MENTAL HEALTH
Living well for longer

2014 update

Primary Care Guidance on Smoking and Mental Disorders

KEY LEARNING POINTS

- **Smoking is the largest avoidable cause of premature death and health inequality in those with mental disorders who die 10-20 years earlier than the general population.**
- **Adults with mental disorders consume 42% of the tobacco in England and therefore disproportionately experience tobacco related harm.**
- **With appropriate support, people with mental disorder are able to stop smoking.**
- **Smoking cessation improves mental and physical health even in the short term and reduces risk of premature death.**
- **Impact of smoking cessation on mood and anxiety disorders is at least as large as antidepressant treatment.**
- **Stopping smoking requires the immediate reduction of doses of some antidepressants, antipsychotics and benzodiazepines by up to 25% within the first week and up to 50% within 4 weeks.**

Smoking: the biggest killer

Smoking is the largest cause of preventable death in England. In 2010/11 it was responsible for 79,100 deaths and 459,900 hospital admissions[1]. Smokers die an average 10 years earlier than non-smokers[2]. Smoking is also associated with an increased risk of several chronic diseases, including cardiovascular disease, peripheral arterial disease with associated 10-16 fold increased risk of amputation[3], chronic obstructive pulmonary disease and type 2 diabetes (60% increased risk[4]) as well as cancer, blindness and dementia.

Smoking is therefore one of the most important modifiable risk factors for both premature mortality and chronic disease. This is even more important in people with mental disorder since smoking is the single largest contributor to their 10-20 year reduced life expectancy[5,6,7,8].

Higher rates of smoking in people with mental disorders

People with mental disorders experience disproportionate levels of smoking associated harm since they are both more likely to smoke and to smoke more heavily than the general population. In England, 42% of tobacco consumption is by those with mental disorders[9] while 43% of smokers aged 11-16 have either conduct or emotional disorders[10].

Compared to 20% smoking rates in the adult population, smoking rates are higher for people with different mental disorders:

- Common mental disorder: 32% (27% for those on antidepressants and 30% for those on anxiolytics)[11]
- Psychosis: 40%[9] (59% of people with a first episode of psychosis and 59% of those taking antipsychotics)[11]
- Drug dependence: 69%[9]
- Alcohol dependence: 46%[9]
- Suicide attempt in past year: 57%[9]
- Inpatients in mental health units: 70% (50% are heavy smokers[13])

Compared to smoking rates of 5% among 11-16 year olds in the general population, smoking rates are[10]:

- 30% among the 6% of 11-16 year olds with conduct disorder
- 19% among the 4% of 11-16 year olds with emotional disorder

Smoking is the single largest cause of the 10-20 year lower life expectancy of people with mental disorders.

- 15% among the 3.5% of 11-16 year olds with attention deficit hyperactivity disorder

Smoking is also important to address in groups at higher risk of mental disorders such as those with learning disabilities, for whom respiratory disease is the leading cause of death [14].

Impacts of smoking on mental disorders

Smoking is associated with higher rates of mental disorders:

- Smoking during pregnancy is associated with two fold increased risk of conduct disorder in boys at age three [15] and of antisocial behaviour and ADHD symptoms in older children [16]
- Smoking is associated with increased risk of depression [17] and anxiety disorders [18]. The amount of tobacco smoked is associated with the number of depressive or anxiety symptoms, and after smoking cessation these symptoms reduce [19, 20]
- Smoking is associated with a 79% increased risk of Alzheimer's disease and 78% increased risk of vascular dementia [21]

Benefits of smoking cessation

Given the 10-20 year lower life expectancy and higher rates of smoking in people with mental disorders, the following benefits of smoking cessation are even greater for this group although often underestimated:

- Physical benefits: Improved respiratory, vascular, reproductive, gastrointestinal and general health even within a few months of cessation [22]
- Mental benefits: Improved mental health and wellbeing, greater self-confidence, more social interaction, and reduced depressive and anxiety symptoms [17, 22]. The impact on mood and anxiety disorders is at least as large as antidepressant treatment [23]. Pharmacotherapy can minimise withdrawal symptoms which are relatively short-lived
- Financial benefits [22]: Smoking cessation can lead to financial gains and a 25% reduction in financial stress [24]. This is even more important for people with mental disorders who spend proportionately more of their income on tobacco. One study highlighted that people with schizophrenia spent a third of their benefits on tobacco [25]
- Reduced doses of some medications by up to 25% in the first week after smoking cessation, and up to 50% four weeks after cessation [26]

