Improving the Quality of Inpatient Ulcerative Colitis Management

Dr. Dalal:
For ReachMD, this is AudioAbstracts, produced in collaboration with the Crohn's & Colitis Foundation. I'm Dr. Robin Dalal, assistant professor of medicine and an inflammatory bowel disease specialist at Vanderbilt University Medical Center, as well as a member of the Crohn's & Colitis Foundation's Rising Educators, Academics, and Clinicians Helping IBD group, or REACH–IBD. Today, I'll be reviewing an article published in the Inflammatory Bowel Disease journal titled “Improving the Quality of Inpatient Ulcerative Colitis Management: Promoting Evidence-Based Practice and Reducing Care Variation With an Inpatient Protocol.”

Ulcerative colitis, or UC, can become severe and require hospitalization at times. In fact, up to 25 percent of patients with UC may require hospitalization at one point in their disease course. Hospitalized UC patients are at an increased risk of serious complications like *Clostridium difficile*, or “C.diff,” infection, venous thromboembolism, and even opiate analgesic exposure and dependence. In an effort to decrease the number of UC patients who experience these serious complications, the authors of this study implemented a quality-improvement initiative that targeted these complications and examined the effectiveness of their intervention.

To conduct this study, a comprehensive inpatient pathway was designed and implemented at one academic institution. The pathway included standardized consultation verbiage with recommendations, a digital daily checklist for the gastroenterology consult daily progress note, a bundled electronic order set, and a literature summary reviewing opiate avoidance in patients with UC. Pre-intervention data and post-intervention data were collected. The primary endpoint of the study was defined as adherence to all 3 quality measures, including C.diff testing, pharmacologic venous thromboembolism prophylaxis, and avoidance of opiates.

The study’s analysis included 77 patients that had 93 qualifying hospitalizations, of which 36 were pre-intervention and 57 were post-intervention. The intervention was successful when followed by a statistically significant difference in hospitalizations meeting the primary endpoint between the pre and post-intervention groups. Before the care pathway was implemented, only 25 percent of hospitalizations adhered to all 3 quality metrics. But after the care pathway was implemented, 47 percent of hospitalizations adhered to all 3 quality metrics, as shown by the following data. C.diff testing was performed in all patients in the pre and post intervention groups. Venous thromboembolism prophylaxis was ordered a median of 84 percent of hospital days for patients in the pre-intervention group and 100 percent of patients in the post-intervention group. Looking at the third quality metric, opiates were administered to 67 percent of patients in the pre-intervention group and to 53 percent of patients in the post-intervention group. The median daily dose of morphine equivalents was 12.1mg in the pre-intervention group and 0.5mg in the post intervention group. More opiate-sparing agents like acetaminophen and tramadol were administered to the post-intervention group. Discharge prescriptions
were given to 16 percent of the post-intervention group compared to 39 percent of the pre-intervention group. And lastly, it's important to note that the sustainability of implementation of the checklist strategy over time was high through the end of the study period.

The results of this study demonstrate that we can improve the quality of care for patients with IBD by using clinical tools, like comprehensive care pathways. In addition to the components of the protocol being simple to implement and feasible in both the academic and community inpatient settings, this study also showed that its implementation can lead to improved achievements of quality metrics, which highlights the need for ongoing strategies to improve the use of venous thromboembolism prophylaxis and avoidance of opiates in inpatient UC. Future work could even help to validate a similar approach in patients with Crohn’s disease or in the outpatient setting, but in the meantime, this study supports ongoing prevention efforts against serious complications in hospitalized UC patients.

If you’re interested in this topic or others on Crohn’s disease or ulcerative colitis, the Crohn’s & Colitis Foundation’s Inflammatory Bowel Diseases Journal provides the most impactful and cutting-edge clinical topics and research findings. For more information on the Foundation, please visit crohnscolitisfoundation.org.

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