

Guidance on Smoking Cessation in Mental Health Settings (Version 2 – January 2011)

Contents:

- Background information
- Effects of smoking cessation on mental health
- Smoking cessation treatments and different mental illness
- Effects of smoking on psychotropic medication
- Medication regimes during smoking cessation
- Pharmacotherapy for smoking cessation
- Monitoring during smoking cessation
- Addressing smoking cessation needs of those with mental illness
- References
- Trust cross references

Principal Author: Dr Jonathan Campion – Consultant Psychiatrist.
(No longer employed by the Trust).

Second Author: Jed Hewitt – Chief Pharmacist, Governance &
Professional Practice.

Approved by the Trust Drugs & Therapeutics Group: October 2008

Reviewed: January 2011

Date for next review: January 2014

**If you require this document in another format such as
large print or audio please contact the
Communications Team on 01903 843129 or email
info@sussexpartnership.nhs.uk**

Guidance on Smoking Cessation in Mental Health Settings

- **Advise service users of the Trust's no smoking policy at admission or before admission where possible.**
- **Explain the benefits of smoking cessation, including improved physical health, mental health and reduction in medication**
- **Initially offer Nicotine Replacement Therapy (NRT) to all including those who continue to smoke - (see Pharmacotherapy section to assist product choice).**

Background information

- In 2008, primary legislation made all enclosed parts of mental health settings in England smoke-free.
- Smoking is the largest cause of preventable illness in the UK, with 1 in 2 smokers in the general population dying 15 years early. [1]
- Increased smoking is responsible for a large proportion of the excess mortality of people with mental health problems. [2]
- Reduced smoking in mental health service users will significantly improve health and wellbeing in populations with disproportionate levels of health inequality and will therefore play a key part in addressing the physical health needs of people with mental health problems.
- Smoking increases the risk of developing a mental disorder [3] and is associated with increased prevalence of all psychiatric disorder [4] as well as suicide. [5]

Effects of smoking cessation on mental health

- A clear relationship exists between amount of tobacco smoked and number of depressive / anxiety symptoms with symptoms reducing after cessation and subsequent improvement in wellbeing. [6]
- Depression; a minority of people with depression who stop smoking experience an increase in depressive symptoms. [7]
- Schizophrenia; little evidence of worsening of symptoms following cessation. [6]
- Aggression; smoking bans had no major effect on behaviour or aggression. [8]
- Weight gain after cessation can be significant. [9]

Impact of smoking cessation interventions

- Smoking cessation medication and non-pharmacological support such as advice from care professionals, group therapy, telephone support, internet support and exercise can increase abstinence rates in those with mental health problems to as high as the rates in the general population. [10]

Smoking cessation treatment and different mental illness

- Nicotine Replacement Therapy (NRT), bupropion and varenicline are all effective but SSRIs and anxiolytics are not effective smoking cessation interventions. [10]
- NRT patches combined with a rapid delivery method, (e.g. inhaler), is better than a single form of NRT. [10]

- NRT can double cessation rates and lower reported depression in depressed smokers. Psychological and lifestyle strategies are also helpful.
- For those with schizophrenia, NRT combined with bupropion is more effective.
- Reducing amount smoked through use of NRT/ bupropion while smoking increases chances of successfully stopping smoking in future. However, not all NRT products are licensed for smoking reduction.
- Specialist cessation services for those with mental illness can achieve abstinence rates as high as for general population. [11]

Effect of smoking on psychotropic medication

- Smoking induces the CYP1A2 liver enzyme that is involved in the metabolism of many medications including antipsychotics, (eg. clozapine, haloperidol, olanzapine), antidepressants (eg. mirtazapine, tricyclics, duloxetine), most benzodiazepines and opiates. [10,12]
- Smoking only 7-12 cigarettes a day can significantly increase clozapine and olanzapine metabolism. [13]

