

# The Clinical Case for providing stop smoking support to Mental Health Patients

## Why intervene in secondary care?

1. Hospital patients are more receptive to 'Very Brief Advice' (VBA) and an offer of support to stop smoking, as they are often experiencing a period of heightened motivation
2. Giving VBA to a hospital patient (the '3 A's': Ask, Advise, Act) can also encourage compliance to the smokefree hospital policy, and highlight any need for withdrawal management. Providing Nicotine Replacement Therapy (NRT) to a patient during a period of forced abstinence, will ease nicotine withdrawal symptoms
3. Stopping smoking can lead to significant health benefits, and reduce post-operative complications and improve recovery time

## What is the aim of this 'clinical case' document?

The aim of this document is to provide clinical support for hospital staff in terms of supporting patients to stop smoking, even if this is just for a period of forced abstinence whilst in hospital. Being in hospital provides an opportune moment to intervene and provide both brief advice and support to stop smoking; including making a referral on to local stop smoking support. There are many benefits for a patient if they have temporary abstinence from smoking, including a shorter time for recovery and this can often stimulate a full attempt to stop smoking.

## What is the relationship between smoking and mental health?

Patients with severe mental illnesses, for example schizophrenia spectrum disorders and bipolar disorder, smoke at a much higher rate than the general population.<sup>1</sup> They are more highly dependent on tobacco, smoke more heavily, and die about 25 years earlier than the general population; mostly because of smoking-related illness.<sup>2,3</sup>

## Nicotine dependence and psychiatric disorders

- Nicotine dependence is positively associated with psychiatric disorders.<sup>4</sup>
- Patients with psychiatric disorders are more likely to experience severe withdrawal symptoms from cigarettes.<sup>5,6,7,8</sup>
- In patients with schizophrenia and schizoaffective disorder, typical antipsychotics may decrease patients' ability to stop smoking; whereas atypical antipsychotics decrease basal smoking and promote stop smoking support.<sup>9</sup>
- Schizophrenic patients who stopped smoking, experience impairments in visuospatial working memory.<sup>10,11</sup>

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### What are the health effects of stopping smoking on mental health patients?

There is conflicting evidence on the effect of stopping smoking on mental health state. Some studies have suggested that some symptoms of psychiatric disorders may be exacerbated by nicotine withdrawal<sup>12</sup> which makes stopping smoking difficult for mental health patients.<sup>13</sup> A large recent systematic review, however, concluded that treating tobacco dependence in patients with stable psychiatric conditions does not worsen mental state.<sup>14,15</sup> Successfully stopping smoking will benefit a patient's long term health by reducing the risk of developing smoking related illnesses,<sup>16</sup> that are the major cause of mortality and morbidity.

#### Main acute effects of smoking on the body (estimated time of recovery, if known)

- Increase in sympathetic tone leading to an increase in blood pressure, heart rate and peripheral vasoconstriction leading to an increased demand for oxygen and cardiac function.<sup>17</sup>  
**(24 – 48 hours)**
- Formation of carboxyhaemoglobin leading to a reduction in oxygen delivery to the tissues.<sup>18</sup>  
**(8 – 24 hours)**
- Formation of carboxymyoglobin leading to a reduction in oxygen storage in the muscles.<sup>19</sup>  
**(8 – 24 hours)**
- Increase in red blood cell production, which leads to an increase in blood viscosity, a decrease in tissue perfusion, a decrease in oxygen delivery to the tissues and potentiation of thrombotic process.<sup>17</sup>
- Hypersecretion of mucus, narrowing of the small airways, decrease in ciliary function and change in mucus rheology leading to a decrease in mucociliary transport.<sup>11,8</sup> **(12 – 72 hours)**
- Changes in functioning of a range of immune cells (pro- and anti-inflammatory cytokines, white blood cells, immunoglobulins) which lead to decreased immunity and are associated with atherosclerosis.<sup>5,17</sup> **(1 week – 2 months)**
- Induction of hepatic enzymes which increases drug metabolism through both pharmacokinetic and pharmacodynamic mechanisms.<sup>20</sup> **(6 – 8 weeks)**

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### General health benefits of stopping smoking<sup>15</sup>

- Within 20 minutes blood pressure drops to the level it was before the last cigarette.
- Within 8 hours carbon monoxide levels in the blood return to normal.
- Within 24 hours the chance of a heart attack decreases.
- Within 2 weeks to 3 months circulation improves and lung function increases.
- Within 1 to 9 months lungs regain normal ciliary function, reducing infection risk.
- Risk of hospitalisation decreases to the level of non-smokers in 1 to 3 years after stopping smoking.<sup>22,23</sup>
- By 10 years the risk of lung cancer is approximately half of a smoker. The risk of cancers of the mouth, throat, bladder, kidney and pancreas also decrease.

### Stop smoking support is effective

**Providing stop smoking support** has proven to be effective for hospitalised patients, regardless of reason for admission.<sup>24</sup> Treatments that work in the general population work for those with severe mental illness and appear equally effective.<sup>14</sup>

**Effective methods** typically include a combination of medications, replacing unhealthy habits with healthy habits and behavioural support. Evidence indicates that nicotine replacement therapy, bupropion and varenicline are all effective treatments for both short and long-term smoking cessation.<sup>25</sup>

A 2008 Cochrane review demonstrated the positive impact of implementing stop smoking services for hospital patients.<sup>24</sup>

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### Use of varenicline (Champix) and bupropion (Zyban) in stop smoking support for mental health patients

There have been case reports of worsening of depression or mental health problems in populations with a previous history of mental health difficulties when taking varenicline. However, recent large scale epidemiological evidence has allayed some of the fears associated with this medication.<sup>26,27</sup> Based on its characteristics and clinical experience to date, it has no clinically meaningful drug interactions. Varenicline can be used for smokers with mental illness: however, stop smoking advisors should liaise with the smoker's mental health team and GP for close monitoring.<sup>28</sup>

Bupropion should be offered in the same way to people with a mental illness as it would to the rest of the population, but with certain additional cautions. Bupropion has been associated with seizures and is contraindicated in bipolar affective disorder and epilepsy<sup>29</sup>; it has been associated with increased anxiety and depression and should not be prescribed to people with depression or suicidal thoughts<sup>28</sup>; prescribing bupropion should be undertaken with caution for people receiving medications that are known to low seizure thresholds. It does not increase the chances of deterioration in mental health in people with schizophrenia.

### Providing 'Very Brief Advice' to hospital patients: the '3 A's'

Research shows that 95% of patients expect to be asked about smoking and a short intervention can make all the difference.<sup>18,19</sup> The '3 A's' 30 second approach to giving 'very brief advice' are as follows:

**ASK** and record smoking status

**ADVISE** the patient of the personal health benefits of stopping smoking

**ACT** on the patient's response

- prescribe NRT for patients in withdrawal
- monitor withdrawal and adjust pharmacotherapy accordingly
- refer to local stop smoking service

### How was this information sheet put together?

This information is a summary of the current scientific evidence on the association between cigarette smoking and mental health disorders. Studies were found by searching MEDLINE and EMBASE using combined exploded subject headings of 'mental health' or 'psychiatric disorder' and 'tobacco use cessation' from 01/1945 – 07/2011. Evidence has been included in this summary from large population based studies, cohort studies, randomised controlled trials and reviews only.

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