



**British Thoracic Society**  
**Smoking Cessation Audit Report**  
***Smoking cessation policy and practice in NHS hospitals***  
**National Audit Period: 1 April – 31 May 2016**  
Dr Sanjay Agrawal and Dr Zaheer Mangera

Number of records submitted: 14,750

Number of participants: Part 1 = 146 hospitals (120 trusts); Part 2 = 140 hospitals (119 trusts)

## **Summary/Abstract**

The 2016 national BTS Smoking Cessation Audit was the first comprehensive audit of smoking cessation activity using BTS<sup>1</sup> and NICE<sup>2,3</sup> standards for secondary care.

The audit showed poor recording of smoking status in medical notes. Few people who smoked were asked if they would like to stop smoking or be referred to a specialist stop smoking service and only a tiny fraction of people addicted to tobacco were offered nicotine replacement or other pharmacotherapies in hospital to reduce the symptoms of nicotine withdrawal.

In addition the audit showed that only a small minority of hospitals completely enforced their hospital smoke-free grounds. The majority of hospitals did not have a senior member of staff leading their service, a dedicated hospital smoking cessation practitioner providing a service, or a clear smoking cessation referral pathway. Basic smoking cessation pharmacotherapy was not available in many hospitals.

The overall findings from this audit make it clear that current adherence to national standards in smoking cessation is woefully lacking and that there is much to do to improve smoking cessation treatment for patients in hospitals across the UK.

### **National Improvement Objectives:**

1. All hospital patients who smoke are supported with a referral to a specialist stop smoking service to discuss and explore the option of smoking cessation.
2. All hospital patients who smoke are prescribed nicotine replacement therapy to reduce symptoms of nicotine withdrawal and promote smoking cessation, unless contraindicated or patients wish to opt out.
3. All Trusts should have a senior clinician, with clinical programmed activity, to lead a Trust-based smoking cessation service and implement the core standards of secondary care-based smoking cessation services, as set out in NICE PH48 and the BTS recommendations for secondary care.
4. Trust boards should be held accountable by regulators in all four countries of the UK, to enforce smoke-free hospital policies that support quit attempts for patients, staff and visitors, and to reduce second-hand smoke exposure of staff and children.

**Target for Objectives 1 – 3: 80%**

**Timeframe: to be achieved by the time of local re-audit in 2017-18**

## Key Findings

1. Only 1 in 13 patients who smoke were referred to a hospital or community-based smoking cessation service.
2. Fewer than 1 in 20 patients who smoke but had not been asked about quitting, were documented to have been given nicotine replacement therapy to help them abstain from smoking and reduce nicotine withdrawal symptoms whilst in hospital.
3. There was no consultant lead supporting a smoking cessation service in 3 out of 4 of hospitals; no dedicated hospital smoking cessation practitioner in half of hospitals; and there was reliable inpatient or outpatient access to hospital smoking cessation practitioners in only one third of hospitals.
4. Only 1 in 16 institutions completely enforce smoke-free grounds.
5. More than 1 in 4 patients were not asked if they smoke. Nearly 3 out of 4 smokers were not asked if they would like to quit smoking.
6. Of the smokers who were asked if they would like to quit smoking, only 20% of this group were referred to a hospital stop smoking service and only 7% were referred to a community-based service – which are the services that treat tobacco dependence the most effectively.
7. Only 2% of patients had use of products such as e-cigarettes, shisha or marijuana documented.
8. A formal referral pathway to refer to hospital or community-based smoking cessation services was only available in 54% and 62% of hospitals respectively.
9. Provision of bupropion, varenicline and nicotine replacement smoking cessation pharmacotherapy was poor in hospital formularies.
10. 50% of frontline healthcare staff were not offered regular smoking cessation training.

## Standards/Guidelines/Evidence Base

This audit examined hospital-based smoking cessation services in UK hospitals from April to May 2016. Part one of the audit focused on the key interventions of identifying people who smoke and offering them help to stop, and part two looked at the organisational infrastructure required to deliver these interventions.

The standards for this audit were drawn from the NICE Public Health Guideline Smoking: acute, maternity and mental health services,<sup>2</sup> the NICE Quality Standard Smoking: supporting people to stop<sup>3</sup> and the BTS Recommendations for Hospital Smoking Cessation Services for Commissioners and Health Care Professionals.<sup>1</sup>

## Background

Millions of people attend hospital as inpatients and outpatients each year, many of whom will be current smokers<sup>4</sup> and at significant risk of development, or exacerbation of, tobacco related disease. Treating tobacco dependence in hospitals therefore represents a significant opportunity to improve the lung and general health of our patients.

