Hyperthermic Intraperitoneal Chemotherapy (HIPEC)

DESCRIPTION:
Heated or hyperthermic intraperitoneal chemotherapy (HIPEC) is a procedure used to treat advanced abdominal cancers. HIPEC is performed during a surgical procedure to remove an abdominal tumor. Once the tumor has been removed (“cytoreduction”), a heated chemotherapy solution is circulated throughout the abdomen. Inflow and outflow catheters are placed in the abdominal cavity, along with temperature probes to monitor temperature. The skin is then temporarily closed during the chemotherapy perfusion, which typically runs for 1 to 2 hours.

HIPEC is used to treat various abdominal cancers spreading to peritoneal lining like pseudomyxoma peritonei, mucinous adenocarcinoma or appendix, mesothelioma, colorectal cancers, ovarian cancer, and gastric cancer. However the efficacy of HIPEC is not proven for all indications.

POSITION STATEMENT:
NOTE: This guideline addresses only hyperthermic intraperitoneal chemotherapy. Chemotherapy administration into peritoneal cavity, requiring and including peritoneocentesis (96446), without hyperthermia, meets the definition of medical necessity for the treatment of all primary and secondary peritoneal carcinoma.

Hyperthermic intraperitoneal chemotherapy (HIPEC) meets the definition of medical necessity when administered in conjunction with cytoreductive surgery for the treatment of the following diagnoses:

- Pseudomyxoma peritonei, OR
- Diffuse malignant peritoneal mesothelioma
Hyperthermic intraperitoneal chemotherapy (HIPEC) meets the definition of medical necessity in newly diagnosed epithelial ovarian or fallopian tube cancer at the time of interval cytoreductive surgery (refer to DEFINITIONS section), when ALL of the following criteria are met:

- Stage IIIA or stage IIIB disease (cancer has spread within the abdomen)
- Not eligible for initial cytoreductive surgery, or initial surgery had been performed but was incomplete and will receive neoadjuvant chemotherapy and subsequent interval debulking surgery
- It is expected that complete cytoreduction or optimal cytoreduction can be achieved at time of the interval debulking surgery

Hyperthermic intraperitoneal chemotherapy (HIPEC) in all other settings to treat ovarian cancer or fallopian tube cancer, including but not limited to stage IIIC or stage IV disease, is considered experimental or investigational. Data in published medical literature are inadequate to permit scientific conclusions on long-term and net health outcomes.

Hyperthermic intraperitoneal chemotherapy (HIPEC) is considered experimental and investigational for all other indications not listed above, including but not limited to peritoneal carcinomatosis arising from colorectal cancer, gastric cancer, or endometrial cancer; and goblet cell tumors of the appendix, due to the lack of peer-reviewed literature and clinical guidelines to establish its effectiveness.

**BILLING/CODING INFORMATION:**

**CPT Coding**

There is no specific code for hyperthermic intraperitoneal chemotherapy. The coding for this overall procedure would likely involve codes for the surgery, the intraperitoneal chemotherapy, and the hyperthermia and may include the following coding scenarios:

- **Cytoreduction** – There is no specific CPT code for the surgical component of this complex procedure. It is likely that a series of CPT codes would be used describing exploratory laparotomies of various components of the abdominal cavity, in addition to specific codes for resection of visceral organs, depending on the extent of the carcinomatosis.
- **Intraperitoneal Chemotherapy** – CPT code 96446 identifies “chemotherapy administration into peritoneal cavity via indwelling port or catheter”. When performed using a temporary catheter or performed intraoperatively, an unlisted code would be reported.
- **Hyperthermia** – CPT code 77605 identifies, “Hyperthermia, externally generated; deep.” There are no codes for the heating of the chemotherapy.

**LOINC Codes:**

The following information may be required documentation to support medical necessity: Physician history and physical, treatment plan, treatment notes including documentation of symptoms, behavioral or pharmacologic interventions, and prior test stimulation (if applicable).

<table>
<thead>
<tr>
<th>Documentation Table</th>
<th>LOINC Codes</th>
<th>LOINC Time Frame Modifier Code</th>
<th>LOINC Time Frame Modifier Codes Narrative</th>
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<tbody>
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**REIMBURSEMENT INFORMATION:**
Refer to section entitled [POSITION STATEMENT](#).