Effective smoking cessation and reduction interventions

- Smokers with mental disorders are as motivated to stop as smokers without [27]
- Different types of support increase the rates of successful smoking cessation attempts in people with mental disorder
- People who want to stop smoking should be offered a combination of pharmacotherapy and non-pharmacological approaches
- Higher cessation rates occur when smoking cessation interventions are provided more intensively and in combination as they are for smokers within the general population
- Evidence based smoking cessation interventions can be just as effective for people with mental disorder [28, 29, 30, 31, 32] but may require additional monitoring for medication dose adjustment and potential deterioration in mental health [28, 29, 33]
- Evidence based interventions which support reduction of tobacco use while people continue to smoke are also effective and double cessation rates [34]
- Support should be offered at every opportunity – 'making every contact count'

Pharmacological interventions

Different pharmacotherapies are effective for smoking cessation in the general population. Such interventions are also effective in people with mental disorders. As for other groups with higher levels of nicotine dependence, greater levels of cessation and reduction occur when behavioural support is accompanied by combined pharmacological interventions at higher doses:

- Nicotine Replacement Therapy (NRT) is effective (OR 1.84, 1.71-1.99) [35] although different products vary in effectiveness. Nasal spray is the most effective followed by tablets/lozenges, inhalers and patches with gum the least effective [36]. However, NRT is more effective in combination with a patch and faster acting form such as gum, inhalator and spray [35, 36]. As for other more dependent smokers, combination NRT for people with mental disorder is likely to be more effective and required for longer than the recommended 8-12 weeks [17, 29]
- Unlicensed products containing nicotine such as electronic cigarettes are likely to be less harmful than tobacco, although people using them should be encouraged to switch to a licensed product [29]
- Bupropion is effective (OR 1.82, 1.60-2.06) [35] and almost triples cessation rates at six months for those with schizophrenia with no reported serious adverse events [37]
- Nortriptyline is effective (OR 2.03, 1.48-2.78) [35]
- Cystine is effective (OR 3.98, 2.01-7.87) [35]
- Varenicline is effective (OR 2.88, 2.40-3.47) [35] with some evidence supporting the use of varenicline in people with depression [17] although a NICE review did not support use in people with schizophrenia [29]
- Comparing different pharmacological interventions [35]
  - NRT and bupropion are equally effective
  - Varenicline is more effective than bupropion or single forms of NRT
  - Varenicline is equally as effective as combination NRT
  - Addition of bupropion or nortriptyline does not increase effectiveness of NRT
- Combination of different forms of NRT and NRT/ bupropion reduces smoking consumption in people with mental disorder [17, 29]

Non-pharmacological interventions

The following interventions are likely to be effective for people with mental disorders:

- Simple advice from doctors [38]
- Smoking cessation advice given by nurses [39]
- Multi-sessional intensive behavioural support is more effective in groups than individual and more effective than self-help or other less intensive interventions [40]
- Telephone support [41] and multiple call-back counselling improves cessation rates [42]
- Some internet based interventions [43]

For smokers with mental disorders [29]:

- Motivational interviewing increases referrals for smoking cessation
- Contingency payments with or without NRT/ bupropion can reduce consumption in those with schizophrenia

Combined pharmacological and other interventions

- Mood management strategies in combination with pharmacotherapy support cessation in people with depression [44]
- In people with schizophrenia, weak evidence for increased rates of cessation and reduction using combination high intensity behavioural therapy with NRT [29]

Therefore, combination NRT should be offered to all smokers with mental disorders with the options of further interventions as required.

Population approaches

- Smoke-free policies and campaigns targeting people with mental disorder
- Assessing compliance with tobacco legislation
- Addressing illicit tobacco

Prescribing considerations

Stopping smoking is an opportunity to reduce doses of some antipsychotics, antidepressants and benzodiazepines within days of cessation (as reduced metabolism decreases dose requirements).