We know from national standards that the best ways to treat tobacco dependent smokers attending hospitals include asking whether the patient smokes and referring them to an evidenced-based specialist stop smoking service. There should be availability of smoking cessation pharmacotherapy, maintenance of smoke-free hospital grounds and senior leadership allocated to hospital-based smoking cessations services.

This audit was undertaken to measure how effectively these national standards have been implemented across the UK.

## **Aims and Objectives**

The aim of the audit was to examine whether a properly led and staffed hospital smoking cessation service was present, with adequate training for staff, and that smoking status was asked, and recorded for all patients, referral for smoking cessation treatment was made, pharmacotherapy for temporary abstinence was prescribed and that smoke-free hospital grounds were enforced. The scope of the audit was hospital-wide, across all specialties and included elective and emergency admissions.

### **The key objectives were:**

1. To examine smoking cessation treatment across all hospital services and age groups.
2. To determine the number of patients with smoking status recorded in their hospital notes and whether the use of other substances or devices was recorded (e.g. e-cigarettes, marijuana, shisha).
3. To determine the number of smokers who were asked if they would like to stop smoking, whether they were actually referred, to whom they were referred, referral pathways available and how this was communicated in the medical records.
4. To examine whether pharmacotherapy to treat smoking abstinence was on hospital formularies, immediately availability to patients via prescription or supply by hospital smoking cessation practitioners and whether there was a record of prescribing nicotine replacement therapy.
5. To examine whether smoke-free hospital grounds policies were fully enforced.
6. To determine whether hospitals had senior clinicians leading smoking cessation services with allotted time and in conjunction with dedicated hospital smoking cessation specialists.
7. To determine the provision of training for staff on smoking cessation.

## **Methodology**

The audit was undertaken by clinical audit teams, doctors, stop smoking specialists and other volunteers at each participating hospital. The audit applied to all adult inpatients in acute hospitals under the care of a hospital doctor and admitted during the audit period of April and May 2016 (excluding maternity and mental health).

The audit had two parts. Instructions and data collection questionnaires for each part were made available on the BTS audit website before the start of the audit, and data were entered onto the secure online BTS audit tool.

### **Part 1 - audit smoking status documentation and smoking cessation provision**

This part involved screening the notes of inpatients – both smokers and non-smokers – to establish whether patients were being asked the fundamental question “do you smoke?” and if this was being appropriately recorded. This information would not be captured if notes were retrieved of smokers only. If patients were recorded as being current smokers, further questions were asked about the services they were offered.

It was important that case selection provided a representative sample of the typical activity undertaken in the entire institution and not just a single specialty to ensure that patients were receiving the same level of service wherever they were in the institution.

Each hospital was therefore asked to request a set of 100 randomly selected notes: 50 from medical wards and 50 from surgical wards, covering at least 2 different specialties in each case. Each set of notes was entered into Part 1 of the audit until a total of 20 records of current smokers had been entered. If all 100 notes were entered and the number of recorded current smokers was less than 20, participants were asked to request a further set of 50 notes (25 medical and 25 surgical) and repeat the process until a total of 20 current smokers had been entered.

### Part 2 - audit of smoking cessation services and policies at participating institutions

Participating institutions submitted details on their smoking cessation policies and services as at the time of the audit. Participants were only required to submit one return per trust, unless services varied across sites. (Data for Part 1 were entered at individual hospital level.)

## Results/Findings

### Part 1 - audit smoking status documentation and smoking cessation provision

#### 1. Scope of the audit and prevalence of smoking by age, route of admission and admitting specialty.

146 institutions participated with 14,750 patient records submitted, from across the UK. 42% of patients were from surgical specialties and 77% were emergency admissions. The median age was 67 years, 51% were female.

Smoking prevalence was 28% in males, 23% in females, the highest prevalence was for those under 45 years of age (>40%), in patients admitted to respiratory medicine (30%) and in patients admitted as emergencies (27%).

