Heraeus

# COPAL®G+C KNOW YOUR PATIENT – AND REDUCE PJI RISK



**Medical** 

### **COPAL<sup>®</sup>G+C** – KNOW YOUR PATIENT...

### APPROX. 60 % OF PATIENTS AGED $\geq$ 65 YEARS ARE AT HIGHER RISK FOR INFECTION\*<sup>1-3</sup>



- Arthroplasty patients benefit from an integrated preventive approach according to infection risk stratification<sup>1</sup>
- High risk patients require intensified prevention measures that include the use of high-dose dual antibiotic-loaded bone cement<sup>4</sup>

\* Definition of high risk: at least 2 risk factors such as diabetes, cardiovascular disease, obesity, previous infection, smoking, older age, revision surgery.<sup>1</sup>

### ... AND REDUCE PJI RISK.

Preventing surgical site infection and PJI following arthroplasty is challenging. Measures include both, optimisation of surgical procedures as well as peri-operative antibiotic prophylaxis.<sup>4</sup>

An integrated and effective preventive approach reduces PJI risk in patients with risk factors. Dual antibiotic-loaded bone cement COPAL<sup>®</sup> G+C can be one part in this set of measures.<sup>1,5</sup>



#### **Reducing frequency of PJI with COPAL® G+C – clinical evidence**



## COPAL<sup>®</sup>G+C

- Dual antibiotic-loaded bone cement with Gentamicin and Clindamycin
- Indicated for implant fixation
- Very broad spectrum of activity against most pathogens clinically relevant for PJI
- In combination, both antibiotics may target up to 90% of all pathogens typically found in PJI
- Effective against anaerobic pathogens amongst others
- High local antibiotic concentrations with low systemic load
- Infection prevention as part of risk-adapted approach



#### SOURCES

- 1. Sanz-Ruiz P, Berberich C. Infection Risk-Adjusted Antibiotic Prophylaxis Strategies in Arthroplasty: Short Review of Evidence and Experiences of a Tertiary Center in Spain. Orthop Res Rev. 2020;12:89-96. doi:10.2147/ORR.S256211
- 2. OECD. Multilingual Summaries Health at a Glance 2019. OECD Indicators. Accessed 12.05., 2023. https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019\_4dd50c09-en
- 3. Alamanda VK, & Springer BD. Perioperative and modifiable risk factors for periprosthetic joint infections (PJI) and recommended guidelines. *Current reviews in musculoskeletal medicine*. 2018;11:325-331. doi:10.1007/s12178-018-9494-z.
- 4. Parvizi J, Shohat N, Gehrke T. Prevention of periprosthetic joint infection: new guidelines. Bone Joint J. 2017; 99-B(4 Supple B):3-10. doi:10.1302/0301-620X.99B4.BJJ-2016-1212.R1
- 5. Berberich CE, Josse J, Laurent F, Ferry T. Dual antibiotic loaded bone cement in patients at high infection risks in arthroplasty: Rationale of use for prophylaxis and scientific evidence. World J Orthop. 2021;12(3):119-128. doi:10.5312/wjo.v12.i3.119
- 6. Kim JL, Park JH, Han SB, Cho IY, & Jang KM. Allogeneic blood transfusion is a significant risk factor for surgical-site infection following total hip and knee arthroplasty: a meta-analysis. *The Journal of arthroplasty*. 2017;32(1):320-325. doi: 10.1016/j.arth.2016.08.026
- 7. Sprowson AP, Jensen C, Chambers S, et al. The use of high-dose dual-impregnated antibiotic-laden cement with hemiarthroplasty for the treatment of a fracture of the hip: The Fractured Hip Infection trial. *Bone Joint J.* 2016; 98-B(11):1534-1541. doi:10.1302/0301-620X.98B11.34693
- Sanz-Ruiz P, Matas-Diez JA, Villanueva-Martinez M, Santos-Vaquinha Blanco AD, Vaquero J. Is Dual Antibiotic-Loaded Bone Cement More Effective and Cost-Efficient Than a Single Antibiotic-Loaded Bone Cement to Reduce the Risk of Prosthetic Joint Infection in Aseptic Revision Knee Arthroplasty? J Arthroplasty. 2020;35(12):3724-3729. doi:10.1016/j.arth.2020.06.045

#### ABBREVIATIONS

CVD: cardio vascular disease, FNOF: fractured neck of femur, PJI: periprosthetic joint infection, TKA: total knee arthroplasty



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