Preventing medication toxicity following cessation

Smoking increases the metabolism of some medications including antidepressants (tricyclics and mirtazapine), antipsychotics (clozapine, olanzapine and haloperidol), benzodiazepines and opiates [26]. This results in significantly lower plasma levels so that larger doses are required to achieve similar therapeutic effects. Following smoking cessation, doses of these medications need to be reduced to prevent toxicity [26]:

- Clozapine and olanzapine: 25% dose reduction during first week of cessation and then further blood levels taken on a weekly basis until levels have stabilised
- Fluphenazine and some benzodiazepines: 25% dose reduction in first week
- Tricyclic antidepressants: 10-25% dose reduction in first week

Further dose reductions may be required with continued cessation although original doses need to be reinstated if smoking is resumed [26].

Contraindications

Bupropion is contraindicated in bipolar affective disorder and epilepsy due to risk of seizure [45]. It should not be prescribed with drugs which increase risk of seizures such as tricyclic antidepressants, MAOI's and some anti-psychotics including clozapine, chlorpromazine and depot injection [26].

Monitoring of mental state during cessation
Depressive symptoms may worsen in a minority of people following cessation[46] although symptoms of schizophrenia do not appear to worsen (but see next paragraph).

Potential side effects of bupropion and varenicline
Bupropion and varenicline are effective and tolerated: a Cochrane review found no excess neuropsychiatric or cardiac side effects[35] and a large prospective cohort study found no increased risk of treated depression or suicidal behaviour[47]. However, there have been reports of neuropsychiatric side effects for both bupropion and varenicline, even in people without pre-existing mental disorders[33,48]. Therefore, the MHRA[33] and BNF[45] advise care be taken when prescribing these medications for people with a history of psychiatric illness as there is a relative lack of research for use within this group.

Because of this, use of bupropion and varenicline should always be accompanied by appropriate monitoring:

- Warn people taking bupropion or varenicline of the potential increased risk of adverse neuropsychiatric symptoms and monitor them regularly, particularly in the first 2-3 weeks
- Emergence of neuropsychiatric symptoms should prompt immediate stopping of bupropion and varenicline and continued monitoring until symptoms resolve.

Minimising weight gain
Average weight increases by 4.7kg one year following smoking cessation[49] although a Cochrane review highlighted that this can be reduced through setting a target for weight gain and controlling calorie intake, taking regular exercise and increasing physical activity at home[50].

Key role of primary care

Most mental disorders and associated physical health issues are managed within primary care. Primary care therefore plays a key role in communicating how smoking cessation and reduction can improve physical and mental health in both the short and long term. GPs should aim to:

- Offer combined Nicotine Replacement Therapy (NRT) to all, including those who continue to smoke, to support smoking reduction if not abrupt cessation[34]
- Encourage engagement in group or individual smoking cessation counselling
- Advise that secondary mental health settings are smoke-free and and that interventions are in place to support temporary abstinence and reduced smoking if the person is unwilling to stop smoking[29,34]
- Reduce doses of relevant drugs upon smoking cessation. This requires clear communication and co-ordination between smoking cessation services and prescribers in primary and secondary care
- Monitor the mental state of patients following cessation. For those taking bupropion and varenicline, there should be a clearly negotiated plan of support that outlines actions to be taken in the event of change in psychiatric symptoms, especially in the first 2-3 weeks
- Monitor for smoking resumption since this is common and requires prompt dose increases of some medications
- 'Making every contact count'

Information about size of local smoking cessation gap

Despite smoking being the largest single cause of premature death in people with mental disorder and the impact of cessation on mood and anxiety disorders being at least as large as antidepressant treatment[23], only a minority of smokers with mental disorder receive smoking cessation intervention:

- Only one in ten smokers with mental disorders receive cessation medication in primary care[11]. Furthermore, interventions are lower per consultation for smokers with mental disorders compared with smokers without
- Although 82% of smokers in primary care in 2012-13 had a record of an offer of support and treatment within the preceding 27 months[51], no information is routinely collected about rates of intervention and outcomes for people with different mental disorder
- 9% of adult smokers set a quit date through NHS Stop Smoking Services in 2012-13 which is 11% lower than in 2011-12[52]. There is no data on this for people with mental disorders

