

# NJR SHOWS SUPERIORITY & CONSISTENCY OF PALACOS®

Status: 08/2023



 SUMMARY



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**NJR**

We thank the patients and staff of all the hospitals in England, Wales, Northern Ireland and the Isle of Man who have contributed data to the National Joint Registry. We are grateful to the Healthcare Quality Improvement Partnership (HQIP), the NJR Steering Committee and staff at the NJR Centre for facilitating this work. The views expressed represent those of Heraeus Medical GmbH and do not necessarily reflect those of the National Joint Registry Steering Committee or the Health Quality Improvement Partnership (HQIP) who do not vouch for how the information is presented.

The National Joint Registry (NJR) is the arthroplasty registry for England, Wales, Northern Ireland and the Isle of Man. It was set up by the Department of Health and Welsh Government in 2002 to collect information on all hip, knee, ankle, elbow and shoulder replacement operations, to monitor the performance of joint replacement implants and the effectiveness of different types of surgery, improving clinical standards and benefiting patients, clinicians and the orthopaedic sector as a whole. Currently more than 2,800,000 procedures have been included in the NJR, making it the largest arthroplasty registry worldwide.

The NJR Supplier Feedback allows prosthetic implant suppliers to download NJR data extracts showing outcomes of procedures using their products. The reports are generated quarterly, and Heraeus Medical GmbH purchases these reports for market surveillance, quality control and real-world evidence data generation.

The NJR Supplier Feedback includes all PALACOS® antibiotic cements for the hip and the knee. For the hip the percentage allocation of all PALACOS® antibiotic cements is 99% PALACOS® R+G and 1% PALACOS® LV+G. For the knee the percentage allocation of all PALACOS® antibiotic cements is 100% PALACOS® R+G (values rounded). In the whole document PALACOS® R+G will be used instead of PALACOS® antibiotic cements.