Medication regimes during smoking cessation

- Stopping smoking can reduce the metabolism of these drugs and result in higher, sometimes even toxic, blood levels over a few days. However, if smoking restarts, blood levels will go down again. [10]
- Following cessation, medication should be reviewed and many medication doses can be significantly reduced. [12,14]
- Blood levels of clozapine should be measured before smoking cessation and this should also be considered for olanzapine. [14] For clozapine and olanzapine, 25% dose reduction should occur during the first week of cessation and then further plasma levels taken on a weekly basis until they have stabilised. [14] Fluphenazine and benzodiazepine doses can be reduced by up to 25% in the first week of cessation and tricyclic antidepressants may be reduced by 10-25% in first week. Further dose reductions may be required. [14]
- Information should be given to service users and carers regarding the likely need to increase the dose of their medication if they start smoking again. [15]

Pharmacotherapy for smoking cessation

A) Different forms of NRT

Several different forms of NRT can be prescribed although 24-hour patches can be initially administered for up to 3 days through Trust nurse protocols, although only to those who agree to stop smoking.

- **Patches:** 16-hour and 24-hour patches are available with no difference in efficacy. Both types come in three different strengths to allow gradual weaning. A 15mg/16hr patch or a 21mg/24hr patch should be used for those who normally smoke more than 20 cigarettes per day.
- **Gum:** 2mg or 4mg chewed when urge to smoke occurs. Up to 15 pieces daily.
- **Sublingual tablets:** One 2mg tablet per hour for those smoking up to 20 cigarettes daily and two tablets per hour for those smoking >20 cigarettes daily.
- **Nasal spray:** Maximum dose = 1 spray per nostril twice per hour for up to 16 hours per day.
- **Inhalator:** 10mg/cartridge used with plastic mouthpiece. Dose initially up to 12 cartridges per day – puffed for 20 minutes per hour when urge to smoke occurs.
- **Lozenges:** 1mg, 2mg and 4 mg up to maximum 15 lozenges per day.

- A combination of patch plus a faster-acting oral NRT shows improved efficacy.
- Side effects include mild local irritation of mouth, throat or nose.
- All NRT products, including patches, sublingual tablets and nasal spray are licensed for smoking cessation.
- Inhalators, some gums and some lozenges are also licensed for smoking reduction.
- All NRT should be used for 8-12 weeks but may be continued after this time.

B) Bupropion

This is an atypical antidepressant that acts as a noradrenaline and dopamine reuptake inhibitor, as well as a nicotinic antagonist. It reduces nicotine withdrawal symptoms.

- Start 1-2 weeks before planned quit date at 150mg daily for 6 days, then 150mg twice daily for maximum 7-9 weeks.
- Side effects include insomnia and (rarely) seizures. Therefore, it is contraindicated in bipolar affective disorder, epilepsy, CNS tumours, alcohol withdrawal, benzodiazepine withdrawal and eating disorders.
- Bupropion should not be prescribed with other drugs that can cause seizures. This includes tricyclic antidepressants and some antipsychotic medication. [14]
- Bupropion can increase blood levels of citalopram, which should be avoided for two weeks after stopping. [16]. It is contraindicated with MAOIs.
- In view of the above, NRT should be used first line and bupropion considered for those smokers who were unsuccessful with NRT but motivated to stop.

C) Varenicline

This is a nicotine receptor partial agonist. It acts as agonist to maintain moderate levels of dopamine to counteract withdrawal and as antagonist by reducing smoking satisfaction.

- Evidence suggests that varenicline is more effective and has fewer side effects than bupropion. However, it has been linked to agitation, depression, suicidal ideation and exacerbation of underlying psychiatric illness so should only be prescribed by a consultant psychiatrist.
- Other side effects include sleep problems and anxiety.

Monitoring During Smoking Cessation

Following cessation, mental state should be monitored especially with depression since a minority who stop smoking experience an increase in depressive symptoms. [7]

Addressing smoking cessation needs of those with mental illness

- Reduced smoking in mental health service users will significantly improve the health of this group who suffer a disproportionate level of health inequality and will thereby help to address their physical health needs.
- Coordination of smoking cessation service provision should occur between inpatient and outpatient settings as well as between primary and secondary care to support smoking cessation and relapse prevention. Where appropriate, advice on access to primary care smoking cessation services should be provided to patients when they go on leave and at the point of discharge.