Co-ordination with public health

- Local public health teams are responsible for the Joint Strategic Needs Assessment (JSNA) which outlines the local level of unmet need
- Local level of unmet smoking cessation need for people with mental disorders should be included in JSNAs by estimating the numbers of smokers with mental disorders and the proportion that are receiving smoking cessation from primary care, secondary care, NHS Stop Smoking Services, pharmacies and other providers[29,53]
- Such assessments can inform service planning and support CCGs to commission services which are compliant with the 2013 NICE guidance regarding smoke-free environments. In turn, this can challenge the notion of mental health services being complicit with smoking and smoking initiation[29]. ■

Useful Resources

RCP/RCPsych (2013) Smoking and mental health. A joint report. eISBN: 978-1-86016-509-2 |
http://www.rcplondon.ac.uk/publications/smoking-and-mental-health

NICE (2013) Smoking cessation in secondary care: acute, maternity and mental health services. |
http://publications.nice.org.uk/smoking-cessation-in-secondary-care-acute-maternity-and-mental-health-services-ph48

NICE (2013) Tobacco harm reduction | http://www.nice.org.uk/ph45

HSCIC (2013) Statistics on NHS Stop Smoking Services: England | http://www.hscic.gov.uk/catalogue/PUB12228

DH (2012) Local Stop Smoking Services. Key updates to the 2011/12 services delivery and monitoring guidance for 2012/13 |
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216927/9193-TSO-2900254-NHS-Stop-Smoking_Accessible.pdf

DH (2011) NHS Stop Smoking Services: service and monitoring guidance 2011/12. This document provides best practice guidance relevant to the provision of all NHS stop smoking interventions including for those with mental illness. It sets out fundamental quality principles for the delivery of services and stop smoking support | http://www.ncsct.co.uk/usr/pub/delivery-and-monitoring-guidance-2011-and-2012.pdf

Local tobacco control profiles for England Indicator dataset 2011. | http://www.tobaccoprofiles.info/

Faculty of Public Health (2008) Position statement on smoking and mental health. |
http://www.fph.org.uk/uploads/ps_mental_health_and_smoking.pdf

Rethink physical health check tool (and other resources) | http://www.rethink.org/about-us/health-professionals/physical-health-resources

This factsheet is one of a series of practitioner resources originally developed by the Primary Care Mental Health Forum (**Royal College of General Practitioners & Royal College of Psychiatrists**) which have been updated with the support of **NHS England** and **Public Health England**.

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Endorsements

Royal College of General Practitioners (RCGP)

Royal College of Psychiatrists (RCPsych)

Royal College of Physicians (RCP)

Royal College of Surgeons (RC Surgeons)

Rethink Mental Illness

UCLPartners – Academic Health Science Partnership

UK Faculty of Public Health (FPH)

National Collaborating Centre for Mental Health (NCCMH)

Royal Society for Public Health

References

1 HSCIC (2012) *Statistics on smoking*: England; 2012. Available from https://catalogue.ic.nhs.uk/publications/public-health/smoking/smok-eng-2012/smok-eng-2012-rep.pdf

2 Doll R, Peto R, Boreham J, Sutherland I. Mortality in relation to smoking: 50 years'observation on male British doctors. *BMJ* 2004; **328**: 745

3 Cole CW, Hill GB, Farzad E, *et al*. Cigarette smoking and peripheral arterial occlusive disease. *Surgery* 1993;**14**:753-6.

4 Willi C, Bodenmann P, Ghali WA *et al*. Active Smoking and the Risk of Type 2 Diabetes. A Systematic Review and Meta-analysis. *JAMA* 2007;**298**(22):2654-2664

5 Brown S, Kim M, Mitchell C et al (2010) Twenty-five year mortality of a community cohort with schizophrenia. *BJPsych*, 196, 116-121.

