

# Health management plan for smoker with heart disease



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## Introduction

Cigarette smoking is still the leading cause of preventable death in the developed world. In the UK it is estimated to cause serious illness in 4.5 million people and kills about 300,000 people each year. Frieden estimates that it kills 5 million people in the world annually. (Frieden et al. 2005)

This essay will consider the management plan for an idealised patient who smokes and has recently been diagnosed with ischaemic heart disease. There is a great deal of evidence in the literature which links smoking with both increased incidence and increased morbidity and mortality in heart disease. (Molyneux et al. 2004). It follows therefore that every effort should be made to encourage a patient who smokes to quit at the first opportunity. There is some evidence to suggest that one of the optimum times to successfully persuade a patient to quit smoking is when they have had a smoking related health event. (Ferguson et al. 2003)

In the context of this essay one can assume that, having just been diagnosed with some form of heart disease, this would be an optimum time to instigate such an intervention.

## Pathophysiology

Cigarette smoking is known to be a major health hazard. It is significantly implicated in virtually all aspects of both cardiovascular morbidity and mortality. (Missel et al. 2008). In terms of pathophysiology, cigarette smoking has an effect on all phases of the atherosclerotic process from the earliest detectable signs of endothelial dysfunction to clinically significant

thrombotic clinical events. There appears to be little difference in the implications of active or passive smoking as the effects appear to be largely dose (exposure) related. (Heiss et al. 2008). The mechanisms by which cigarette smoking exerts its pathological effects are complex, but it is known to increase inflammation, enhance the thrombotic processes and increases the oxidation of LDL cholesterol. Cigarette smoking increases the oxidative stress on the body. (O'Connell et al. 2008). These smoking-specific effects are accumulative. And there is evidence to support the view that persuading a patient to reduce his intake is beneficial, even though this is clearly not as beneficial as complete cessation. (Wood-Baker 2002)

## Goals

Any management plan should ideally have goals. This does not imply that they will all be achieved, but all of the processes identified and activities embarked on should have the ideal goal as their ultimate target. In this particular case, one can define several goals which will assist in the process of smoking cessation and management of their heart disease.

- A) To ensure that the patient understands their condition.
- B) Empowerment and education of the patient so that they can participate in their management plan with understanding and commitment
- C) To assist the patient in the medical treatment of the acute phase of their condition.
- D) To rehabilitate the patient after the acute stages are stabilised

E) To engage with the patient's carers (formal and informal) to optimise the patient's return to health

F) To assist the patient to quit smoking

G) To support the patient as they negotiate their illness trajectory.

Clearly there may well be other goals that could be considered and may arise in specific cases. This essay however, is dealing with the generalised patient. These goals are therefore designed to be applicable to the majority of cases of patients who smoke and have heart disease.

### Assessment

The assessment of a patient begins at the first point of contact. Information can be gleaned from many sources and should be appropriate to the presenting condition. Assessment should be holistic and thorough. In this specific case, one should make particular enquiries relating to factors that are relevant to the patient's lifestyle (relevance to their heart disease) and to their personal habits (relevance to their smoking pattern). One should pay particular attention to the factors that may make them wish to persist in their habit of smoking so that they can be specifically addressed when smoking cessation is discussed. Targeted interventions are more likely to be effective than blanket ones. (Rigotti et al. 2004). In consideration of their heart disease, one should make specific enquiries in relation to their eating and exercise habits as well as their willingness to participate in any proposed lifestyle change programme that may be suggested.

Interventions and broad nursing strategies.

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Clearly the term “ heart disease” covers a multitude of potential pathologies and it is not practical to consider specific interventions for all possibilities. In the context of this essay, one will consider broad strategies which are applicable to most situations.

#### 1) Encourage compliance with drug regimens:

Drugs are commonly prescribed in association with heart disease. They can be as part of a primary intervention such as controlling blood pressure (antihypertensives) or perhaps for improving cardiac output (digoxin) or for controlling secondary pathologies (viz. lipid lowering medication, diabetic treatment, anticoagulants).

There is a case for using nicotine replacement medication. If this is the case then compliance with an appropriate dose and reducing regime will enhance the likelihood of success. (Parrott et al. 2004)

The nurse can assist by encouraging the patient to comply with the regime. They may choose to do this by explaining to the patient why the various drugs are important and how they work or, if compliance is a persistent problem, by acting as the patient’s advocate and discussing with other healthcare professionals if alternative dosing regimes may assist compliance.

#### 2) Facilitate recovery from the illness:

This is a vast topic and will, to a large extent, be dependent on the disease process. Clearly the patient who has modest hypertension will require quite

different input from the patient who has just sustained a major myocardial infarction.

