

# Management of septic arthritis of the hand: a 10-year retrospective study

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Second most frequent  
localization

Can cause severe  
functional impairment

## Arthritis of the hand

Early surgical and antimicrobial  
intervention needed

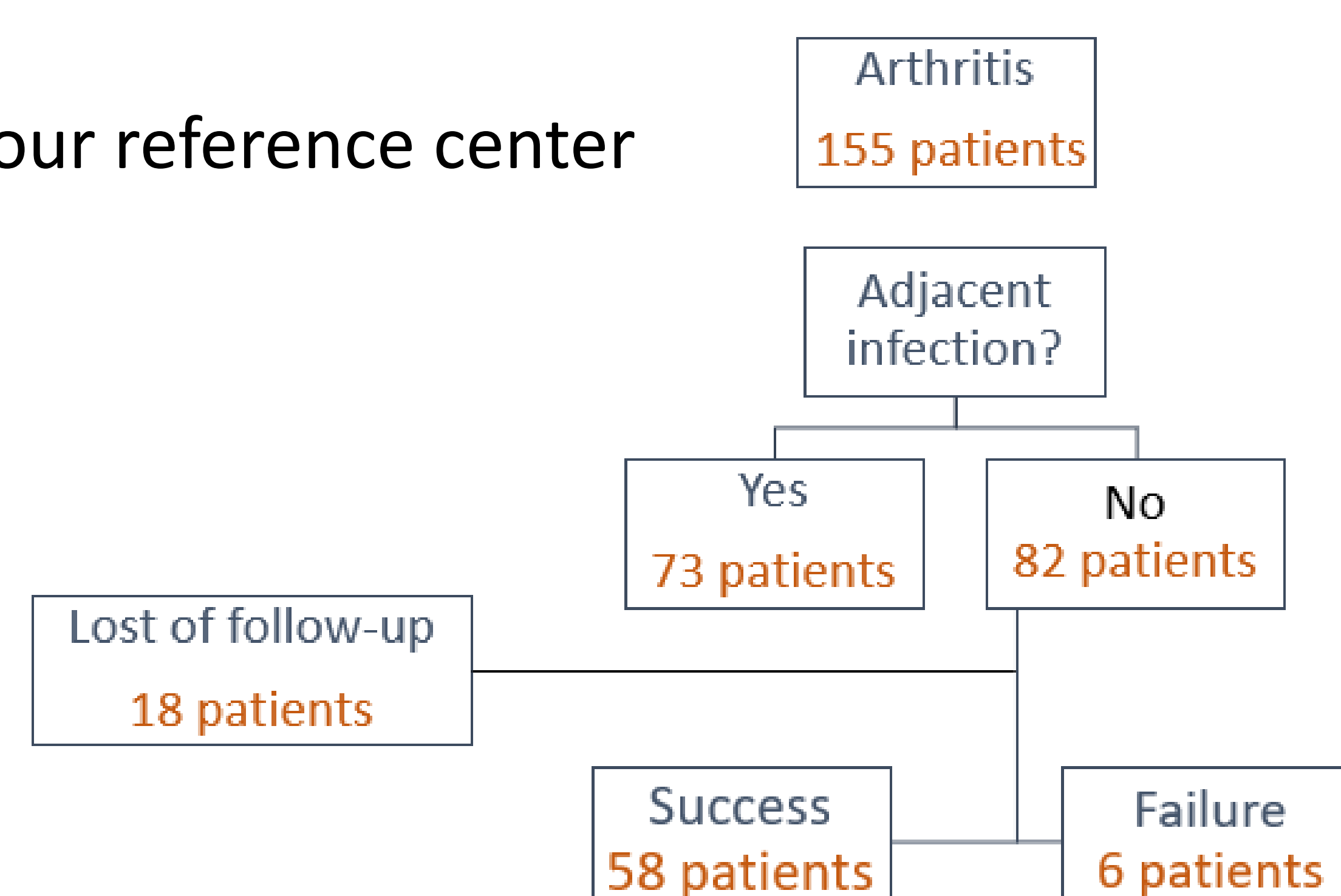
Management based on  
observational studies

### Objectives

- Describe clinical and microbiological features of hand septic arthritis in our reference center
- Evaluate determinants of treatment failure
- Adults undergoing surgery for septic arthritis of the hand

