

ASX ANNOUNCEMENT / MEDIA RELEASE  
ASX: (NXS)

## Study finds Infection Prevention Benefit in Periprosthetic Joint Surgery for XPERIENCE™ ADVANCED SURGICAL IRRIGATION

Highlights:

- Dr. Robert Harris MD has released the findings of a retrospective study which examined infection rates up to 90 days post Primary Joint Arthroplasties across Hip (THA), Knee (TKA) and Shoulder (TSA) surgery.
- Patient cohort of 423 exhibited 0% infection rate up to 90 days post-surgery, compares favourably with typical incidence rates.
- The retrospective analysis found XPERIENCE™ to be efficacious and warranted further investigation as a sole anti-microbial irrigant to determine potential utility in reducing the overall burden of Periprosthetic Joint Infection (PJI) and improved patient outcomes.
- Study findings are the first of a series of independent retrospective studies examining the impact of XPERIENCE™ to reduce surgical site infection rates.

**Sydney Australia Friday, 3 November 2023:** Next Science Limited (ASX: NXS) (**Next Science or Company**), a medical technology company focused on commercialising its proprietary XBIO™ suite of products to reduce the impact of biofilm-based infections in human health, is pleased to announce the presentation of a study into preventing periprosthetic joint infection (PJI) across hip (THA), knee (TKA) and shoulder (TSA) primary surgeries.

The presentation can be accessed via this link: <https://www.vumedi.com/video/efficacy-of-a-novel-intraoperative-surgical-irrigant-in-preventing-periprosthetic-joint-infections-2/>

Leading American orthopaedic surgeon, Dr Robert M. Harris MD, has released the findings of an independent study into a Novel Intra-Operative Surgical Irrigant in Preventing Periprosthetic Joint Infection in Primary Hip, Knee and Shoulder Arthroplasties: A Retrospective Analysis.

The study was conducted over 12 months from June 2021 to June 2022 including nine different surgeons across two sites applying their own techniques and surgical approaches across 423 patients that underwent Primary Joint Arthroplasty. The patients were segmented as follows:

- Knees (217)
- Hips (164)
- Shoulders (42)

The primary end point was the rate of PJI within 90 days of Index Surgery according to Centre for Disease Control (CDC) criteria.

The results of the study showed 0% PJI across the 423 patients within 90 days.

According to Dr Harris, typical incidence rates for PJI range from 1% to 2% for THA / TKA, and 0.4% to 4% for TSA. A finding of 0% infection across a patient cohort of this size supports our view of the efficacy of our advanced surgical irrigation solution.

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Approximately 95% of the patients presented with at least one high-risk co-morbidity profile, that pre-disposed the patient to PJIs.

Dr Harris concluded that XPERIENCE™ was efficacious at preventing PJI at rates at or below historical incidence rates, which warranted further investigation as a sole anti-microbial irrigant in a robustly designed, controlled, blinded, prospective multi-centre clinical trial in Joint Arthroplasty surgeries to determine potential utility of this novel irrigant to reduce the overall burden of PJI and improve patient outcomes.

The real-world data observed across multiple surgeons and techniques is encouraging for the development of XPERIENCE™ to prevent surgical site infection. According to Dr Harris, these three categories of joint surgeries alone, amount to estimated healthcare costs in the US of c.US\$2.3bn pa.

Dr Harris has advised the Company that he has submitted the study data for publication in a peer reviewed journal.

## **Commentary:**

**Next Science Managing Director and CEO I.V. Hall** said:

“This study is the first of three retrospective studies investigating the efficacy of our advanced surgical irrigation solution, XPERIENCE™ into preventing surgical site infection in primary joint surgeries. This data set is encouraging and begins the process of building the clinical evidence base culminating in the major prospective study in infection prevention that commenced in Canada earlier this year and is targeting 7,600 patients. We believe that through accumulating this evidence that Next Science will be able to challenge for standard of care in surgical irrigation, and materially improve patient outcomes”.

Approved and authorised for release by the Managing Director.

## **Further Information:**

### **Martyn Jacobs**

Head of Investor Relations

Phone: +61 412 785 180

Email: [mjacobs@nextscience.com](mailto:mjacobs@nextscience.com)

## **About Next Science**

Next Science is a medical technology company headquartered in Sydney, Australia, with a research and development centre in Florida, USA. Established in 2012, the company's primary focus is on the development and continued commercialisation of its proprietary XBIO™ technology to reduce the impact of biofilm-based infections in human health. XBIO™ is a unique, non-toxic technology with proven efficacy in eradicating both biofilm-based and free-floating bacteria. Next Science owns 100% of the patent protected intellectual property relating to its XBIO™ technology. For further information visit: [www.nextscience.com](http://www.nextscience.com)

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## **Forward looking statements**

This announcement may contain forward looking statements which may be identified by words such as “believes”, “considers”, “could”, “estimates”, “expects”, “intends”, “may” and other similar words that involve risks and uncertainties. Such statements are not guarantees of future performance and involved known and unknown risks uncertainties, assumptions and other important factors, many of which are beyond the control of Next Science or its Directors and management and could cause Next Science’s actual results and circumstances to differ materially from the results and circumstances expressed or anticipated in these statements. The Directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.