| Patient | Age (years) | Sex | Weight (kg) | BMI (kg/m²) | Co-Morbidities | Tigecycline Reason | Sequence in this Episode | # of Prior Antimicrobial Courses |
|---------|-------------|-----|-------------|-------------|----------------|-------------------|------------------------|--------------------------|
| 1       | 66          | M   | 121.9       | 39.5        | none           | empirical/ culture negative | 1st but prior course    | 1                        |
| 2       | 68          | F   | 83.2        | 33.6        | CRF (Stage 3)  | C difficile colitis, rash on prior regimen (vancomycin and cefazidine), empirical/ culture negative | 2nd but prior course    | 1                        |
| 3       | 60          | F   | 100.1       | 39.1        | none           | C difficile colitis, prior CoNS and E coli, empirical/ culture negative | 1st but prior course    | 1                        |
| 4       | 70          | M   | 78.3        | 25.5        | CRF (Stage 3)  | AKI on vancomycin and cefazolin, polymicrobial coverage | 2nd but prior course    | 0                        |
| 5       | 67          | F   | 91.5        | 39.4        | none           | empirical/ culture negative | 1st but prior course    | 1                        |
| 6       | 57          | M   | 183         | Not available | DM, CRF (Stage 3) | targeted MRSA coverage | 1st but prior course    | 1                        |
| 7       | 54          | F   | 121         | 41.9        | none           | AKI on vancomycin, allergy to daptomycin and penicillins, targeted MSSA coverage | 2nd but prior course    | 0                        |
| 8       | 65          | F   | 85.9        | 37.0        | DM             | AKI, polymicrobial coverage | 1st but prior course    | 0                        |
| 9       | 47          | M   | 135         | Not available | DM, CRF (Stage 3) | CKD, targeted Streptococcus coverage | 1st but prior course    | 0                        |
| 10      | 64          | F   | 89.8        | Not available | DM, CRF (Stage 3) | Immunocompromised | 1st but prior course    | unknown                  |
| 11      | 57          | M   | 95.2        | Not available | DM             | targeted Citrobacter freundii coverage | 1st but prior course    | 0                        |
| 12      | 71          | M   | 98          | 29.4        | none           | polymicrobial infection | 1st but prior course    | 0                        |
| 13      | 71          | F   | 80.6        | 35.2        | none           | empirical/ culture negative | 1st but prior course    | at least 1                |
| 14      | 70          | M   | 122.2       | 39.2        | none           | AKI with vancomycin and pip-tazo, targeted MRSA coverage | 1st but prior course    | 1                        |
| 15      | 61          | M   | 123.8       | 37.0        | CRF (Stage 3)  | CKD, empirical/ culture negative | 1st but prior course    | at least 1                |
| 16      | 77          | F   | 106.2       | 45.7        | CRF (Stage 3)  | CKD, empirical/ culture negative | 1st but prior course    | 1                        |
| 17      | 70          | M   | 180.2       | 49.7        | DM             | concern about dosing vancomycin due to BMI, targeted CoNS coverage | 1st but prior course    | 1                        |
| 18      | 80          | F   | 59          | 21.5        | none           | C difficile colitis, polymicrobial infection | 1st but prior course    | 1                        |
| 19      | 66          | F   | 82          | 30.0        | DM, CRF (Stage 3) | CKD, targeted MSSA coverage | 1st but prior course    | 1                        |
| 20      | 65          | F   | 52          | 18.5        | DM, | history of infection with multi-drug resistant E coli as well as MSSA | 1st but prior courses at least 2 | 0                        |
| 21      | 65          | F   | 58          | Not available | none | targeted Streptococcus agalactiae coverage | 1st but prior courses at least 2 | 0                        |
| 22      | 53          | F   | 88.5        | Not available | none | desire to add antibacterial coverage when OR cultures grew Candida | 1st but prior course    | 1                        |
| 23      | 65          | M   | 131         | Not available | none | polymicrobial coverage | 1st but prior course    | at least 2                |
| 24      | 75          | F   | 57          | 17.0        | Immunocompromised | polymicrobial coverage, resistant organisms | 1st but prior course    | 0                        |
| 25      | 74          | F   | 103.6       | 41.8        | none           | targeted Peptostreptococcus coverage | 1st but prior course    | 0                        |
