**Supplemental Table 1**: Administrative Coding Utilized for the Study

|  |  |
| --- | --- |
| **Cancer Diagnoses** |  |
|  Appendiceal cancer | 153.5C18.1 |
|  Colorectal cancer | Right colon cancer153.0-153.1, 153.4, 153.6C18.0, C18.2-C18.4Left colon cancer153.2-153.3, 153.7, 154.0C18.5-C18.7, C19Colon of unspecified site153.8-153.9C18.8-C18.9Rectal cancer154.1C20 |
|  Peritoneal metastasis | 158.8-158.9, 197.6C48.1-C48.8, C78.6 |
|  Distant metastasis | Liver metastasis155.2, 197.7C22.9, C78.7Lung/intrathoracic metastasis197.0-197.3C78.00-C78.39Brain metastasis198.3C79.31-C79.32Adrenal metastasis198.7C79.70-C79.72 |
|  Other primary abdominal cancer | Esophageal cancer150.0-151.0C15.3-C16.0Gastric cancer151.1-151.9C16.1-C16.9Small bowel cancer152.0-152.9C17.0-C17.9Hepatopancreaticobiliary cancer155.0-155.1, 156.0-157.9C22.0-C22.8, C23-C25.9Gynecologic cancer179-184.9C51.0-C58 |
| **Operations** |  |
|  Abdominal operations | Laparotomy54.11-54.19, 54.59Laparoscopy54.21, 54.51Peritonectomy54.4Diaphragm excision34.81Colectomy17.31-17.39, 45.71-45.83Proctectomy48.5-48.63Appendectomy47.01-47.19Bowel anastomosis45.90-45.95Gastrectomy43.5-43.99Splenectomy41.5Cholecystectomy51.22-51.23Hepatectomy50.22, 50.3Small bowel resection45.61-45.62Oophorectomy65.31-65.64Hysterectomy68.31-68.9Cystectomy57.71-57.79, 68.8Ileostomy46.01, 46.20-46.23Colostomy46.03, 46.10-46.13, 48.5-48.59, 48.62 |
|  HIPEC | 3E0M305, 3E0M705, 3E0M30Y |
|  Hyperthermia for treatment of cancer | 99.85 |
|  Implantation of chemotherapy | 00.10 |
|  Injection of locally-acting therapeutic  substance into peritoneal cavity | 54.97 |
|  Injection/infusion of chemotherapy | 99.25 |
|  Possible HIPEC | 1. Hyperthermia for treatment of cancer

*OR* 1. Implantation of chemotherapy

*OR*1. Injection of locally-acting therapeutic substance into peritoneal cavity *AND* injection/infusion of chemotherapy *AND* date of injection of locally-acting therapeutic substance into peritoneal cavity = date of injection/infusion of chemotherapy
 |
|  CRS/HIPEC | 1. HIPEC

