

| Study | Design | No of cases | Surgical treatment | Other treatments | Follow up | Eradication | PROMS | Authors conclusion |
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| Achermann (2013) | Retrospective case series | 16 | Debride and implant retention (n=6); Two stage revision – average 3 months between stages(n=7); Resection arthroplasty (n=1); Antibiotic therapy alone | Median 92 days antibiotic therapy (choice not explained in study) | 2.7 years | 75% eradication (50% eradication following DAIR procedure and 83% eradication following 2-stage | Not reported in study | Recommended for hip and knee PJI, we suggest treating shoulder PJI with a low-grade infection by microorganisms such as P. acnes with an exchange of the prosthesis. Cohort studies are |

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| | | | (n=2) | | | revision) | | needed to verify our results. |
| Amaravathi (2012) | Retrospectiv e case series | 44 patients (only 26 followed -up) | Group I: drainage procedure (n=10), Group II drainage and stage-one revision surgery (n=12), Group III partially or totally removed (n=4), Group IV Prosthesis removed and | 74% received IV antibiotics for 10 days and oral antibiotics for 3 months. 2 patients did not have antibiotic therapy due to culture | 30 months | 4 patients developed further fistula (not explained which groups patients were in). Good wound | CMS: One- stage: 53. Two stage: 43. Other groups results not given | There was no difference in the results of single- or two-stage revision procedures. □ |

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| | | | spacer used (n=4), Group V Two-stage revision (n=12), Group VI removal of prosthesis alone (n=2) | results. Antibiotic choice not explained in the study | | healing in 77% of patients followed up (not explained which patients had problems or what problems were) | | |
| Assenmacher (2005) | Retrospectiv e case series | 36 | Two stage revision | Not detailed in study | 4.1 years | 85% eradication | Pain score improved 4.4 to | Two-stage re- implantation |

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| | | | | | | | <p>2. Neers</p> <p>rating:</p> <p>Excellent = 28%;</p> <p>Satisfactory = 33%;</p> <p>Unsatisfactory = 39%</p> | <p>eradicated PSI in 85% of the shoulders. Pain relief and good arcs of motion were achieved in many patients, but there was an overall rate of unsatisfactory results approaching 40%</p> |
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| Beekman (2010) | Retrospective case series | 11 | One-stage revision | Cefazolin 2g TDS until cultures available. Switched to culture specific IV antibiotics until discharge at which point an oral alternative was started until | 24 months | 90.9% eradication | CMS improved from 45 to 55 | A one-stage revision arthroplasty reduces the cost and duration of treatment. It is reliable in eradicating infection and good functional outcomes can be achieved. |
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| | | | | inflammatory markers normalized (median 3 months) | | | | |
| Braman (2006) | Retrospectiv e case series | 7 | <i>Resection arthroplasty</i> | Antibiotic regime decided by infectious disease consultant | 20 months | 100% eradication | All of the patients could reach their mouths, their contralateral axilla, their back pocket, and their perineum | Resection arthroplasty is a reasonable salvage option for patients who are not good candidates for prosthetic reimplantation. This yields patients |

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| | | | | | | | | who can reliably perform basic activities of daily living |
| Buchalter (2017) | Retrospectiv e case series | 19 | 2- stage revision. Debridement and cement spacer. Second stage planned when clinical, radiographic and inflammatory markers normal. Biopsies taken at | Minimum 6 weeks IV antibiotics after first stage. | 63 months | 79% eradication | ASES 69 | The results of our case series and literature search suggest that 2- stage revisions are 74% to 82% effective at eradicating infection after PSIs |

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| | | | second stage and reimplantation occurred if frozen section analysis normal (mean time interval 40 months). | | | | | |
| Coffey (2010) | Retrospective case series | 16 | Gentamicin impregnated cement spacer. 12 patients opted to have second stage revision at mean interval 11.2 | Culture specific antibiotics for 5.6 weeks | 20.5 months | No recurrence of infection | VAS reduced from 8.4 to 0.5. UCLA score increased from 7 to 26. SST increased from 1.2 to 6.6. | Treatment of glenohumeral sepsis with a commercially produced antibiotic-impregnated |