# NJR SHOWS SUPERIORITY & CONSISTENCY OF PALACOS®



Lower  
revision risk\*  
**-25.8%**

Cost saving  
potential of  
at least  
**€ 16 million\*\***

Customers trust  
PALACOS® –  
usage rate  
**66%**

#ElementOfSuccess

\*cumulative revision rate at 15 years, all bearing types

\*\*in the United Kingdom, between 2012 – 2023

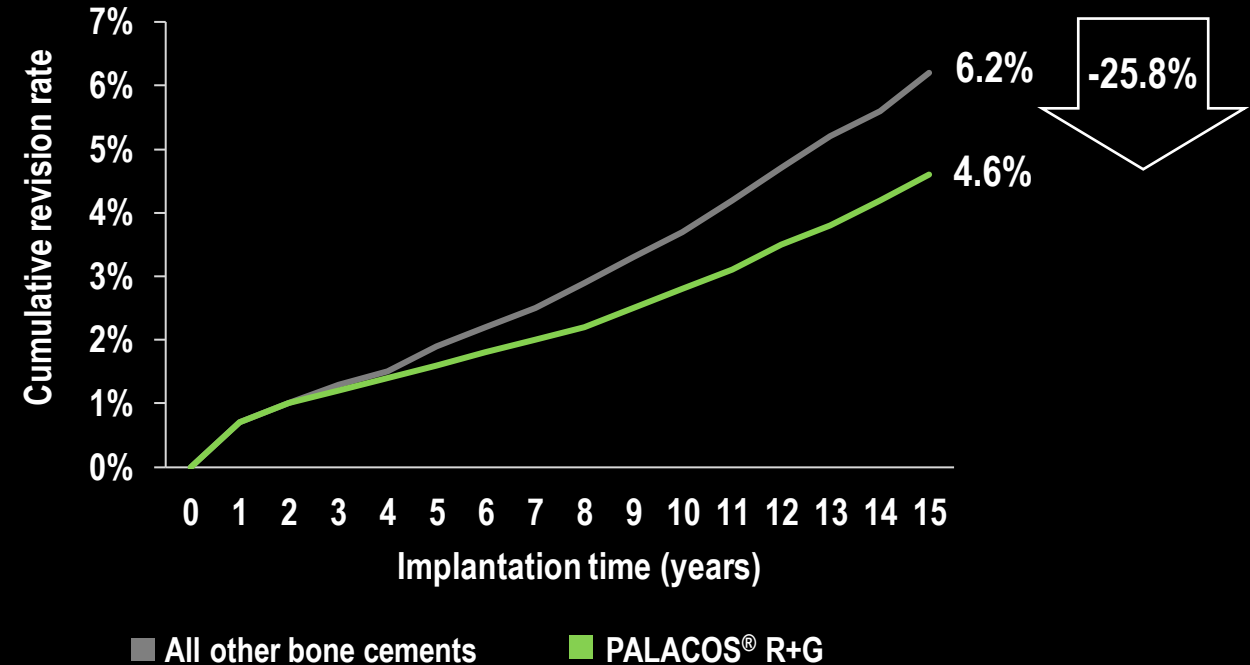




# 25.8% LOWER REVISION RISK

Long-term data shows:  
**PALACOS® R+G** has a **25.8%** lower cumulative revision rate compared to all other bone cements at **15 years**.

CUMULATIVE REVISION RATES ALL BEARING TYPES\* (2008 – 2023)



#ElementOfSuccess

\*95% confidence interval





## SOURCES

### NJR Implant Summary Report for Heraeus Medical GmbH

- Primary Hips using PALACOS® Antibiotic Cement: 08/2023
- Revision and Survivorship – page 10
- Current reports accessible at <http://herae.us/njr-data>

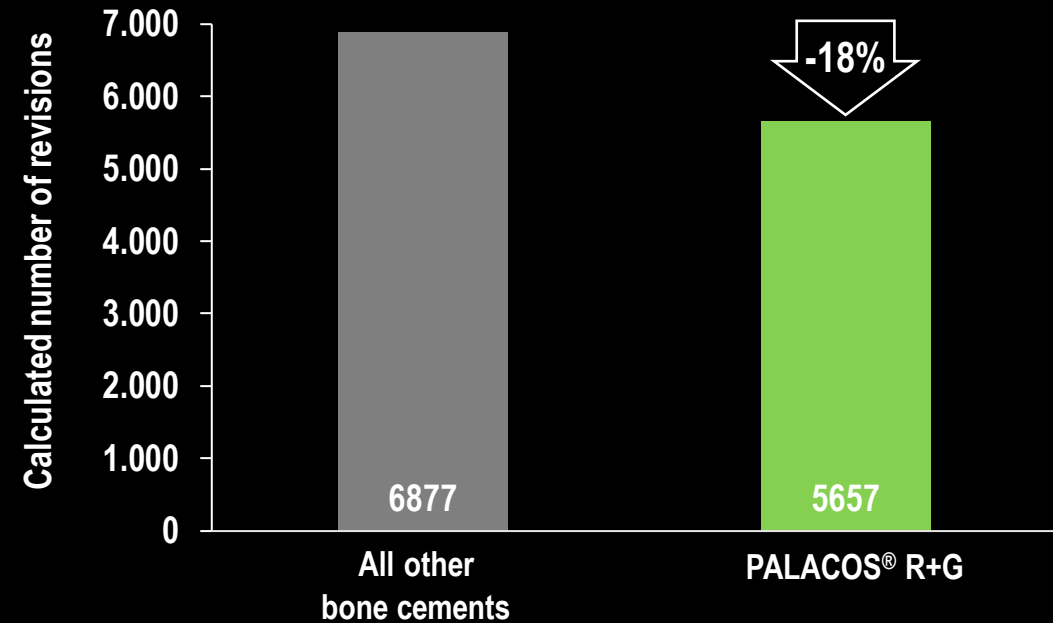


# COST SAVING POTENTIAL OF AT LEAST € 16 MILLION

At least 1,219 revisions (-18%) were avoided between 2012 and 2023 because PALACOS® R+G was used instead of another bone cement.

This represents a cost saving potential of at least € 16.08 m. (£ 14.6 m.) in the United Kingdom.

CALCULATED NUMBER OF REVISIONS\* (2012 – 2023)



#ElementOfSuccess

\*based on cumulative revision rate, the actual number of revisions that occurred may vary





## SOURCES

Calculation based on:

**NJR Implant Summary Report for Heraeus Medical GmbH**

- **Primary Hips using PALACOS® Antibiotic Cement: 08/2023**
- **Year of implantation – page 2**
- **Revision and Survivorship – page 10**
- **Current reports accessible at <http://herae.us/njr-data>**

