

- Title** Extracorporeal Shockwave Myocardial Revascularization (ESMR)
- Agency** HTA Malaysia, Health Technology Assessment Section, Medical Development Division, Ministry of Health Malaysia  
Level 4, Block E1, Parcel E, Presint 1,  
Federal Government Administrative Center, 62590 Putrajaya, Malaysia  
Tel: +603 88831229, Fax: +603 88831230; htamalaysia@moh.gov.my, www.moh.gov.my
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[http://www.moh.gov.my/index.php/database\\_stores/store\\_view\\_page/30/253](http://www.moh.gov.my/index.php/database_stores/store_view_page/30/253)

**Aim**

To review evidence on the effectiveness, safety and cost-effectiveness of using ESMR therapy for treatment coronary arterial disease patients.

**Conclusions and results**

Extracorporeal Shock wave Myocardial Revascularization therapy (ESMR) has potential as an effective, non-invasive intervention in the treatment of patients with CAD. There was one retrievable study reporting that, this ESMR device was well tolerated. Only minimal discomfort was reported during the treatment procedure. However, more clinical studies such as Randomised Controlled Trial are needed to provide high quality evidence to show its effectiveness and safety profile in terms of relevant outcomes measurement and identification of complications.

**Recommendations (if any)**

Based on the review, further research is warranted to compare ESMR therapy with current treatment such as Drug Eluting Ballon, Percutaneous Coronary Intervention and Coronary Artery Bypass graft surgery for non option patients.

**Methods**

Literatures were searched through electronic databases specifically PubMed, Medline, Cochrane, Ovid, Horizon scanning databases, other websites; US FDA, MHRA and from non scientific database - Google search engine. In addition, a cross-referencing of the articles retrieved was also carried out accordingly to the topic. Relevant articles were critically appraised and evidence graded using US/Canadian Preventive Services Task Force.

**Further research/reviews required**

Percutaneous Coronary Intervention (PCI) and Coronary Artery Bypass Graft (CABG) surgery are invasive and sometimes associated with high risk of complication. This ESMR device is created as an alternative way to treat CAD patients. However, the evidence on its benefits with high quality of evidence particularly related to clinical outcomes is warranted.

**Written by**

Dr. Shahril Effendi Bin Shuib, MaHTAS, Malaysia