

## **Patient Perspectives on ACE (At-home video Capsule Endoscopy) : A Novel Approach to Gastrointestinal Imaging**

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### **Introduction:**

Unlike traditional GI investigations, At-Home Capsule Endoscopy (ACE) allows patients to maintain their daily routines while the capsule is in transit, offering comfort, reduced embarrassment, and a non-invasive nature of GI examination. It was developed during the Covid-19 pandemic allowing patients to complete the test remotely with virtual medical support. This study evaluates patient perceptions and satisfaction with ACE.

### **Methods:**

Between April 2021 and June 2022, 100 patients that underwent ACE were offered a self-reported, anonymous questionnaire. The questionnaire featured five-point Likert response options (“to a very small extent”, “to a small extent”, “somewhat”, “to a large extent” and “to a very large extent”) and inquired about their experiences and perceptions before, during and after the ACE. Additional inquiries included overall satisfaction on a scale of 1 to 10 and preferences for future bowel investigations, with more emphasis on the lower GI tract. Descriptive statistics were used for data analysis.

### **Results :**

A total of 84 (84% response rate) patients completed post-ACE questionnaires. The average age was 40 years (SD 15.9, Range 15-85), 60.6% were females. Nearly 95% of patients reported adequate support from hospital staff during ACE. The majority reported being able to swallow the capsule without any problems (91.3%), 92.1% had no pain, 96% no embarrassment or tiredness from the procedure (60%).

Significantly, 80% expressed high satisfaction levels ('to a large' or 'very large extent'), and 83.3% preferred future tests to be conducted at home rather than in hospital. A considerable portion of ACE patients (43%) maintained regular work activities on the test day, while 5 respondents (6%) took only a half day off, and 26 respondents (31%) took a full day off from work (20.2% no response). Respondents indicated that if the procedure had been administered at the hospital, they would have needed to take a full day off from work (54.2%).

### **Conclusion:**

This study is the first to present patient experience data on ACE and demonstrates it is both feasible and well-received by patients in terms of not causing pain, embarrassment or anxiety and saving time off work. Our findings indicate the potential of ACE as a more attractive, favorable, and less disruptive alternative to traditional at hospital GI investigations, such as conventional colonoscopy. Future research should compare remote with on-site capsule endoscopy to further elaborate on true patients' preferences and identify specific patient groups that might benefit more from this approach.