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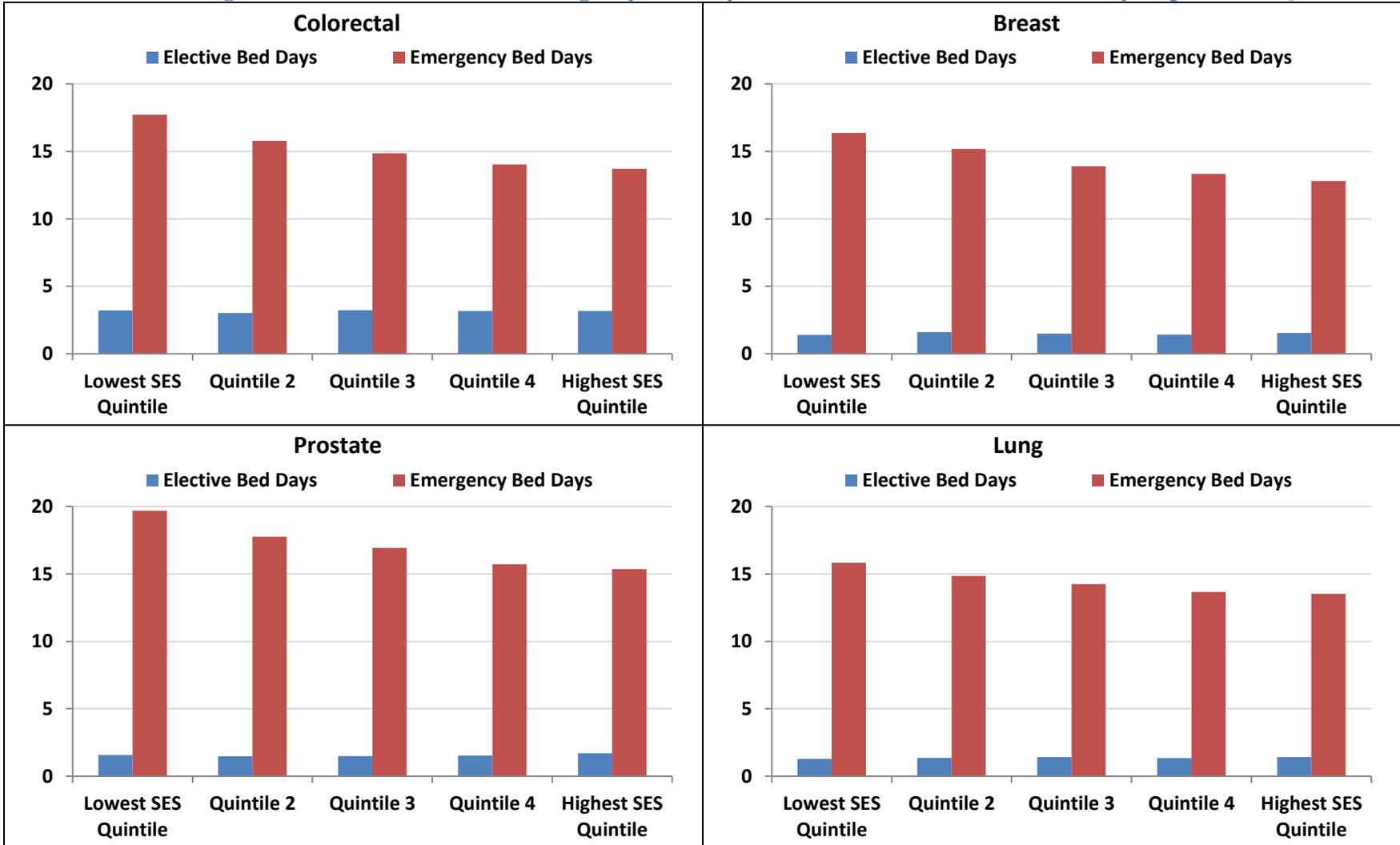
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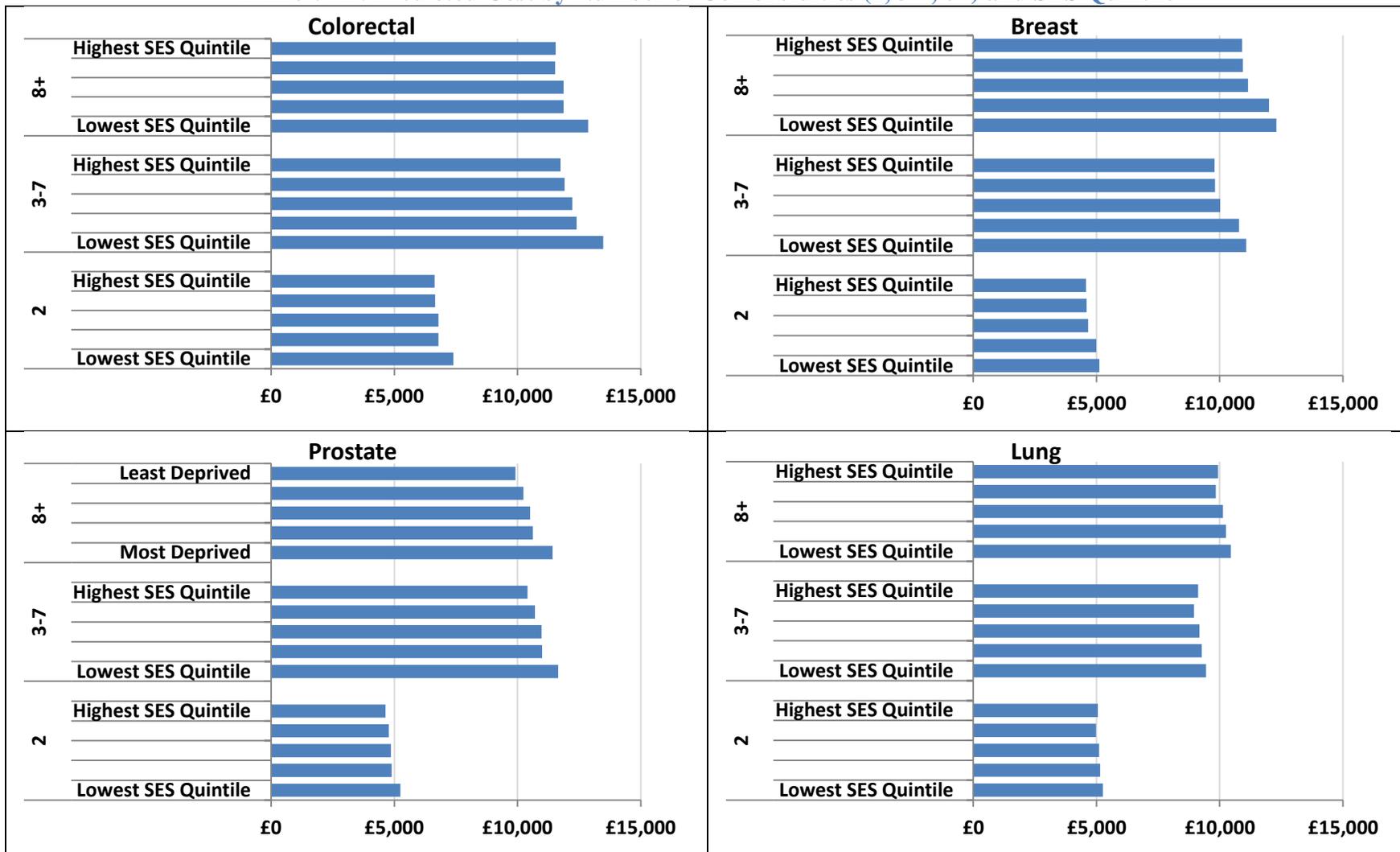
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**Exhibit A1: Average Number of Elective and Emergency Bed Days in Last Six Months: Partitioned by Deprivation Quintiles.**