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| | | | weeks | | | | ASES increased from 16 to 74. CMS increased from 16 to 57 | cement spacer appears to be an effective treatment modality. |
| Coste (2004) | Retrospective cohort study | 49 | Antibiotic therapy only (n=5); Resection arthroplasty (n=10); Debridement (n=8); Cement spacer (n=3); One-stage revision (n=3); | Mean antibiotic therapy 3.9 months. In 50% the antibiotic of choice bore no relationship to culture | 34 months | Eradication: 70% of resection arthroplasty; 40% of antibiotic alone; 83% eradication in debridement | CMS (pre/post revision) | In acute infection, immediate revision with excision of all infected tissue and exchange of the prosthesis with appropriate antibiotic therapy gave the best results |

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| | | | Two-stage revision (n=10). | results | | t group; 100% in One-stage; 60% in two-stage revision; 100% in cement spacer group | | |
| Cuff (2008) | Retrospective case series | 22 | Revision to reverse shoulder arthroplasty as: One stage (n=10) | 6 weeks of IV antibiotics in patients with sinus or | 43 months | 100% eradication | One-stage: ASES improved 36.0 to 62.6. Two-stage: 28.5 | There was no statistically significant difference in any |

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| | | | or 2-stage (n=12) | with positive frozen sections. 2 weeks of IV antibiotics in patients with positive cultures but negative frozen section | | | to 52.2 | outcome between the single-stage and the two-stage group. |
| Dennison (2017) | Retrospective case series | 10 | Irrigation and debridement with component | Culture specific IV antibiotics | 4.1 years | 30% failure with I+D requiring | Objective functional scoring not | I&D allowed component retention in 70% of |

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| | | | retention for acute or delayed onset acute PJI | for average 5.2 weeks. 6 patients had chronic suppression with oral antibiotics | | resection arthroplasty | reported | shoulders presenting with an acute or delayed- onset acute haematogenous infection. Most patients were prescribed chronic antibiotic suppression, and reasonable motion was maintained <input type="checkbox"/> |
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| Dodson (2010) | Retrospective case series | 11 | <p>Group1: Antibiotic spacer (n=5) – all patients diagnosed with PJI prior to revision. 3 patients opted to have 2nd stage. 1 stage revision (n=6) – diagnosed with PJI on intraoperative cultures</p> | <p>Group 1: Average 0.8 debridements post revision. 6.3 weeks of IV Penicillin G or Clindamycin.</p> <p>Group 2: Oral ampicillin for average 9 weeks.</p> | 4.0 years | 100% eradication | <p>P acnes can be a true pathogen in the setting of shoulder arthroplasty. All cultures from potential surgical site infections are incubated for a minimum of 10 days. All patients undergoing revision shoulder arthroplasty are made aware that</p> |
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| | | | | | | | | intraoperative culture results may alter planned treatment. |
| Foruria (2013) | Diagnostic study | 107 | 45 partial shoulder replacements and 62 total shoulder replacements undergoing revision for reasons other than infection | | 2.6 years | | | There was a 15% occurrence of UPC. 10% of patients with UPC developed true infection. |