6 Chang C-K, Hayes RD, Perera G et al. Life expectancy at birth for people with serious mental illness and other major disorders from a secondary mental health care case register in London. *PLoS ONE* 2011; **6**: e19590

7 Hayes RD, Chang C-K, Fernandes A et al. Associations between substance use disorder sub-groups, life expectancy and all-cause mortality in a large British specialist mental healthcare service. *Drug & Alcohol Dependence* 2010; **118**: 56-61

8 Fok ML-H, Hayes RD, Chang C-K et al. Life expectancy at birth and all-cause mortality among people with personality disorder. *J Psychosom Res* 2012; **73**: 104–107

9 McManus S, Meltzer H, Campion J *Cigarette smoking and mental health in England. Data from the Adult Psychiatric Morbidity Survey.* National Centre for Social Research; 2010. Available from http://www.natcen.ac.uk/media/21994/smoking-mental-health.pdf

10 Green H, McGinnity A, Meltzer H *et al. Mental health of children and young people in Great Britain*, 2004. London: Office for National Statistics; 2005

11 Szatkowski L, McNeill A. The delivery of smoking cessation interventions to primary care patients with mental health problems. Addiction 2013; **108(8)**:1487-94

12 Myles N, Newall HD, Curtis J *et al*. Tobacco use before, at and after first-episode psychosis: A systematic meta-analysis. *J Clin Psychiatry* 2012; **73**: 468-475

13 Jochelson J, Majrowski B (2006) Clearing the Air. Debating Smoke-Free Policies in Psychiatric Units. King's Fund

14 Glover G, Ayub M. *How people with learning disabilities die. Learning Disabilities Observatory*; 2010.

15 Hutchinson J, Pickett KE, Green J, Wakschlag LS. Smoking in pregnancy and disruptive behaviour in 3-year-old boys and girls: an analysis of the UK Millennium Cohort Study *J Epidemiol Community Health* 2010; **64**: 82-88

16 Button TM, Maughan B, McGuffin P. The relationship of maternal smoking to psychological problems in the offspring. *Early Hum Dev* 2007; **83**: 727–732

17 Royal College of Physicians, Royal College of Psychiatrists. *Smoking and mental health*. 2013. eISBN: 978-1-86016-509-2; 2013.

18 Cuijpers P, Smit F, ten Have M *et al*. Smoking is associated with first-ever incidence of mental disorders: a prospective population based study. *Addiction* 2007; **102**: 1303-9

19 Farrell M, Howes S, Bebbington P et al. Nicotine, alcohol and psychiatric morbidity. Results of a national household survey. *Br J Psychiatry* 2001; **179**: 432-7

20 Campion J, Checinski K, Nurse J, McNeill A. Smoking by people with mental illness and benefits of smoke-free mental health services. *Advances in Psychiatric Treatment* 2008; **14**: 217-228

21 Anstey KJ, von Sanden C, Salim A et al. Smoking as a risk factor for dementia and cognitive decline: A meta-analysis of prospective studies. *Am J Epidemiology* 2007; **166**: 367-378

22 NCSCT (2013) Quick wins: the short term benefits of stopping smoking. Briefing 12. Available from http://www.ncsct.co.uk/usr/pub/quick_wins_briefing.pdf

23 Taylor G, McNeill A, Girling A et al. Change in mental health after smoking cessation: systematic review and meta-analysis. BMJ 2014: **348**: g1151

24 Siahpush M, Spittal M, Singh GK. Association of smoking cessation with financial stress and material wellbeing: Results from a prospective study of a population-based national survey. *Am J Pub Health* 2007; **97**: 2281-7

25 Kelly C, McCreadie R. Cigarette smoking and schizophrenia. *Advances in Psychiatric Treatment* 2000; **6**:327-331

26 Taylor D, Paton C, Kapur S. *Maudsley prescribing guidelines.* 11th Edition. Informa Healthcare; 2012.

27 Siru R, Hulse GK, Tait RJ. Assessing motivation to quit smoking in people with mental illness: a review. *Addiction* 2008; **104**: 719-733

28 HM Government. *No health without mental health: a cross-Government mental health outcomes strategy for people of all ages.* London: Department of Health; 2011.

29 NICE (2013) Smoking cessation in secondary care: acute, maternity and mental health services. NICE; 2013. Available from http://publications.nice.org.uk/smoking-cessation-in-secondary-care-acute-maternity-and-mental-health-services-ph48

30 Campion J, Checinski K, Nurse J. Review of smoking cessation treatments for people with mental illness. *Advances in Psychiatric Treatment* 2008; **14**: 208-216.