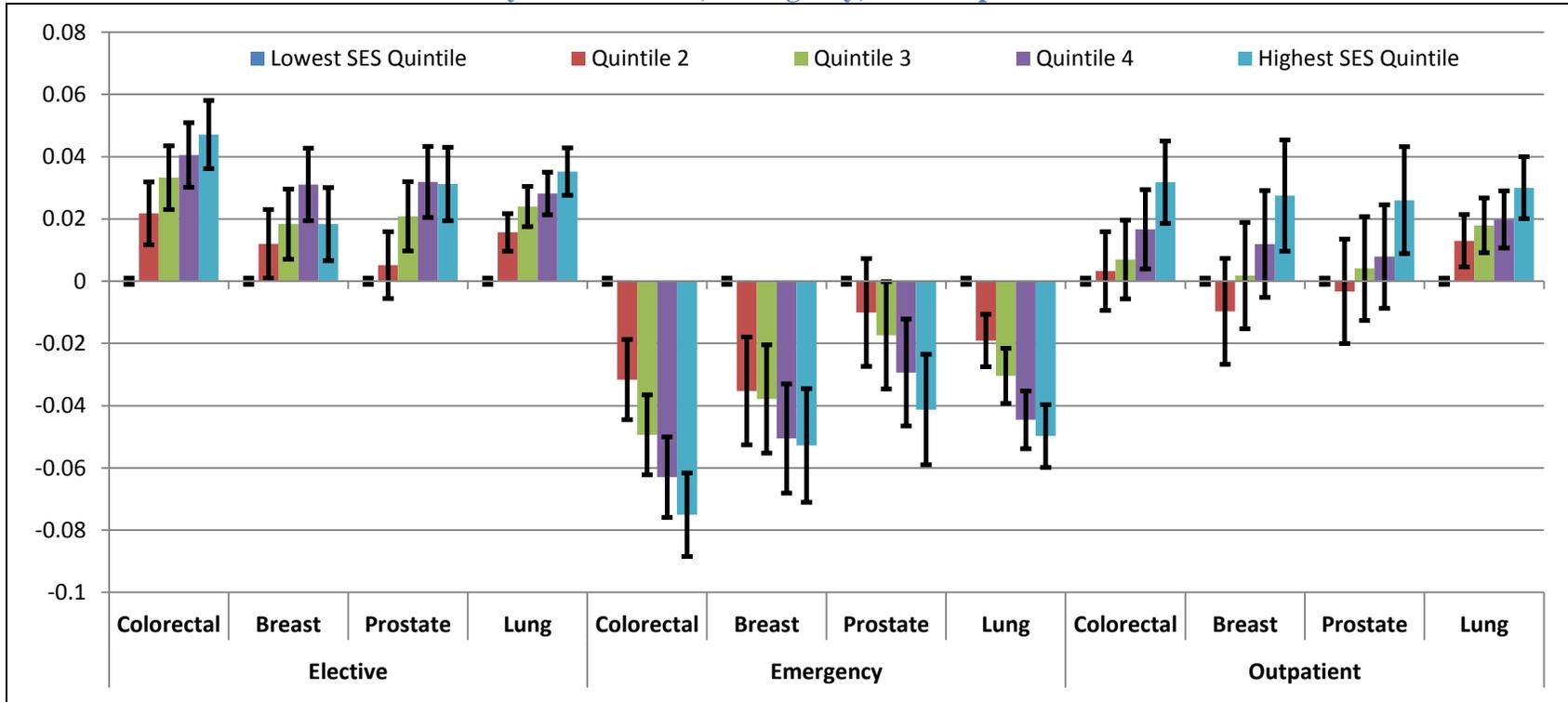
Source: (Authors' analysis)

Exhibit A2: Predicted Cost by Number of Comorbidities (2, 3-7, 8+) and SES Quintile



Source: (Authors' analysis)

**Exhibit A3: Probability of an Elective, Emergency, and Outpatient Visit in Last Month of Life**



Source: (Authors' analysis)

**Exhibit A4: Top 5 Healthcare Resource Group (HRGs) in the Last 6 Months of Life**

|   | <b>Lowest<br/>SES<br/>Quintile</b> | <b>Quintile<br/>2</b> | <b>Quintile<br/>3</b> | <b>Quintile<br/>4</b> | <b>Highest<br/>SES<br/>Quintile</b> |
|---|------------------------------------|-----------------------|-----------------------|-----------------------|-------------------------------------|
| <b>Colorectal</b>   |                                    |                       |                       |                       |                                     |
|   | <b>Elective</b>                    |                       |                       |                       |                                     |
| Same day Chemotherapy admission   | 28.07%                             | 30.73%                | 31.31%                | 33.14%                | 30.72%                              |
| Malignant Large Intestinal Disorders LOS 0 days                                     | 12.50%                             | 13.33%                | 12.62%                | 12.87%                | 14.75%                              |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less     | 5.99%                              | 5.68%                 | 6.03%                 | 5.92%                 | 6.15%                               |
| Vascular Access except for Renal Replacement Therapy W/O CC                         | 4.37%                              | 4.40%                 | 5.23%                 | 5.08%                 | 5.42%                               |
| Malignant Large Intestinal Disorders W LOS 1 day or more W/O Major CC               | N/A                                | 3.43%                 | 3.61%                 | 2.95%                 | 3.35%                               |
|   | <b>Emergency</b>                   |                       |                       |                       |                                     |
| Malignant Large Intestinal Disorders W LOS 1 day or more W/O Major CC               | 7.95%                              | 8.18%                 | 8.10%                 | 8.37%                 | 8.39%                               |
| Malignant Large Intestinal Disorders W LOS 0 days                                   | 6.79%                              | 6.65%                 | 6.54%                 | 6.28%                 | 6.12%                               |
| Malignant Large Intestinal Disorders W LOS 1 day or more W Major CC                 | 6.41%                              | 6.85%                 | 7.10%                 | 7.07%                 | 6.76%                               |
| Non-Malignant General Abdominal Disorders W LOS 0 days                              | 3.30%                              | 2.94%                 | 3.12%                 | 3.29%                 | 3.13%                               |
| Malignant General Abdominal Disorders W LOS 1 day or more W/O Major CC              | 2.33%                              | 2.42%                 | 2.50%                 | 2.38%                 | 2.67%                               |
| <b>Breast</b>   |                                    |                       |                       |                       |                                     |
|   | <b>Elective</b>                    |                       |                       |                       |                                     |
| Same day Chemotherapy admission   | 40.29%                             | 40.50%                | 40.88%                | 42.33%                | 40.14%                              |
| Malignant Breast Disorders W Intermediate CC  | 9.54%                              | 9.10%                 | 9.21%                 | 10.28%                | 9.19%                               |
| Malignant Breast Disorders W/O CC   | 9.50%                              | 9.05%                 | 8.80%                 | 7.57%                 | 10.94%                              |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less and | 5.46%                              | 5.34%                 | 6.07%                 | 5.84%                 | 5.04%                               |

|   |                  |        |        |        |        |
|---|------------------|--------|--------|--------|--------|
| Chronic Kidney Disease W LOS 1 day or less associated W Renal Dialysis              | 5.57%            | 4.48%  | N/A    | N/A    | N/A    |
|   | <b>Emergency</b> |        |        |        |        |
| Malignant Breast Disorders W Major CC   | 9.58%            | 9.74%  | 9.11%  | 9.39%  | 9.21%  |
| Malignant Breast Disorders W Intermediate CC  | 5.82%            | 5.66%  | 5.67%  | 5.43%  | 5.85%  |
| Lobar, Atypical or Viral Pneumonia W Major CC                                       | 3.35%            | 3.26%  | 3.42%  | 4.09%  | 4.10%  |
| Pleural Effusion W Major CC   | 3.63%            | 3.24%  | 3.11%  | 2.88%  | 2.71%  |
| Brain Tumours or Cerebral Cysts W CC  | 2.61%            | 2.71%  | 2.49%  | 2.57%  | 2.90%  |
| <b>Prostate</b>   |                  |        |        |        |        |
|   | <b>Elective</b>  |        |        |        |        |
| Same day Chemotherapy admission   | 13.33%           | 17.88% | 16.88% | 19.03% | 20.65% |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less and | 10.20%           | 13.97% | 15.19% | 15.93% | 15.85% |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 1 day or less                    | 14.77%           | 14.08% | 13.61% | 12.94% | 15.73% |
| Chronic Kidney Disease W LOS 1 day or less associated W Renal Dialysis              | 19.85%           | 6.86%  | 13.00% | 10.40% | 3.62%  |
| Bladder Intermediate Endoscopic Procedure   | 2.91%            | 3.44%  | 2.96%  | N/A    | N/A    |
|   | <b>Emergency</b> |        |        |        |        |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 2 days or more W Intermediate CC | 5.30%            | 5.30%  | 5.85%  | 5.76%  | 5.86%  |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 1 day or less                    | 5.16%            | 5.02%  | 5.06%  | 4.83%  | 4.65%  |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 2 days or more W Major CC        | 3.77%            | 4.36%  | 4.34%  | 4.52%  | 4.68%  |
| Lobar, Atypical or Viral Pneumonia W Major CC                                       | 4.39%            | 3.98%  | 4.15%  | 3.62%  | 3.54%  |
| Non interventional acquired cardiac conditions                                      | 2.79%            | 2.79%  | 2.60%  | 2.31%  | 2.74%  |
| <b>Lung</b>   |                  |        |        |        |        |
|   | <b>Elective</b>  |        |        |        |        |
| Same day Chemotherapy admission   | 34.09%           | 34.81% | 35.81% | 35.37% | 34.51% |
| Fibre optic Bronchoscopy  | 11.81%           | 11.00% | 10.78% | 10.42% | 10.26% |
| Respiratory Neoplasms W/O CC  | 8.88%            | 9.19%  | 9.03%  | 9.56%  | 9.79%  |
| Respiratory Neoplasms W Major CC  | 6.20%            | 6.75%  | 6.42%  | 6.54%  | 7.55%  |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less and | 5.98%            | 6.01%  | 6.13%  | 6.62%  | 6.28%  |
|   | <b>Emergency</b> |        |        |        |        |

|  |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|
| Respiratory Neoplasms W Major CC               | 20.50% | 21.35% | 21.40% | 21.22% | 21.28% |
| Respiratory Neoplasms W CC                     | 8.00%  | 8.08%  | 8.32%  | 8.17%  | 8.18%  |
| Lobar, Atypical or Viral Pneumonia W Major CC  | 5.70%  | 5.40%  | 5.11%  | 4.95%  | 4.50%  |
| Respiratory Neoplasms W/O CC                   | 2.65%  | 2.94%  | 3.28%  | 3.04%  | 3.79%  |
| Non interventional acquired cardiac conditions | 3.10%  | 2.91%  | 2.86%  | 2.72%  | N/A    |