In the acutely debilitated patient, the nurse will need to play a more active and practical role than with the ambulant and largely well patient. Because of the emphasis of this essay on smoking cessation one can specifically include this as a major task in this area of the management plan. The specific details and treatment options will be discussed later. There is evidence that by assisting the patient to quit smoking, this will directly assist in the recovery process from the heart disease. (Siahpush et al. 2003)

### 3) Provide emotional support:

This may be relevant in the patient who smokes primarily for reasons of anxiety or stress. Exploration of the causative factors is clearly relevant if any targeted approaches are going to be effective. If the heart disease is newly diagnosed, additional support may be required to help the patient adapt from a perceived wellness role to an illness role. (Roy. 1991). In this segment one should note that there is some suggestion that the anxiety sometimes caused by the process of smoking cessation can be counter-productive to the treatment of some forms of heart disease. There does not appear to be a strong evidence base to support this intuitive view however. (Sullivan et al. 2007)

### 4) Prevent the disease:

It is known that patients who have smoked will always have a higher lifetime risk of disease than those who have never smoked. Absolute prevention is

therefore not possible. Patients who smoke and are then persuaded to stop, can reduce their risks very considerably. It is known that patients who stop smoking will reduce their risks of myocardial infarction by 50% in the first year of smoking cessation. (Prescott et al. 1998)

#### Expected outcome

One can hope to assist the majority of patients to quit smoking. To a degree, one has to accept that there will always be a resistant nucleus of individuals who will (for whatever reason) simply not give up. It is not possible to predict, in advance of the intervention, which patients will be in the group that eventually relapses, therefore all patients should be helped equally aggressively. If one considers the results of the Hilleman trial, one is faced with the remarkable prospect that in a study of post CABG patients (who one might assume had the greatest incentive to quit smoking) a staggering 84% were back smoking within 10 weeks of the operation despite a huge input of anti smoking propaganda. (Hilleman et al. 2004)

#### Patient empowerment and education

A number of sources highlight patient empowerment and education as one of the prime predictors in a positive decision to quit smoking. (viz. Edwards 2004). If a patient understands the reasoning behind why they are being asked to undertake a health programme they are more likely to comply with it. Education is therefore one of the major factors in the various programmes designed to help patients give up smoking. Empowerment is another prime factor. Many studies have highlighted the need to stress self-belief in the

patient and that the degree of self-belief equates strongly with a positive result. (viz. Miller et al. 2003)

### Smoking cessation

A brief overview of the literature on smoking cessation will indicate that the subject is vast and that many different approaches have been tried with varying degrees of success. It is not appropriate to consider all of the various options, but this essay will cover those that appear to have the greatest reported degrees of success. Fung considered interventions that were suitable for hospitalised patients and of the four different regimes trialed, found that a regime which incorporated face-to-face counselling to identify risk factors for smoking

Maintenance, individualising advice about quitting, involving patients in education measures (particularly exploration of the health effects and the benefits of quitting), was the most effective. (Fung et al. 2005). The authors also make the comment that the single most effective strategy was to get the smoker to adopt specific coping strategies such as disassociating the act of smoking from their normal daily routine and habits. They were asked not to smoke inside the home or inside the car, not to smoke with coffee or when reading or directly after a meal. Encouraging the family and friends to support them was the next most effective strategy. (Town et al. 2000)

Many authorities advocate the use of nicotine replacement therapy (viz. Sullivan et al. 2007). Currently this is available in several presentations with the transdermal patches appearing to give the best rates of prolonged abstinence (about double that of placebo). Even the best results from trials <https://assignbuster.com/health-management-plan-for-smoker-with-heart-disease/>



however, do not give a success rate above 35% with the majority giving results in the region of about 20% abstinence at six months. (Hilleman et al. 2004)

### Follow up

Because of the high relapse rate in smoking cessation programmes, follow up is an essential part of the management plan. The literature is full of various follow up strategies ranging from time intensive home follow ups to phone call contacts. It would appear that no one particular form of follow up is significantly more effective than any other. It has been found that any form of follow up is more effective than no follow up at all.

### Conclusions

The evidence base to link cigarette smoking and heart disease is unchallengeable. Advising and helping a patient who has demonstrable heart disease to give up the habit is almost certainly going to have a beneficial effect on their long term health. In reaching this conclusion, one should not lose sight of the fact that there is a substantial failure rate. Any management plan to encourage the patient who smokes to quit, should make use of targeted interventions with follow up and consider using the approaches with optimum outcomes in order to achieve the best achievable response.

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