Gender	Count	Percentage with smoking status recorded	Percentage of current smokers
Female	7476	71%	23%
Male	7274	74%	28%
<b>All</b>	<b>14750</b>	<b>73%</b>	<b>25%</b>

Table 1: Smoking status and smoking prevalence by sex

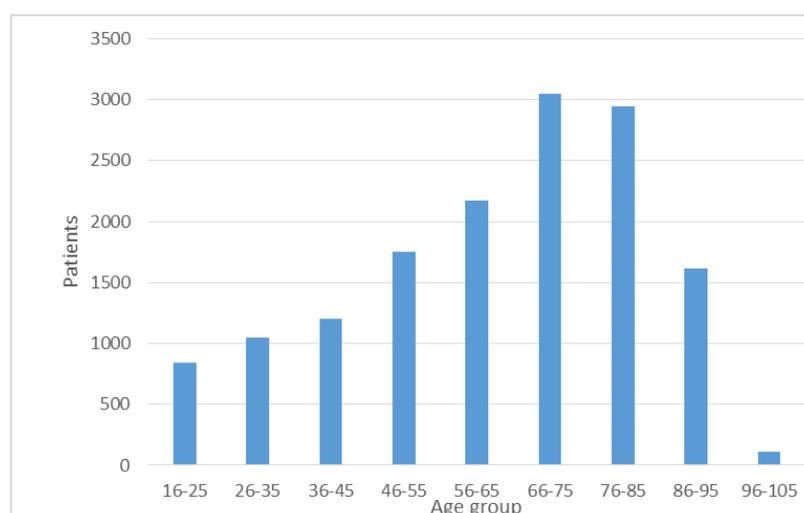


Figure 1: audit sample by age group

Age	Count	Percentage with smoking status recorded	Percentage of current smokers
16-25	842	72%	41%
26-35	1047	71%	41%
36-45	1206	73%	42%
46-55	1754	74%	37%
56-65	2174	75%	30%
66-75	3047	76%	21%
76-85	2947	72%	12%
86-95	1618	65%	6%
96-105	115	55%	3%
<b>All patients</b>	<b>14750</b>	<b>73%</b>	<b>25%</b>

Table 2: Smoking status and smoking prevalence by age group

Route of contact	Count	Percentage with smoking status recorded	Percentage of current smokers
Elective inpatient	3419	69%	19%
Emergency admission	11331	74%	27%
<b>All patients</b>	<b>14750</b>	<b>73%</b>	<b>25%</b>

Table 3: Smoking status and smoking prevalence by route of contact

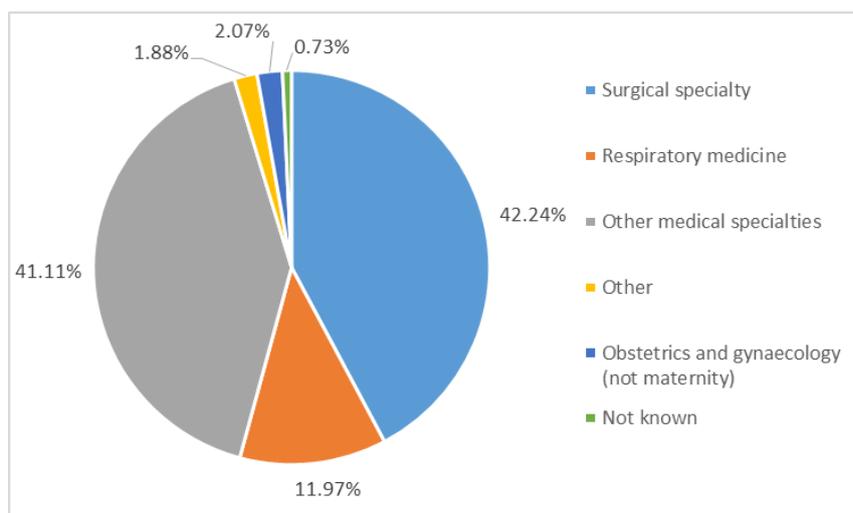


Figure 2: audit sample by specialty

Specialty	Count	Percentage with Smoking status recorded	Percentage of current smokers
Surgical specialty	6230	69%	25%
Respiratory medicine	1766	81%	30%
Other medical specialties	6063	75%	24%
Other	278	58%	23%
Obstetrics and gynaecology (not maternity)	305	73%	26%
Not known	108	61%	35%
<b>All patients</b>	<b>14750</b>	<b>73%</b>	<b>25%</b>

Table 4: Smoking status and smoking prevalence by specialty

## 2. How many patients had smoking status recorded? The expected standard is 100%

Smoking status was documented in 73% of medical records, with non-cigarette use (i.e. shisha, marijuana, e-cigarettes) documented in 2% of medical records. For patients where smoking status was recorded, 25% of patients were current smokers.