Source: (Authors' analysis)

**Exhibit A5: Top 5 Healthcare Resource Group (HRGs) in the Last Month of Life**

|   | <b>Lowest<br/>SES<br/>Quintile</b> | <b>Quintile<br/>2</b> | <b>Quintile<br/>3</b> | <b>Quintile<br/>4</b> | <b>Highest<br/>SES<br/>Quintile</b> |
|---|------------------------------------|-----------------------|-----------------------|-----------------------|-------------------------------------|
| <b>Colorectal</b>   |                                    |                       |                       |                       |                                     |
|   | <b>Elective</b>                    |                       |                       |                       |                                     |
| Same day Chemotherapy admission/attendance                                      | 16.55%                             | 17.28%                | 18.08%                | 20.66%                | 18.38%                              |
| Malignant Large Intestinal Disorders W LOS 0 days                               | 9.50%                              | 9.00%                 | 9.93%                 | 10.13%                | 10.87%                              |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less | 6.34%                              | 7.08%                 | 8.02%                 | 6.82%                 | 8.05%                               |
| Malignant Large Intestinal Disorders W LOS 1 day or more W/O Major CC           | 5.56%                              | 6.68%                 | 6.52%                 | 5.42%                 | 6.25%                               |
| Planned Procedures not carried out  | N/A                                | 3.91%                 | 3.70%                 | N/A                   | 3.28%                               |
|   | <b>Emergency</b>                   |                       |                       |                       |                                     |
| Malignant Large Intestinal Disorders W LOS 1 day or more W Major CC             | 9.24%                              | 9.36%                 | 9.81%                 | 9.96%                 | 9.27%                               |
| Malignant Large Intestinal Disorders W LOS 1 day or more W/O Major CC           | 8.92%                              | 9.41%                 | 9.49%                 | 9.78%                 | 9.69%                               |
| Malignant Large Intestinal Disorders W LOS 0 days                               | 8.73%                              | 8.16%                 | 8.39%                 | 7.64%                 | 7.56%                               |
| Non-Malignant General Abdominal Disorders W LOS 0 days                          | 3.05%                              | 2.57%                 | 2.54%                 | 2.80%                 | 2.74%                               |
| Lobar, Atypical or Viral Pneumonia W Major CC                                   | 2.77%                              | 2.81%                 | 2.63%                 | 2.41%                 | 2.47%                               |
| <b>Breast</b>   |                                    |                       |                       |                       |                                     |
|   | <b>Elective</b>                    |                       |                       |                       |                                     |
| Same day Chemotherapy admission   | 29.11%                             | 28.73%                | 26.75%                | 30.04%                | 28.67%                              |
| Malignant Breast Disorders W Intermediate CC                                    | 11.10%                             | 9.82%                 | 10.81%                | 10.36%                | 10.39%                              |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less | 6.34%                              | 7.53%                 | 7.18%                 | 6.98%                 | 6.61%                               |
| Malignant Breast Disorders W/O CC   | 6.48%                              | 7.33%                 | 6.19%                 | 7.58%                 | 9.30%                               |
| Malignant Breast Disorders W Major CC   | N/A                                | 4.65%                 | 6.31%                 | 4.91%                 | 4.81%                               |
|   | <b>Emergency</b>                   |                       |                       |                       |                                     |
| Malignant Breast Disorders W Major CC   | 12.45%                             | 12.57%                | 11.48%                | 11.83%                | 11.35%                              |

|  |                  |        |        |        |        |
|--|------------------|--------|--------|--------|--------|
| Malignant Breast Disorders W Intermediate CC   | 6.57%            | 6.69%  | 6.75%  | 6.36%  | 6.52%  |
| Lobar, Atypical or Viral Pneumonia W Major CC  | 5.24%            | 4.45%  | 4.44%  | 4.14%  | 3.90%  |
| Pleural Effusion W Major CC  | 3.75%            | 3.14%  | 3.71%  | 4.20%  | 4.14%  |
| Brain Tumours or Cerebral Cysts W CC   | 2.42%            | 2.56%  | 2.54%  | 2.93%  | 2.93%  |
| <b>Prostate</b>  |                  |        |        |        |        |
|  | <b>Elective</b>  |        |        |        |        |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less                    | 10.61%           | 15.88% | 18.52% | 19.81% | 17.63% |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 1 day or less                                   | 13.57%           | 11.52% | 9.74%  | 10.36% | 13.15% |
| Same day Chemotherapy admission  | 9.41%            | 10.75% | 9.59%  | 11.20% | 10.56% |
| Chronic Kidney Disease W LOS 1 day or less associated W Renal Dialysis                             | 18.27%           | 7.55%  | 8.71%  | 8.41%  | N/A    |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 1 day or less                                   | 4.60%            | 4.07%  | 4.80%  | 4.53%  | 4.94%  |
|  | <b>Emergency</b> |        |        |        |        |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 1 day or less                                   | 5.48%            | 5.94%  | 6.28%  | 6.10%  | 6.79%  |
| Lobar, Atypical or Viral Pneumonia W Major CC  | 6.43%            | 5.78%  | 6.11%  | 5.53%  | 5.34%  |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 1 day or less                                   | 6.29%            | 6.16%  | 6.04%  | 5.75%  | 5.34%  |
| Kidney, Urinary Tract and Prostate Neoplasms W LOS 2 days or more W Major CC                       | 5.05%            | 6.02%  | 5.67%  | 6.18%  | 6.51%  |
| Non-Transient Stroke or Cerebrovascular Accident, Nervous system infections or Encephalopathy W CC | N/A              | N/A    | 2.22%  | 2.24%  | 2.32%  |
| <b>Lung</b>  |                  |        |        |        |        |
|  | <b>Elective</b>  |        |        |        |        |
| Same day Chemotherapy admission  | 23.44%           | 22.49% | 23.58% | 22.76% | 23.13% |
| Respiratory Neoplasms W Major CC   | 11.39%           | 12.73% | 12.55% | 12.38% | 13.63% |
| Fibre optic Bronchoscopy   | 12.19%           | 12.20% | 11.71% | 10.25% | 10.42% |
| Respiratory Neoplasms W/O CC   | 7.84%            | 9.28%  | 9.10%  | 9.55%  | 8.87%  |
| Single Plasma Exchange, Leucopheresis or Red Cell Exchange W LOS 2 days or less                    | N/A              | 5.94%  | 5.95%  | 7.29%  | 6.60%  |
|  | <b>Emergency</b> |        |        |        |        |
| Respiratory Neoplasms W Major CC   | 26.80%           | 28.15% | 27.77% | 27.40% | 28.08% |

|   |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|
| Respiratory Neoplasms W CC                    | 8.87% | 8.86% | 9.27% | 9.04% | 9.06% |
| Lobar, Atypical or Viral Pneumonia W Major CC | 7.07% | 6.75% | 6.55% | 6.32% | 5.43% |
| Respiratory Neoplasms W/O CC                  | 2.89% | 3.26% | 3.70% | 3.26% | 3.88% |
| Pleural Effusion W Major CC                   | N/A   | N/A   | 2.58% | 2.76% | 2.80% |

Source: (Authors' analysis)