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| George (2016) | Systematic review | 36 articles | 8 articles relating to resection arthroplasty (n = 83), 6 on single-stage exchange (n = 75), 13 on two-stage exchange (n = 142) ; 8 on permanent spacer (n = 68). | 47.62% of studies reported length of antibiotics and 46.15% reported time between stages of 2-stage revision | 39.8 months | Resection arthroplasty = 86.7%; 1-stage revision = 94.75; Two-stage revision = 90.8%; Permanent spacer = 95.6% | CMS: Resection arthroplasty = 32.7; 1-stage revision = 51; Two-stage revision = 44; Permanent spacer = 31 | This systematic review failed to demonstrate a clear difference in infection eradication and functional improvement between all four treatment modalities for established periprosthetic shoulder infection. The relatively low |
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| | | | | | | | | number of patients and the methodological limitations of the studies available point out the need for well-designed multicentre trials to further assess the best treatment option of periprosthetic shoulder infection |
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| Ghijssels (2013) | Retrospective cohort study | 17 | Two stage revision (n=3); Resection arthroplasty with cement spacer (n=5); Resection arthroplasty (n=8); Poly exchange and debridements (n=1) | IV vancomycin and clindamycin for 6 weeks | 4.7 years | 94% eradication | <p>Resection arthroplasty: CMS = 27.8; DASH 46.9; VAS 3.6; SST 2.4.</p> <p>Two stage revision: CMS = 22.7; DASH = 56.7; VAS = 5; SST = 1.3.</p> <p>Permanent cement spacer: CMS = 20.6; DASH = 71.0;</p> | <p>Worst functional results were seen with the implantation of a definitive cement spacer. Two-stage revision arthroplasty remains the golden standard in chronic infections, but is associated with a high complication rate</p> |
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| | | | | | | | VAS = 6.0; SST =1.0 | |
| Gorman (2006) | Retrospectiv e case series | 14 | Antibiotic- Impregnated Cement Spacer | 6 weeks IV antibiotics | 22 months | 100% eradication | <p>ASES score improved from 18-72 ($p < 0.05$) and VAS improve from 9 to 2 ($p < 0.05$)</p> | <p>Aggressive treatment is necessary in the treatment of deep chronic infections of a shoulder arthroplasty. We recommend the use of a methylmethacrylat</p> |

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| | | | | | | | | e-coated antibiotic prosthesis for the treatment of this condition |
| Grosso 2012 | Retrospective case series | 17 | Single stage revision in patients with unexpected positive culture | 24 hours postoperative | 35.8 months | 5.7% recurrence of infection. | Penn score 50.6 | Positive intraoperative culture result during revision shoulder arthroplasty without other signs of infection has a low risk for recurrence of |

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| | | | | | | | | clinical infection |
| Hattrup 2010 | Retrospective case series | 17 | Two-stage revision arthroplasty (1 st stage debridement with antibiotic loaded cement spacer with reimplantation at second stage) | Initially cefazolin + vancomycin then changed depending on cultures | 4.1 years | Infection eradicated in 18 patients (85.7%) | VAS 1.67 | Two-stage shoulder reconstruction for infection is typically effective for curing the infection and improving pain and motion; however, function tends to remain limited. |

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| Hsu (2016) | Retrospective case series | 55 (27 cultures positive and 28 culture negative) | Single stage revision (failed arthroplasty with positive cultures for Propionibacterium) | <p>High index of suspicion for infection = 3 weeks IV ceftriaxone.</p> <p>Low index suspicion for infection = 3 weeks oral Co-amoxiclav. If cultures positive continued 6 months</p> | 47.8 months | No culture positive cases had recurrence of infection | SST improved from 2.9 to 7.0 | <p>Clinical outcomes after single-stage revision for Propionibacterium culture-positive shoulders were at least as good as the outcomes in revision procedures for control shoulders.</p> <p>Two-stage revision procedures may not be necessary in the management of</p> |
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| | | | | ceftriaxone | | | | these cases. Patients should be educated with regard to potential antibiotic side effects. |
| Ince 2005 | Retrospective case series | 16 | One-stage revision arthroplasty | Antibiotic length decided based on clinical findings and CRP level. Mean of 5.8 | 5.8 years | No patients had recurrence of infection | CMS score 33.6; UCLA score 18.3 | A one-stage exchange procedure using antibiotic-loaded bone cement eradicated infection in all our patients and we |