## 3. How many smokers are asked if they would like to quit and were referred to stop smoking services?

Of 2716 patients who smoked, 28% (762) were asked if they would like to quit, of these 20% (153) were referred to a hospital smoking service.

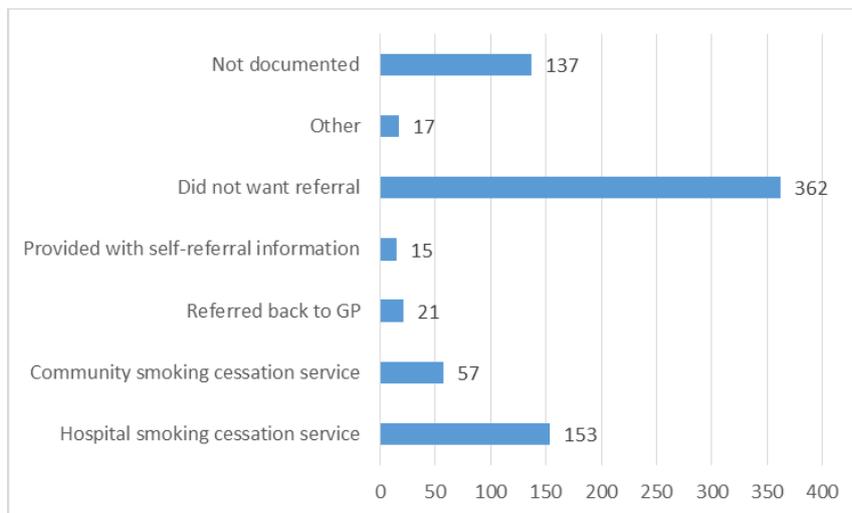


Figure 3: referral of smokers who were asked if they would like to quit

If a patient was referred to the hospital smoking cessation service, documentation of interventions including pharmacotherapy was present in 85% of cases.

## 4. How many smokers were offered licensed nicotine replacement therapy (NRT) to help them abstain from smoking whilst inpatients?

Of the 1954 smokers who were not asked if they would like to quit smoking, only 4% were recorded to have been offered licensed NRT to aid abstinence and acute withdrawal from nicotine.

## Part 2 - audit of smoking cessation services and policies at participating institutions

### 1. Smoke-free grounds

Of 140 institutions, 41% had designated smoking areas, however complete enforcement of smoke-free areas was poor whether the institution had entirely smoke-free grounds or designated smoking areas. 51% of institutions provided written information to elective patients about the institutions smoke-free policy before their hospital stay.

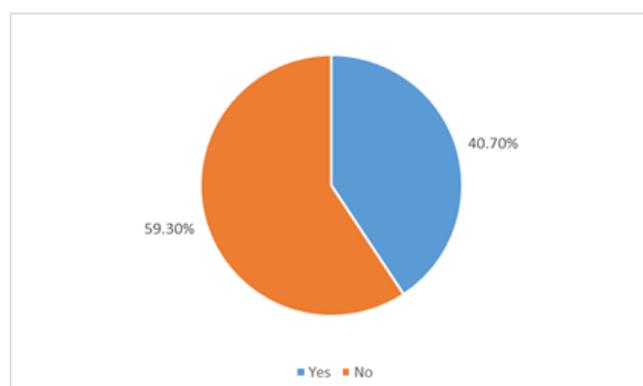
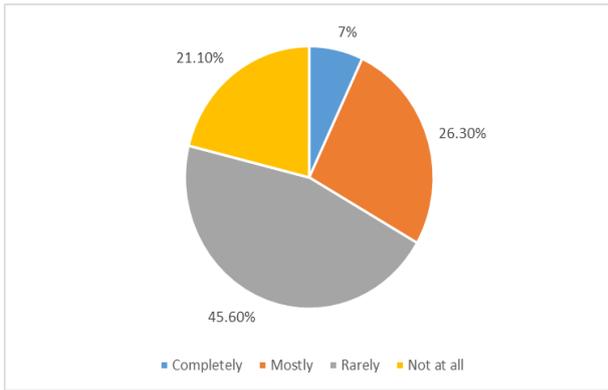
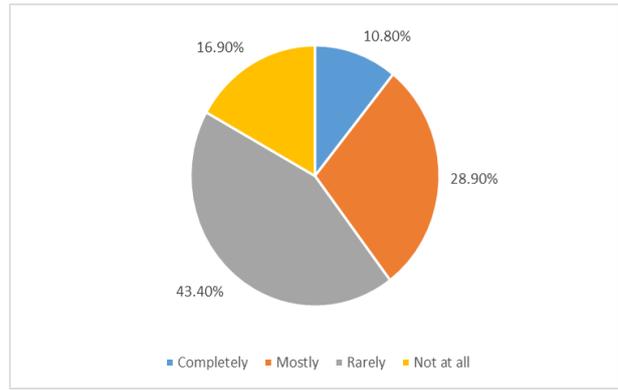


