**APPENDIX**

**Appendix 1. Algorithm for the classification of the study cohort: patients with recurrent *C. difficile* infection (CDI) (Group I), non-recurrent CDI (Group II), and no CDI (Group III).**





**APPENDIX 2: Sensitivity analysis using 14 – 85 day recurrent CDI timeframe**

This sensitivity analysis considers recurrent CDI that occurs within 14 – 85 days after T0.

**Table 2.1.** Baseline characteristics of recurrent CDI patients (Group 1), non-recurrent CDI patients (Group II), and patients without CDI (Group III), prior to and after matching.



1 Patients were matched on age at the start of their enrollment period (EP). This does not reflect the mean age of matched patients at their T0. See text and appendix for more details on the EP.

2 ***Co***morbidity ***P***oint ***S***core (COPS) quantifies patients’ comorbid illness burden based on patient’s preexisting diagnosis over the 12-month period preceding hospitalization. For purposes of this study, COPS was calculated using preexisting diagnosis over the 12-month preceding T0 .The unadjusted relationship of COPS and mortality is as follows: a COPS <50 is associated with a mortality risk of <1%, <100 with a mortality risk of <5%, and >145 with a mortality risk of 10% or more. See text and references 3 and 4 for additional details.

**Table 2.2.** Demographic and unadjusted utilization rates for cases and corresponding controls



1 ***Co***morbidity ***P***oint ***S***core (COPS) quantifies patients’ comorbid illness burden based on patient’s preexisting diagnosis over the 12-month period preceding hospitalization. For purposes of this study, COPS was calculated using preexisting diagnosis over the 12-month preceding T0 .The unadjusted relationship of COPS and mortality is as follows: a COPS <50 is associated with a mortality risk of <1%, <100 with a mortality risk of <5%, and >145 with a mortality risk of 10% or more. See text and references 3 and 4 for additional details.

**Table 2.3.** Relative risk for healthcare utilization and mortality and adjusted excess healthcare utilization and mortality among rCDI patients, non-recurrent CDI patients, and patients without CDI.



1The rate of utilization patients have in one group relative to patients in another group (e.g. when matched, patients in Group I have a 49% higher rate of ED visit than patients in Group III).

2Impact of outcomes refers to the excess amount of ED visits, hospital days, ICU days, or deaths one group of patients’ experiences over one year following T0 compared to its matched group of patients.

\*All values show p-value <.0001 except where noted by a "\*"

**Appendix 2.4 Figure for cohort selection**



**APPENDIX 3: REFRACTORY CDI**

This sensitivity analysis includes patients with refractory recurrent CDI and refractory non-recurrent CDI (Group I + refractory rCDI, and Group II + refractory non-recurrent CDI). Patients with refractory CDI were identified has patients who showed as having a positive CDI tests within the 14 days following the index test. Because these patients were excluded from the primary analyses, a sensitivity analysis was conducted to include them.

Table 3.1. Baseline characteristics of recurrent CDI patients, non-recurrent CDI patients, patients without CDI, and inclusion of refractory CDI patients prior to and after matching.



1 Patients were matched on age at the start of their enrollment period (EP). This does not reflect the mean age of matched patients at their T0. See text and appendix for more details on the EP.

2 ***Co***morbidity ***P***oint ***S***core (COPS) quantifies patients’ comorbid illness burden based on patient’s preexisting diagnosis over the 12-month period preceding hospitalization. For purposes of this study, COPS was calculated using preexisting diagnosis over the 12-month preceding T0 .The unadjusted relationship of COPS and mortality is as follows: a COPS <50 is associated with a mortality risk of <1%, <100 with a mortality risk of <5%, and >145 with a mortality risk of 10% or more. See text and references 3 and 4 for additional details.

**Table 3.2.** Demographic and unadjusted utilization rates for cases and corresponding controls, with inclusion of patients with refractory CDI



1 ***Co***morbidity ***P***oint ***S***core (COPS) quantifies patients’ comorbid illness burden based on patient’s preexisting diagnosis over the 12-month period preceding hospitalization. For purposes of this study, COPS was calculated using preexisting diagnosis over the 12-month preceding T0 .The unadjusted relationship of COPS and mortality is as follows: a COPS <50 is associated with a mortality risk of <1%, <100 with a mortality risk of <5%, and >145 with a mortality risk of 10% or more. See text and references 3 and 4 for additional details.

**Table 3.3.** Relative risk for healthcare utilization and mortality and adjusted excess healthcare utilization and mortality among Group I (rCDI patients) plus refractory recurrent patients, Group II (non-recurrent CDI patients) plus non-recurrent refractory patients, and Group III) patients without CDI.



1The rate of utilization patients have in one group relative to patients in another group (e.g. when matched, patients in Group I including refractory rCDI patients have a 61% higher rate of ED visit than patients in Group III).

2Impact of outcomes refers to the excess amount of ED visits, hospital days, ICU days, or deaths one group of patients’ experiences over one year following T0 compared to its matched group of patients.

All values show p-value <.0001 except where noted by a "\*"

**Appendix 3.4 Figure for cohort selection to include patients with refractory CDI**