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| | | | | days | | | | suggest that such a procedure is at least as successful as either a resection arthroplasty or a two-stage exchange |
| Jacquot 2015 | Retrospective cohort study | 32 | debridement (n=13 with poly exchange in 10 and glenosphere in 4); 1-stage (n=5); 2-stage | Dual-antibiotic therapy for average 14.5 weeks | 36 | Considered healed when wound, CRP and radiography | CMS (pre-op: post op): Debridement= 36:51 (p=0.025); Resection= 24:25 (p=0.86); | Debridement should be proposed as a first-intention treatment. Both the polyethylene liner and the |

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| | | revision (n=14); Resection arthroplasty (n=6) | | | findings were normal. 81% patients had eradication of infection; 100% eradication with 2 stage revision; 64% with 1 stage revision; 54% with | 1 stage revision = 28:53(p=0.03); 2 stage revision = 39:44(p=0.42) | glenosphere must be replaced in these cases to improve infection healing. RSA reimplantation stands as the best therapeutic procedure to preserve shoulder function. One- stage revision seems to give the best results, but the 2-stage procedure |
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| | | | | | | debridement; 67% with resection | | remains a good option for difficult cases. Implant removal should remain a salvage procedure |
| Jerosch (2003) | Retrospective cohort study | 12 | Arthroscopic synovectomy (n=1); Open synovectomy (n=1); Two-stage revision – 4weeks to 6 months between stages | IV antibiotics for 4-6 weeks. Choice of antibiotic not explained | Range 6-30 months | 100% eradication | CMS 48 points | Use of an antibiotic-loaded spacer allows successful treatment of infected shoulder re- placements. |

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| | | | (n=10) | | | | | |
| Klatte (2013) | Retrospective cohort | 26 | Single stage revision: Hemiarthroplasty (n=14); Bipolar hemiarthroplasty (n=5); Reverse (n=7) | Mean 10.6 days IV antibiotics | 4.7 years | 5.7% recurrence rate | CMS: Hemiarthroplasty = 43.3; Bipolar hemiarthroplasty = 56; Reverse = 61 | Single-stage exchange is a successful and practical treatment for patients with periprosthetic infection of the shoulder. |
| Levy 2015 | Retrospective case series | 9 | Permanent functional antibiotic spacer | 6 weeks culture specific antibiotics | 25 months | No recurrent infections during | ASES score improved from 31.1 to 65.8 (p=0.031). VAS | A functional antibiotic spacer effectively manages the |

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| | | | | | | follow up. | reduced from 5.7 to 2.0 (p=0.063) | infected shoulder arthroplasty while achieving significant improvements in function and motion. Patient satisfaction was high, with a relatively low rate of conversion to second-stage revision. |
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| Magnan 2014 | Retrospective case series | 7 | Preformed antibiotic-loaded spacer. 5 patients went onto second stage hemiarthroplasty | Average 3.6 weeks of targeted IV antibiotics. | 40 months | 100% eradication at final follow up | Constant: increased from 40.28 to 79.14; ASES increased from 14.86 to 21.14; SES increased from 34.43 to 77.29 | An early diagnosis and an immediate treatment can prevent a persistent infection and severe soft-tissue damage. The use of a preformed antibiotic spacer allows maintaining joint function at the intermediate stage in two-stage treatment. |
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| Mahure (2016) | Retrospective case series | 9 | Antibiotic loaded cement spacer | Antibiotics as per infectious disease consultation but choice and time not reported in the study | 48 months | 100% Eradication | ASES = 57 | Although cement spacers are typically used as part of a 2-stage revision procedure, the current findings suggest that cement spacers can be used effectively to eradicate infection and allow for acceptable functional recovery and range |
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| | | | | | | | | of motion in patients who have severe medical comorbidities and cannot tolerate additional surgery |
| Marcheggiani Muccioli (2017) | Systematic review | 15 included studies | Debridement (n=27); Resection arthroplasty (n=52); Permanent spacer (n=33); Two stage revision (n=98); One-stage | Not explained in review | Range 32 – 99.6 months | Eradication (%): Debridement 71.4%; Resection arthroplasty 88.5%; Permanent | CMS: Debridement = 41; Resection = 29; Permanent spacer = 31; Two-stage revision = 42; One-stage | Debridement showed the highest PI rate (29.6%) and should be not recommended as a treatment method for patients with infected shoulder |