Figure 4: Were designated smoking areas in place?



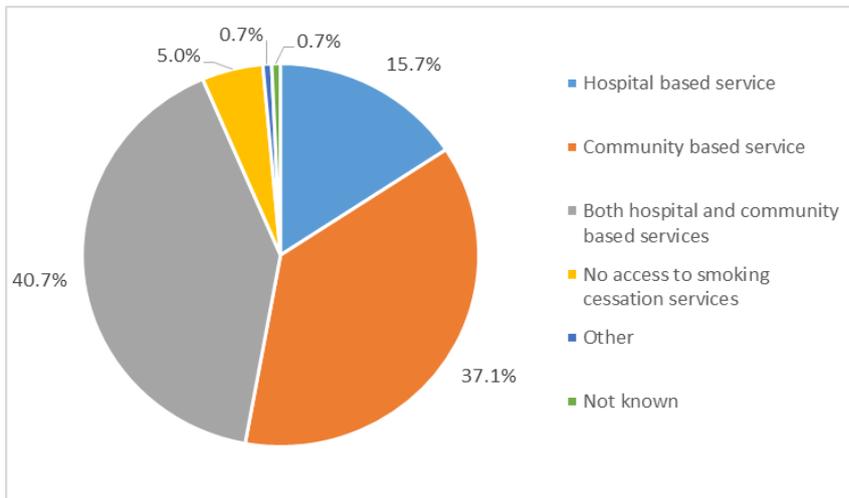
**Figure 5: Where designated smoking areas exist, were smoking restrictions enforced outside of these areas?**



**Figure 6: Where no designated smoking areas exist, were restrictions enforced throughout the grounds?**

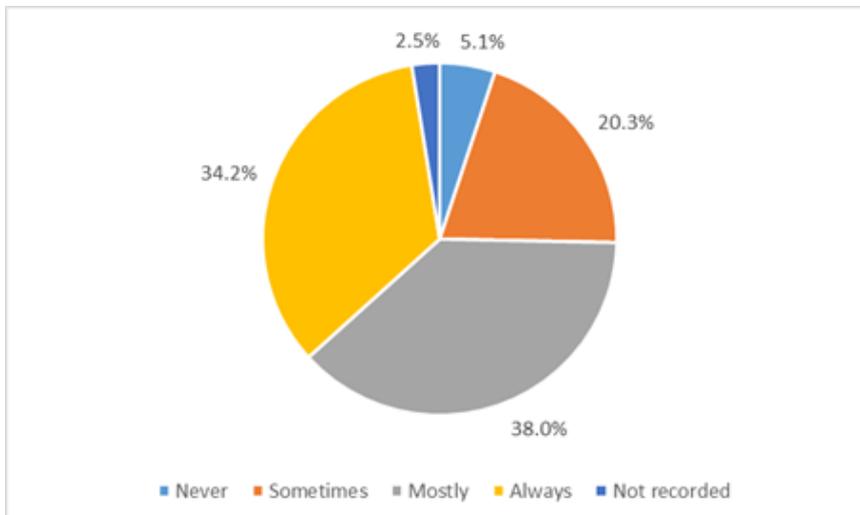
## 2. Access to smoking cessation services

Of 140 institutions 94% had access to a smoking cessation service, 16% had a primary hospital-based smoking cessation service.

