

One-stage revision for Prosthetic Joint Infection (PJI) Demonstrates Better Medium-Term Outcome when Compared to Matched Patients having Two-stage revision

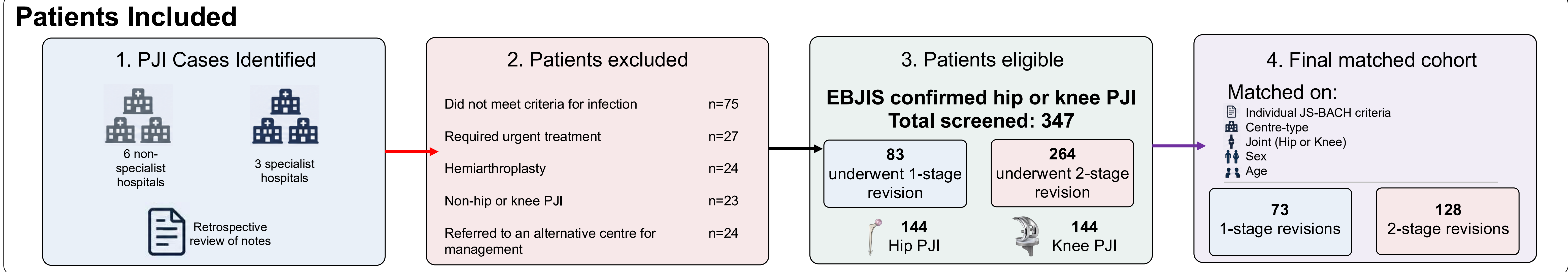
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Introduction

