## Supplement

Table 1. Examples of messages

<table>
<thead>
<tr>
<th>Control Group</th>
<th>Intervention Group (besides social media messages)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social media messages</strong></td>
<td><strong>Personalized reminder</strong></td>
</tr>
<tr>
<td>Severe atherosclerosis of the coronary artery results in an insufficient supply of blood to the coronary artery, leading to myocardial ischemia and hypoxia.</td>
<td>- <em>For patients with diabetes</em></td>
</tr>
<tr>
<td>People who are anxious in mental activity and engage less in physical work are susceptible to coronary heart disease.</td>
<td>- It is recommended that you check your blood glucose regularly.</td>
</tr>
<tr>
<td>Smoking can increase the risk of coronary atherosclerosis and stroke.</td>
<td>- Did your blood glucose meet the requirements today?</td>
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<tr>
<td></td>
<td><strong>Medication reminder</strong></td>
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<tr>
<td></td>
<td>- Aspirin helps to prevent plaque formation.</td>
</tr>
<tr>
<td></td>
<td>Please taking aspirin once per day.</td>
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<tr>
<td></td>
<td>- Did you take your antiplatelet drugs today?</td>
</tr>
<tr>
<td></td>
<td><strong>For patients with hypertension</strong></td>
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<tr>
<td></td>
<td>- Your blood pressure is a little high today; please continue to monitor it.</td>
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<tr>
<td></td>
<td><strong>Interactive responses (crawling the keywords)</strong></td>
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<tr>
<td></td>
<td>- Asked by users: What can people with coronary heart disease eat?</td>
</tr>
<tr>
<td></td>
<td>- Auto-response: Eat: food with low salt and fat.</td>
</tr>
</tbody>
</table>
-Asked by users: How to deal with a stomach-ache after taking medicine
-Auto-response: Stomach-ache: If there is an emergency, please go to the hospital for immediate treatment/first aid.
Table 2 Characteristics of randomized controlled trials with intervention to improve patients’ lifestyle among patients with coronary heart disease

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Duration</th>
<th>Population</th>
<th>Primary endpoint &amp; Secondary endpoint</th>
<th>Experimental group vs Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karla et al, 2018¹</td>
<td>RCT</td>
<td>3 months</td>
<td>163 patients with CHD</td>
<td>Drug adherence (MMAS-8 score) &amp; Blood pressure and cholesterol levels</td>
<td><strong>Intervention group</strong> Basic APP: alarm &amp; Blood pressure Advanced APP: record and snooze the pause <strong>Control group</strong> - usual medical care</td>
</tr>
<tr>
<td>Salvi et al, 2018²</td>
<td>RCT</td>
<td>24 months</td>
<td>118 patients with MI</td>
<td>Education level about heart-related health improve more in the intervention groups (p=0.01), Exercise habits improved without</td>
<td><strong>Intervention group</strong> - the mobile station: a wearable sensor capable with app - the patient station: feedback and educational information - the professional station: monitor patients and generates alerts</td>
</tr>
<tr>
<td>Study</td>
<td>Design</td>
<td>Duration</td>
<td>Participants</td>
<td>Interventions</td>
<td></td>
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</tbody>
</table>
| Bravo-Escobar et al, 2018<sup>3</sup> | RCT    | 2 months | 28 patients  | **Control group**<br>- receiving standard rehabilitation

**Intervention group**<br>- hospital exercise once a week  
- exercised at home following a program monitored with a remote electrocardiographic device

| Clara et al, 2016<sup>4</sup> | RCT    | 6 months | 710 patients | **Intervention group**<br>- TM providing lifestyle advice, motivational reminders, and support to change lifestyle behaviors (four times a week)

**Control group**<br>- hospital exercise 3 times a week  
- encourage to do exercise at home  

- usual medical care

**Control group**
- hospital exercise 3 times a week  
- encourage to do exercise at home  
- usual medical care

**Intervention group**
- TM providing lifestyle advice, motivational reminders, and support to change lifestyle behaviors (four times a week)

**Control group**
- hospital exercise 3 times a week  
- encourage to do exercise at home  
- usual medical care
### Linda et al, 2015

**RCT** 30 days  90 patients with CHD  

There was no significant difference in the improvement as a function of the different treatment groups (F(2,6.24) =0.45, p=0.64).

### Control group  
- Usual care/No TM

### TM Reminders+ TM Education group  
- Two-way reminders messages on drug  
- One-way health messages

### TM Education group  
- One-way health messages

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### Leila et al, 2015

**RCT** 6 months  123 patients with CHD  

The intervention group reported significantly greater medication adherence score (mean difference: 0.58, 95% CI 0.19-0.97; P=.004).

### Intervention group  
- 24 week text message program and access to website  
- Standard CR services  
- 3-month phone call

### Control group  
- Standard CR services  
- 3-month phone call
<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Duration</th>
<th>Participants</th>
<th>Intervention/Usual Care</th>
<th>Comparator</th>
</tr>
</thead>
</table>
| Vernooij et al, 2012'   | RCT    | 12 months| 330 patients with atherosclerosis | A relative change of -12% (-22% to -3%) in Framingham heart risk score for the intervention group compared with the usual care group | Intervention group: Personalized website, Nurse reminder
|                        |        |          |              | Usual care group: Usual care by doctor |
| Blasco et al, 2012'     | RCT    | 12 months| 203 patients with ACS | Telemonitoring group experience improvement in cardiovascular risk factors profile than control patients (RR 1.4; 95% CI 1.1-1.7) | Telemonitoring group: health data website, health recommendation messages, lifestyle counseling, usual-care treatment
|                        |        |          |              | Control group: lifestyle counseling, usual-care treatment |
| Reid et al, 2012'       | RCT    | 6 months | 223 patients after PCI | Emotional (p<0.038) and physical (p<0.031) dimensions of | Intervention group: 6-month online tutorials, feedback email

enrolling in cardiac rehabilitation.

heart disease

Control group

-physical activity guidance from doctors

and book

in CardioFit group.

RCT=randomized controlled trial

TM=text messages

CR=cardiac rehabilitation


Coronary Heart Disease: A Randomized Clinical Trial. *JAMA*. 2015;314:1255-63.