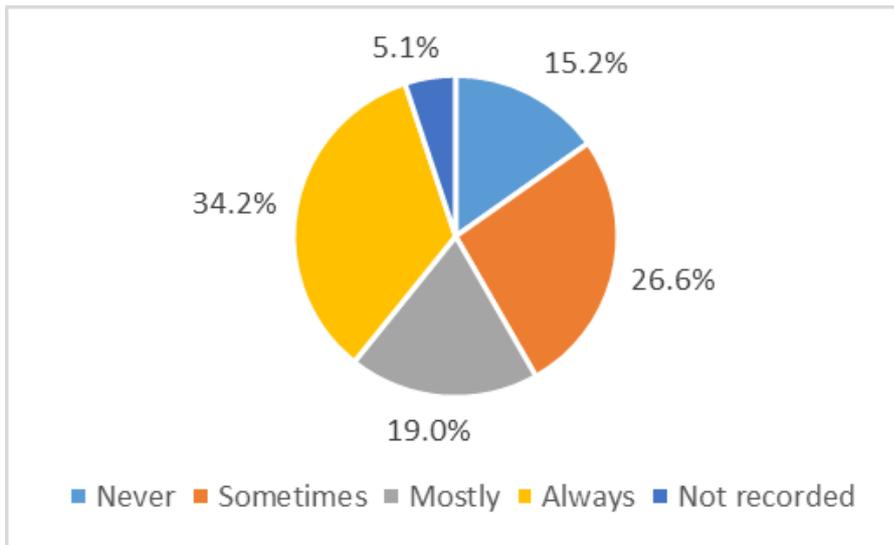


**Figure 7: Access to smoking cessation services**

Of those with a hospital-based smoking cessation service only 34% could always provide access to a hospital smoking cessation practitioner (HSCP) for inpatients and outpatients.



**Figure 8: Inpatient access to an HSCP during stay**



**Figure 9: Outpatient access to an HSCP during visit**

After hospital discharge, 10% of patients did not have a hospital or community smoking cessation service that they could be followed up by.

Smoking status was always captured electronically in 34% of hospitals.

### **3. Leadership of a service, dedicated hospital smoking cessation practitioners, BTS Stop Smoking Champions**

26% of institutions had an identified senior medical leader for their smoking cessation service who spent a median time of 2 hours per week dedicated to the service.

51% of institutions had a dedicated HSCP who worked a median of 29.5 hours per week. 17% of hospital smoking cessation services did not have dedicated office space, email address or phone extension and many services did not fulfil the criteria of providing a fully evidenced-based service. Only 64% of institutions had a BTS Stop Smoking Champion.<sup>5</sup>

### **4. Pharmacotherapy**

99% of institutions provided some pharmacotherapy for smoking cessation, however, the majority did not have basic pharmacotherapy such as varenicline on formulary.

HSCPs were able to prescribe or supply pharmacotherapy in only 23% of institutions to in-patients and 19% of institutions to out-patients.

### **5. Training of staff in smoking cessation**

44% of institutions offered regular smoking cessation training to frontline staff, with doctors including consultants, core trainees and foundation doctors, as well as pharmacists having less training than outpatient and ward-based nurses.

## Conclusions/Observations

The purpose of the first national BTS Smoking Cessation Audit was to measure how hospitals were treating people with tobacco dependence against national standards. Unfortunately the results of the audit, involving 146 hospitals and 14,750 patients, show that we are performing very poorly and that there is much to do to improve basic standards of care and reduce the burden of tobacco-related disease.

Approximately 1 in 4 in patients in this audit were current smokers and were drawn from all over the hospital, not just in respiratory medicine departments. Only 1 in 13 patients who smoke were referred to a hospital or community-based smoking cessation service. We failed to ask 27% of people whether they smoked tobacco. Of the people identified as smokers, almost three quarters were not asked if they would like to quit smoking. Of the tobacco dependent patients who were not asked about quitting, the vast majority (>95%) were not offered pharmacotherapy to treat nicotine withdrawal and to help them abstain from smoking, often the first step towards quitting altogether. Almost nobody was asked about the use of products such as marijuana, shisha or e-cigarettes.

Why were the results so poor? Some context is provided by part 2 of the audit, which showed that few hospitals had a senior medical lead for their smoking cessation service and almost half of all hospitals had no hospital smoking cessation practitioner (HSCP). When there was a medical lead or HSCP they had little allocated time to provide to this service. The hospital-based service was often unable to provide reliable inpatient or outpatient support, and the internal and external referral pathways for smoking cessation were far from universally available. Basic pharmacotherapy for smoking cessation was often not on formulary in hospitals and many of the HSCPs were unable to prescribe or supply these medications to support a quit attempt or temporary abstinence. Regular training of healthcare staff in smoking cessation was poor, especially amongst medical staff. The vast majority of hospital boards did not ensure that hospital grounds were kept smoke-free, which can be a trigger for quit smoking attempts for patients, staff and visitors and reduces second smoke exposure for children, staff and the public.