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| | | | | | | | | applicable) could be superior to two-stage revisions. |
| Nelson (2016) | Systematic review | 30 articles | Antibiotics only (n=8); Resection or arthrodesis (n=90); I+D and implant retention (n=35); Antibiotic spacer (n=31); One-stage revision (n=282); Two stage revision (n=97) | Not detailed in review | 49 months | Eradication rate: Antibiotic only = 50%; Resection or arthrodesis =93.3%; I+D and implant retention = | Constant scores: I+D and retention =38.4; Resection arthroplasty = 33.5; One-stage revision =48.1; Two-stage revision = 40.9; Antibiotic spacer = 32.7 | 2-stage revision had the highest mean infection clearance rate, there was no statistical difference in clearance rates between 1-stage revision, 2-stage revision, and |

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| | | | | | 68.6%; Antibiotic spacer = 90.3%; One-stage revision =90.1%; Two-stage revision = 93.8% | resection arthroplasty. Finally, 1-stage revision produced similar Constant- Murley functional scores compared with more aggressive strategies |
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| Ortmaier 2014 | Retrospective cohort study | 20 | Debridement and poly exchange (n=7 – 4 acute infections and 3 subacute infections); Two-stage revision (n=12); Resection arthroplasty (n=1) | 6-12 weeks of culture specific antibiotics | 73.7 months | 3 patients required further revisions following drainage procedures. | CMS:2-stage revision = 52.2; Debridement = 47; Resection = 16.8; Prolonged spacer 42. UCLA:2-stage = 23.3; Debridement = 24.5; Resection = 15.3; Prolonged spacer = 14. SST:2-stage = 6.4; | irrigation and debridement and partial component removal are only successful in acute infections. The relatively high patient satisfaction can be explained by the low pain level once the patient is free from infection. However, functional results |
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| | | | | | | | Debridement = 7; Resection = 3; Prolonged spacer = 4. VAS: 2-stage = 1.3; Debridement = 2.5; Resection = 1.5; Prolonged spacer = 2 | are poor in most cases, which must be discussed with the patient in the preoperative setting. |
| Romano | Retrospective case series | 20 | Two stage arthroplasty (n=4); Permanent | Dual antibiotic therapy for | | 95% eradication | Visual analogue pain score reduced from | antibiotic-loaded cement spacer can be maintained for |

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| | | | cement spacer (n=16) | 4-6 weeks | | | 6.7 to 1.7. Constant score 53. | long periods of time in the shoulder, with adequate clinical and radiographic follow up. In selected cases a reverse prosthesis may be safely performed |
| Romano 2012 | Retrospective cohort study | 44 | Debridement (n=5 (3 with exchange of mobile parts)); | 19 patients had <6 weeks of culture | 41.1 months | Arthrodesis = 100% eradication; Debridement | CMS: Debridement = 43; Resection = 32; Permanent | Our results favour a permanent spacer implant and two- stage revision as |

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| | | | Permanent spacer (n=15); Two stage exchange (n=17); Arthrodesis (n=1); Resection arthroplasty (n=6) | specific antibiotics; 24 patients had longer than 6 weeks antibiotics | | t and implant retention 80% eradication; Resection arthroplasty 100% eradication; Permanent spacer 93.3% eradication | spacer = 34; Two stage revision = 38 | the best treatment to eradicate periprosthetic shoulder infection and positively influence functional outcome. |
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| Sabesan 2011 | Retrospective case series | 17 | 1 st stage debridement and antibiotic loaded spacer and second stage reverse shoulder arthroplasty | 6 weeks of IV antibiotics based on cultures | Minimum 2 years but average not reported | One patient had recurrence of infection (6%) | Penn score improved from 24.9 to 66.4 following second stage (p=0.007) | Shoulder function and pain improved in patients treated with a second-stage reimplantation of a reverse prosthesis and the reinfection rate was low. □ |
| Seitz (2001) | Retrospective case series | 8 | Two stage revision – 1st stage cement spacer followed by 3 months | Culture specific antibiotics for 3 months | 4.8 years | 100% eradication | University of Pennsylvania shoulder score 63. | In conjunction with adequate debridement and appropriate intravenous |

