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November 2021: NICE guidelines PH45 (June 2013) PH48 (November 2013) have been updated and replaced by NG209.
The recommendations labelled [2013] or [2013, amended 2021] in the updated guideline were based on these evidence reviews.
See www.nice.org.uk/guidance/NG209 for all the current recommendations and evidence reviews.

Stop Smoking Interventions in Secondary Care

Final Report

August 2012

Acknowledgments

The NCSCT CIC has conducted the evaluation of the 'Stop Smoking Interventions in Secondary Care' pilot on behalf of the Department of Health. Sincere thanks go to everyone involved in the development, implementation and analysis of the pilot discussed in this report including:

All of the Pilot sites

Fiona Singleton, Oxfordshire Stop Smoking Service

Graham West, Oxfordshire Stop Smoking Service

North 51

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Executive summary

Stop smoking services were initiated in England over twelve years ago and, unlike in many other countries where secondary care has played a predominant role in the development of services, they have traditionally been based in primary care and community settings. Despite evidence to the contrary, which suggests that secondary care settings offer a prime opportunity to intervene with smokers for a number of reasons, hospitals in England have often not provided structured stop smoking support.

In an attempt to encourage and improve the provision of stop smoking support within hospitals the Department of Health in England in 2009 developed guidance for primary care trusts and their corresponding local hospitals. Local areas were invited to pilot the 'Stop Smoking Interventions in Secondary Care' system as outlined within the guidance, which aimed to support the development of systematic and sustainable stop smoking interventions in secondary care settings.

This report provides an overview of the system and findings from the pre and post-implementation data as provided by the pilot sites. In summary:

- A group of 'early adopters' was recruited in two waves during the summer (June) and autumn (October) of 2009. Out of the original cohort of 72 pilot sites, 68 commenced the pilot; 23 submitted pre-implementation data; and 11 submitted their final post-implementation data.
- The pre-implementation data suggests that at the beginning of the pilot, 30.7% (n=1097) of the hospital population were current smokers which is considerably higher than the national average of 21%.
- According to a survey of the pilot sites, the main elements of the system implemented were: a referral link to the stop smoking service; having pharmacotherapy on the hospital formulary and meeting with key staff.
- When comparing the initial screening assessment for pre and post-implementation data, the provision of stop smoking information increased by 22.6%, as well as the number of referrals offered (4.5%) and the use of NRT whilst in hospital (6.6%).
- The pilot results demonstrate that there are a wealth of missed opportunities to intervene within the secondary care setting, and an enormous scope to improve and develop stop smoking support for hospital patients.
- The pilot was ambitious in scope with a large number of sites involved. Whilst in some areas positive results were evident, in general a lack of strategic programme management and co-ordinated and structured project management within the pilot sites led to inconsistent and varied data collection and submission, as well as varying degrees of success with the implementation of the system itself.

1. Introduction

Stop smoking services were initiated in England over twelve years ago, and have traditionally been based in primary care and community settings. Unlike many other countries, where secondary care has played a predominant role in the development of services, hospitals in England have often not provided structured stop smoking support. This is in contrast to the evidence which suggests that secondary care settings offer a prime opportunity to intervene with smokers for a number of reasons.

Smokers are often in hospital for a smoking related illness and stopping smoking can greatly improve the condition and its treatment.[1] It can also reduce the chance of readmission.[2] Planned admission provides a good opportunity to stop smoking in order to reduce the risk of care-related complications, and provides sufficient lead in time for maximum benefits.[3] However, unplanned admissions may also provide 'teachable moments' in which patients' motivation to stop smoking increases greatly because of a health concern.[4] Finally, healthcare professionals in hospitals are well placed to give very brief advice on stopping smoking, and have a duty of care to talk to patients about stopping.[5,6]

Despite the strong rationale for this work, many stop smoking services in England have received very few referrals from secondary care. In response, the English Department of Health (DH) in 2009 developed guidance for primary care trusts (PCTs) and their corresponding local hospitals to support the development of systematic and sustainable stop smoking interventions in secondary care settings. The aim of the 'Stop Smoking Interventions in Secondary Care' project was to make identifying smokers and stopping smoking a priority for acute trusts, thereby increasing opportunities for improving patient care. It aimed for all clinicians to take part in encouraging patients who smoke to have access to a stop smoking care pathway, while in hospital, and to capitalise on the admission period as a 'teachable moment'; to advise patients to quit smoking permanently and to refer them on to their local stop smoking service.

The 'Stop Smoking Interventions in Secondary Care' approach was provided to areas as a written guide, along with a comprehensive 'how to' toolkit*, which included care pathways for planned and unplanned interventions, sample correspondence for staff and checklists for implementation and evaluation. Additional resources were developed to accompany the guidance, including 'Get Well Sooner' patient leaflets, 'Ask, Advise, Act' (AAA) staff leaflets, a bespoke database for the collection of baseline and follow-up data and clinical case rationale sheets for a number of clinical conditions. An allocation of funding from the DH for the initial phase for recruitment of pilot sites was made available, with an additional wave of funding for the second phase made available in some areas.