**Average costs for aseptic revision = £ 11,987**

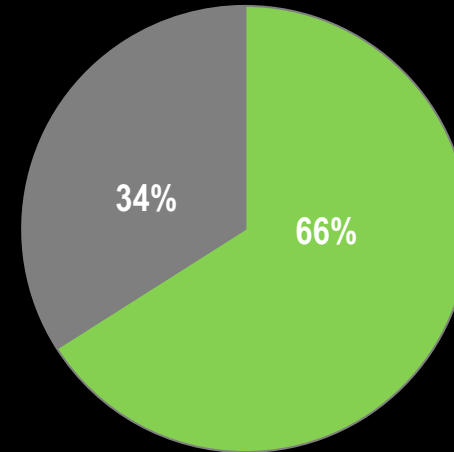
**Vanhegan IS, Malik AK, Jayakumar P, Ul Islam S, Haddad FS. A financial analysis of revision hip arthroplasty: the economic burden in relation to the national tariff. J Bone Joint Surg BR. 2012 May;94(5):619 – 23.**

# CUSTOMERS TRUST PALACOS® R+G



66% of cemented hip replacements in the UK are performed using PALACOS® R+G. This represents 28,334 procedures in 2020.

USAGE RATE 2020 IN UK



■ All other bone cements    ■ PALACOS® R+G

#ElementOfSuccess





**SOURCE**

NJR Annual Report 2021 – Prostheses used in hip, knee, ankle, elbow and shoulder replacement procedures 2020 – page 68.

# NJR SHOWS SUPERIORITY & CONSISTENCY OF PALACOS®

 Hip – 08/2023

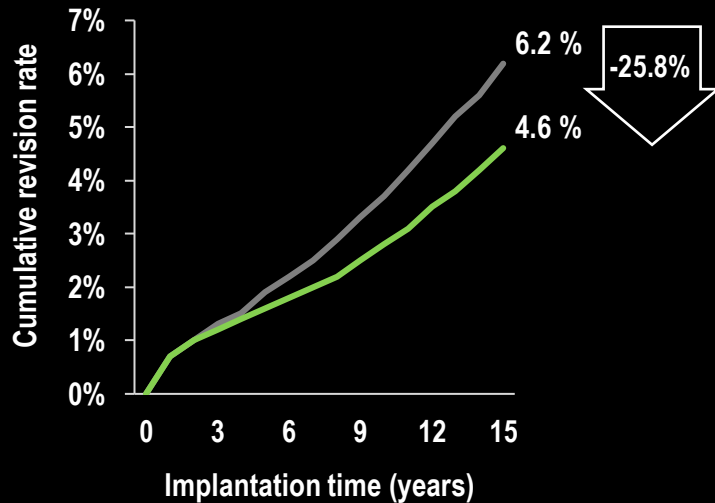
■ All other bone cements ■ PALACOS® R+G

Long-term data shows: PALACOS® R+G has a 25.8% lower revision rate compared to all other bone cements at 15 years.<sup>1</sup>

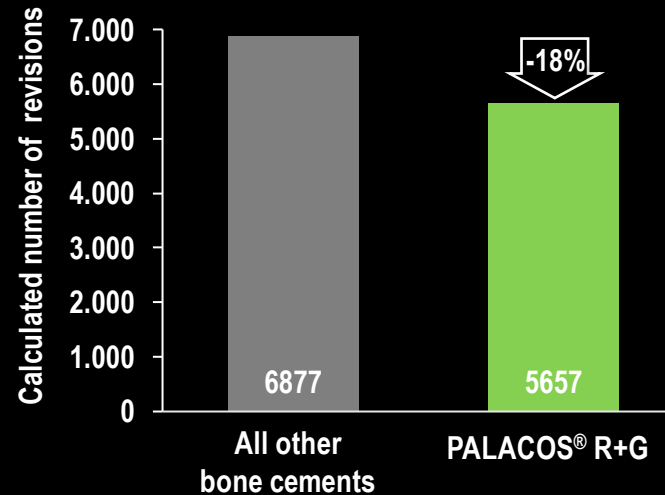
At least 1,219 revisions were avoided by using PALACOS® R+G. This represents a cost saving of at least € 16 million in the UK.<sup>2</sup>

Customers trust PALACOS® R+G. 66% of cemented hip replacements in the UK are performed using PALACOS® R+G.<sup>3</sup>

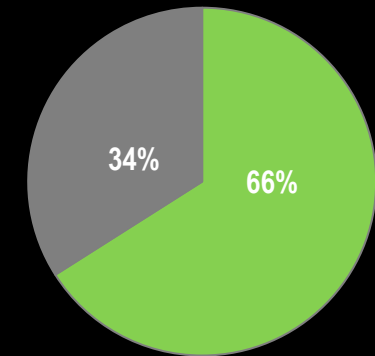
CUMULATIVE REVISION RATES ALL BEARING TYPES (2008 – 2023)\*



CALCULATED NUMBER OF REVISIONS (2012 – 2023)



