MEDICAL POLICY STATEMENT
TrueCare

Policy Name & Number	Date Effective
Hyperthermic Intraperitoneal Chemotherapy-TrueCare-MM-1490	07/01/2025
Policy Type	
MEDICAL	

Medical Policy Statements are derived from literature based on and supported by clinical guidelines, nationally recognized utilization and technology assessment guidelines, other medical management industry standards, and published MCO clinical policy guidelines. Medically necessary services include, but are not limited to, those health care services or supplies that are proper and necessary for the diagnosis or treatment of disease, illness, or injury and without which the patient can be expected to suffer prolonged, increased, or new morbidity, impairment of function, dysfunction of a body organ or part, or significant pain and discomfort. These services meet the standards of good medical practice in the local area, are the lowest cost alternative, and are not provided mainly for the convenience of the member or provider. Medically necessary services also include those services defined in any Evidence of Coverage or Certificate of Coverage documents, Medical Policy Statements, Provider Manuals, Member Handbooks, and/or other plan policies and procedures.

Medical Policy Statements do not ensure an authorization or payment of services. Please refer to the plan contract (often referred to as the Evidence of Coverage or Certificate of Coverage) for the service(s) referenced in the Medical Policy Statement. Except as otherwise required by law, if there is a conflict between the Medical Policy Statement and the plan contract, then the plan contract will be the controlling document used to make the determination.

According to the rules of Mental Health Parity Addiction Equity Act (MHPAEA), coverage for the diagnosis and treatment of a behavioral health disorder will not be subject to any limitations that are less favorable than the limitations that apply to medical conditions as covered under this policy.

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A. Subject

Hyperthermic Intraperitoneal Chemotherapy

B. Background

Patients with digestive system or ovary cancer have an increased risk of developing peritoneal metastases (PM). Hyperthermic intraperitoneal chemotherapy (HIPEC) is part of a multimodal treatment plan for PM. It is employed within the peritoneal cavity following cytoreductive surgery (CRS) of the abdominal cavity through a traditional open or laparoscopic approach. The hyperthermic agents are heated to 40 – 42 degrees Celsius. Hyperthermia is selectively lethal for malignant cells, and the effects of heat can be synergistic with those of other anticancer treatments, such as chemotherapy. This infusion facilitates the spread of the chemotherapeutic solution throughout the entire peritoneal cavity, avoiding compartmentalized spread that would be likely following post-operative adhesion formation.

Cytotoxic drugs most frequently used in HIPEC include mitomycin, doxorubicin, cisplatin, oxaliplatin and paclitaxel. These drugs are combined with a carrier solution of isotonic saline solutions or dextrose-based peritoneal dialysis solutions. Approximately 3 to 5 liters are infused into the peritoneum during the procedure.

The extent of tumor load is estimated through imaging methods, usually by computed tomography (CT) and magnetic resonance imaging (MRI) or preoperative laparoscopy. To describe peritoneal carcinomatosis with a universally accepted reference standard, the Peritoneal Cancer Index (PCI) was introduced initially for carcinomatosis of colorectal cancer and mesothelioma. PCI is calculated as the sum of scores in 13 abdominal regions, showing a linear relationship with overall survival rates. Each region receives a score of 0-3 based on the largest tumor size. Scores range from 0 to 39, with higher scores indicating more widespread and/or larger tumors in the peritoneal cavity. A consensus on a cutoff value for treatment has not been clearly established. However, surgery is not recommended for patients who have colorectal carcinomatosis with a PCI higher than 20. In ovarian cancer, assessment of PCI is not a standard of care in clinical practice or in surgical studies. However, van Driel et al (2018) conducted a Phase III study to investigate whether the addition of HIPEC to interval CRS would improve outcomes among patients who were receiving neoadjuvant chemotherapy for stage III epithelial ovarian cancer. The median recurrence free survival was 10.7 months in the surgery group and 14.2 months in the surgery plus-HIPEC group. Seventy-six patients (62%) in the surgery group and 61 patients (50%) in the surgery-plus-HIPEC group had died at a median follow-up of 4.7 years (hazard ratio, 0.67; 95% CI, 0.48 to 0.94; P=0.02). The median overall survival was 33.9 months in the surgery group and 45.7 months in the surgery-plus-HIPEC group.