## Regressions from Exhibit 2

Colorectal

| Variable                             | Cost of End of Life Care |                |
|--------------------------------------|--------------------------|----------------|
|                                      | Marginal Effect          | Standard Error |
| Socioeconomic Group                  |                          |                |
| Lowest SES Quantile                  | Reference                | Reference      |
| 2                                    | -£507***                 | 150            |
| 3                                    | -£293*                   | 151            |
| 4                                    | -£486***                 | 151            |
| Highest SES Quantile                 | -£456***                 | 156            |
|                                      |                          |                |
| Age at Diagnosis                     | £18                      | 30             |
| Age at Diagnosis Squared             | -£1***                   | 0              |
| Days from Diagnosis to Death         | -£5***                   | 0              |
| Days from Diagnosis to Death Squared | £0***                    | 0              |
| Sex                                  |                          |                |
| Male                                 | Reference                | Reference      |
| Female                               | £216**                   | 93             |
| Year of Diagnosis                    |                          |                |
| 2001                                 | Reference                | Reference      |
| 2002                                 | £795                     | 2414           |
| 2003                                 | £839                     | 2393           |
| 2004                                 | £645                     | 2389           |
| 2005                                 | £828                     | 2389           |
| 2006                                 | £1,885                   | 2390           |
| 2007                                 | £1,763                   | 2391           |
| 2008                                 | £1,648                   | 2392           |
| 2009                                 | £1,859                   | 2393           |
| 2010                                 | £1,584                   | 2394           |
| Weighted Charlson Score              |                          |                |
| Score = 2                            | Reference                | Reference      |
| Score = 3                            | £5,887***                | 206            |
| Score = 4                            | £7,425***                | 337            |
| Score = 5                            | £9,100***                | 555            |
| Score = 6                            | £3,282***                | 191            |
| Score = 7                            | £3,704***                | 338            |
| Score = 8                            | £3,845***                | 111            |
| Score = 9                            | £4,630***                | 175            |
| Score = 10                           | £6,298***                | 331            |

|                    |            |           |
|--------------------|------------|-----------|
| Score = 11         | £7,469***  | 571       |
| Score = 12         | £8,106***  | 1084      |
| Score = 13         | £6,866***  | 2133      |
| Score = 14         | £6,953*    | 3749      |
| Score = 15         | £3,324     | 3933      |
| Region             |            |           |
| London             | Reference  | Reference |
| North East         | -£1,357*** | 233       |
| North West         | -£1,510*** | 187       |
| Yorkshire & Humber | -£745***   | 201       |
| East Midlands      | -£1,412*** | 209       |
| West Midlands      | -£906***   | 197       |
| East of England    | -£2,475*** | 195       |
| South East         | -£2,303*** | 210       |
| South Central      | -£1,860*** | 225       |
| South West         | -£1,854*** | 199       |
| Log Likelihood     | -672,785   |           |
| Observations       | 66,061     |           |

Source: (Authors' analysis)

## Breast

| Variable                             | Cost of End of Life Care |                |
|--------------------------------------|--------------------------|----------------|
|                                      | Marginal Effect          | Standard Error |
| Socioeconomic Group                  |                          |                |
| Lowest SES Quantile                  | Reference                | Reference      |
| 2                                    | £41                      | 191            |
| 3                                    | -£40**2                  | 187            |
| 4                                    | -£512***                 | 188            |
| Highest SES Quantile                 | -£526***                 | 194            |
| Age at Diagnosis                     | £10                      | 29             |
| Age at Diagnosis Squared             | £0                       | 0              |
| Days from Diagnosis to Death         | -£1***                   | 0              |
| Days from Diagnosis to Death Squared | £0***                    | 0              |
| Year of Diagnosis                    |                          |                |
| 2001                                 | Reference                | Reference      |
| 2002                                 | £126                     | 1528           |
| 2003                                 | £249                     | 1510           |
| 2004                                 | £905                     | 1510           |
| 2005                                 | £1,006                   | 1510           |
| 2006                                 | £1,672                   | 1512           |
| 2007                                 | £1,601                   | 1516           |
| 2008                                 | £1,577                   | 1520           |
| 2009                                 | £1,488                   | 1525           |
| 2010                                 | £1,696                   | 1538           |
| Weighted Charlson Score              |                          |                |
| Score = 2                            | Reference                | Reference      |
| Score = 3                            | £5,714***                | 275            |
| Score = 4                            | £5,968***                | 402            |
| Score = 5                            | £7,098***                | 686            |
| Score = 6                            | £4,720***                | 227            |
| Score = 7                            | £5,538***                | 427            |
| Score = 8                            | £5,803***                | 162            |
| Score = 9                            | £6,464***                | 287            |
| Score = 10                           | £7,359***                | 542            |
| Score = 11                           | £9,184***                | 945            |
| Score = 12                           | £4,887***                | 1309           |
| Score = 13                           | £4,666**                 | 2126           |
| Score = 14                           | £3,136                   | 5918           |
| Score = 15                           | £3,715                   | 6344           |

| Region             |           |           |
|--------------------|-----------|-----------|
| London             | Reference | Reference |
| North East         | -£1,368   | 302       |
| North West         | -£1,105   | 233       |
| Yorkshire & Humber | -£1,355   | 248       |
| East Midlands      | -£1,599   | 261       |
| West Midlands      | -£721     | 246       |
| East of England    | -£2,393   | 242       |
| South East         | -£2,194   | 260       |
| South Central      | -£1,977   | 272       |
| South West         | -£1,104   | 245       |
| Log Likelihood     | -365,877  |           |
| Observations       | 36,698    |           |

Source: (Authors' analysis)

## Prostate

| Variable                             | Cost of End of Life Care |                |
|--------------------------------------|--------------------------|----------------|
|                                      | Marginal Effect          | Standard Error |
| Socioeconomic Group                  |                          |                |
| Lowest SES Quantile                  | Reference                | Reference      |
| 2                                    | -£320                    | 197            |
| 3                                    | -£208                    | 196            |
| 4                                    | -£373*                   | 195            |
| Highest SES Quantile                 | -£564***                 | 201            |
| Age at Diagnosis                     | -£171**                  | 73             |
| Age at Diagnosis Squared             | £1**                     | 0              |
| Days from Diagnosis to Death         | -£2***                   | 0              |
| Days from Diagnosis to Death Squared | £0***                    | 0              |
| Year of Diagnosis                    |                          |                |
| 2001                                 | Reference                | Reference      |
| 2002                                 | £1,276                   | 2193           |
| 2003                                 | £1,597                   | 2177           |
| 2004                                 | £1,657                   | 2175           |
| 2005                                 | £1,821                   | 2175           |
| 2006                                 | £2,237                   | 2176           |
| 2007                                 | £2,341                   | 2179           |
| 2008                                 | £2,592                   | 2182           |
| 2009                                 | £2,376                   | 2185           |
| 2010                                 | £2,020                   | 2193           |
| Weighted Charlson Score              |                          |                |
| Score = 2                            | Reference                | Reference      |
| Score = 3                            | £6,256***                | 223            |
| Score = 4                            | £7,724***                | 269            |
| Score = 5                            | £7,986***                | 350            |
| Score = 6                            | £6,742***                | 365            |
| Score = 7                            | £6,741***                | 590            |
| Score = 8                            | £5,754***                | 173            |
| Score = 9                            | £6,506***                | 216            |
| Score = 10                           | £7,880***                | 272            |
| Score = 11                           | £8,641***                | 386            |
| Score = 12                           | £8,693***                | 656            |
| Score = 13                           | £7,577***                | 1187           |
| Score = 14                           | £9,106***                | 2861           |
| Score = 15                           | £10,313**                | 4320           |

| Region             |            |           |
|--------------------|------------|-----------|
| London             | Reference  | Reference |
| North East         | -£1,238*** | 312       |
| North West         | -£1,120*** | 244       |
| Yorkshire & Humber | -£1,169*** | 258       |
| East Midlands      | -£1,386*** | 264       |
| West Midlands      | -£821***   | 256       |
| East of England    | -£2,131*** | 245       |
| South East         | -£2,299*** | 271       |
| South Central      | -£1,745*** | 281       |
| South West         | -£1,179*** | 247       |
| Log Likelihood     | -393,424   |           |
| Observations       | 39,329     |           |

Source: (Authors' analysis)