*OR*1. Abdominal operation *AND* possible HIPEC *AND* date of abdominal operation = date of possible HIPEC
 |
| **Systemic therapy** |  |
|  Diagnosis codes | V58.11-V58.12, V66.2, V67.2Z51.11-Z51.12 |
|  Procedure codes | 99.25, 99.283E03005, 3E0300M, 3E03305, 3E0330M, 3E04005, 3E0400M, 3E04305, 3E0430M |
|  HCPCS codes | 5-FluorouracilJ9190LeucovorinJ0640-J0642OxaliplatinJ9263IrinotecanJ9205-J9206CapecitabineJ8520-J8521BevacizumabJ9035CetuximabJ9055PanitumumabJ9303NivolumabJ9299IpilimumabJ9228PembrolizumabJ9271RamucirumabJ9308Ziv-afliberceptJ9400 |
|  National drug code | 5-Fluorouracil00187-3204, 00187-5200, 00378-4791, 00378-8078, 16110-0812, 16729-0276, 25021-0215, 28105-0421, 50090-0426, 50742-0423, 50742-0481, 50742-0482, 50742-0483, 51672-0406, 51672-0411, 51862-0362, 63323-0117, 66530-0249, 68001-0266, 68083-0269, 68083-0270, 68083-0292, 68083-0293, 70700-0186, 70700-0187, 70700-0188, 70700-0189Leucovorin00054-4496, 00054-4497, 00054-4498, 00054-4499, 00054-8496, 00143-9368, 00143-9552, 00143-9553, 00143-9554, 00143-9555, 00143-9558, 00555-0484, 00555-0485, 00703-5140, 00703-5145, 00781-3201, 00904-6703, 16714-0890, 16714-0915, 25021-0813, 25021-0814, 25021-0815, 25021-0816, 25021-0828, 42806-0133, 42806-0134, 42806-0358, 42806-0359, 43598-0771, 43598-0773, 50742-0181, 50742-0182, 50742-0183, 50742-0184, 50742-0464, 50742-0494, 50742-0495, 51079-0581, 51079-0582, 60687-0227, 63323-0631, 63323-0710, 63323-0711, 64661-0650, 64661-0711, 67457-0528, 67457-0529, 67457-0530, 68001-0416, 68001-0417, 68001-0418, 68083-0278, 68083-0279, 68152-0112, 68152-0114, 69315-0184, 69315-0185, 69315-0186, 69315-0187, 70121-0109, 70121-0157, 71205-0908, 71288-0104, 71288-0105, 72266-0120, 72266-0121, 72893-0004, 72893-0006, 72893-0009, 72893-0013, 72893-0014Oxaliplatin00703-3985, 00703-3986, 00781-3315, 00781-3317, 00781-9315, 00781-9317, 00955-1725, 00955-1727, 00955-1731, 00955-1733, 16714-0727, 16714-0728, 16729-0332, 25021-0233, 43066-0014, 43066-0018, 45963-0611, 50742-0405, 50742-0406, 55150-0331, 55150-0332, 60505-0613, 61703-0363, 63323-0750, 67184-0050, 67184-0051, 67457-0442, 67457-0469, 68001-0468, 68083-0170, 68083-0171, 68083-0176, 68083-0177, 68083-0314, 69097-0274, 69097-0353, 70860-0201, 71288-0101, 71288-0149, 72266-0125, 72266-0126, 72266-0161, 72266-0162, 72603-0101, 72603-0301, 79672-0825, 79672-0826Irinotecan00009-7529, 00143-9583, 00143-9701, 00143-9702, 15054-0004, 16714-0027, 16714-0131, 25021-0230, 45963-0614, 50742-0401, 50742-0402, 55150-0352, 55150-0353, 55150-0354, 59923-0702, 59923-0714, 59923-0715, 59923-0716, 60505-0612, 61703-0349, 63323-0193, 67184-0051, 68001-0480, 68083-0381, 68083-0382, 70700-0169, 70700-0170, 72485-0211, 72485-0212, 72485-0213Capecitabine00004-1100, 00004-1101, 00054-0271, 00054-0272, 00093-7473, 00093-7474, 00378-2511, 00378-2512, 16714-0467, 16714-0468, 16729-0072, 16729-0073, 50268-0154, 51079-0510, 51407-0095, 51407-0096, 55111-0496, 55111-0497, 59651-0204, 59651-0205, 59923-0721, 59923-0722, 60687-0149, 62756-0238, 62756-0239, 64980-0276, 64980-0277, 65162-0843, 65162-0844, 67877-0458, 67877-0459, 68001-0487, 68001-0488, 69097-0948, 69097-0949, 69539-0019, 69539-0020, 70756-0815, 70756-0816, 72205-0006, 72205-0007, 72485-0204, 72485-0205, 72606-0554, 72606-0555Bevacizumab00069-0315, 00069-0342, 50242-0060, 50242-0061, 55513-0206,55513-0207Cetuximab66733-0948, 66733-0958Panitumumab55513-0954, 55513-0956Nivolumab00003-3734, 00003-3772, 00003-3774Ipilimumab00003-2327,00003-2328Pembrolizumab00006-3026Entrectinib50242-0091, 50242-0094Ramucirumab00002-7669, 00002-7678Regorafenib50419-0171Encorafenib70255-0025Larotrectinib50419-0390, 50419-0391, 50419-0392, 71777-0390, 71777-0391,71777-0392Ziv-aflibercept00024-5840, 00024-5841, 61755-0005Trifluridine-tipiracil50383-0955, 61314-0044, 64842-0102 |
| Revenue center code | 0331-0332, 0335 |
| BETOS code | 01D |
| **Surgeon Taxonomy** |  |
|  General surgery | 208600000X |
|  Surgical oncology | 2086X0206X |
|  Colon and rectal surgery | 208C00000X |

HIPEC= hyperthermic intraperitoneal chemotherapy; HCPCS=Healthcare Common Procedure Coding System; BETOS=Berenson-Eggers Type of Service