USAGE RATE 2020 IN UK



#ElementOfSuccess

\*95% confidence interval





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<sup>1</sup> NJR Implant Summary Report for Heraeus Medical

- Primary Hips using PALACOS® Antibiotic Cement: 08/2023
- Revision and Survivorship – page 10
- Current reports accessible at <http://herae.us/njr-data>

<sup>2</sup> Calculation based on:

NJR Implant Summary Report for Heraeus Medical GmbH

- Primary Hips using PALACOS® Antibiotic Cement: 08/2023
- Year of implantation – page 2
- Revision and Survivorship – page 10
- Current reports accessible at <http://herae.us/njr-data>

Average costs for aseptic revision = £ 11,987 (Vanhegan IS, Malik AK, Jayakumar P, Ul Islam S, Haddad FS. A financial analysis of revision hip arthroplasty: the economic burden in relation to the national tariff. J Bone Joint Surg Br. 2012 May;94(5):619 – 23.)

<sup>3</sup> NJR Annual Report 2021 – Prostheses used in hip, knee, ankle, elbow and shoulder replacement procedures 2020 – page 68

# NJR SHOWS SUPERIORITY & CONSISTENCY OF PALACOS®



Lower  
revision risk  
**-15.3%\***

Cost saving  
potential of  
at least  
**€ 21.2 million\*\***

Customers trust  
PALACOS® –  
usage rate  
**79%**

#ElementOfSuccess

\*cumulative revision rate at 15 years, all revisions

\*\*in the United Kingdom, between 2012 – 2023

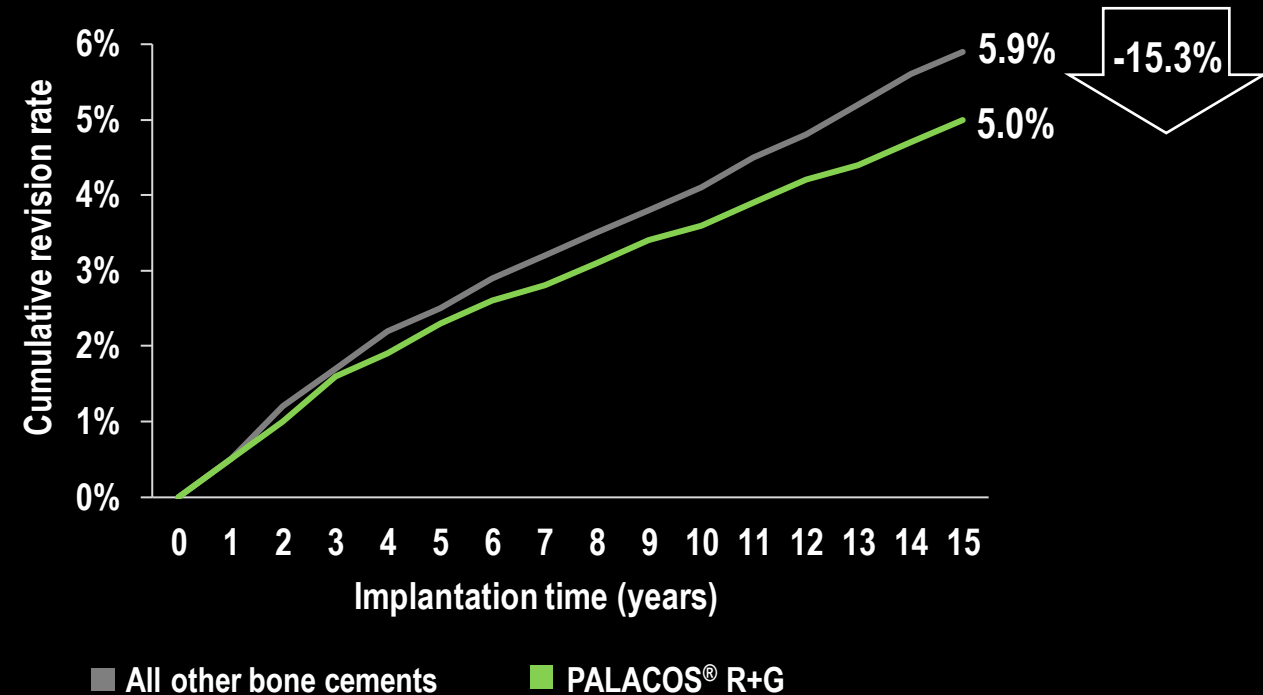




# 15.3% LOWER REVISION RISK

Long-term data shows:  
**PALACOS® R+G has a 15.3% lower cumulative revision rate compared to all other bone cements at 15 years.**