## Lung

| Variable                             | Cost of End of Life Care |                |
|--------------------------------------|--------------------------|----------------|
|                                      | Marginal Effect          | Standard Error |
| Socioeconomic Group                  |                          |                |
| Lowest SES Quantile                  | Reference                | Reference      |
| 2                                    | £13                      | 72             |
| 3                                    | £87                      | 76             |
| 4                                    | -£81                     | 79             |
| Highest SES Quantile                 | £60                      | 86             |
| Age at Diagnosis                     | -£181***                 | 23             |
| Age at Diagnosis Squared             | £1***                    | 0              |
| Days from Diagnosis to Death         | -£3***                   | 0              |
| Days from Diagnosis to Death Squared | £0***                    | 0              |
| Sex                                  |                          |                |
| Male                                 | Reference                | Reference      |
| Female                               | £34                      | 50             |
| Year of Diagnosis                    |                          |                |
| 2001-2005                            | Reference                | Reference      |
| 2006                                 | £1,022***                | 131            |
| 2007                                 | £758***                  | 129            |
| 2008                                 | £772***                  | 131            |
| 2009                                 | £1,130***                | 135            |
| 2010                                 | £910***                  | 140            |
| Weighted Charlson Score              |                          |                |
| Score = 2                            | Reference                | Reference      |
| Score = 3                            | £3,624***                | 79             |
| Score = 4                            | £4,707***                | 140            |
| Score = 5                            | £6,047***                | 262            |
| Score = 6                            | £4,107***                | 165            |
| Score = 7                            | £4,559***                | 254            |
| Score = 8                            | £4,302***                | 66             |
| Score = 9                            | £4,952***                | 90             |
| Score = 10                           | £5,571***                | 165            |
| Score = 11                           | £6,481***                | 313            |
| Score = 12                           | £7,437***                | 585            |
| Score = 13                           | £5,347***                | 971            |
| Score = 14                           | £10,055***               | 2615           |
| Score = 15                           | £5,448                   | 4899           |
| Region                               |                          |                |

|                    | Reference  | Reference |
|--------------------|------------|-----------|
| London             |            |           |
| North East         | -£983***   | 116       |
| North West         | -£974***   | 99        |
| Yorkshire & Humber | -£1,124*** | 103       |
| East Midlands      | -£1,036*** | 113       |
| West Midlands      | -£896***   | 109       |
| East of England    | -£1,675*** | 109       |
| South East         | -£2,334*** | 119       |
| South Central      | -£1,149*** | 127       |
| South West         | -£1,249*** | 113       |
| Log Likelihood     | -1,163,832 |           |
| Observations       | 116,749    |           |

Source: (Authors' analysis)

### Regressions from Exhibit 3

Colorectal

| Variable                             | Probability of Elective |                | Cost of Elective Care |                |
|--------------------------------------|-------------------------|----------------|-----------------------|----------------|
|                                      | Marginal Effect         | Standard Error | Marginal Effect       | Standard Error |
| Socioeconomic Group                  |                         |                |                       |                |
| Lowest SES Quantile                  | Reference               | Reference      | Reference             | Reference      |
| 2                                    | 0.031***                | 0.006          | -£280                 | 189            |
| 3                                    | 0.050***                | 0.006          | £72                   | 192            |
| 4                                    | 0.061***                | 0.006          | £111                  | 192            |
| Highest SES Quantile                 | 0.072***                | 0.006          | £182                  | 200            |
| Age at Diagnosis                     | 0.016***                | 0.001          | £135***               | 37             |
| Age at Diagnosis Squared             | 0.000***                | 0.000          | -£1***                | 0              |
| Days from Diagnosis to Death         | 0.000***                | 0.000          | £0                    | 1              |
| Days from Diagnosis to Death Squared | 0.000**                 | 0.000          | £0**                  | 0              |
| Sex                                  |                         |                |                       |                |
| Male                                 | Reference               | Reference      | Reference             | Reference      |
| Female                               | -0.044***               | 0.004          | -£145                 | 119            |
| Year of Diagnosis                    |                         |                |                       |                |
| 2001                                 | Reference               | Reference      | Reference             | Reference      |
| 2002                                 | 0.025                   | 0.118          | £2,232                | 3294           |
| 2003                                 | 0.041                   | 0.117          | £1,958                | 3236           |
| 2004                                 | 0.045                   | 0.117          | £1,750                | 3227           |
| 2005                                 | 0.020                   | 0.117          | £1,744                | 3225           |
| 2006                                 | 0.044                   | 0.117          | £2,386                | 3225           |
| 2007                                 | 0.047                   | 0.117          | £2,461                | 3226           |
| 2008                                 | 0.047                   | 0.117          | £2,058                | 3227           |
| 2009                                 | 0.054                   | 0.117          | £2,157                | 3228           |
| 2010                                 | 0.040                   | 0.117          | £1,987                | 3229           |
| Weighted Charlson Score              |                         |                |                       |                |
| Score = 2                            | Reference               | Reference      | Reference             | Reference      |
| Score = 3                            | 0.139***                | 0.007          | £2,685***             | 295            |
| Score = 4                            | 0.145***                | 0.010          | £4,305***             | 487            |
| Score = 5                            | 0.143***                | 0.015          | £5,893***             | 819            |
| Score = 6                            | 0.166***                | 0.008          | £190                  | 243            |
| Score = 7                            | 0.095***                | 0.013          | £358                  | 435            |
| Score = 8                            | 0.250***                | 0.005          | -£56                  | 150            |
| Score = 9                            | 0.191***                | 0.007          | £131                  | 199            |
| Score = 10                           | 0.175***                | 0.011          | £1,389***             | 355            |
| Score = 11                           | 0.170***                | 0.017          | £2,803***             | 641            |
| Score = 12                           | 0.175***                | 0.030          | £3,566***             | 1280           |
| Score = 13                           | 0.231***                | 0.064          | £4,468*               | 2689           |
| Score = 14                           | 0.245**                 | 0.113          | £1,501                | 3396           |
| Score = 15                           | 0.277*                  | 0.154          | -£1,155               | 3208           |

| Region             |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|
| London             | Reference | Reference | Reference | Reference |
| North East         | -0.003    | 0.009     | -         | 293       |
|                    |           |           | £1,096*** |           |
| North West         | -0.052*** | 0.007     | -£687***  | 240       |
| Yorkshire & Humber | 0.003     | 0.008     | -£491*    | 253       |
| East Midlands      | -0.019**  | 0.008     | -         | 264       |
|                    |           |           | £1,375*** |           |
| West Midlands      | -0.002    | 0.008     | -£379     | 247       |
| East of England    | -0.041*** | 0.008     | -         | 250       |
|                    |           |           | £1,043*** |           |
| South East         | -0.027*** | 0.008     | -         | 268       |
|                    |           |           | £1,007*** |           |
| South Central      | -0.048*** | 0.009     | -         | 290       |
|                    |           |           | £1,146*** |           |
| South West         | -0.035*** | 0.008     | -£984***  | 255       |
| Pseudo R2          | 0.113     |           |           |           |
| Prob > LR Chi2     | 0.000     |           |           |           |
| Observations       | 66,061    |           | 27,564    |           |

Source: (Authors' analysis)

## Breast

| Variable                             | Probability of Elective |                | Cost of Elective Care |                |
|--------------------------------------|-------------------------|----------------|-----------------------|----------------|
|                                      | Marginal Effect         | Standard Error | Marginal Effect       | Standard Error |
| Socioeconomic Group                  |                         |                |                       |                |
| Lowest SES Quantile                  | Reference               | Reference      | Reference             | Reference      |
| 2                                    | 0.017***                | 0.007          | £468*                 | 282            |
| 3                                    | 0.027***                | 0.007          | -£251                 | 268            |
| 4                                    | 0.046***                | 0.007          | £29                   | 271            |
| Highest SES Quantile                 | 0.029***                | 0.007          | £55                   | 283            |
| Age at Diagnosis                     | 0.009***                | 0.001          | -£43                  | 42             |
| Age at Diagnosis Squared             | 0.000***                | 0.000          | £0                    | 0              |
| Days from Diagnosis to Death         | 0.000                   | 0.000          | £0                    | 1              |
| Days from Diagnosis to Death Squared | 0.000                   | 0.000          | £0                    | 0              |
| Year of Diagnosis                    |                         |                |                       |                |
| 2001                                 | Reference               | Reference      | Reference             | Reference      |
| 2002                                 | -0.023                  | 0.067          | -£886                 | 2632           |
| 2003                                 | -0.024                  | 0.066          | -£627                 | 2612           |
| 2004                                 | -0.010                  | 0.066          | -£50                  | 2613           |
| 2005                                 | -0.018                  | 0.066          | £134                  | 2613           |
| 2006                                 | 0.003                   | 0.066          | £169                  | 2616           |
| 2007                                 | -0.017                  | 0.066          | £142                  | 2622           |
| 2008                                 | 0.000                   | 0.066          | £329                  | 2627           |
| 2009                                 | 0.007                   | 0.066          | £197                  | 2634           |
| 2010                                 | 0.003                   | 0.067          | £821                  | 2660           |
| Weighted Charlson Score              |                         |                |                       |                |
| Score = 2                            | Reference               | Reference      | Reference             | Reference      |
| Score = 3                            | 0.111***                | 0.010          | £2,425***             | 514            |
| Score = 4                            | 0.098***                | 0.014          | £1,516**              | 664            |
| Score = 5                            | 0.092***                | 0.021          | £7,031***             | 1795           |
| Score = 6                            | 0.219***                | 0.009          | £566*                 | 289            |
| Score = 7                            | 0.144***                | 0.014          | £339                  | 486            |
| Score = 8                            | 0.309***                | 0.007          | £903***               | 222            |
| Score = 9                            | 0.259***                | 0.010          | £1,415***             | 330            |
| Score = 10                           | 0.219***                | 0.016          | £2,037***             | 599            |
| Score = 11                           | 0.197***                | 0.024          | £6,703                | 1418           |
| Score = 12                           | 0.150***                | 0.047          | -£911                 | 1227           |
| Score = 13                           | 0.079                   | 0.074          | -£604                 | 2316           |

|                    |           |           |                |           |
|--------------------|-----------|-----------|----------------|-----------|
| Score = 14         | 0.208     | 0.309     | £3,404         | 12866     |
| Score = 15         | 0.522**   | 0.223     | -£3,952**      | 1872      |
| Region             |           |           |                |           |
| London             | Reference | Reference | Reference      | Reference |
| North East         | -0.027**  | 0.011     | -£932**        | 432       |
| North West         | -0.075*** | 0.009     | £415           | 343       |
| Yorkshire & Humber | -0.029*** | 0.009     | -<br>£1,710*** | 354       |
| East Midlands      | -0.039*** | 0.010     | -<br>£1,878*** | 373       |
| West Midlands      | 0.002     | 0.009     | -£655*         | 346       |
| East of England    | -0.055*** | 0.009     | -<br>£1,29***6 | 351       |
| South East         | -0.041*** | 0.010     | -<br>£1,257*** | 381       |
| South Central      | -0.049*** | 0.010     | -<br>£1,328*** | 391       |
| South West         | -0.010    | 0.009     | -£132          | 344       |
| Pseudo R2          | 0.197     |           |                |           |
| Prob > LR Chi2     | 0.000     |           |                |           |
| Observations       | 36,698    |           | 27,564         |           |