HIPEC is completed with an open or a closed abdominal technique. The open abdominal technique occurs at the end of CRS and peritoneal catheters are placed through the abdominal wall. The skin edges are suspended through use of a self-retaining retractor to maintain the open space in the abdominal cavity. The temperature probes are attached to the skin edge for intraperitoneal temperature monitoring. To prevent leakage of the chemotherapy solution, a plastic sheet is placed. The surgeon continuously

manipulates the perfusion to allow the uniform exposure of all anatomical structures to heat and chemotherapy. An external pump recirculates the chemotherapy infusion through inflow and outflow catheters.

In a closed HIPEC procedure, which is more commonly used, the peritoneal catheters and probes are placed in the same way, but the laparotomy incision and skin edges are closed to permit perfusion through a closed circuit. The surgeon manually shakes the abdominal wall during the infusion for uniform heat distribution. Greater perfusate is used in this technique to establish the circuit and generate higher abdominal pressure, which facilitates tissue penetration. After infusion, the abdomen is reopened to remove the perfusate, catheters, and to complete any additional surgical procedures needed (eg, anastomosis).

C. Definitions
- **Abdominal Cavity** – A cavity within the abdomen and continuous with the pelvic cavity and containing the stomach with lower portion of the esophagus, small and large intestines, liver, gallbladder, spleen, pancreas, kidney and ureter.
- **Carcinomatosis** – The condition of having widespread dissemination of carcinoma in the body.
- **Cytoreductive Surgery (CRS)** – The removal of all sites of cancer within the abdominal cavity.
- **Debulking Surgery** – The surgical removal of as much of a tumor as possible. Debulking may increase the chance that chemotherapy or radiation therapy will kill all the tumor cells. It may also be done to relieve symptoms or help the patient live longer. Also called tumor debulking.
- **Hyperthermic Perfusion** – A procedure in which a warmed solution containing anticancer drugs is used to bathe or is passed through the blood vessels of the tissue or organ containing the tumor.
- **Mesothelioma** – Cancer that affects tissue called the mesothelium, a lining that covers and protects many internal organs. Pleural and peritoneal mesothelioma account for most of the 2,000 to 3,000 new cases of the disease diagnosed in the United States each year. The most common cause of mesothelioma is exposure to asbestos.
- **Peritoneum** – The serous membrane lining the abdominal cavity and covering the abdominal organs.
- **Peritoneal Metastasis** – A late-stage manifestation of intra-abdominal malignancy.
- **Pseudomyxoma Peritoneai (PMP)** – A build-up of mucus in the peritoneal cavity. The mucus may come from ruptured ovarian cysts, from the appendix, or from other abdominal tissues. Mucus secreting cells may attach to the peritoneal lining and continue to secrete mucus.

D. Policy
I. TrueCare considers HIPEC in combination with CRS medically necessary for **ANY** of the following indications:
   A. Pseudomyxoma peritonei
   B. Appendiceal neoplasms with PMP/mucinous ascites

C. Diffuse malignant peritoneal mesothelioma with metastasis limited to the abdominal cavity.
D. Select patients with metastatic colorectal cancer with peritoneal involvement, with a PCI < 20, no extra-abdominal metastasis, and in conjunction with planned or prior systemic therapy.
E. Stage III epithelial ovarian cancer or fallopian tube carcinoma at the time of interval debulking surgery with stable disease after neoadjuvant chemotherapy.

II. HIPEC is considered experimental and investigational for indications not listed above due to insufficient evidence in the peer-reviewed literature. There is insufficient evidence to recommend HIPEC with CRS for the prevention of or for the treatment of gastric carcinoma and other malignancies outside of a clinical trial.

E. Conditions of Coverage

NA

F. Related Policies/Rules

Experimental and Investigational Item or Service

G. Review/Revision History

	DATE	ACTION
Date Issued	03/26/2025	Approved at Committee.
Date Revised		
Date Effective	07/01/2025	
Date Archived		

H. References

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