

## Appendix 1.

| Variable                          | ICD9 Code or CPT Code   |
|-----------------------------------|---|
| Barrett's esophagus               | 530.85  |
| Esophageal adenocarcinoma         | 150.0-150.5, 150.8-150.9, 230.1, V100.3   |
| Gastrointestinal cancers          | 151.0-151.6, 151.8-151.9, 152.0-152.3, 152.8, 152.9, 159.9, 209.00-209.03, 209.23, 230.2, 230.7,  |
| Other abdominal cancer            | 156.0-156.2. 156.8, 156.9, 158.0, 158.8, 158.9, 159.1, 159.8  |
| Other malignancy                  | 140.0-149.9, 1510-1729, 174.0-195.9, 200.00-208.99, 209.00-209.39, 230.0-234.9, 258.02-258.03, 795.0-795.13, 796.70-796.76  |
| Metastatic cancer                 | 196.0-196.3, 196.5, 196.6, 196.8-197.8, 198.0-198.7, 198.81, 198.82, 198.89, 209.71-209.74, 511.81, 789.51  |
| Decompensated liver disease       | 155.0, 348.3, 348.30-348.31, 348.39, 456.0-456.2, 572.2-572.4, 572.8, 789.5, 570.0; 573.4   |
| Bleeding gastroesophageal varices | 42.91   |
| Gastroesophageal surgery          | 42.01, 42.09-42.12, 42.19, 42.21, 42.22, 42.25, 42.29, 42.31, 42.32, 42.39-42.42, 42.51-42.56, 42.58, 42.59, 42.61-42.66, 42.68-42.70, 42.82-42.87,42.89, 42.99, 43.00, 43.3, 43.42, 43.49, 44.0-44.03, 44.2, 44.21, 44.29, 44.31, 44.39-44.42, 44.5, 44.61, 44.63-44.67, 44.69, 44.91, 44.92, 44.99, 45.30, 50.0, 50.14, 50.21-50.26,50.29, 50.3, 50.4 50.91-50.94, 50.99, 51.01-51.04, 51.13, 51.19, 51.31-51.37, 51.39, 51.61-51.64,51.69, 51.71, 51.72, 51.79, 51.81-51.89, 51.91-51.96, 51.98, 51.99, 52.01, 52.09, 52.11, 52.12,52.20- 52.22, 52.30, 52.40, 52.51-52.53, 52.59, 52.60, 52.70, 52.92, 52.95, 52.96, 52.99, 54.12, 54.19, 54.23-54.25, 54.29, 54.40, 54.61, 54.62, 54.64, 54.73-54.75, 54.92-54.97, 54.99, 96.08, 96.24, 96.27, 96.28, 96.36, 96.41-96.43, 97.05, 97.54-97.56, 97.59, 97.82, 97.86, 176.3 |
| Bariatric surgery                 | 44.68, 44.38, 44.95-44.98   |
| GE resection                      | 43.5-43.7, 43.81, 43.89, 43.91, 43.99, 45.61 (43620-43634, 43638-43639)   |
| Percutaneous gastric tube         | 431.0, 431.1, 431.9, 432.0, 443.2 (43246, 43653, 43750, 43760, 43830-43832, 44373, 49440, 49450, 49452, 56346)  |
|                                   |   |

**Appendix 2. The distribution of EAC stage, treatment and overall mortality following diagnosis among EAC cases diagnosed in BE patients categorized by 6 indications for the diagnosing endoscopy.**

|                                      | BE Surveillance  |                           |                                      | Non-BE Surveillance |                       |                                  |                    |                              |
|--------------------------------------|------------------|---------------------------|--------------------------------------|---------------------|-----------------------|----------------------------------|--------------------|------------------------------|
|                                      | Total<br>(n=209) | BE Surveillance<br>(n=94) | BE Dysplasia Surveillance<br>(n=115) | Total<br>(n=215)    | Diagnostic<br>(n=102) | Dysplasia Surveillance<br>(n=91) | Screening<br>(n=8) | Unknown indication<br>(n=14) |
| <b>EAC Treatment*</b>                |                  |                           |                                      |                     |                       |                                  |                    |                              |
| None                                 | 58 (27.7)        | 26 (27.7)                 | 32 (27.8)                            | 83 (38.6)           | 51 (50.0)             | 24 (26.4)                        | 3 (37.5)           | 5 (35.7)                     |
| Any cancer targeted treatment        | 151 (72.3)       | 68 (72.3)                 | 83 (72.2)                            | 132 (61.4)          | 51 (50.0)             | 67 (73.6)                        | 5 (62.5)           | 9 (64.3)                     |
| <b>EAC Stage<sup>‡</sup></b>         |                  |                           |                                      |                     |                       |                                  |                    |                              |
| 0                                    | 29 (13.9)        | 7 (7.5)                   | 22 (19.1)                            | 21 (9.8)            | 4 (3.9)               | 15 (16.5)                        | 0 (0.0)            | 2 (14.3)                     |
| 1                                    | 119 (56.9)       | 53 (56.4)                 | 66 (57.4)                            | 93 (43.2)           | 32 (31.4)             | 54 (59.3)                        | 4 (50.0)           | 3 (21.4)                     |
| 2                                    | 44 (21.1)        | 24 (25.5)                 | 20 (17.4)                            | 36 (16.7)           | 17 (16.7)             | 13 (14.3)                        | 3 (37.5)           | 3 (21.4)                     |
| 3                                    | 3 (1.4)          | 2 (2.0)                   | 1 (0.9)                              | 18 (8.4)            | 15 (14.7)             | 1 (1.1)                          | 1 (12.5)           | 1 (7.2)                      |
| 4                                    | 3 (1.4)          | 1 (1.1)                   | 2 (1.7)                              | 35 (16.3)           | 29 (28.4)             | 4 (4.4)                          | 0 (0.0)            | 2 (14.3)                     |
| Missing                              | 11 (5.3)         | 7 (7.5)                   | 4 (3.5)                              | 12 (5.6)            | 5 (4.9)               | 4 (4.4)                          | 0 (0.0)            | 3 (21.4)                     |
| <b>Overall Mortality<sup>†</sup></b> |                  |                           |                                      |                     |                       |                                  |                    |                              |
| n (%)                                | 81 (38.8)        | 33 (35.1)                 | 48 (41.7)                            | 126 (58.6)          | 73 (71.6)             | 40 (44.0)                        | 5 (62.5)           | 8 (57.1)                     |

\*p=0.02 for BE surveillance vs. non-BE surveillance groups

<sup>‡</sup>p<0.0001 for BE surveillance vs. non-BE surveillance groups for early (0-1) vs. other stages<sup>†</sup>p<0.0001 for BE surveillance vs. non-BE surveillance groups