



## Effective Health Care SmartPill Wireless Motility Capsule Nomination Summary Document

### Results of Topic Selection Process & Next Steps

- SmartPill wireless motility capsule procedure will go forward for refinement as a systematic review. The scope of this topic, including populations, interventions, comparators, and outcomes, will be further developed in the refinement phase.
- When key questions have been drafted, they will be posted on the AHRQ Web site and open for public comment. To sign up for notification when this and other Effective Health Care (EHC) Program topics are posted for public comment, please go to <http://effectivehealthcare.ahrq.gov/index.cfm/join-the-email-list1/>.

### Topic Description

**Nominator:** Public policy maker/payer

**Nomination Summary:** This nomination is concerned about the effectiveness and comparative effectiveness of the SmartPill wireless motility capsule procedure for the diagnosis of gastrointestinal motility and functional disorders.

**Staff-Generated PICO**

**Population(s):** Patients (especially Medicare population) with suspected gastrointestinal motility disorders including delayed gastric emptying (gastroparesis) and chronic constipation

**Intervention(s):** SmartPill wireless motility capsule procedure

**Comparator(s):** Other diagnostic aids for gastrointestinal disorders including radiopaque markers

**Outcome(s):** Ability to assess motility and transit time and improve diagnosis and management of patients with motility disorders

**Key Questions from Nominator:**

1. Is the wireless motility capsule (i.e., SmartPill) safe and effective in the diagnosis and management of gastrointestinal motility disorders including gastroparesis and refractory constipation?
2. Can the SmartPill replace radiopaque markers?

## Considerations

- The topic meets all EHC Program selection criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Motility disorders such as gastroparesis and chronic constipation are common and can cause mild to severe symptoms that can affect quality of life. Diabetic patients with gastroparesis are of major concern as the incidence and prevalence is growing. The current gold standard diagnostic methods for motility disorders include scintigraphy and the use of radiopaque markers; however, newer technologies such as the SmartPill procedure are being approved for use in place of or adjunctively to the current standard testing methods. It is important to understand the harms and benefits of newer tests compared with current standards.
- The SmartPill procedure has been described as having advantages to current standard testing methods including less radiation exposure, a more standardized diagnostic approach, convenience, and a more detailed diagnostic profile; however, the technology may have limited patient selection, contraindications, and may not always avoid radiation exposure. The SmartPill has not been studied extensively in the context of other testing methods, and most available studies have been sponsored by the manufacturer. The current standard for diagnostic testing for motility disorders and newer testing methods such as the SmartPill will be addressed in a new comparative effectiveness review by the EHC Program.