

New study highlights rapid adoption of clinical research results into chemotherapy prescribing patterns

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New research in *JNCCN—Journal of the National Comprehensive Cancer Network* evaluates how an important analysis on local-regionally advanced colon cancer adjuvant chemotherapy impacted prescribing

patterns.

The IDEA collaboration included more than 12,000 patients with Stage III colon [cancer](#) across 6 randomized phase 3 trials in a planned pooled analysis, to determine how three or six months of post-surgery chemotherapy—either a combination of capecitabine/oxaliplatin (CAPOX) or fluorouracil/leucovorin/oxaliplatin (FOLFOX)—impacted outcomes.

The current *JNCCN* study revealed that after the full publication of IDEA, the percentage of patients treated with CAPOX rose from 14% to 48%. Also, 45.2% of patients were prescribed [adjuvant therapy](#) for only three months after IDEA, compared to just 5.6% before.

"Our study results showed a significant increase in planning for three months of adjuvant chemotherapy after the presentation of IDEA. We also observed that more patients were prescribed CAPOX compared to FOLFOX, which had previously been more widely used as the preferred treatment regimen of choice," said senior author Daniel H. Ahn, DO, Mayo Clinic Comprehensive Cancer Center.

"The biggest concern with six months of chemotherapy are the toxicities from treatment—including low blood counts, kidney and liver dysfunction, and peripheral neuropathy (intolerable numbness and/or weakness). Patients that receive six months of [adjuvant chemotherapy](#) are greater than five times more likely to experience grade III or higher peripheral neuropathy."

"Of course, with three months of chemotherapy we have to be concerned about whether the shortened duration can potentially negatively affect cancer outcomes. Given these nuances, the choice of regimen and duration remains a shared decision."

The researchers acknowledged that the study's time period included the COVID-19 pandemic, which may also have played a part in encouraging a shorter duration for chemotherapy.

"At the height of the COVID-19 pandemic, prescribing treatments were influenced to incorporate more oral therapies and less infusion-based visits to minimize exposure to [high-risk patients](#)," said Dr. Ahn.

The researchers studied 399 patients who had been diagnosed with stage III colon cancer and were treated with post-surgery chemotherapy at the Mayo Clinic or Emory University Health System on or after January 1, 2016.

Their findings examined the planned type of chemotherapy and duration before the IDEA abstract was presented, after the abstract, and after the full manuscript publication. In addition to seeing a shift toward shorter adjuvant treatment durations and toward the increased use of CAPOX, the results showed that the adoption of a shorter chemotherapy period was more prevalent for Black patients.

"The IDEA collaborative analysis in stage III [colon cancer](#) showing the fairly similar disease-free and overall survival with three months of adjuvant CAPOX compared to the prior standard of six months of chemotherapy in participants with T3N1 disease felt immediately practice changing at its presentation and publication in 2017-2018, and the data was incorporated into the NCCN Guidelines for Colon Cancer shortly thereafter," explained Katrina S. Pedersen, MD, MS, Associate Professor of Medicine, GI Medical Oncologist, Siteman Cancer Center at Barnes-Jewish Hospital and Washington University School of Medicine, who was not involved in this research.

"This study provides the first long-term objective evidence that oncologists across several academic health systems agreed and rapidly

shifted prescribing patterns from the majority getting FOLFOX for six months to receiving CAPOX or FOLFOX for three months."

Dr. Pedersen, a member of the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) Panel for Colon Cancer, continued, "Interestingly, the data presented raise the question of what role the COVID-19 pandemic had in accelerating the adoption of CAPOX and what motivated more rapid adoption of three-month regimens in African Americans."

"I would personally like to see further research to examine if community practice patterns have similarly shifted since IDEA, how prescribing changes have impacted outcomes in African Americans or in higher-risk (T4 or N2) [patients](#), and whether our current era of significant [chemotherapy](#) supply chain restrictions have impacted treatment, to help inform future guidelines-based discussions."

More information: Daniel H. Ahn et al, Changes in Prescribing Patterns in Stage III Colon Cancer, *Journal of the National Comprehensive Cancer Network* (2023). [DOI: 10.6004/jnccn.2023.7028](https://doi.org/10.6004/jnccn.2023.7028)

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