| 26      | 64          | F   | 101         | Not available | none | polymicrobial coverage | 1st but prior course    | 0                        |
| 27      | 88          | F   | 63.4        | 26.4        | CRF (Stage 4)  | CKD, targeted Enterobacter coverage | 1st but prior course    | 0                        |
| 28      | 63          | M   | 117.5       | 35.1        | CRF (Stage 3)  | CKD, empirical/ culture negative | 1st but prior course    | 0                        |
| 29      | 51          | F   | 121.1       | 47.3        | DM             | vancomycin allergy, history of infection with Enterococcus faecalis, empirical/ culture negative | 1st but prior course    | 1                        |
| 30      | 68          | F   | 124         | 51.1        | DM             | VRE coverage | 1st but prior course at least 1 | 0                        |
| 31      | 53          | M   | 148.0       | 45.6        | CRF (Stage 3)  | VRE with elevated daptomycin MIC | 1st but prior course at least 3 | 0                        |
| 32      | 59          | M   | 66.0        | 19.7        | Immunocompromised | empirical/ culture negative | 1st but prior course    | 1                        |
| 33      | 66          | F   | 72.8        | 26.7        | none           | history of infection with MRSA and VRE, empirical/ culture negative | 1st but prior course at least 3 | 0                        |
| 34      | 65          | F   | 82.5        | 34.4        | none           | desire to add antibacterial coverage when gram stain showed yeast | 1st but prior course at least 2 | 0                        |
| 35      | 59          | F   | 99.0        | 38.7        | none           | MSSA with high vancomycin MIC | 1st but prior course at least 3 | 0                        |
| 36      | 63          | F   | 119.0       | 42.5        | DM             | targeted MRSA coverage | 1st but prior course    | 0                        |
| 37      | 66          | F   | 135.0       | Not available | none | AKI on vancomycin, empirical/ culture negative | 2nd but prior course    | 1                        |
M, male; F, female; CRF, chronic renal failure; CoNS, coagulase negative staphylococci; E. coli, Escherichia coli; DM, diabetes mellitus; AKI, acute kidney injury; ID, Infectious Diseases; CKD, chronic kidney disease; pip-tazo, piperacillin-tazobactam; BMI, body mass index; OR, operating room; MRSA, methicillin resistant Staphylococcus aureus; MSSA, methicillin susceptible Staphylococcus aureus; C difficile, Clostridium difficile; VRE, vancomycin resistant Enterococcus; MIC, minimal inhibitory concentration
Table S2. Characterization of Infections and Treatments

| Patient | Prosthesis Type | Surgical Procedure | Pathogen | Resistance Profile | Duration (days) | Total antibiotic days | Total Time under Tigecycline (%) | Adverse Events | Outcome | Follow-up (months) |
|---------|----------------|--------------------|----------|-------------------|----------------|----------------------|---------------------------------|---------------|---------|-------------------|
| 1       | TKA            | 2 stage replacement | Culture negative | N/A              | 42             | 42                   | 100                             | None          | Success | 28                |
| 2       | THA            | 2+ stage replacement | Culture negative | N/A              | 32             | 42                   | 76                              | None          | Success | 39                |
| 3       | TKA            | 2 stage replacement | Gram stain with gpc in pairs, culture negative | N/A | 42 | 42 | 100 | None | Success | 24 |
| 4       | TKA            | D+PR               | *Cutibacterium, Corynebacterium* | Not available | 42 | 42 | 100 | None | Failure within 29 months due to dislocation | 29 |
| 5       | THA            | 2 stage replacement | Culture negative | N/A | 42 | 42 | 100 | None | Success | 24 |
| 6       | TKA            | 2 stage replacement | MRSA | CIP, CLI, LVX, OX | 42 | 42 | 100 | None | Failure within 5 months | 43 |
| 7       | TKA            | D+PR               | MSSA | N/A | 52 | 62 | 84 | None | Failure within 5 months | 15 |
| 8       | TKA            | 2 stage replacement | *Cutibacterium, Streptococcus viridans*, *Streptococcus agalactiae* | Not available | 42 | 42 | 100 | None | Success | 17 |
| 9       | THA            | 2 stage replacement | Culture negative | N/A | 33 | 42 | 79 | None | Success | 45 |
| 10      | TKA            | 2 stage replacement | Culture negative | N/A | 42 | 42 | 100 | None | Failure within 3 months | 20 |
