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## ORIGINAL ARTICLE

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# Measuring Outcomes: Pain and Quality of Life 48 Months After Acute Postoperative Total Knee Prosthetic Joint Infection

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### ■ Abstract

**Background:** Measuring HRQOL is simple, inexpensive, permits the health status to be measured over time, and is useful to compare or initiate treatments and evaluate results, facilitating homogenization in patient inclusion.

**Objectives:** To evaluate disease-specific and generic HRQOL and influence of associated factors in patients undergoing open debridement for acute postsurgical knee prosthetic joint infection after TKR at 12 and 48 months after completing antibiotic treatment and considered cured of infection.

**Methods:** Health-related quality-of-life measures were administered at baseline (WOMAC) and 12 and 48 months (WOMAC and SF-36) in patients with prosthesis retention, no symptoms of infection, and CRP ( $\leq 1$  mg/dL).

**Results:** Thirty patients were included, and 24 were evaluated at 48 months. WOMAC scores improved significantly ( $P < 0.01$ ) at 12 and 48 months. The effect size was 0.72 for

stiffness, 2.01 for pain, and 2.15 for function. At 48 months, improvements were greater ( $P < 0.02$ ) except for stiffness. The most frequently isolated microorganisms were *Staphylococcus aureus* (14 patients) and coagulase-negative staphylococci (9 patients). SF-36 physical role, bodily pain, emotional role, and mental health dimension scores at 12 and 48 months were significantly worse in patients with isolates of *Staphylococcus aureus* ( $P < 0.05$ ).

**Conclusions:** Health-related quality-of-life measures detected significant differences in outcomes in patients infected by *S. aureus* compared with patients infected by other microorganisms. HRQOL measures may provide useful complementary information on outcomes after acute postoperative infection. ■

**Key Words:** postoperative pain, health-related quality of life, knee, arthroplasty, TKA, infection, outcomes

### INTRODUCTION

Early postsurgical deep prosthetic joint infections can be treated by open debridement with prosthesis retention in patients with symptoms for  $< 2$  to 4 weeks and without radiological signs of loosening.<sup>1,2</sup> Open debridement and rifampin combined with other antibiotics like fluoroquinolones has had a success rate of  $> 70\%$  in

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Submitted: October 25, 2013; revised December 19, 2013;

Revision accepted: March 01, 2014

DOI: 10.1111/papr.12214