CUMULATIVE REVISION RATES\* (2008 – 2023)



#ElementOfSuccess

\*95% confidence interval





## SOURCE

### NJR Implant Summary Report for Heraeus Medical GmbH

- Primary Knees using PALACOS® Antibiotic Cement: 08/2023
- Revision and Survivorship – page 6
- Current reports accessible at <http://herae.us/njr-data>

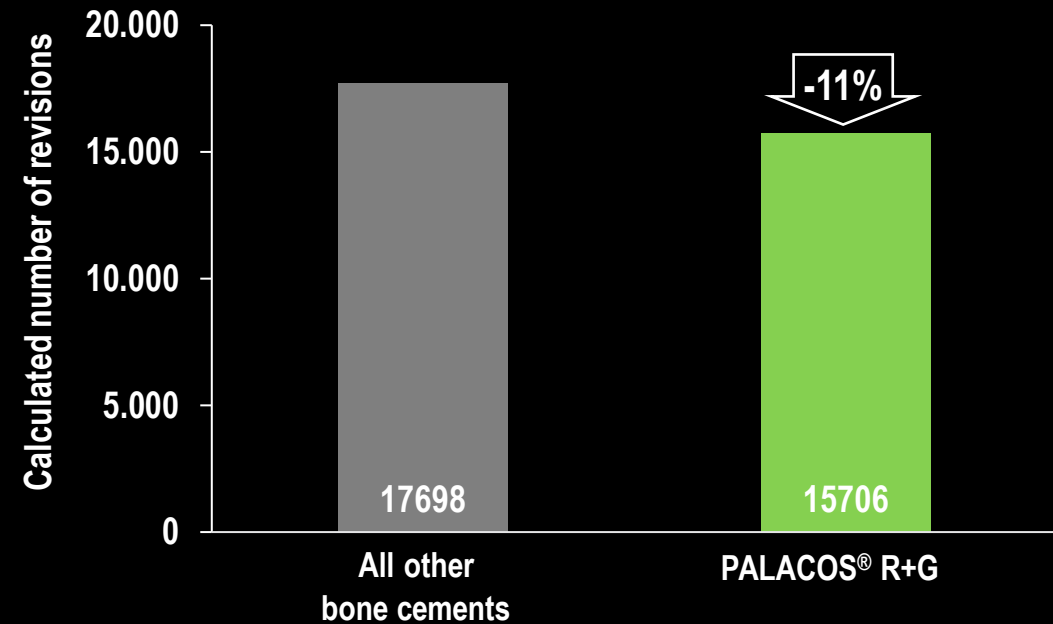


# COST SAVING POTENTIAL OF AT LEAST € 21.2 MILLION

At least 1,992 revisions (-11%) were avoided between 2012 and 2023 because PALACOS® R+G was used instead of another bone cement.

This represents a cost saving potential of at least € 21.2 m. (£ 19.2 m.) in the United Kingdom.

CALCULATED NUMBER OF REVISIONS\* (2012 – 2023)



#ElementOfSuccess

\*based on cumulative revision rate, the actual number of revisions that occurred may vary





## SOURCE

Calculation based on:

### NJR Implant Summary Report for Heraeus Medical GmbH

- Primary Knees using PALACOS® Antibiotic Cement: 08/2023
- Year of implantation – page 2
- Revision and Survivorship – page 6
- Current reports accessible at <http://herae.us/njr-data>

Average costs for aseptic revision = £ 9,655

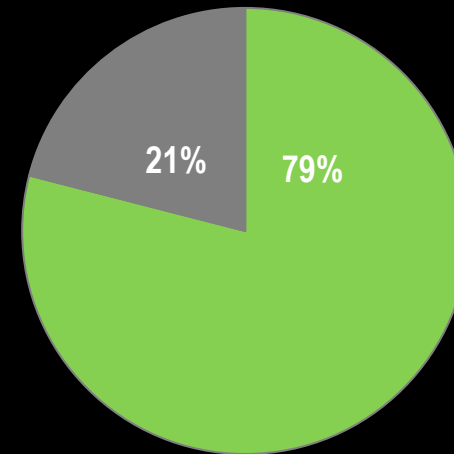
Kallala RF, Vanhegan IS, Ibrahim MS, Sarmah S, Haddad FS. Financial analysis of revision knee surgery based on NHS tariffs and hospital costs: does it pay to provide a revision service? Bone Joint J. 2015 Feb;97-B(2): 197 – 201.



