl J Med.* 1982;307(8):463–468. doi:10.1056/NEJM198208193070802.
13. Hanno PM, Burks DA, Clemens JQ, Dmochowski RR, Erickson D, Fitzgerald MP, et al. AUA guideline for the diagnosis and treatment of interstitial cystitis/bladder pain syndrome. *J Urol.* 2011;185(6):2162–2170. doi:10.1016/j.juro.2011.03.064.