**PROGRAM EXCEPTIONS:**

**Federal Employee Program (FEP):** Follow FEP guidelines.

**State Account Organization (SAO):** Follow SAO guidelines.

**Medicare Advantage products:**

The following National Coverage Determination (NCD) was reviewed on the last guideline reviewed date: Hyperthermia for Treatment of Cancer (110.1) located at cms.gov.

**DEFINITIONS:**

**Cytoreductive surgery:** Surgical removal of as many cancerous tumor cells as possible. Cytoreduction can be complete (no visible disease left), optimal (one or more residual tumors measuring 10mm or less in diameter remaining) or suboptimal (more than 1 centimeter nodules left). Cytoreduction can also be primary (the first part of treatment), interval (after some chemotherapy is given), secondary (for recurrence) or tertiary (after several recurrences).

**Fallopian tube cancer:** Cancer that forms in the tissue lining the fallopian tube. The cancer sometimes begins at the end of the fallopian tube near the ovary and spreads to the ovary. Fallopian tube cancer is similar to ovarian epithelial cancer and is staged and treated the same way.
Ovarian cancer: Cancer that forms in tissues of the ovary. Most ovarian cancers are either ovarian epithelial cancers (cancer that begins in the cells on the surface of the ovary), or malignant germ cell tumors (cancer that begins in egg cells).

Peritoneal mesothelioma: Malignant peritoneal mesothelioma is a relatively uncommon malignancy that may arise from the mesothelial cells lining the pleura, peritoneum, pericardium, and tunica vaginalis testis.

Pseudomyxoma peritonei: Pseudomyxoma peritonei is a rare malignant growth characterized by the progressive accumulation of mucus-secreting (mucinous) tumor cells within the abdomen and pelvis. The disorder develops after a small growth (polyp) located within the appendix bursts through the wall of the appendix, and spreads mucus-producing tumor cells throughout the surrounding surfaces (e.g., the membrane that lines the abdominal cavity [peritoneum]). As mucinous tumor cells accumulate, the abdominal area becomes swollen and digestive (gastrointestinal) function becomes impaired. Synonyms for pseudomyxoma peritonei (according to the National Organization of Rare Disorders) may include:

- Low grade appendiceal mucinous neoplasm (LAMN)
- Colloid carcinoma
- Disseminated peritoneal adenomucinosis (DPAM)
- Malignant appendiceal tumor
- Malignant large bowel cystadenocarcinoma
- Malignant large bowel peritoneal carcinomatosis
- Malignant large bowel tumor
- Mucinous cyst adenocarcinoma
- Mucinous cystadenoma
- Peritoneal carcinomatosis
- Peritoneal mucinous carcinomatosis (PMCA)
- PMP
- Pseudomyxoma ovarii

RELATED GUIDELINES:
None applicable.

OTHER:
None applicable.

REFERENCES:


**COMMITTEE APPROVAL:**
This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy & Coverage Committee on 01/24/19.

**GUIDELINE UPDATE INFORMATION:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>02/15/10</td>
<td>New Medical Coverage Guideline.</td>
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<tr>
<td>08/01/10</td>
<td>Revised coding information.</td>
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<tr>
<td>09/15/10</td>
<td>Revisions consisting of Position Statement clarification and formatting changes.</td>
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<tr>
<td>10/15/10</td>
<td>Revision; related ICD-10 codes added.</td>
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<tr>
<td>01/01/11</td>
<td>Annual HCPCS coding update: deleted coding reference to 96445; added 96446.</td>
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<td>09/15/11</td>
<td>Revision; formatting changes.</td>
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<tr>
<td>02/15/12</td>
<td>Scheduled review; position statement updated to include peritoneal mesothelioma; Billing/Coding section updated; references updated; formatting changes.</td>
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<td>05/11/14</td>
<td>Revision: Program Exceptions section updated.</td>
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<tr>
<td>05/15/15</td>
<td>Revision: Position Statement language regarding peritoneal carcinoma revised for clarity.</td>
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<tr>
<td>11/01/15</td>
<td>Revision: ICD-9 Codes deleted.</td>
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<td>09/15/16</td>
<td>Scheduled review. Revised description section, investigational indications, and Billing/Coding Information section. Updated references.</td>
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<tr>
<td>10/01/16</td>
<td>Billing/Coding Information section updated.</td>
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<tr>
<td>02/15/19</td>
<td>added coverage criteria for newly diagnosed epithelial ovarian or fallopian tube cancer. Revised definitions. Updated references.</td>
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