31 Foulds JGK, Steinberg MB, Richardson D et al. Factors associated with quitting smoking at a tobacco dependence treatment clinic. *Am J Health Behav* 2006; **30**: 400-412

32 Banham L, Gilbody S. Smoking cessation in severe mental illness: what works? *Addiction* 2010; **105**: 1176-1189

33 MHRA guidance Last updated March 2009 http://www.mhra.gov.uk/Safetyinformation/Generalsafetyinformationandadvice/Adviceandinformationforconsumers/Stopsmokingtreatments/index.htm

34 NICE Tobacco harm reduction http://www.nice.org.uk/ph45 NICE; 2013

35 Cahill K, Stevens S, Perera R, *et al*. Pharmacological interventions for smoking cessation: an overview and network meta-analysis. *Cochrane Database Syst Rev* 2013; 5: CD009329

36 Stead L, Perera R, Bullen C et al. Nicotine replacement therapy for smoking cessation. *Cochrane Database Syst Rev* 2008; 1:CD000146.

37 Tsoi DT, Porwal M, Webster AC (2010). Efficacy and safety of bupropion for smoking cessation and reduction in schizophrenia: systematic review and meta-analysis. *Br J Psychiatry* 2010; **196**: 346-353.

38 Stead LF, Bergson G, Lancaster T. Physician advice for smoking cessation. *Cochrane Database Syst Rev* 2008; 2: CD000165

39 Rice VH, Stead LF. Nursing interventions for smok¬ing cessation. *Cochrane Database Syst Rev* 2008; 1: CD001188

40 Stead L, Lancaster T. Group behaviour therapy pro¬grammes for smoking cessation. Cochrane Database Syst Rev 2005; 2: CD001007

41 Stead LF, Perera R, Lancaster T. Telephone counselling for smoking cessation. *Cochrane Database Syst Rev* 2006; 3: CD002850

42 Stead L, Perera R, Lancaster T. A systematic review of interventions for smokers who contact quitlines. *Tobacco Control* 2007; **16**: 3–8.

43 Civljak M, Stead LF, Hartmann-Boyce J et al. Internet based interventions for smoking cessation. *Cochrane Database Syst Rev* 2013; 7: CD007078

44 van der Meer RM, Willemsen MC, Smit F, Cuijpers P. Smoking cessation interventions for smokers with current or past depression. *Cochrane Database Syst Rev* 2013; 8: CD006102

45 British National Formulary (2013)

46 Hughes, J.R. Depression during tobacco abstinence. *NicotineTob Res* 2007; **9**:443-6

47 Thomas KH, Martin RM, Davies NM et al. Smoking cessation treatment and risk of depression, suicide and self-harm in the Clinical Practice Research Datalink: prospective cohort study. *BMJ 2013*; **347**:f5704

48 Campion J, Hewitt J, Shiers D, Taylor D. *Pharmacy guidance on smoking and mental health. Forum for Mental Health in Primary Care*; 2010. Available from http://www.rcpsych.ac.uk/pdf/Pharmacy_%20guidance%20for%20smoking%20and%20mental%20health%20Feb%202010.pdf

49 Aubin HJ, Farley AC, Lycett D *et al*. Weight gain in smokers after quitting cigarettes: meta-analysis. *BMJ* 2012; **345**:e4439

50 Farley AC, Hajek P, Lycett D, *et al*. Interventions for preventing weight gain after smoking cessation. *Cochrane Database Syst Rev* 2012; 1: CD006219

51 HSCIC (2013) Quality Outcomes Framework 2012-13 http://www.hscic.gov.uk/catalogue/PUB12262

52 HSCIC (2013) Statistics on NHS Stop Smoking Services, England – April 2012 – March 2013 http://www.hscic.gov.uk/catalogue/PUB12228

53 Campion J, Fitch C. *Guidance for the commissioning of public mental health services.* Joint Commissioning Panel for Mental Health; 2012. Available from http://www.jcpmh.info/resource/guidance-for-commissioning-public-mental-health-services/