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| | | | antibiotics and 3 months off antibiotics. If no signs of recurrence then reimplantation) | | | | | antibiotic therapy, this staged interposition reconstruction can provide reasonable (albeit limited) function with a resultant stable shoulder comparable with satisfactory results according to Neer's limited goals criteria |
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| Sperling 2001 | Retrospective cohort study | 2512 primary and 222 revision. (19 primary shoulders and 7 revision shoulders developed deep PJI) | Group 1: Resection arthroplasty (n=21); Group 2: Debridement and prosthetic retention (n=6); Group 3: single stage revision (n=2); Group 4: Two stage revision (n=2) | IV antibiotics average 31 days. 13 of 31 cases had oral antibiotics for an average of 27 days. | 6.5 years | Group 1: 6 of 21 developed recurrence of infection. Group 2: 50% developed further infection requiring resection arthroplasty. Group 3: 50% | Group 1: 63% = no/slight pain, 9% = pain after strenuous activity, 3 = moderate pain. Group 2: Details not reported in the study. Group 3: Not explained in the study. Group 4: 100% = no/slight pain | Patients with a prosthesis in situ had better pain relief and shoulder function than patients treated with resection arthroplasty. Delayed reimplantation may offer the best hope for pain relief, eradication of infection, and maintenance of |
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| | | | | | | developed reinfection requiring resection arthroplasty . Group 4: No patients developed further infection | | shoulder function. |
| Stine 2010 | Retrospective case series | 30 | All patients treated with debridement + cement spacer. | Culture specific antibiotics for 6 weeks. | Group 1A: 2.4 years; Group | No patients developed recurrence at latest | Group 1A: DASH = 50, SST = 5; Group 1B: DASH = | Re-implantation after cement spacer and antibiotics is both safe and |

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| | | | <p>Once CRP and ESR normal all patients offered reimplantation.</p> <p>Group 1: Elected to keep cement spacer (n=18).</p> <p>Group 2: 8 had second stage revision</p> | <p>3 patients in group 1 elected to undergo delayed reimplantation (Group 1B)</p> | <p>1B: 2.8 years,</p> <p>Group 2: 2.3 years</p> | <p>follow up.</p> | <p>41, SST = 6;</p> <p>Group 2: DASH = 58, SST = 5</p> | <p>provides a reasonable functional outcome. In patients with low functional demands and who may not tolerate further surgery well, the spacer can be used as a definitive prosthesis resulting in adequate pain control and ability</p> |
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| Strickland (2008) | Retrospective case series | 19 | Two stage revision (mean time 11 weeks between resection and reimplantation) | 4-6 weeks of culture specific antibiotics between stages. | 35 months | 63% eradication | Pain score improved from 4.2 to 1.8 (out of 5). Neer rating: 2= excellent; 4 = satisfactory; 13 = unsatisfactory | Our study suggests that two-stage re-implantation for an infected shoulder replacement is associated with a high rate of unsatisfactory results, marginal success at eradicating |

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| | | | | | | | | infection and a high complication rate |
| Themistocleous (2007) | Retrospective case series | 11 | Antibiotic impregnated cement spacer | 6 weeks culture specific IV antibiotics | 22 months | 100% eradication | QuickDASH 37.5 | Prolonged implantation of the spacer may be a useful alternative in selected patients with poor general condition |
| Twiss 2010 | Retrospective case series | 30 | Group1 : intraoperatively fashioned articulating | Culture specific antibiotics for average | 21.2 months | No patients experienced recurrence of infection | ASES increased from 17 to 73. Constant score increased from | An antibiotic-impregnated cement spacer appears to help |