* www.ncsct.co.uk/delivery/projects/secondary-care-additional-resources

The ambitious implementation phase aimed for a whole-system approach that sought to achieve large-scale behavioural change in practice within hospital. It was based upon the knowledge that programmes to stop smoking that begin during a hospital stay and that include follow-up support post discharge are effective.

Pilot sites were asked to capture pre and post-implementation as outlined in 2.2, (see page 7) and an interim report outlining the initial pre-implementation data was published in 2011.* This report provides a final overview of the pilot data, broken down into pre and post-implementation and including comparison where possible. It should however be noted that the figures reported in the pre-implementation interim report differ from those within this document. Following further data analysis for the purposes of the final report it became apparent that some sites had inputted post-implementation figures as pre-implementation data. This has now been revised and the figures provided within this report are considered to be final.

* www.ncsct.co.uk/Content/FileManager/documents/NCSCT-CIC-Delivery-Projects/stop-smoking-interventions-in-secondary-care-pre-implementation-report.pdf

2. Method

A group of 'early adopters' was recruited in two waves during the summer (June) and autumn (October) of 2009. Criteria for participation included:

1. Senior-level commitment from both the PCT and hospital directors
2. Willingness to collect and submit low-level data for pre and post-implementation phases
3. Perceived ability for the hospital to undertake the activities as detailed in the provided implementation checklist

Hospital and PCT representatives from each wave of early adopters attended launch events. These events were designed to build knowledge of the rationale for the work, enthusiasm for the approach and to provide information to guide early adopters through each stage of the pilot.

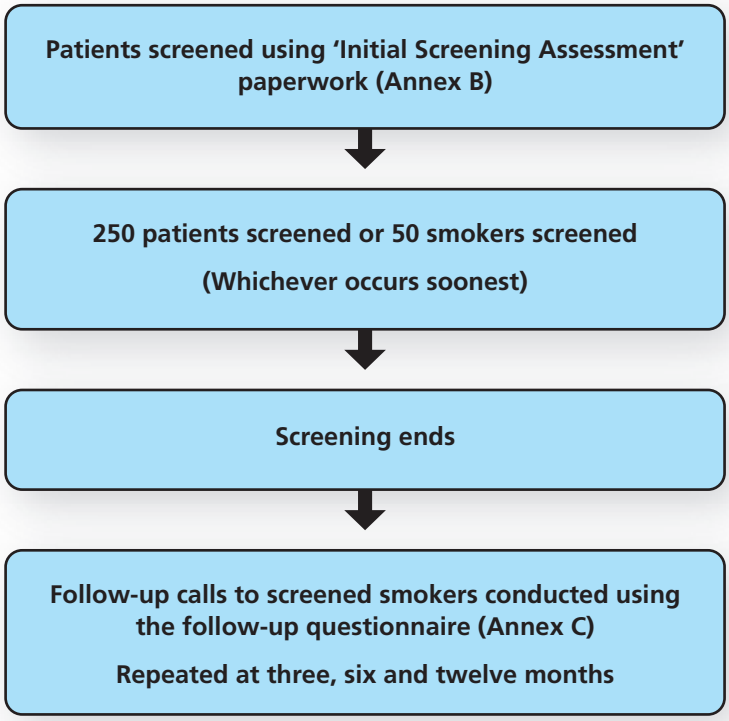
2.1 Pilot participation

Sixty eight sites commenced the pilot in the autumn of 2009; however, the continued participation for the purposes of data collection, as measured by data completeness, dropped down to 23 sites (34%) one year later (autumn 2010), with 11 sites (16%) submitting post-implementation data (January 2012). A number of other sites continued to implement the guidance but did not participate in the data collection; therefore no pre or post-implementation data is available on these sites but they are included in the pilot site survey (see 3.3).

2.2 Pre and post-implementation data: collection, treatment and analysis

The pre and post-implementation data were both comprised of two elements: an initial screening assessment (see Annex A) and a follow-up questionnaire (see Annex B) repeated at three, six and twelve months. The intention of the pre-implementation screening assessment questionnaire was to establish a baseline of current practice against which to benchmark future practice following implementation of the system changes as outlined within the guidance. The intention, therefore, of repeating this questionnaire for the post-implementation phase was to measure and compare the effect of 'system' implementation. The follow-up questionnaires were intended to determine whether patients made any changes to their smoking behaviour in the months following discharge from hospital.

