

# Computer-assisted sedation reduces patient recovery time by almost 20 percent

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Use of computer-assisted propofol sedation for routine upper endoscopy and colonoscopy reduced recovery room time by almost 20 percent, according to a study (abstract 1054) released today at Digestive Disease Week (DDW) 2015. The study, conducted by researchers at Virginia Mason Medical (VMMC) Center, Seattle, WA, showed the process yielded a better recovery experience than the commonly used combination of midazolam and fentanyl.

"Some [patients](#) do not respond well to sedation with midazolam and fentanyl, and others find that these two medications cause them to be in a 'fog' immediately after they wake up," said Andrew Ross, MD, section chief for gastroenterology and director of the Therapeutic Endoscopy Center of Excellence at the Digestive Disease Institute at VMMC.

"Results from our study demonstrate that clinicians can use computer-assisted propofol sedation (CAPS) for these patients and shorten their [recovery time](#)."

Seeing the need for an alternative to midazolam and fentanyl sedation, gastroenterologists and anesthesiologists at VMMC came together to test the CAPS system to see if it could be a safe and effective sedation system for their routine upper endoscopy and colonoscopy patients.

In their study, researchers utilized the CAPS system on 1,466 patients who were either Class 1 (considered normal and healthy) or Class 2 (suffer from mild systemic diseases), as defined by the American Society of Anesthesiologists (ASA). After undergoing their [endoscopic](#)

[procedure](#), CAPS patients had an average recovery time of 27 minutes, which was 6 minutes or, almost 20 percent, faster than similar patients at VMHC who underwent sedation with midazolam and fentanyl.

Normally, sedation using propofol requires that an anesthesiologist be present during each endoscopic procedure. However, with computer-assisted sedation, anesthesiologists do not have to be involved in each procedure, but must be available when needed, giving hospitals and health systems the ability to more efficiently staff the procedures.

"Early results from patient and clinician experience surveys suggest that satisfaction scores with computer-assisted propofol sedation are higher for both patients and clinicians compared to standard procedures," said Dr. Ross. "Clinicians provided a much higher satisfaction score, because they believe CAPS provided a better level of sedation than other methods, while patients reported a slightly higher satisfaction score focusing on their recovery."

Dr. Ross added that, while the data demonstrate that computer-assisted propofol sedation worked well, the [sedation](#) method cannot be used with all patients. The evidence supports use of CAPS only in Class 1 and Class 2 patients.

Researchers suggest that additional studies should be conducted to see if there may be any other benefits to CAPS, beyond reducing recovery time, such as how it may change work flow in a hospital's endoscopic unit. They also believe further patient analysis should be done to determine what factors make for an ideal CAPS patient.

**More information:** Dr. Andrew Ross will present data from the study "The first U.S. experience with computer assisted propofol sedation," abstract 1054, on Tuesday, May 19, at 4:45 p.m. ET, in room 152 of Walter E. Washington Convention Center.

Provided by Digestive Disease Week

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