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| | | | <p>hemiarthroplasty (n=14), Group 2: articulating hemiarthroplasty with a commercially made gentamicin- impregnated cement spacer (n=16)</p> | <p>5.6 weeks. 20 shoulders had 2nd stage revision surgery</p> | | <p>16 to 57. SST increased from 1.2 to 6.6; VAS pain score reduced from 8.7 to 1.2. Scores not broken down for patients between type of spacer or following second stage revision</p> | <p>eradicate deep infection of the shoulder with preservation of the soft tissue envelope for revision surgery.</p> |
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| Verheist 2011 | Retrospective cohort study | 21 | <p>Group 1: No spacer (n=11);</p> <p>Group 2: Permanent cement Spacer (n=10)</p> | <p>Culture specific antibiotics for minimum of 4 weeks and converted to oral antibiotics with normalization of CRP to complete 3 months antibiotics.</p> | 46.4 months | <p>2 patients in no spacer group had residual low grade infection vs 0 patients in cement spacer group (p=0.48)</p> | <p>VAS decreased from 6.5 to 2.6 (p=0.0001). CMS increased from 17.8 to 40.4 (p=0.003). Group 1 CMS = 46.3; Group 2 CMS = 34.54</p> | <p>Resection arthroplasty can be offered to patients with long-standing deep shoulder infection that was unresponsive to previous surgical treatment. Control of infection did not differ significantly between the groups. No improvement in outcome was</p> |
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| | | | | | | | | demonstrated with the use of cement spacers. |
| Weber (2010) | Retrospective cohort study | 10 | Two stage revision (n=4); Resection arthroplasty (n=5); Serial debridement (n=1) | Culture specific antibiotics until CRP and WBC counts were normal | 4.0 years | 100% eradication | Constant score: Exchange arthroplasty = 40.1; resection arthroplasty = 32.7; Irrigation = 90 | Serial debridement with vacuum-irrigation therapy is a new treatment option in infected shoulder arthroplasty, promising the best results, however with a potential risk of persistent |

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| | | | | | | | | infection. In this study, with a limited number of patients, the two- stage exchange did not yield better results than the resection arthroplasty. Its value for elderly or chronically ill patients should nevertheless not be underestimated, because its pain |
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| | | | | | | | | <p>relief results are comparable with those of the two-stage exchange while the procedure is faster and less exhausting for the patients.</p> |
| Zavala 2012 | Retrospective case series | 7 (outcome data only available for 4 patients) | <p>Resection arthroplasty (n=1);</p> <p>Debridement and implant retention (n=3)</p> | All patients got 6 weeks antibiotics | 43.5 months | <p>4 patients had implant retention and 6 weeks antibiotics within 2 weeks of</p> | <p>Retention group: ASES score 40.7, SF-12:42.5;</p> <p>Resection patient: ASES score 31.7, SF-</p> | <p>We recommend that patients should be managed with an initial irrigation and debridement, appropriate intravenous</p> |

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| | | | | | | index procedure (all successfully treated) and 3 patients had DAIR after 2 months of index - 1 successfully treated, 2 needed resection arthroplasty | 12: 13.2 | antibiotics, and component retention | |
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| Zhang (2015) | Retrospective case series | 18 | Two stage revision (n=18) | 6 weeks of culture specific antibiotics | 24 months | Following debridement and 6 weeks of IV antibiotics 22% of patients had persistent infection requiring | Average ASES = 71 | Despite prior staged treatment for deep postoperative shoulder infections, specimens obtained from open biopsy before replantation |
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| | | | | | <p>further cycle of debridemen t and antibiotics. At final follow up 100% patients were infection free.</p> | | <p>detected a persistent infection rate of 22% in all patients and 38% in patients with P acnes infection, which may indicate a role for this procedure in the prevention of recurrent infections.</p> |
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