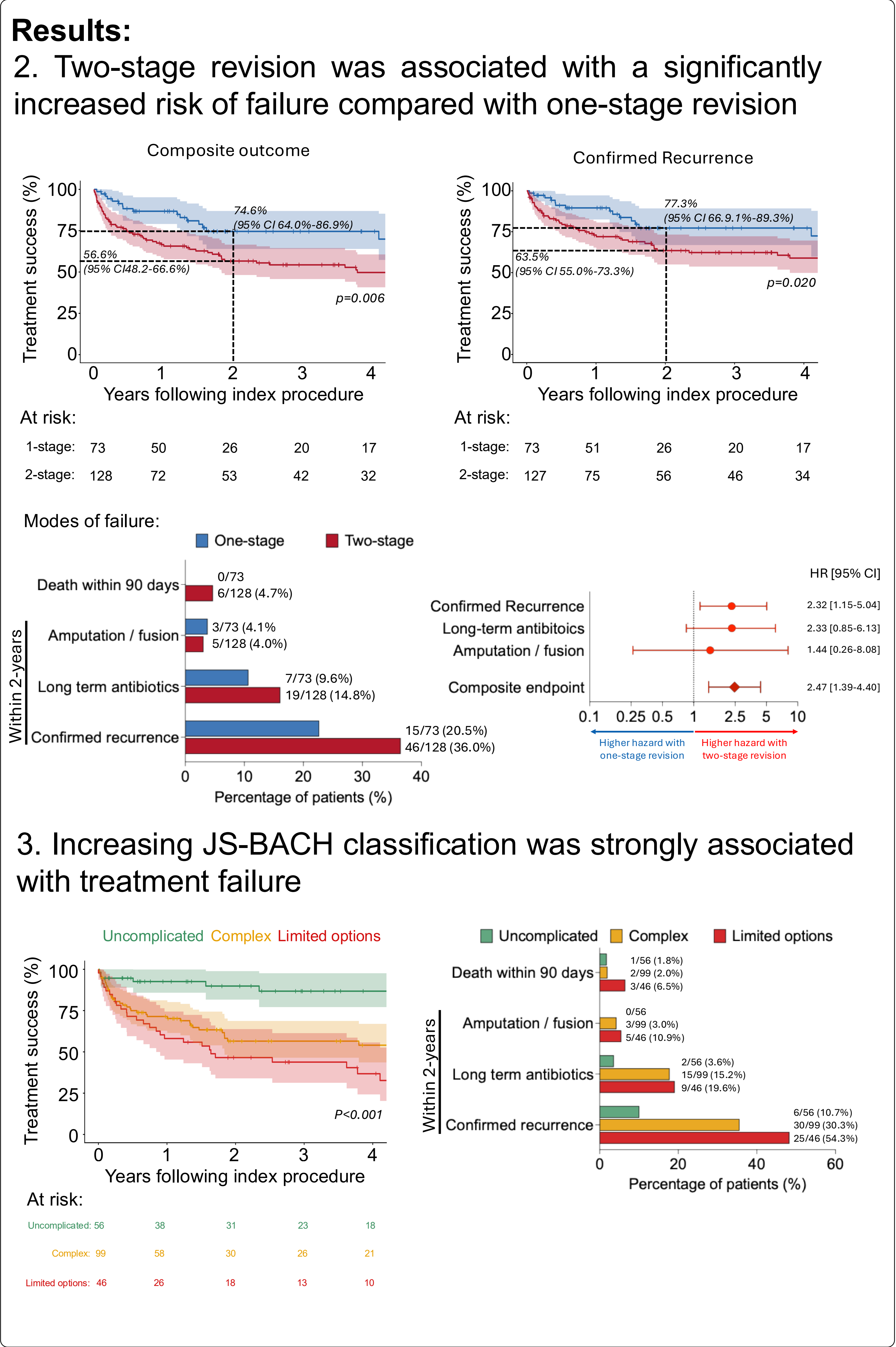
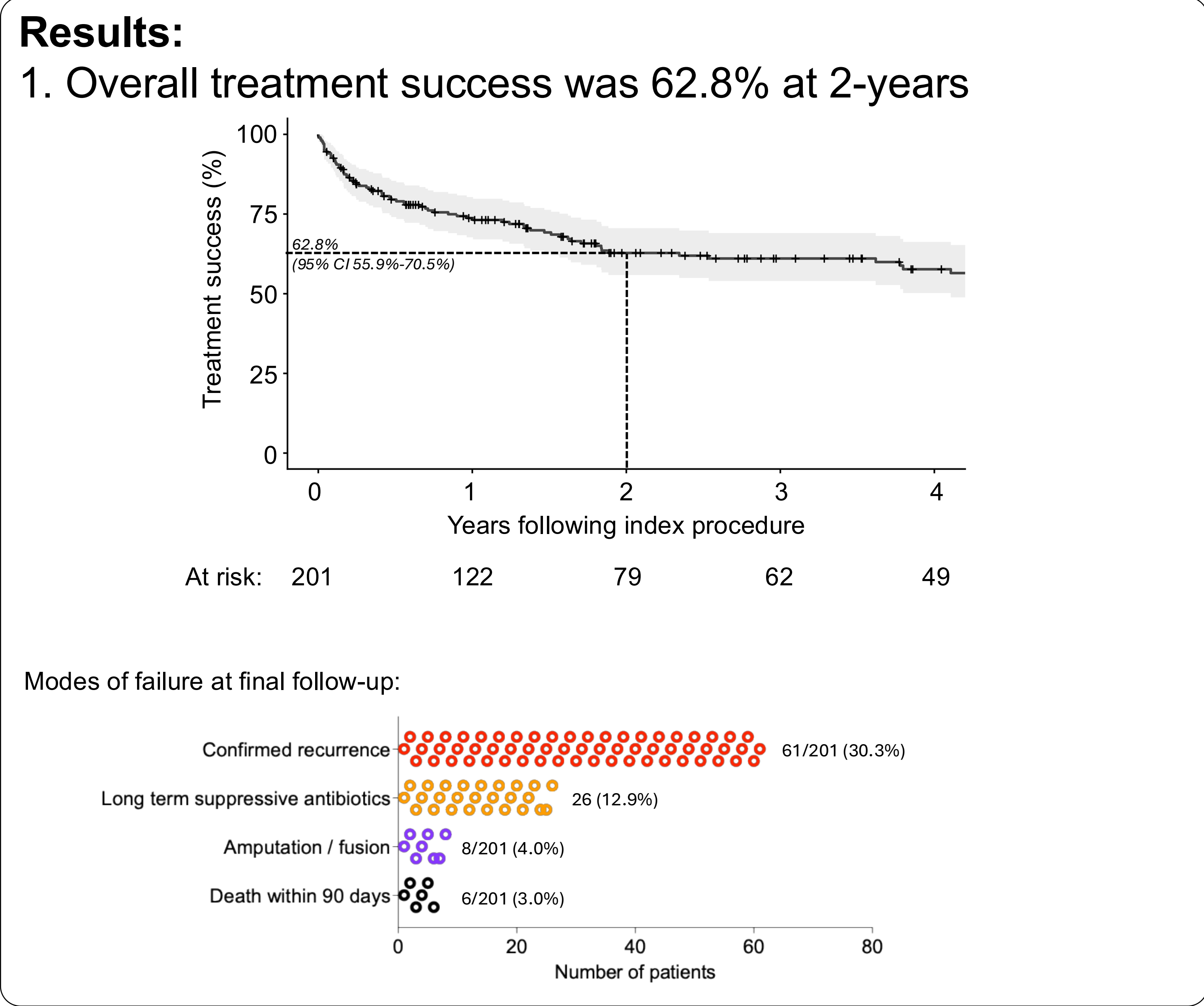
One-stage and two-stage revision for PJI are difficult to compare because of substantial heterogeneity in patient, infection and treatment characteristics. Restrictive RCT eligibility criteria can introduce inclusion bias and limit generalizability to real-world populations.

This study compared surgical outcomes following 1-stage or 2-stage revision surgery for hip and knee PJI using a matched cohort, stratified by JS-BACH classification, joint, centre type, age, and sex.



Patient and procedural information

	Overall n = 201	One-stage revision n = 73	Two-stage revision n = 128
Age, years (SD)	69.4 (12.1)	68.1 (13.9)	70.1 (11.0)
Sex (%)			
F	101 (50.2%)	38 (52.1%)	63 (49.2%)
M	100 (49.8%)	35 (47.9%)	65 (50.8%)
JS-BACH overall classification			
Uncomplicated	56 (27.9%)	24 (32.9%)	32 (25.0%)
Complex	99 (49.3%)	36 (49.3%)	63 (49.2%)
Limited options	46 (22.9%)	13 (17.8%)	33 (25.8%)
Joint			
Hip	144 (71.6%)	51 (69.9%)	93 (72.7%)
Knee	57 (28.4%)	22 (30.1%)	35 (27.3%)
Centre type			
Non specialist	69 (34.3%)	30 (41.1%)	39 (30.5%)
Specialist	132 (65.7%)	43 (58.9%)	89 (69.5%)



Summary

- Patient groups were well matched based on multiple characteristics which affect outcome.
- One-stage revision was associated with significantly lower treatment failure than two-stage revision.
- Increasing JS-BACH severity was strongly associated with treatment failure.

Case stratification and matching may provide a more informative comparison of treatment strategies for PJI.