As well as implementing the NICE PH48<sup>2</sup> and BTS recommendations<sup>1</sup> in full for patients attending hospitals, how else can we improve, such that there will be a measurable change when we repeat this national audit?

### **1. Support all smokers in hospital by referring them to specialised smoking cessation support services to discuss and explore the option of smoking cessation**

Currently this does not happen and is reflected in the poor referral rates identified in this audit. Automating the identification of smokers using hospital patient flow IT systems and automatically triggering a referral to the smoking cessation support service would achieve this goal.

### **2. Improve prescription of NRT**

Automate the prescribing of nicotine replacement therapy for temporary smoking abstinence for all inpatients who smoke, as is done with prescribing of MRSA prophylaxis or thromboprophylaxis.

### **3. Address medical leadership of smoking cessation services**

Despite the number of current smokers and the burden of tobacco-related disease afflicting our patients in hospital, the vast majority of respiratory departments do not have a consultant lead with clinical programmed activities to take forward a hospital-based smoking cessation service, as we have for many other services such as lung cancer or COPD. With an accountable medical lead with allotted time, it is more likely that there will be evidenced-based service development, with implementation of the clinical guidelines, formal referral pathways, pharmacotherapy on formulary, training of staff, rapid treatment for nicotine withdrawal and influencing the behaviour of clinical colleagues and hospital boards.

#### 4. Employ hospital-wide smoking cessation practitioners

Investment in a comprehensive hospital-wide service delivered by trained smoking cessation specialists was recommended by NICE PH48<sup>2</sup> and BTS recommendations<sup>1</sup> but were not present in about 50% of hospitals and when they were present, they were often not supported with sufficient hours, pharmacotherapy or facilities. All hospitals need to invest in these practitioners, commissioned either by clinical commissioning groups, Public Health, the hospital itself or in some combination. In addition to the obvious benefits to population health, emergency admissions, exacerbations of many diseases and hospital re-admissions, a further imperative for investment in a hospital-based smoking cessation service is the present dismantling of many community-based smoking cessation services across the country, leaving our patients with no treatment for tobacco dependence at all.

#### 5. Engage board-level leaders

Implementing hospital smoke-free grounds requires the concerted efforts of many members of a hospital board including the chief executive, director of human resources, director of facilities and the medical and nursing directors. A comprehensive smoke-free policy enables and supports many of the other requirements of a smoking cessation service including hospital-wide staff training, adequate pharmacotherapy for temporary abstinence and cessation, smoking cessation referral pathways and working with community services.

The first national BTS Smoking Cessation Audit has been a tremendous success in that it has highlighted the poor state of services for our patients. The audit has shone a light on a chronic and neglected condition, tobacco dependence, and provides the impetus to take the bold steps that will make a difference.

7 December 2016

#### References

- 1) British Thoracic Society (BTS), 2012. *BTS recommendations for hospital smoking cessation services for commissioners and healthcare professionals*. British Thoracic Society Reports VOL. 4 Issue 4 2012 <<https://www.brit-thoracic.org.uk/document-library/clinical-information/smoking-cessation/bts-recommendations-for-smoking-cessation-services/>> (last access date 1/12/16)
- 2) National Institute for Health and Care Excellence (NICE) 2013. *NICE Smoking Cessation in Secondary Care: Acute, maternity and mental health services* (PH48). London: NICE
- 3) National Institute for Health and Care Excellence (NICE) 2013. *NICE Smoking Cessation: Supporting people to stop smoking* (QS43). London: NICE
- 4) Prevalence of smoking among patients treated in NHS hospitals in England in 2010/2011: a national audit. L Szatkowski, R Murray, R Hubbard, S Agrawal, Y Huang, J Britton. *Thorax* 2015;**70**:498-500Thorax 2010
- 5) For more information on BTS Stop Smoking Champions please visit: <<https://www.brit-thoracic.org.uk/standards-of-care/quality-improvement/smoking-cessation/bts-stop-smoking-champions/>> (last access date 1/12/16)

#### Quality Improvement Tools

Resources to help with QI work are available on the BTS website: <https://www.brit-thoracic.org.uk/standards-of-care/quality-improvement/smoking-cessation/>