Role of Cardiologist in smoking cessation program

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Agenda

• Facts about smoking and benefits of cessation
• CR program... What does it include?
• Smoking cessation as a part of CR program
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• Smoking is the most important of the known modifiable risk factors for CHD (US dept. of health & human services 1983)

• Even *light smokers* are found to have increased risk of CHD. Research shows that women who smoked 1-4 cigarettes per day had a relative risk of 2.5 of fatal CHD (Bartecchi et al 1994)

• Studies have also shown that *passive smokers* or those exposed to *second hand smoke* are at increased risk of cardiovascular mortality and morbidity (He et al 1999)
• **Stopping smoking** decreases the risk of subsequent mortality & further cardiac events among patients with CHD by as much as 50%, thus more than any other intervention or treatment given!!! *(critchley et al 2003)*

• Research shows that if all smokers decreased their amount of cigarettes smoked to 10 cig./day, this could lead to CHD reduction of 5.2% for men and 4.5% for women *(McPherson et al 2002)*

• Almost 35% of smokers report having made at least one serious attempt to quit within the last year & 80% have tried to quit at some point in their smoking history *(Hatziandreu et al 1990, US dept. health & human services 1989)*

• Having a cardiac event increases the chances a person will attempt to quit (35-75% vs 8%) *(Frid et al 1991)*

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![Image of smoking facts]
Agenda

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**CR program... What does it include?**

• Smoking cessation as a part of CR program

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What is Cardiac Rehabilitation?

“The sum of activities required to ensure cardiac patients the best possible physical, mental and social conditions so that they may, by their own effort, regain as normal as possible a place in the community and lead an active life”.

World Health Organization

The AACVPR & the AHA have refined the definition slightly, stating that, “cardiac rehabilitation refers to coordinated, multifaceted interventions designed to optimize a cardiac patient’s physical, psychological, and social functioning, in addition to stabilizing, slowing, or even reversing the progression of the underlying atherosclerotic processes, thereby reducing morbidity and mortality.”

*Circulation. 2005;111(3):369-376*
Goals of CR

1. Control cardiac symptoms
2. Reduce the risk for sudden death or re-infarction.
3. Enhance the psychosocial & vocational status of selected patients (preventing disability)
4. Stabilize or reverse the atherosclerotic process.

What is the Status of CR in the guidelines?
1. All eligible patients with ACS or whose status is immediately post coronary artery bypass surgery or post-PCI should be referred to a comprehensive outpatient cardiovascular rehabilitation program either prior to hospital discharge or during the first follow-up office visit (55,154,161,163). *(Level of Evidence: A)*

2. All eligible outpatients with the diagnosis of ACS, coronary artery bypass surgery or PCI *(Level of Evidence: A)* (55,154,155,161), chronic angina *(Level of Evidence: B)* (161,163), and/or peripheral artery disease *(Level of Evidence: A)* (158,164) within the past year should be referred to a comprehensive outpatient cardiovascular rehabilitation program.

3. A home-based cardiac rehabilitation program can be substituted for a supervised, center-based program for low-risk patients (153,159,160). *(Level of Evidence: A)*

**Table 1** Performance measures in NSTEMI patients

| Use of aspirin |
| Use of clopidogrel/prasugrel/ticagrelor |
| Use of UFH/enoxaparin/fondaparinux/bivalirudin |
| ß-Blocker at discharge in patients with LV dysfunction |
| Use of statins |
| Use of ACE-inhibitor or ARB |
| Use of early invasive procedures in intermediate- to high-risk patients |
| Smoking cessation advice/counselling |
| Enrollment in a secondary prevention/ cardiac rehabilitation programme |
Guidelines on myocardial revascularization

The Task Force on Myocardial Revascularization of the European Society of Cardiology (ESC) and the European Association for Cardio-Thoracic Surgery (EACTS)

Myocardial revascularization must be accompanied by adequate secondary prevention strategies: OMT, risk factor modification, and permanent lifestyle changes. Cardiac rehabilitation and secondary prevention are an essential part of long-term management after revascularization because such measures reduce future morbidity and mortality, in a cost-effective way.

ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2012

Recommendations for exercise prescription and multidisciplinary management

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Classa</th>
<th>Levelb</th>
<th>Refc</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is recommended that regular aerobic exercise is encouraged in patients with heart failure to improve functional capacity and symptoms.</td>
<td>I</td>
<td>A</td>
<td>262, 263</td>
</tr>
<tr>
<td>It is recommended that patients with heart failure are enrolled in a multidisciplinary-care management programme to reduce the risk of heart failure hospitalization.</td>
<td>I</td>
<td>A</td>
<td>236, 259, 264</td>
</tr>
</tbody>
</table>
Components of a CR program

- Medical Evaluation
- Nutritional Counseling
- Physical Activity Counseling
- Risk Factor Modification
- Psycho-social management
- Prescribed Exercise Training


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Patients who continue to smoke upon enrollment are subsequently more likely to drop out of CR programs.
What a cardiologist can do to help smokers quitting???

1. At **first encounter** with the patient e.g. phase I or phase II → assess *smoking habit* and *willingness to quit* +- dependence assessment (??)

2. **Brief advice** can be given through CR team members at every encounter with documentation of patient response
   1. If patient willing to quit → **5 A's**
   2. If patient not willing to quit → **5 R's (motivation)**

3. **Group management** through smoking cessation specialist (psychiatrist!!) for patients and their relatives .. On regular basis in addition to stress management and psychiatric support (behavioural changes)

4. Formal referral to **smoking cessation clinic** → Pharmacotherapy

5. **Follow up** to Prevent relapses
STEP ONE: Initial Assessment

- If phase One CR is being done (inpatient) → brief history and advice
- Usually patients are seen within 1-2 weeks of hospital discharge after MI or CHF attack... this is a **good time to ask about detailed smoking habit and willingness to quit**
- Studies have shown that 20-60% of smokers quit after the diagnosis of acute MI. .. That’s also related to severity of disease !!
- Ask the patient about:
  - Smoking status and use of other tobacco products
  - Amount of smoking (cigarettes per day)
  - Duration of smoking (number of years)
  - Exposure to second-hand smoke at home and at work
  - Previous attempts to quit and causes of failure.
- Determine readiness to quit.
- Assess for psychosocial factors that may impede success.
- **Update status at each visit**
All smokers should receive non-judgemental, clear, and unambiguous advice to consider making a quit attempt using a clear, personalized message.

“This can be done by cardiologists, nurses and junior staff (after a short training session)”

Then: 5 A’s OR 5 R’s
5 D’s—to Help Fight Cravings

Delay: Increase the interval between cigarettes.
Drink Water: Keep your mouth occupied.
Do Something Else: Distract yourself.
Deep Breathe: Use relaxation techniques like yoga.
Discuss Your Feelings: Call a friend or your local quit line.

CLEAN YOUR HOUSE

Once you’ve Smoked your Last Cigarette, Clean House
Toss your ashtrays and lighters. Wash clothes that smell like smoke and clean your carpets, draperies, and upholstery. Use air fresheners to rid your home of that familiar scent. You don’t want to see or smell anything that reminds you of smoking.

EAT HEALTHY

Eat More More Fruits, Vegetables, and Low-Fat Dairy Products While Giving Up Cigarettes

These foods make cigarettes taste terrible and will give you a leg up in fighting your cravings while providing disease-fighting nutrients.

The $R_5$

If patient NOT willing to quit

Relevance: Tailor advice and discussion to each patient.
Risks: Outline risks of continued smoking.
Rewards: Outline the benefits of quitting.
Roadblocks: Identify barriers to quitting.
Repetition: Repeat messages at every visit.

"Everytime you smoke I'll give you this shot. If this doesn't motivate you to stop smoking, then nothing will."

www.quituniform.com
Behavioral approaches to smoking cessation

(1) **Cold turkey** → quit without gradual reduction of nicotine, most successful after cardiac events and easier *(patient stays few days in hospital without smoking and ....cannot deny negative effects on health)*

**BUT it is not the best method for (elective) smoking cessation**

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"Cold turkey is the most common method of quitting among successful ex smokers."