References.

- 1) Doll, R., Peto, R., Boreham, J., Sutherland, I. (2004) Mortality in relation to smoking: 50 years' observation on male British doctors. *British Medical Journal*, **328**, 745.
- 2) Brown, S., Barraclough, B., Inskip, H. (2000) Causes of the excess mortality of schizophrenia. *British Journal of Psychiatry*, **176**, 109.
- 3) Cuijpers, P., Smit, F., ten Have, M., de Graaf, R. (2007) Smoking is associated with first-ever incidence of mental disorders: a prospective population-based study. *Addiction*, **102(8)**, 1303-9.
- 4) Farrell, M., Howes, S., Bebbington, P. *et al* (2001) Nicotine, alcohol and psychiatric morbidity. Results of a national household survey. *British Journal Psychiatry*, **179**, 432-7.
- 5) Malone, .KM., Waternaux, C., Haas, G.L., Cooper, T.B., Li, S., Mann, J.J. (2003) Cigarette smoking, suicidal behavior, and serotonin function in major psychiatric disorders. *American Journal Psychiatry*, **160(4)**, 773-9.
- 6) Campion, J., Checinski, K., Nurse, J, McNeill, A. (2008) Smoking by people with mental illness and benefits of smoke-free mental health services. *Advances in Psychiatric Treatment*, **14**, 217-228.
- 7) Hughes, J.R. (2007c) Depression during tobacco abstinence. *Nicotine Tob Res*, **9**, 443-6.
- 8) Lawn, S., Pols, R. (2005) Smoking bans in psychiatric settings? A review of the research. *Australian and New Zealand Journal of Psychiatry*, **39**, 866-855.
- 9) O'Hara, P., Connett, J.E., Lee, W.W., Nides, M., Murray, R., Wise, R. (1998) Early and late weight gain following smoking cessation in the Lung Health Study. *American Journal Epidemiology*, **148**, 821-830.
- 10) Campion, J., Checinski, K., Nurse, J. (2008) Review of smoking cessation treatments for people with mental illness. *Advances in Psychiatric Treatment*, **14**, 208-216
- 11) Foulds, J.G.K., Steinberg, M.B., Richardson, D., Williams, J.M., Burke, M., Rhoads, G.G. (2006) Factors associated with quitting smoking at a tobacco dependence treatment clinic. *Am J Health Behav*, **30**, 400-412
- 12) Hewitt J (2007) Smoking cessation – effect on psychotropic medication including clozapine. Sussex Partnership NHS Trust.
- 13) Haslemo T, Eikeseth PH, Tanum L, Molden E, Refsum H. (2006) The effect of variable cigarette consumption on the interaction with clozapine and olanzapine. *Eur J Clin Pharmacol.*, **62(12)**, 1049-53.
- 14) Taylor, D., Paton, C., Kerwin, R. (2007) Maudsley prescribing guidelines. 9th Edition. Informa Healthcare. ISBN-13: 978 0 415 45042 3
- 15) Hewitt J (2007) Clozapine and smoking – information for service users and carers. Sussex Partnership NHS Trust.
- 16) British Medical Association & Royal Pharmaceutical Society of Great Britain (September 2010): *British National Formulary*. BMJ Books and Pharmaceutical Press.
- 17) Faculty of Public Health (2008) Mental health and smoking. A position statement. ISBN: 1-900273-34-9.
- 18) Lawn S, Campion J (2008) Smoke-free initiatives in psychiatric inpatient units: A national survey of Australian sites. Flinders University, Adelaide, Australia. ISBN 1 920966 16 1

Cross-references to other Trust documents.

Smoke-Free Policy. May 2008.

Smoking Cessation - Effect on Psychotropic Medication Including Clozapine. Revised January 2011.

Clozapine and Smoking – Information for Service Users and Carers. Revised January 2011.

Group Protocol for the Management of Nicotine Withdrawal. Version 2 - July 2010