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NCCN Guidelines Panel: Colon/Rectal/Anal Cancers Panel

On behalf of surgical oncologists interested in peritoneal disease, we would like to request the NCCN Colon/Rectal cancer panel to review the enclosed data to revise the current recommendations on the use of cytoreductive surgery and intraperitoneal chemotherapy in the treatment of peritoneal metastases from colon and rectal primary tumors.

*Statement on FDA Use:* Not applicable

*Specific Changes:*

1. Recommend that the summary recommendation be changed to “Complete cytoreductive surgery and intraperitoneal chemotherapy can be considered for patients with limited peritoneal metastases in experienced centers”.
2. Recommend that the incidence of peritoneal metastases be updated to 20-60%, with 6-15% peritoneal only.
3. Recommend that the discussion of colorectal peritoneal metastases be separated from appendiceal neoplasms/carcinomas with peritoneal dissemination.

*Rationale:* Accruing evidence has demonstrated that isolated peritoneal metastases are more common than previously believed and outcomes with systemic chemotherapy alone are unlikely to result in long term survival. Careful selection of patients based on burden of disease and completeness of cytoreduction can lead to 5-year survival of 39% and 10-year survival of 16%. In optimally selected patients, patients with peritoneal disease undergoing cytoreductive surgery have identical survival to patients undergoing liver resections for metastases. Advances in surgical techniques and experience accrued beyond the learning curve have led to significant improvements in the surgical cytoreduction with morbidity and mortality rates that are lower than or equal to any major abdominal surgery. This interpretation of evidence has been endorsed by the European Society of Medical Oncology (ESMO) in their 2016 guidelines along with several other national cancer societies in Europe.

### *Supporting Literature*

N. Hugen, C. J. H. van de Velde, J. H. W. de Wilt, I. D. Nagtegaal. Metastatic pattern in colorectal cancer is strongly influenced by histological subtype *Ann Oncol*. 2014 March; 25(3): 651–657.

Elias D, Faron M, Iuga BS, Honoré C, Dumont F, Bourgain JL, Dartigues P, Ducreux M, Goéré D. Prognostic similarities and differences in optimally resected liver metastases and peritoneal metastases from colorectal cancers. *Ann Surg*. 2015 Jan;261(1):157-63.

Elias D, Honoré C, Dumont F, Ducreux M, Boige V, Malka D, Burtin P, Dromain C, Goéré D. Results of systematic second-look surgery plus HIPEC in asymptomatic patients presenting a high risk of developing colorectal peritoneal carcinomatosis. *Ann Surg*. 2011 Aug;254(2):289-93.

Franko J, Ibrahim Z, Gusani NJ, Holtzman MP, Bartlett DL, Zeh HJ 3rd. Cytoreductive surgery and hyperthermic intraperitoneal chemoperfusion versus systemic chemotherapy alone for colorectal peritoneal carcinomatosis. *Cancer*. 2010 Aug 15;116(16):3756-62. doi: 10.1002/cncr.25116.

Elias D, Lefevre JH, Chevalier J, Brouquet A, Marchal F, Classe JM, Ferron G, Guilloit JM, Meeus P, Goéré D, Bonastre J. Complete cytoreductive surgery plus intraperitoneal chemohyperthermia with oxaliplatin for peritoneal carcinomatosis of colorectal origin. *J Clin Oncol*. 2009 Feb 10;27(5):681-5

Goéré D, Malka D, Tzanis D, Gava V, Boige V, Eveno C, Maggiori L, Dumont F, Ducreux M, Elias D. Is there a possibility of a cure in patients with colorectal peritoneal carcinomatosis amenable to complete cytoreductive surgery and intraperitoneal chemotherapy? *Ann Surg*. 2013 Jun;257(6):1065-71. doi: 10.1097/SLA.0b013e31827e9289.

Rajeev R, Klooster B, Turaga KK. Impact of surgical volume of centers on post-operative outcomes from cytoreductive surgery and hyperthermic intra-peritoneal chemoperfusion. *J Gastrointest Oncol*. 2016 Feb;7(1):122-8.

Van Cutsem E, Cervantes A, Adam R, Sobrero A, Van Krieken JH, Aderka D, Aranda Aguilar E, Bardelli A, Benson A, Bodoky G, Ciardiello F, D'Hoore A, Diaz-Rubio E, Douillard JY, Ducreux M, Falcone A, Grothey A, Gruenberger T, Haustermans K, Heinemann V, Hoff P, Köhne CH, Labianca R, Laurent-Puig P, Ma B, Maughan T, Muro K, Normanno N, Österlund P, Oyen WJ, Papamichael D, Pentheroudakis G, Pfeiffer P, Price TJ, Punt C, Ricke J, Roth A, Salazar R, Scheithauer W, Schmoll HJ, Tabernero J, Taïeb J, Tejpar S, Wasan H, Yoshino T, Zaanan A, Arnold D. **ESMO consensus guidelines for the management of patients with metastatic colorectal cancer.** *Ann Oncol*. 2016 Jul 5.

NHS Commissioning Board. Clinical Commissioning Policy for Cytoreduction Surgery for Patients with Peritoneal Carcinomatosis. 04/2013. NHSCB/A08/P/a