Source: (Authors' analysis)

Prostate

| Variable                             | Probability of Elective |                | Cost of Elective Care |                |
|--------------------------------------|-------------------------|----------------|-----------------------|----------------|
|                                      | Marginal Effect         | Standard Error | Marginal Effect       | Standard Error |
| Socioeconomic Group                  |                         |                |                       |                |
| Lowest SES Quantile                  | Reference               | Reference      | Reference             | Reference      |
| 2                                    | 0.018**                 | 0.008          | -£549*                | 308            |
| 3                                    | 0.040***                | 0.008          | -£142                 | 302            |
| 4                                    | 0.044***                | 0.008          | £1                    | 300            |
| Highest SES Quantile                 | 0.051***                | 0.008          | -£5                   | 307            |
| Age at Diagnosis                     | 0.005*                  | 0.003          | -£46                  | 96             |
| Age at Diagnosis Squared             | 0.000***                | 0.000          | £0                    | 1              |
| Days from Diagnosis to Death         | 0.000***                | 0.000          | £0                    | 1              |
| Days from Diagnosis to Death Squared | 0.000***                | 0.000          | £0                    | 0              |
| Year of Diagnosis                    |                         |                |                       |                |
| 2001                                 | Reference               | Reference      | Reference             | Reference      |
| 2002                                 | 0.083                   | 0.097          | £3,973                | 4207           |
| 2003                                 | 0.095                   | 0.096          | £4,124                | 4182           |
| 2004                                 | 0.107                   | 0.096          | £3,722                | 4177           |
| 2005                                 | 0.119                   | 0.096          | £4,088                | 4176           |
| 2006                                 | 0.130                   | 0.096          | £4,469                | 4179           |
| 2007                                 | 0.135                   | 0.096          | £4,358                | 4182           |
| 2008                                 | 0.133                   | 0.096          | £4,584                | 4185           |
| 2009                                 | 0.132                   | 0.096          | £3,890                | 4188           |
| 2010                                 | 0.105                   | 0.096          | £3,143                | 4198           |
| Weighted Charlson Score              |                         |                |                       |                |
| Score = 2                            | Reference               | Reference      | Reference             | Reference      |
| Score = 3                            | 0.100***                | 0.008          | £1,229***             | 361            |
| Score = 4                            | 0.099***                | 0.010          | £3,077***             | 441            |
| Score = 5                            | 0.095***                | 0.014          | £2,771***             | 585            |
| Score = 6                            | 0.128***                | 0.014          | £1,417**              | 547            |
| Score = 7                            | 0.103***                | 0.023          | £273                  | 898            |
| Score = 8                            | 0.214***                | 0.006          | -£427*                | 251            |
| Score = 9                            | 0.153***                | 0.008          | -£333                 | 312            |
| Score = 10                           | 0.167***                | 0.010          | £1,238***             | 379            |
| Score = 11                           | 0.134***                | 0.014          | £2,559***             | 565            |
| Score = 12                           | 0.114***                | 0.025          | £1,331                | 1006           |
| Score = 13                           | 0.135***                | 0.045          | -£1,637               | 1712           |

|                    |           |           |                |           |
|--------------------|-----------|-----------|----------------|-----------|
| Score = 14         | 0.197*    | 0.106     | £1,301         | 3609      |
| Score = 15         | 0.034     | 0.167     | -£8,623        | 7203      |
| Region             |           |           |                |           |
| London             | Reference | Reference | Reference      | Reference |
| North East         | 0.000     | 0.012     | -£696          | 472       |
| North West         | 0.015     | 0.010     | -£375          | 369       |
| Yorkshire & Humber | -0.026**  | 0.010     | -<br>£1,345*** | 404       |
| East Midlands      | 0.000     | 0.010     | -<br>£1,262*** | 403       |
| West Midlands      | 0.026***  | 0.010     | £235           | 387       |
| East of England    | -0.011    | 0.010     | -£665*         | 376       |
| South East         | -0.019*   | 0.011     | -£1,031**      | 421       |
| South Central      | -0.015    | 0.011     | -£394          | 431       |
| South West         | 0.023**   | 0.010     | -£153          | 372       |
| Pseudo R2          | 0.081     |           |                |           |
| Prob > LR Chi2     | 0.000     |           |                |           |
| Observations       | 39,329    |           | 13,615         |           |

Source: (Authors' analysis)

## Lung

| Variable                             | Probability of Elective |                | Cost of Elective Care |                |
|--------------------------------------|-------------------------|----------------|-----------------------|----------------|
|                                      | Marginal Effect         | Standard Error | Marginal Effect       | Standard Error |
| Socioeconomic Group                  |                         |                |                       |                |
| Lowest SES Quantile                  | Reference               | Reference      | Reference             | Reference      |
| 2                                    | 0.025***                | 0.004          | £256***               | 97             |
| 3                                    | 0.041***                | 0.004          | £377***               | 103            |
| 4                                    | 0.054***                | 0.004          | £196*                 | 104            |
| Highest SES Quantile                 | 0.066***                | 0.005          | £292**                | 114            |
| Age at Diagnosis                     | 0.022***                | 0.001          | £11                   | 31             |
| Age at Diagnosis Squared             | 0.000***                | 0.000          | £0*                   | 0              |
| Days from Diagnosis to Death         | 0.000***                | 0.000          | £5***                 | 0              |
| Days from Diagnosis to Death Squared | 0.000***                | 0.000          | £0***                 | 0              |
| Sex                                  |                         |                |                       |                |
| Male                                 | Reference               | Reference      | Reference             | Reference      |
| Female                               | -0.043***               | 0.003          | -£166**               | 68             |
| Year of Diagnosis                    |                         |                |                       |                |
| 2001-2005                            | Reference               | Reference      | Reference             | Reference      |
| 2006                                 | 0.048***                | 0.009          | £792***               | 195            |
| 2007                                 | 0.054***                | 0.009          | £778***               | 193            |
| 2008                                 | 0.047***                | 0.009          | £764***               | 194            |
| 2009                                 | 0.050***                | 0.009          | £955***               | 198            |
| 2010                                 | 0.066***                | 0.009          | £628***               | 203            |
| Weighted Charlson Score              |                         |                |                       |                |
| Score = 2                            | Reference               | Reference      | Reference             | Reference      |
| Score = 3                            | 0.078***                | 0.005          | £1,187***             | 111            |
| Score = 4                            | 0.057***                | 0.007          | £1,979***             | 205            |
| Score = 5                            | 0.040***                | 0.011          | £3,785***             | 455            |
| Score = 6                            | 0.093***                | 0.009          | £1,586***             | 221            |
| Score = 7                            | 0.009                   | 0.012          | £1,614***             | 364            |
| Score = 8                            | 0.170***                | 0.004          | £1,241***             | 82             |
| Score = 9                            | 0.131***                | 0.005          | £1,262***             | 105            |
| Score = 10                           | 0.107***                | 0.007          | £1,519***             | 183            |
| Score = 11                           | 0.115***                | 0.013          | £2,799***             | 394            |
| Score = 12                           | 0.072***                | 0.022          | £5,156***             | 989            |
| Score = 13                           | 0.066                   | 0.043          | £106                  | 825            |
| Score = 14                           | 0.013*                  | 0.079          | £15,468*              | 8,338          |

|                    |           |           |                |           |
|--------------------|-----------|-----------|----------------|-----------|
| Score = 15         | -0.047    | 0.200     | £8,791         | 14,304    |
| Region             |           |           |                |           |
| London             | Reference | Reference | Reference      | Reference |
| North East         | -0.004    | 0.006     | -£960***       | 157       |
| North West         | -0.012**  | 0.006     | £0             | 134       |
| Yorkshire & Humber | -0.027*** | 0.006     | -<br>£1,085*** | 142       |
| East Midlands      | -0.006    | 0.006     | -£797***       | 151       |
| West Midlands      | 0.020***  | 0.006     | -£308**        | 144       |
| East of England    | -0.034*** | 0.006     | -£734***       | 148       |
| South East         | -0.041*** | 0.007     | -<br>£1,448*** | 164       |
| South Central      | -0.009    | 0.007     | -£259          | 170       |
| South West         | -0.006    | 0.006     | -£462***       | 151       |
| Pseudo R2          | 0.073     |           |                |           |
| Prob > LR Chi2     | 0.000     |           |                |           |
| Observations       | 116,749   |           | 52,122         |           |

