



Periprosthetic knee joint infection survey

Dear Participant,

Periprosthetic knee infection represents a devastating rising problem in the field of knee replacement surgery. The increasing attention to the problem during the last decade has led to the establishment of basic treatment strategies, generally agreed upon by the majority of knee surgeons.

It is however to be underlined that the diversity of facets of each of the commonly adapted treatment algorithms, demonstrates a challenge in identifying the ideal treatment modality for some patients.

The following survey has the primary intention of collecting expert opinions on some of the key aspects regarding the treatment of periprosthetic knee infections, the results of which shall subsequently be analyzed and published to allow for an improved reflection of truly agreed on principles.

Infected total knee prosthesis

1. How many primary knee prostheses do you implant each year?

- | | | | |
|----------|--------------------------|-----------|--------------------------|
| < 50 | <input type="checkbox"/> | 100 - 200 | <input type="checkbox"/> |
| 50 - 100 | <input type="checkbox"/> | > 200 | <input type="checkbox"/> |

How many infected total knee prostheses do you diagnose each year? _____

2. How many primary knee replacements do you perform annually?

Primary total joints _____

Uni Prosthesis _____

CCK _____

Hinged _____

3. How many knee replacements do you revise each year for infection reasons?

Primary total joints _____

Uni Prosthesis _____

CCK _____

Hinged _____

4. How do you diagnose periprosthetic knee joint infection? (Multiple answers are possible)

Joint aspiration:

- Microbiology culture
- Cell count:
 - White cell count (WCC)
 - % PMN
- Histology
- Alpha-Defensin
- C-reactive protein (CRP)
- IL-1/IL-6
- Leukocytesterase

Swab culture

- Yes
- No

Sonication

Laboratory Investigation:

- C-reactive protein (CRP)
- Leukocyte count
- Erythrocyte sedimentation rate (ESR)
- Blood microbiology cultures

Biopsy:

- Only 1
- 1-5 Biopsies
- > 5 Biopsies
- Histology
- PCR

Arthroscopic Biopsy

5. Which imaging investigations do you rely on?

Plain X-ray

Bone SPECT/CT Scan

Anti-Leukocyte SPECT/CT

PET/CT

6. Does duration of symptoms play a role in your therapeutic regime?

yes no

7. Do you differentiate between an Easy and Difficult germ to treat infection?

yes no

8. Do you agree on the following classification of onset of infection?

Early onset: < 3 months Delayed onset: 3-12 months

Late onset: > 12 months From Symptom begin

From the first procedure Other suggestions _____

9. How do you treat an infected total knee prosthesis?

Early Infection		Late Infection	
Arthroscopy	<input type="checkbox"/>	Arthroscopy	<input type="checkbox"/>
Debridement + PE Change	<input type="checkbox"/>	Debridement + PE Change	<input type="checkbox"/>
Single - stage by known organism	<input type="checkbox"/>	Single - stage by known organism	<input type="checkbox"/>
Single – stage regardless of organism	<input type="checkbox"/>	Single – stage regardless of organism	<input type="checkbox"/>
Two – stage Management:		Two – stage Management:	
• 6 weeks apart	<input type="checkbox"/>	• 6 weeks apart	<input type="checkbox"/>
• 3 months apart	<input type="checkbox"/>	• 3 months apart	<input type="checkbox"/>
• When markers are normal	<input type="checkbox"/>	• When markers are normal	<input type="checkbox"/>
• External Fixation	<input type="checkbox"/>	• External Fixation	<input type="checkbox"/>
• Mobile Spacer	<input type="checkbox"/>	• Mobile Spacer	<input type="checkbox"/>
• Static Spacer	<input type="checkbox"/>	• Static Spacer	<input type="checkbox"/>
Preoperative antibiotic therapy		Preoperative antibiotic therapy	
• No <input type="checkbox"/>		• No <input type="checkbox"/>	
• Yes <input type="checkbox"/> Duration _____		• Yes <input type="checkbox"/> Duration _____	

10. Antibiotic therapy:

	yes	no
Is an infectiologist involved in treatment planning?	<input type="checkbox"/>	<input type="checkbox"/>
Does your therapeutic regime differentiate on an easy or difficult infection to treat microorganisms?	<input type="checkbox"/>	<input type="checkbox"/>
Do you use biofilm penetrative antibiotics (e.g Rifampicin against S. aureus biofilms)?	<input type="checkbox"/>	<input type="checkbox"/>
Do you always perform calculated antibiotic therapy?	<input type="checkbox"/>	<input type="checkbox"/>

11. Duration of antibiotic therapy?

	Intravenous	Oral
Early infection	_____	_____
Late infection	_____	_____
Easy to treat germ	_____	_____
Difficult to treat germ	_____	_____

12. When would you attempt the revision of the total knee prosthesis? (multiple answers)

After an antibiotic free interval	<input type="checkbox"/>	Negative joint aspiration	<input type="checkbox"/>
Undercontinuous antibiotic therapy	<input type="checkbox"/>	Negative open biopsy	<input type="checkbox"/>
After 2-4 weeks of antiobiotic therapy	<input type="checkbox"/>	After 6 weeks of antibiotic therapy	<input type="checkbox"/>
After 12 weeks of antiobiotic therapy	<input type="checkbox"/>	After 6 months of antiobiotic therapy	<input type="checkbox"/>
Other _____			

THANK YOU FOR YOUR TIME!