



# Effective Health Care

## Polypill to Improve Adherence and Treatment of Risk Factors for Coronary Artery Disease

### Nomination Summary Document

#### Results of Topic Selection Process & Next Steps

- *Polypill to Improve Adherence and Treatment of Risk Factors for Coronary Artery Disease* is an important topic, but the polypill is only currently available as a customized pill via compounding pharmacies; there is no FDA-approved standard polypill. In addition, there is limited information regarding the polypill as a secondary prevention strategy for coronary artery disease (CAD) or cardiovascular disease (CVD) and a number of ongoing trials. Although this topic is important, given these factors, other topics have higher priority for limited program resources. No further activity on this topic will be undertaken by the Effective Health Care (EHC) Program.

#### Topic Description

**Nominator(s):** *Organization*

**Nomination Summary:** The nominator is interested in the use of the polypill as a secondary prevention strategy for coronary artery disease. The nomination asserts that it is unclear how a polypill would meet the needs of individual patients who may lack indications for a combination pill designed for both blood pressure and lipid reduction. The nominator is also uncertain whether the polypill will improve medication adherence and the treatment of cardiovascular risk factors.

**Staff-Generated PICO [**

**Population(s):** Individuals with established coronary artery disease

**Intervention(s):** Polypill, with fixed doses of two or more medications, for secondary prevention of cardiovascular events

**Comparator(s):** Polypill components each taken as individual agents (regardless of dosing strategy)

**Outcome(s):** Adherence and prevention of adverse cardiovascular events

**Key Questions from Nominator:** Does the polypill improve adherence and the treatment of risk factors for coronary artery disease?

#### Considerations

- The topic does not meet all of the EHC Program appropriateness criteria; there is no FDA-approved standard polypill. (For more information, see

[http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.](http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/))

- Coronary artery disease (CAD) is a leading cause of death. Current strategies for secondary prevention of CAD include pharmacologic and other approaches to managing blood pressure, cholesterol, and weight. Secondary prevention can be associated with low adherence to one or all interventions.
- Use of a polypill may improve treatment outcomes in patients and have an impact on risk factors for CAD through a proposed increase in adherence to recommended treatment.  
Currently there is no standard FDA-approved polypill. In addition, the majority of completed studies focus on primary prevention (using study populations with no indication for pharmacologic treatment of CVD) and not secondary prevention, which is the focus of the topic nomination. Based on the study protocols shown in ClinicalTrials.gov, ongoing trials will provide additional information regarding polypill use in secondary prevention.
- While the polypill has potential public health impact, the lack of standard components, the lack of published evidence in secondary prevention of CAD, and the presence of ongoing trials make it a lower priority for further research at this time. It was suggested that the topic be revisited when new evidence is available from ongoing clinical trials. At this time, no further activity on this topic will be undertaken by the Effective Health Care (EHC) Program.
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