Source: (Authors' analysis)

## Regressions from Exhibit 4

Colorectal

| Variable                             | Probability of Emergency |                | Cost of Emergency Care |                |
|--------------------------------------|--------------------------|----------------|------------------------|----------------|
|                                      | Marginal Effect          | Standard Error | Marginal Effect        | Standard Error |
| Socioeconomic Group                  |                          |                |                        |                |
| Lowest SES Quantile                  | Reference                | Reference      | Reference              | Reference      |
| 2                                    | -0.025***                | 0.005          | -£506***               | 115            |
| 3                                    | -0.036***                | 0.005          | -£563***               | 115            |
| 4                                    | -0.049***                | 0.005          | -£754***               | 116            |
| Highest SES Quantile                 | -0.061***                | 0.005          | -£693***               | 121            |
| Age at Diagnosis                     | -0.014***                | 0.001          | -£63***                | 23             |
| Age at Diagnosis Squared             | 0.000***                 | 0.000          | £0***                  | 0              |
| Days from Diagnosis to Death         | 0.000***                 | 0.000          | -£3***                 | 0              |
| Days from Diagnosis to Death Squared | 0.000***                 | 0.000          | £0                     | 0              |
| Sex                                  |                          |                |                        |                |
| Male                                 | Reference                | Reference      | Reference              | Reference      |
| Female                               | 0.018***                 | 0.003          | £618***                | 72             |
| Year of Diagnosis                    |                          |                |                        |                |
| 2001                                 | Reference                | Reference      | Reference              | Reference      |
| 2002                                 | -0.066                   | 0.110          | -£820                  | 2360           |
| 2003                                 | -0.040                   | 0.109          | -£659                  | 2345           |
| 2004                                 | -0.014                   | 0.109          | -£1,290                | 2342           |
| 2005                                 | -0.010                   | 0.109          | -£1,025                | 2343           |
| 2006                                 | 0.008                    | 0.109          | -£709                  | 2344           |
| 2007                                 | 0.008                    | 0.109          | -£982                  | 2344           |
| 2008                                 | 0.020                    | 0.109          | -£1,068                | 2345           |
| 2009                                 | 0.017                    | 0.109          | -£827                  | 2346           |
| 2010                                 | 0.018                    | 0.109          | -£987                  | 2347           |
| Weighted Charlson Score              |                          |                |                        |                |
| Score = 2                            | Reference                | Reference      | Reference              | Reference      |
| Score = 3                            | 0.290***                 | 0.006          | £1,426***              | 153            |
| Score = 4                            | 0.328***                 | 0.008          | £1,914***              | 221            |
| Score = 5                            | 0.347***                 | 0.011          | £2,396***              | 331            |
| Score = 6                            | 0.314***                 | 0.006          | -£852***               | 138            |
| Score = 7                            | 0.378***                 | 0.008          | -£506***               | 220            |
| Score = 8                            | 0.335***                 | 0.004          | -£841***               | 94             |

|                    |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|
| Score = 9          | 0.380***  | 0.005     | £28       | 126       |
| Score = 10         | 0.397***  | 0.006     | £862***   | 206       |
| Score = 11         | 0.407***  | 0.009     | £1,185*** | 327       |
| Score = 12         | 0.417***  | 0.014     | £1,408    | 596       |
| Score = 13         | 0.333***  | 0.045     | -£780     | 1015      |
| Score = 14         | 0.290**   | 0.090     | £2,642    | 2695      |
| Score = 15         | 0.348**   | 0.107     | £47       | 2772      |
| Region             |           |           |           |           |
| London             | Reference | Reference | Reference | Reference |
| North East         | -0.002    | 0.008     | -         | 175       |
| North West         | -0.017**  | 0.006     | -£851***  | 141       |
| Yorkshire & Humber | -0.004    | 0.007     | -£780***  | 152       |
| East Midlands      | 0.005     | 0.007     | -£962***  | 157       |
| West Midlands      | -0.026*** | 0.007     | -£912***  | 150       |
| East of England    | -0.050*** | 0.007     | -         | 150       |
| South East         | -0.020*** | 0.007     | -         | 161       |
| South Central      | -0.015**  | 0.008     | -         | 173       |
| South West         | -0.038*** | 0.007     | -         | 152       |

Source: (Authors' analysis)

## Breast

| Variable                             | Probability of Emergency |                | Cost of Emergency Care |                |
|--------------------------------------|--------------------------|----------------|------------------------|----------------|
|                                      | Marginal Effect          | Standard Error | Marginal Effect        | Standard Error |
| Socioeconomic Group                  |                          |                |                        |                |
| Lowest SES Quantile                  | Reference                | Reference      | Reference              | Reference      |
| 2                                    | -0.020***                | 0.006          | -£161                  | 139            |
| 3                                    | -0.025***                | 0.006          | -£468***               | 137            |
| 4                                    | -0.040***                | 0.006          | -£501***               | 138            |
| Highest SES Quantile                 | -0.034***                | 0.007          | -£726***               | 141            |
| Age at Diagnosis                     | -0.002**                 | 0.001          | £56***                 | 22             |
| Age at Diagnosis Squared             | 0.000***                 | 0.000          | £0                     | 0              |
| Days from Diagnosis to Death         | 0.000**                  | 0.000          | -£1*                   | 0              |
| Days from Diagnosis to Death Squared | 0.000***                 | 0.000          | £0**                   | 0              |
| Year of Diagnosis                    |                          |                |                        |                |
| 2001                                 | Reference                | Reference      | Reference              | Reference      |
| 2002                                 | -0.025                   | 0.060          | £1,307                 | 1108           |
| 2003                                 | -0.012                   | 0.059          | £1,172                 | 1087           |
| 2004                                 | 0.002                    | 0.059          | £1,391                 | 1085           |
| 2005                                 | 0.022                    | 0.059          | £1,180                 | 1084           |
| 2006                                 | 0.031                    | 0.060          | £1,477                 | 1085           |
| 2007                                 | 0.026                    | 0.060          | £1,697                 | 1088           |
| 2008                                 | 0.024                    | 0.060          | £1,476                 | 1090           |
| 2009                                 | 0.020                    | 0.060          | £1,373                 | 1093           |
| 2010                                 | 0.011                    | 0.060          | £1,596                 | 1103           |
| Weighted Charlson Score              |                          |                |                        |                |
| Score = 2                            | Reference                | Reference      | Reference              | Reference      |
| Score = 3                            | 0.449***                 | 0.007          | £1,140***              | 172            |
| Score = 4                            | 0.483***                 | 0.007          | £1,532***              | 244            |
| Score = 5                            | 0.481***                 | 0.010          | £1,595***              | 371            |
| Score = 6                            | 0.411***                 | 0.007          | £70                    | 150            |
| Score = 7                            | 0.470***                 | 0.008          | £1,121***              | 259            |
| Score = 8                            | 0.424***                 | 0.006          | £304**                 | 118            |
| Score = 9                            | 0.464***                 | 0.006          | £871***                | 168            |
| Score = 10                           | 0.483***                 | 0.008          | £1,753***              | 299            |
| Score = 11                           | 0.478***                 | 0.011          | £1,333***              | 424            |
| Score = 12                           | 0.484***                 | 0.020          | £680                   | 760            |
| Score = 13                           | 0.486***                 | 0.032          | £1,489                 | 1401           |

|                    |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|
| Score = 14         | 0.449***  | 0.007     | -£1,984   | 2554      |
| Score = 15         | 0.483***  | 0.007     | -£151     | 3612      |
| Region             |           |           |           |           |
| London             | Reference | Reference | Reference | Reference |
| North East         | -0.013    | 0.011     | -£776***  | 217       |
| North West         | -0.009    | 0.008     | -£705***  | 167       |
| Yorkshire & Humber | -0.008    | 0.009     | -£790***  | 178       |
| East Midlands      | 0.001     | 0.009     | -£783***  | 187       |
| West Midlands      | -0.018**  | 0.009     | -£701***  | 178       |
| East of England    | -0.046*** | 0.008     | -         | 176       |
| South East         | -0.032*** | 0.009     | £1,314*** | 191       |
| South Central      | -0.033*** | 0.009     | -£939***  | 200       |
| South West         | -0.054*** | 0.008     | -         | 179       |
| Pseudo R2          | 0.216     |           |           |           |
| Prob > LR Chi2     | 0.000     |           |           |           |
| Observations       | 36,698    |           | 13,067    |           |