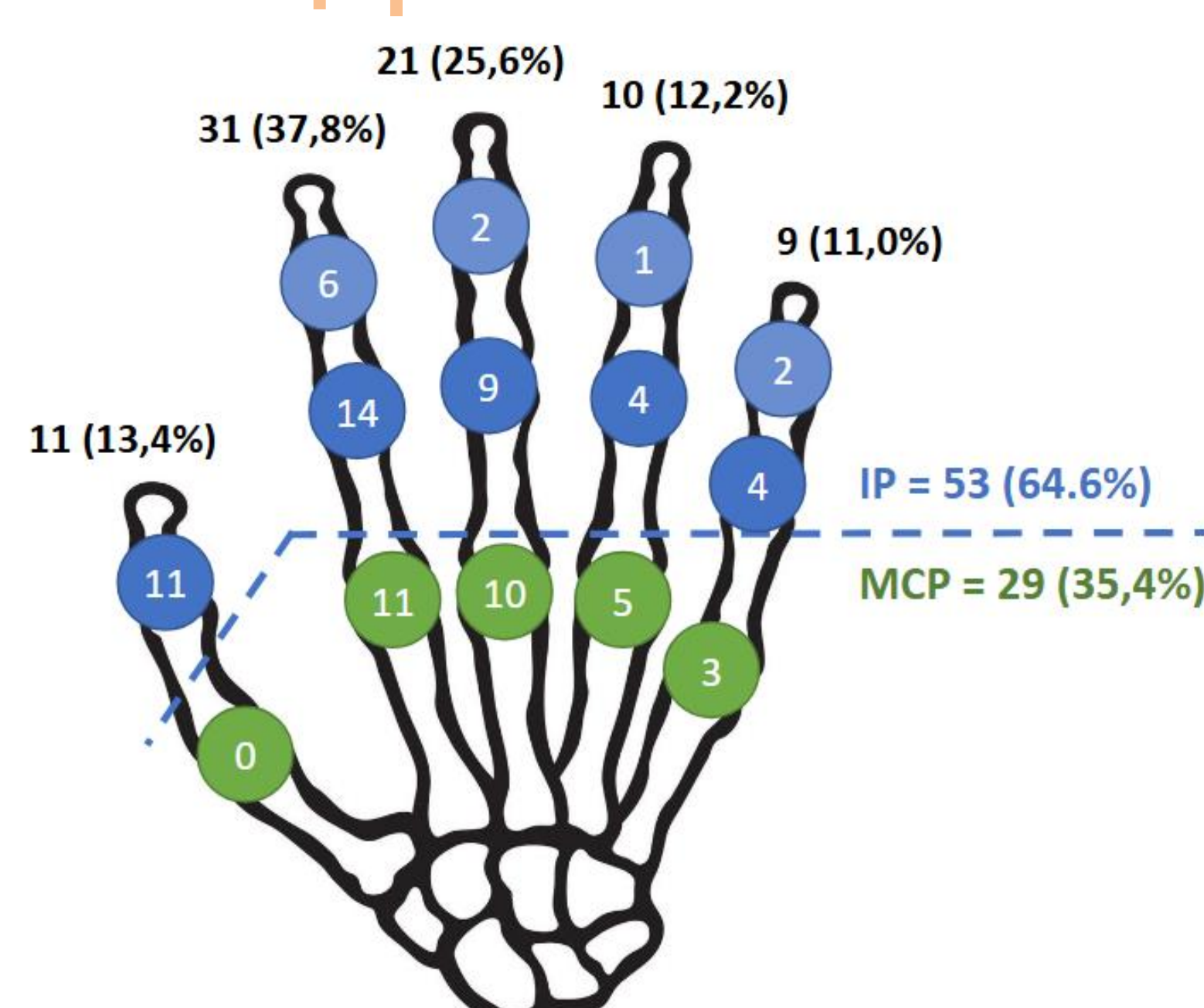
### Methods

- Retrospective single-centre study (2014 to 2024)
- Adults undergoing surgery for septic arthritis of the hand
- Exclusion criteria : infection of adjacent structures (e.g., tenosynovitis)
- Primary outcome: treatment failure (need for revision surgery)