| 11      | THA            | 2+ stage replacement | *Cutibacterium acnes* | Not available | 42 | 42 | 100 | None | Failure, details unknown | 100 (by phone) |
| 12      | THA            | 2 stage replacement | *Actinomyces israelii*, MSSA, *Cutibacterium species* | No resistance | 42 | 42 | 100 | None | Success | 13 |
| 13      | THA            | fusion             | Culture negative | N/A | 42 | 42 | 100 | None | Success | 24 |
| 14      | THA            | D+PR               | MRSA | CLI, OX | 42 | 42 | 100 | None | Success | 13 |
| 15      | THA            | 2 stage replacement | Culture negative | N/A | 42 | 42 | 100 | None | Success | 16 |
| 16      | THA            | 2 stage replacement | Culture negative | N/A | 42 | 42 | 100 | None | Failure within 5 months | 18 |
| 17      | TKA            | 2+ stage replacement | CoNS | No resistance | 42 | 42 | 100 | None | Failure within 5 months | 16 |
| 18      | TKA            | 2+ stage replacement | MRSA, *Candida albicans* (fluconazole added) | CLI, OX | 42 | 42 | 100 | None | Failure within 12 months | 15 |
| 19      | TKA            | fusion             | MSSA | CLI | 42 | 42 | 100 | None | Failure within 3 months | 42 |
| 20      | THA            | no surgery          | No operative cultures | N/A | 28 | 28 | 100 | None | Failure within 0 months, continued to drain | 42 |
|   | Procedure | Replacement Stage | Organism | Sensitivity | Treatment | CR | MR | Success Rate | Duration | Outcome |
|---|------------|------------------|----------|-------------|-----------|----|----|-------------|----------|---------|
| 21 | THA        | 2 stage replacement | *Streptococcus agalactiae* | No resistance | N/A | 42 | 100 | None | Success | 18 |
| 22 | THA        | 2 stage replacement | *C. lusitaniae* (fluconazole added) | | | 42 | 100 | None | Failure within 4 months | 17 |
| 23 | THA        | 2 stage replacement | *E. coli, Candida albicans* | AMP, GENT, SXT, CIP, LVX | 42 | 100 | None | Failure within 2 months | 12 |
| 24 | THA        | 2 stage replacement | *Enterococcus faecium, E. coli, Providencia stuartii* | Enterococcus: VAN, AMP. E. coli: CFZ, CIP. AMI. Providencia: CIP | 42 | 100 | None | Failure within 15 months | 15 |
| 25 | TSA        | 2 stage replacement | Peptostreptococcus species | Not performed | 42 | 100 | None | Success | 21 |
| 26 | THA        | 2 stage replacement | *Staphylococcus lugdunensis, multiple gram positives on gram stain* | No resistance | 42 | 100 | None | Success | 101 |
| 27 | TKA        | D+PR replacement | *Enterobacter cloacae* complex | Augmentin only | 28 | 100 | Elevated AST & ALT (stopped early) | Failure within 39 months | 38 |
| 28 | TKA        | 2+ stage replacement | Culture negative | N/A | 42 | 100 | None | Failure within 2 months | 40 |
| 29 | THA        | 2+ stage replacement | Culture negative | N/A | 42 | 100 | None | Failure within 5 months | 17 |
| 30 | TKA        | 2 stage replacement | *E. faecium* | VAN, AMP | 42 | 100 | None | Success | 60 |
| 31 | TKA        | 2+ stage replacement | *E. faecium* | VAN, DAP | 42 | 100 | None | Failure within 3 months | 29 |
| 32 | TSA        | 2+ stage replacement | Culture negative | N/A | 42 | 100 | None | Success | 31 |
| 33 | TKA        | 2+ stage replacement | Culture negative | N/A | 42 | 100 | None | Success | 52 |
| 34 | THA        | 2 stage replacement | Gram stain with budding yeast, culture negative (fluconazole added) | | | 42 | 100 | None | Failure within 12 months | 36 |
| 35 | THA, TKA   | 1 stage replacement | MSSA | VAN | 42 | 56 | 75 | None | Failure while still on IV antimicrobials | 20 |
| 36 | THA        | D+PR replacement | MRSA | OX | 42 | 100 | None | Failure within 9 months | 50 |
| 37 | THA        | 2 stage replacement | Culture negative | N/A | 33 | 42 | 79 | None | Failure within 6 months due to dislocation | 106 |

TKA, total knee arthroplasty; THA, total hip arthroplasty; TSA, total shoulder arthroplasty; N/A, not applicable; gpc, gram positive cocci; E. coli, *Escherichia coli*; D+PR, debridement plus prosthesis retention; MRSA, methicillin resistant *Staphylococcus aureus*; MSSA, methicillin susceptible *Staphylococcus aureus*; CIP, ciprofloxacin; CLI, clindamycin; LVX, levofloxacin; OX, oxacillin; VRE, vancomycin-resistant enterococci.
vancomycin resistant *Enterococcus*; CoNS, coagulase-negative staphylococci; AMP, ampicillin; GENT, gentamicin; SXT, trimethoprim-sulfamethoxazole; VAN, vancomycin; CFZ, ceftazidime; AMI, amikacin; AST, aspartate aminotransferase; ALT, alanine aminotransferase; *E. faecalis*, *Enterococcus faecalis*; DAP, daptomycin