Source: (Authors' analysis)

## Prostate

| Variable                             | Probability of Emergency |                | Cost of Emergency Care |                |
|--------------------------------------|--------------------------|----------------|------------------------|----------------|
|                                      | Marginal Effect          | Standard Error | Marginal Effect        | Standard Error |
| Socioeconomic Group                  |                          |                |                        |                |
| Lowest SES Quantile                  | Reference                | Reference      | Reference              | Reference      |
| 2                                    | -0.010                   | 0.006          | -£291**                | 141            |
| 3                                    | -0.021***                | 0.006          | -£318**                | 141            |
| 4                                    | -0.027***                | 0.006          | -£569***               | 141            |
| Highest SES Quantile                 | -0.032***                | 0.006          | -£701***               | 145            |
| Age at Diagnosis                     | -0.011***                | 0.002          | £47                    | 54             |
| Age at Diagnosis Squared             | 0.000***                 | 0.000          | £0                     | 0              |
| Days from Diagnosis to Death         | 0.000***                 | 0.000          | -£1                    | 0              |
| Days from Diagnosis to Death Squared | 0.000***                 | 0.000          | £0                     | 0              |
| Year of Diagnosis                    |                          |                |                        |                |
| 2001                                 | Reference                | Reference      | Reference              | Reference      |
| 2002                                 | 0.038                    | 0.060          | -£617                  | 1643           |
| 2003                                 | 0.037                    | 0.060          | -£355                  | 1631           |
| 2004                                 | 0.056                    | 0.060          | -£251                  | 1629           |
| 2005                                 | 0.046                    | 0.060          | -£240                  | 1629           |
| 2006                                 | 0.049                    | 0.060          | -£151                  | 1629           |
| 2007                                 | 0.053                    | 0.060          | -£55                   | 1632           |
| 2008                                 | 0.052                    | 0.060          | £194                   | 1634           |
| 2009                                 | 0.050                    | 0.060          | £207                   | 1636           |
| 2010                                 | 0.039                    | 0.061          | £309                   | 1641           |
| Weighted Charlson Score              |                          |                |                        |                |
| Score = 2                            | Reference                | Reference      | Reference              | Reference      |
| Score = 3                            | 0.323***                 | 0.007          | £1,325***              | 155            |
| Score = 4                            | 0.367***                 | 0.010          | £2,129***              | 181            |
| Score = 5                            | 0.383***                 | 0.015          | £2,455***              | 233            |
| Score = 6                            | 0.313***                 | 0.012          | £1,458***              | 249            |
| Score = 7                            | 0.331***                 | 0.021          | £1,924***              | 398            |
| Score = 8                            | 0.292***                 | 0.004          | £587***                | 127            |
| Score = 9                            | 0.377***                 | 0.007          | £1,407***              | 150            |
| Score = 10                           | 0.405***                 | 0.011          | £2,141***              | 182            |
| Score = 11                           | 0.413***                 | 0.017          | £2,680***              | 255            |
| Score = 12                           | 0.491***                 | 0.044          | £3,083***              | 429            |
| Score = 13                           | 0.490***                 | 0.080          | £2,772***              | 775            |

|                    |           |           |                |           |
|--------------------|-----------|-----------|----------------|-----------|
| Score = 14         | -         | -         | £3,019         | 1857      |
| Score = 15         | -         | -         | £6,125**       | 2803      |
| Region             |           |           |                |           |
| London             | Reference | Reference | Reference      | Reference |
| North East         | -0.011    | 0.010     | -<br>£1,191*** | 223       |
| North West         | -0.011    | 0.008     | -<br>£1,080*** | 176       |
| Yorkshire & Humber | 0.006     | 0.008     | -<br>£1,037*** | 186       |
| East Midlands      | -0.007    | 0.008     | -<br>£1,295*** | 190       |
| West Midlands      | -0.017**  | 0.008     | -<br>£1,291*** | 186       |
| East of England    | -0.042*** | 0.007     | -<br>£1,648*** | 178       |
| South East         | -0.023*** | 0.008     | -<br>£1,785*** | 197       |
| South Central      | -0.021**  | 0.008     | -<br>£1,521*** | 205       |
| South West         | -0.038*** | 0.007     | -<br>£1,815*** | 179       |
| Pseudo R2          | 0.266     |           |                |           |
| Prob > LR Chi2     | 0.000     |           | -309,771       |           |
| Observations       | 39,329    |           | 31,192         |           |

Source: (Authors' analysis)

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|  |                |                   |
|--|----------------|-------------------|
|  | Probability of | Cost of Emergency |
|--|----------------|-------------------|

| Variable                             | Emergency       |                | Care            |                |
|--------------------------------------|-----------------|----------------|-----------------|----------------|
|                                      | Marginal Effect | Standard Error | Marginal Effect | Standard Error |
| Socioeconomic Group                  |                 |                |                 |                |
| Lowest SES Quantile                  | Reference       | Reference      | Reference       | Reference      |
| 2                                    | -0.013***       | 0.003          | -£178***        | 55             |
| 3                                    | -0.017***       | 0.003          | -£259***        | 58             |
| 4                                    | -0.024***       | 0.003          | -£434***        | 59             |
| Highest SES Quantile                 | -0.033***       | 0.004          | -£333***        | 65             |
| Age at Diagnosis                     | -0.011***       | 0.001          | -£142***        | 17             |
| Age at Diagnosis Squared             | 0.000***        | 0.000          | £1***           | 0              |
| Days from Diagnosis to Death         | 0.000***        | 0.000          | -£2***          | 0              |
| Days from Diagnosis to Death Squared | 0.000***        | 0.000          | £0***           | 0              |
| Sex                                  |                 |                |                 |                |
| Male                                 | Reference       | Reference      | Reference       | Reference      |
| Female                               | 0.001           | 0.002          | £359***         | 38             |
| Year of Diagnosis                    |                 |                |                 |                |
| 2001-2005                            | Reference       | Reference      | Reference       | Reference      |
| 2006                                 | 0.005           | 0.005          | £306***         | 112            |
| 2007                                 | -0.002          | 0.005          | -£89            | 110            |
| 2008                                 | 0.005           | 0.005          | -£120           | 111            |
| 2009                                 | 0.006           | 0.005          | £138            | 114            |
| 2010                                 | -0.002          | 0.006          | £29             | 118            |
| Weighted Charlson Score              |                 |                |                 |                |
| Score = 2                            | Reference       | Reference      | Reference       | Reference      |
| Score = 3                            | 0.338***        | 0.003          | £841***         | 59             |
| Score = 4                            | 0.358***        | 0.004          | £1,586***       | 95             |
| Score = 5                            | 0.369***        | 0.005          | £2,187***       | 164            |
| Score = 6                            | 0.302***        | 0.006          | £1,235***       | 115            |
| Score = 7                            | 0.364***        | 0.006          | £1,622***       | 169            |
| Score = 8                            | 0.338***        | 0.003          | £755***         | 50             |
| Score = 9                            | 0.370***        | 0.003          | £1,452***       | 63             |
| Score = 10                           | 0.386***        | 0.004          | £1,924***       | 106            |
| Score = 11                           | 0.388***        | 0.005          | £2,039***       | 183            |
| Score = 12                           | 0.386***        | 0.008          | £2,364***       | 327            |
| Score = 13                           | 0.373***        | 0.019          | £2,554***       | 667            |
| Score = 14                           | -               | -              | £2,369**        | 1188           |
| Score = 15                           | -               | -              | -£1,905         | 1467           |
| Region                               |                 |                |                 |                |

| London             | Reference | Reference | Reference | Reference |
|--------------------|-----------|-----------|-----------|-----------|
| North East         | -0.018*** | 0.005     | -£400     | 86        |
| North West         | -0.037*** | 0.004     | -£797     | 74        |
| Yorkshire & Humber | -0.011**  | 0.004     | -£511     | 77        |
| East Midlands      | -0.025*** | 0.005     | -£509     | 84        |
| West Midlands      | -0.027*** | 0.004     | -£756     | 81        |
| East of England    | -0.045*** | 0.004     | -£793     | 82        |
| South East         | -0.019*** | 0.005     | -£1,356   | 89        |
| South Central      | -0.025*** | 0.005     | -£892     | 96        |
| South West         | -0.049*** | 0.005     | -£931     | 85        |
| Pseudo R2          | 0.204     |           |           |           |
| Prob > LR Chi2     | 0.000     |           |           |           |
| Observations       | 116,749   |           | 95,427    |           |

Source: (Authors' analysis)