# CUSTOMERS TRUST PALACOS® R+G

79% of cemented knee replacements in the UK are performed using PALACOS® R+G. This represents 40,946 procedures in 2020.

USAGE RATE 2020 IN UK



■ All other bone cements    ■ PALACOS® R+G

#ElementOfSuccess



## SOURCE

NJR Annual Report 2021 – Prostheses used in hip, knee, ankle, elbow and shoulder replacement procedures 2020 – page 69.

# NJR SHOWS SUPERIORITY & CONSISTENCY OF PALACOS®

 Knee – 08/2023

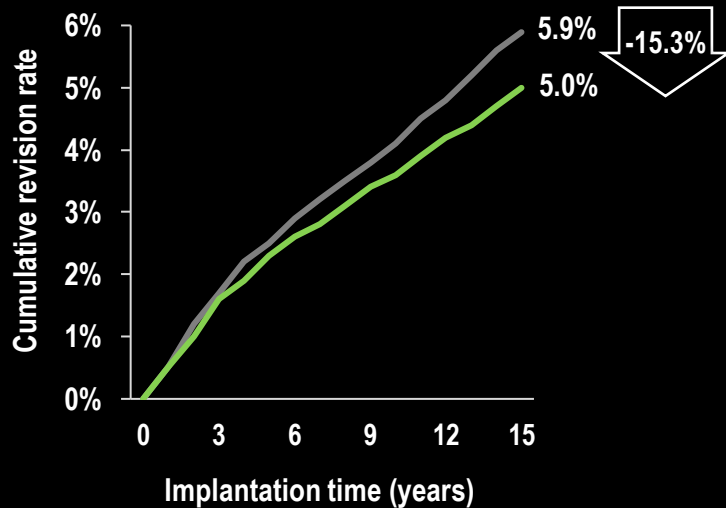
■ All other bone cements ■ PALACOS® R+G

Long-term data shows: PALACOS® R+G has a 15.3% lower cumulative revision rate compared to all other bone cements at 15 years.<sup>1</sup>

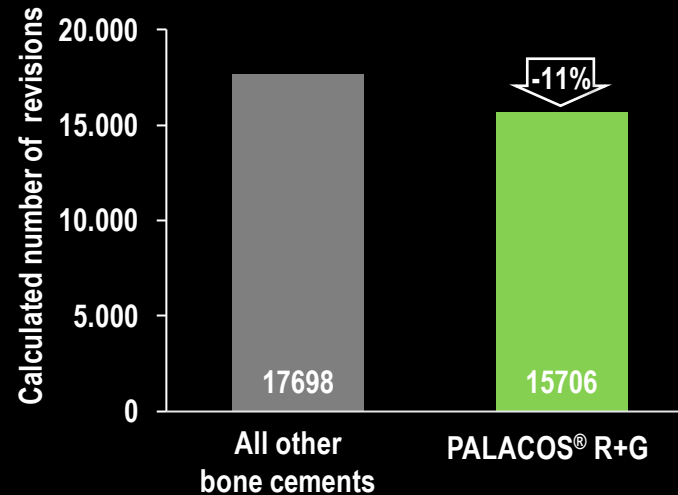
At least 1,992 revisions were avoided by using PALACOS® R+G. This represents a cost saving of at least € 21.2 million in the UK.<sup>2</sup>

Customers trust PALACOS® R+G. 79% of cemented knee replacements in the UK are performed using PALACOS® R+G.<sup>3</sup>

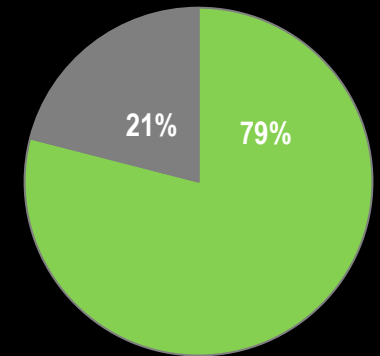
CUMULATIVE REVISION RATES\* (2008 – 2023)



CALCULATED NUMBER OF REVISIONS (2012 – 2023)



USAGE RATE 2020 IN UK



#ElementOfSuccess

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<sup>3</sup> NJR Annual Report 2021 – Prostheses used in hip, knee, ankle, elbow and shoulder replacement procedures 2020 – page 69.