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So you Want to Quit Smoking? Don't Go Cold Turkey

About 95% of people who try to stop smoking without therapy or medication end up relapsing. The reason is that nicotine is addictive - the brain becomes used to having it and craves it. In its absence, the symptoms of nicotine withdrawal occur.
(2) **Brand switching “warm chicken”**

Gradual reducing the amount of nicotine delivered to the body... this can help those with strong nicotine dependence

* e.g. switch from 1.7 mg to 0.9 – 0.7 - 0.5 – 0.2 (1 week each)

*Under the Family Smoking Prevention and Tobacco Control Act (FSPTCA), the Food and Drug Administration (FDA) banned the use of “Lights” descriptors or similar terms on tobacco products that convey messages of reduced risk.*

**It’s Not The Nicotine Itself, It’s The Cigarette ...**

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(3) **Cutting back:**

- Reduce number of cigarettes smoked per day
- Conflicting results but may help those who are highly dependent on nicotine and cannot afford to buy pharmacotherapy!!!!!
Example: Quit Smoking in 5 Simple Steps

**First:** Identify your goal. Quit smoking (currently smoking 1 pack or 20 cigarettes a day)

**Second:** Divide your goal into 5 Measurable Steps. (see table)

**Third:** Wear Bracelet 1 until you conquer Step 1, then switch to Bracelet 2 and attack Step 2.

**Fourth:** Continue to change Bracelets after achieving each step until you reach your goal!

<table>
<thead>
<tr>
<th>Step</th>
<th>Goal</th>
<th>Achievement</th>
<th><strong>Date</strong></th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Smoke 4 less</td>
<td>Smoke 16/day</td>
<td>04/01</td>
<td>Piece of cake!</td>
</tr>
<tr>
<td>2</td>
<td>Smoke 4 less</td>
<td>Smoke 12/day</td>
<td>04/27</td>
<td>It got more difficult, especially while going out with friends</td>
</tr>
<tr>
<td>3</td>
<td>Smoke 4 less</td>
<td>Smoke 8/day</td>
<td>06/24</td>
<td>Starting to run again and drink water</td>
</tr>
<tr>
<td>4</td>
<td>Smoke 4 less</td>
<td>Smoke 4/day</td>
<td>07/22</td>
<td>No more cigarette breaks at work</td>
</tr>
<tr>
<td>5</td>
<td>Smoke 4 less</td>
<td>Smoke 0/day</td>
<td>08/19</td>
<td>Reached my goal!</td>
</tr>
</tbody>
</table>

*This chart shows the realistic plan for an individual that cut down by 1 cigarette/week

**Actual completion date**

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**STEP THREE:** Group sessions & motivation

- Common advices
- Interactive sessions
- Simple language
- Stress management
- Refer for pharmacotherapy if needed
**STEP FOUR**: Refer to smoking Clinic for pharmacotherapy → NRTs or bupropion/..

- **Main Barriers to Quitting**: Weight Gain and Depression

![Graph showing weight gain after smoking cessation](image)

**STEP Five**: Prevent relapse by continuous follow up:

- Receive congratulations on any success and strong encouragement to remain abstinent.
- Schedule follow up visits or phone calls.
- Identify and treat any negative mood or depression.
- Insist on a healthy diet and exercise to avoid weight gain with quitting smoking.

"To show you how happy I am that you quit smoking, feel free to take an extra 2 minutes at lunch today."

© QuitSmoking.com  www.quitsmoking.com
Preparation before starting smoking cessation program

- Training of junior staff and nurses regarding giving brief advices.
  This is done once monthly through smoking specialist.
- Assessment sheets including smoking advices and Fagerstrom dependence.

N.B.: Auditing, Data management, and research should be incorporated.
These words are written on the wall on your way to CCU in Demerdash hospital !!!!!

لَا أَعْشَى، سَوَى سَجَارَتي
ِ زَادَ أَمْوَتٍ مِنْ إِجْرَاءِها
وَهَٰلَكْتُ يُنَحْفِّي، مَرَّ أَحَدَ

Ready to quit?

The End
Thank you!

What fits your schedule better? Stop smoking every day or being dead 24 hours a day?

"That's the third smoker we've lost this week."