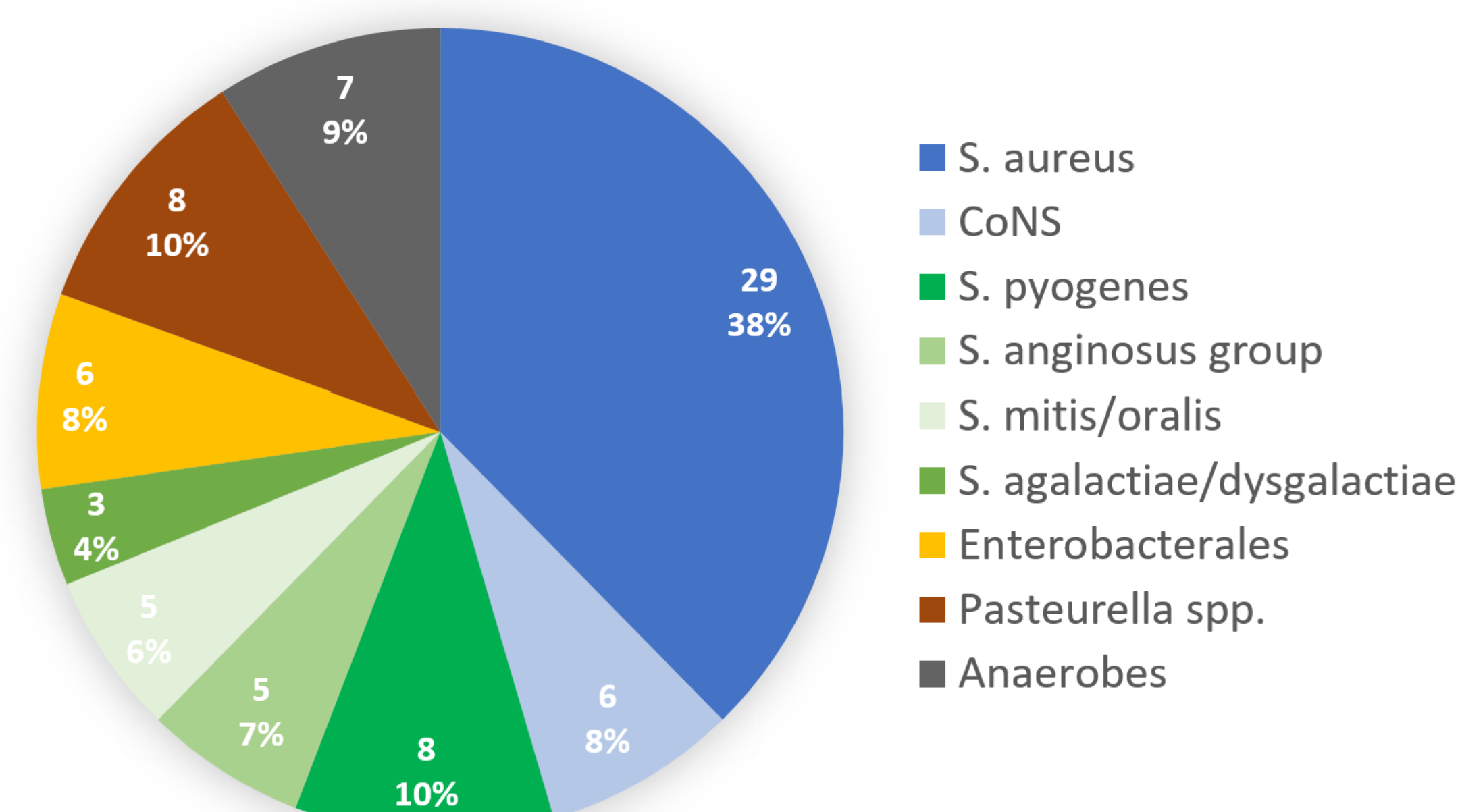


### Characteristics of the 82 included patients and initial management

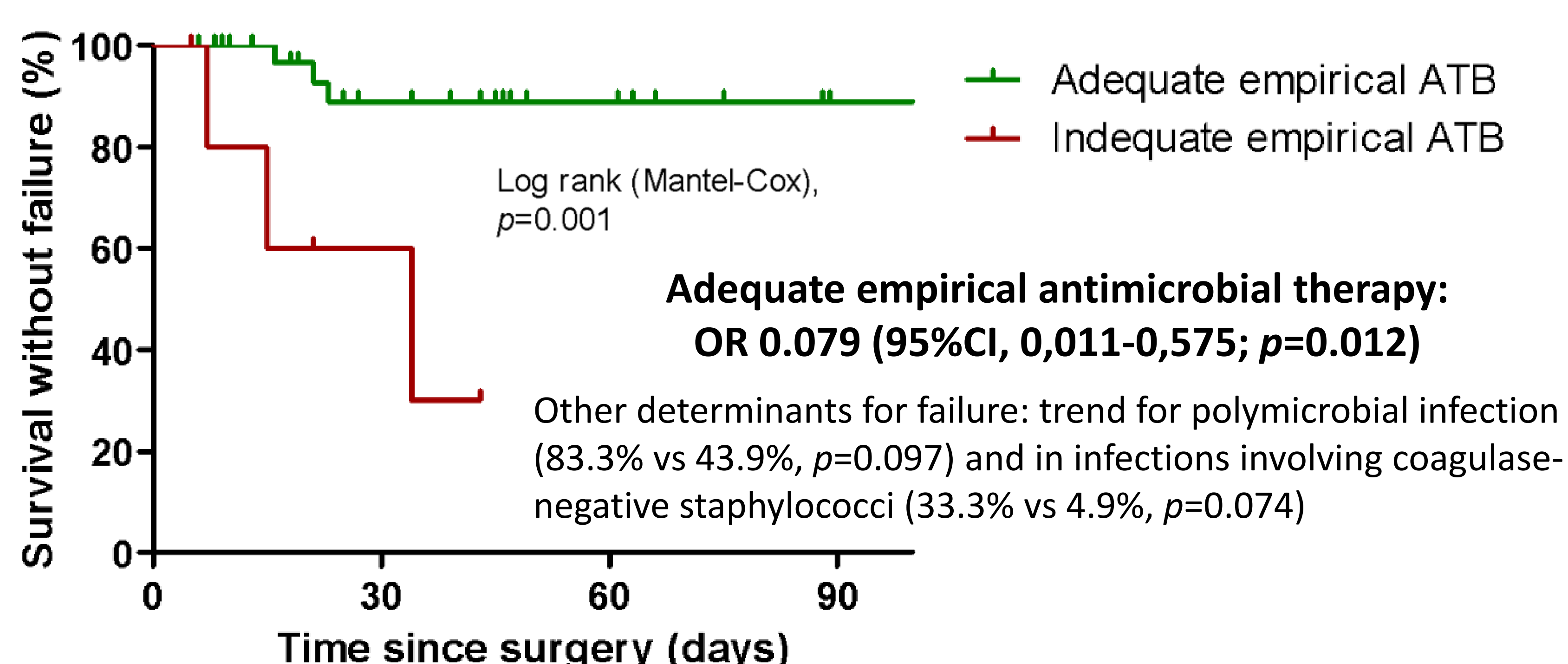
| Demographics                                |               |
|---------------------------------------------|---------------|
| Sex (male)                                  | 59 (72.0%)    |
| Age (years)                                 | 36 (28-52.8)  |
| Comorbidities                               |               |
| ASA 1                                       | 58 (70.7%)    |
| Charlson's comorbidity index > 2            | 7 (8.5%)      |
| Initial trauma                              |               |
| Delay between trauma and symptoms (days)    | 4 (2-8)       |
| Trauma mechanism                            |               |
| Sharp object                                | 31 (37.8%)    |
| Crushing                                    | 5 (6.1%)      |
| Bite                                        | 30 (36.6%)    |
| Vegetal                                     | 8 (9.8%)      |
| Unknown                                     | 8 (9.8%)      |
| Presence of a foreign body                  | 10 (12.2%)    |
| Associated osteomyelitis                    |               |
|                                             | 4 (4.9%)      |
| Initial management                          |               |
| Hospitalization                             | 54 (65.9%)    |
| Surgery                                     | 82 (100.0%)   |
| Delay from initial trauma to surgery (days) | 6 (2-10)      |
| Unipolar lavage                             | 77 (93.9%)    |
| Bipolar lavage                              | 5 (6.1%)      |
| Synovectomy                                 | 52 (63.4%)    |
| Additional procedure                        |               |
| Local flap                                  | 5 (6.1%)      |
| Extensor tendon repair                      | 15 (18.3%)    |
| Tenosynovectomy                             | 10 (12.2%)    |
| Antimicrobial therapy                       |               |
| Infectious disease specialist intervention  | 35 (42.7%)    |
| Empirical antimicrobial therapy             |               |
| Efficient empirical antimicrobial therapy   | 51/57 (89.5%) |
| Amoxicillin – clavulanic acid               | 69 (84.1%)    |
| Treatment duration (days)                   | 15 (10-31)    |



### Microbiological documentation : 58 patients (70.7%)



### Outcome: 9.4% of treatment failure (n=6)



**Conclusions:** Early surgery combined with antimicrobial leads to an acceptable outcome (9.4% of treatment failure) Appropriate empirical antimicrobial therapy emerged as the primary determinant of outcome in patients who had undergone surgery.