Appendix 1: Summary of *C. difficile* cases

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| Age/Sex | Procedure Type\* | Co-morbidities† | Inpatient at time of  CIED procedure | PPI in  prior 6 months | Post-CIED Antibiotics | Duration  in days | Other Antibiotics in  last 6 months | Agent(s) | Reason for  other antibiotics| | | Interval between CIED procedure and CDI | | CDI Complication\*\* |
| 58M | AICD | DMII, peripheral artery disease | Yes | No | amoxicillin/  clavulanate | 7 | No | N/A | N/A | 15 | Death | |
| 82M | PPM/AICD | CHF | Yes | Yes | cefazolin | 1 | Yes | ciprofloxacin | Blocked urinary catheter | 34 | Death | |
| 84M | PPM | CHF, COPD, AF | Yes | Yes | cefazolin,  cephalexin | 1,6 | Yes | moxifloxacin | COPD | 8 | Death | |
| >90M | PPM, generator change | AF | No | Yes | cefazolin,  vancomycin | 1,1 | Yes | clindamycin | BCC resection prophylaxis | 76 | Death | |
| 86M | PPM | CAD s/p CABG, mitral valve replacement | Yes | No | cephalexin | 7 | Yes | piperacillin/  tazobactam, vancomycin, ciprofloxacin | Enterobacter PNA | 12 | Death | |
| 81M | PPM | CHF, DMII, AF | Yes | Yes | cephalexin | 5 | No | N/A | N/A | 45 | Death | |
| 78M | AICD | CHF, CAD, cirrhosis | No | Yes | clindamycin | 7 | No | N/A | N/A | 38 | Death | |
| 61M | AICD, generator change | CHF, CVA | Yes | Yes | doxycycline | 7 | Yes | piperacillin/  tazobactam, vancomycin | PNA/sepsis | 34 | Death | |
| 77M | PPM | CAD, peripheral artery disease, AAA, AF | Yes | No | vancomycin | 1 | Yes | ceftazidime | Pseudomonas PNA | 7 | Death | |
| 82F | PPM | CAD, CHF, CVA, CKD, COPD, AF | Yes | No | vancomycin,  clindamycin | 1,5 | No | N/A | N/A | 8 | Death | |
| 68M | PPM | lung cancer, peripheral artery disease | Yes | Yes | ceftriaxone, ciprofloxacin | 14 | Yes | ciprofloxacin, cefepime, meropenem | UTI, wound infection | 40 | Toxic megacolon  requiring colectomy | |
| 85M | PPM, generator change | CAD, CHF,DMII, AF,COPD, lung cancer | No | Yes | N/A | N/A | Yes | moxifloxacin, piperacillin/  tazobactam, imipenem | PNA/sepsis | 69 | Death | |
| 83M | PPM | DMII, CKD, AF, deep vein thrombosis | No | Yes | cefazolin | 1 | Yes | moxifloxacin, vancomycin, ampicillin  /sulbactam | Cellulitis | 53 | None | |
| 85M | PPM | CAD, aortic stenosis, CKD | No | Yes | cefazolin | 0.66 | No | N/A | N/A | 48 | None | |
| 64M | PPM | None | No | Yes | cephalexin | 7 | No | N/A | N/A | 4 | None | |
| 67M | PPM/AICD | CHF | No‡ | No | cephalexin | 5 | No | N/A | N/A | 1 | None | |
| 69M | PPM | DMII, CKD | Yes | No | cephalexin | 5 | Yes | ceftriaxone | UTI/diarrhea | 16 | None | |
| 74M | AICD | CAD, CABG | No | No | cephalexin | 10 | Yes | ciprofloxacin, metronidazole | Cecal Inflammation | 51 | None | |
| 83M | PPM | aortic stenosis, CAD s/p CABG, bladder cancer | Yes | Yes | cephalexin | 5 | Yes | ceftriaxone, vancomycin | CABG prophylaxis | 5 | None | |
| 85M | PPM | aortic stenosis, colon cancer | Yes | Yes | cephalexin | 7 | Yes | piperacillin/  tazobactam | Small bowel obstruction | 20 | None | |
| 52F | PPM, generator change, new RV defibrillator lead | CHF, breast cancer, leukemia | No | No | clindamycin | 7 | No | N/A | N/A | 21 | None | |
| 68M | PPM/AICD | CAD, DMII, TIA | Yes | Yes | clindamycin | 7 | No | N/A | N/A | 33 | None | |
| 80M | PPM | CAD, CHF, DMII | Yes | No | doxycycline | 5 | Yes | ciprofloxacin | UTI | 58 | None | |
| >90M | PPM/AICD upgrade | CAD, COPD | Yes | Yes | doxycycline | 4 | Yes | azithromycin | COPD Exacerbation | 64 | None | |
| 82M | PPM | CAD, colon cancer | Yes | Yes | vancomycin | 1 | Yes | piperacillin/  tazobactam, vancomycin | HAP/VAP | 66 | None | |
| 60M | PPM/AICD | CHF, DMII | No | No | N/A | N/A | Yes | cephalexin, TMP/SMX§ | Elbow swelling | 47 | None | |
| \*79M# | Temporary Pacer | CAD, CHF, DMII, CKD | Yes | Yes | Ongoing antibiotic therapy for other indications – not modified for temporary pacemaker procedure | | Yes | Imipenem, vancomycin, metronidazole, piperacillin/tazobactam | Sepsis | CDI positive prior to procedure | Death | |

Footnotes:

\* PPM = permanent pacemaker, AICD = Automated implantable cardioverter defibrillator

† CHF = congestive heart failure, DMII = type II diabetes mellitus, CKD = chronic kidney disease, CAD = coronary artery disease, AF = atrial fibrillation/flutter, CABG = coronary artery bypass grafting, CVA = cerebrovascular accident, AAA = abdominal aortic aneurysm, TIA = transient ischemic attack, COPD = chronic obstruction pulmonary disease

‡ Patient was admitted 1-month prior

§ TMP/SMX = trimethoprim/sulfamethoxazole

| | BCC = basal cell carcinoma, HAP = hospital acquired pneumonia, VAP = ventilator associated pneumonia, PNA = pneumonia, COPD = chronic obstruction pulmonary disease, UTI = urinary tract infection

# This patient underwent a temporary pacemaker procedure that was misclassified as a permanent pacemaker

\*\* Due to multiple co-morbidities and complex issues at time of death, it was difficult to ascertain if CDI was sole cause of mortality in affected patients. However, in all cases where the patient died, CDI was a significant contributing factor.