Figure 1: Monitoring and evaluation process



Following local meetings to develop pilot project plans, each early adopter site in wave one (and each in wave two in the North West, South West and West Midlands) was asked to collect a pre-implementation sample in order to establish a baseline. Sites were instructed to collect a sample of 250 patients, 50 of whom were to be smokers. Where the 50 smokers were reached before a sample of 250 patients were collected (e.g. if 100 patients were collected and at least 50 were smokers), the data collection stopped early. This collection was intended to be completed within a one month period and data was to be entered onto the Secondary Care Database (SeCaD) online database. This cohort of smokers was followed up at three, six and twelve months after the initial data collection in order to find out whether any intervention received in relation to their hospital admission had had an impact on their smoking behaviour.

The pilot aimed for the 'system' itself to be implemented (detailed in section 3.1.2) and the data collection repeated six months after full implementation of the project, to support direct comparison.

The pre and post-implementation assessments collected a range of variables including:

- Tobacco use
- Whether a quit date was set
- Whether any information was received about stopping smoking
- Whether any nicotine replacement therapy (NRT) was provided to aid withdrawal management or a quit attempt
- Some background information on the individual's hospital stay (length of stay, surgical procedures and discharge information)

The pre and post-implementation follow-ups included questions regarding:

- Tobacco use since discharge
- Quit information
- Interventions on stopping smoking

Out of the original 72 pilot sites, 68 (94%) commenced the pilot. Of this, 17 (25%) completed the data collection as instructed (250 patients and/or 50 patients who smoke). There were six sites (9%) that were unable to include data on non-smoking patients because of organisational policy on data protection and, therefore, these sites along with sites which did not complete the process correctly are excluded from the analysis on hospital population smoking prevalence in order not to skew the results. Data from the full cohort of 23 sites which completed the pre-implementation data collection is however included in further subset analysis which looks at follow-up data. For the post-implementation phase only 11 sites (48%) submitted data, of which one (4%) had completed this as originally instructed (250 patients and/or 50 smoking patients).

Unfortunately the exact reasons for the high dropout rate of sites by the post-implementation phase are unknown as this was not formally captured within the original evaluation framework. However, adhoc feedback received from local areas often cited an apparent lack of national strategic leadership to maintain the momentum of the project, poor local leadership to support sustained implementation and difficulty in using the data collection tool as barriers to continuing with the project and/or continuing to capture the data. It should also be noted that during the project period (over two years) a number of staff involved at the beginning had subsequently moved onto new roles.

The analysis for the data set was completed using SPSS statistical package version 12.0 and Excel 2010. Prior to analysis the data was cleaned and several variables were collated into groupings to reduce the data complexity. For example, one variable, 'amount smoked' was an open text response in the dataset, producing multiple variations (ten cigarettes was input as '10', '10 cigarettes', '10 per day', 'ten'), while some data was translated into the incorrect format (e.g. 10 – 12 was input as 10-Dec). The amount smoked has been arranged into categories as follows:

1 = 1 – 10

2 = 11 – 20

3 = 21 – 30

4 = 31 and above

There is also a category for cigars / pipes / smokeless / other. Loose tobacco quantified in grams or ounces per day or week has been translated into approximate number of rolled cigarettes.* Other data which required some transforming and coding were type of tobacco used, information given and length of stay. Coding 'reason for admission' proved impossible due to the use of free text response for this question.

The data for the pre-implementation phase was submitted into SeCaD. When the licence for SeCaD ended in August 2011 a revised data collection tool was developed to ensure data collection for the post-implementation phase could happen. The pre-implementation data in SeCaD was cleaned and coded, and each of the sites with pre-implementation completed data were sent an individual report of their data, which enabled local analysis.

2.3 Pilot Site Survey

A short survey of all original participating pilot sites (n = 68) was carried out in February 2011 using an online tool ('survey monkey'). The survey asked respondents to indicate which elements they had managed to implement from the DH Guidance checklist, and which documents had been useful or helpful in relation to the pilot. The results from this can be found in section 3.3.

* Note: The number of hand rolled tobacco users was very low. The translation calculation has no scientific basis and was used to support the data analysis. Pilot sites inputting data were asked to input tobacco use as a daily amount, and if the patient specified use of hand rolled tobacco or pipes, they were asked to convert to an equivalent amount of cigarettes per day using the following formula: 1 gram of tobacco = 1 cigarette, 1 ounce of tobacco = 25 cigarettes

3. Results

3.1 Pre-implementation data (from the SeCaD database)

3.1.1 Smoking prevalence and behaviour

Data from the 17 sites that submitted complete data for both patients who smoke and non-smokers (Table 1) shows that, when looking at patients who had smoked in the last six months and last seven days, there was a smoking prevalence of 31.8% (n=1097) among the hospital population. This is considerably higher than the current general population prevalence of 21%.[7]

Table 1: Smoking behaviour

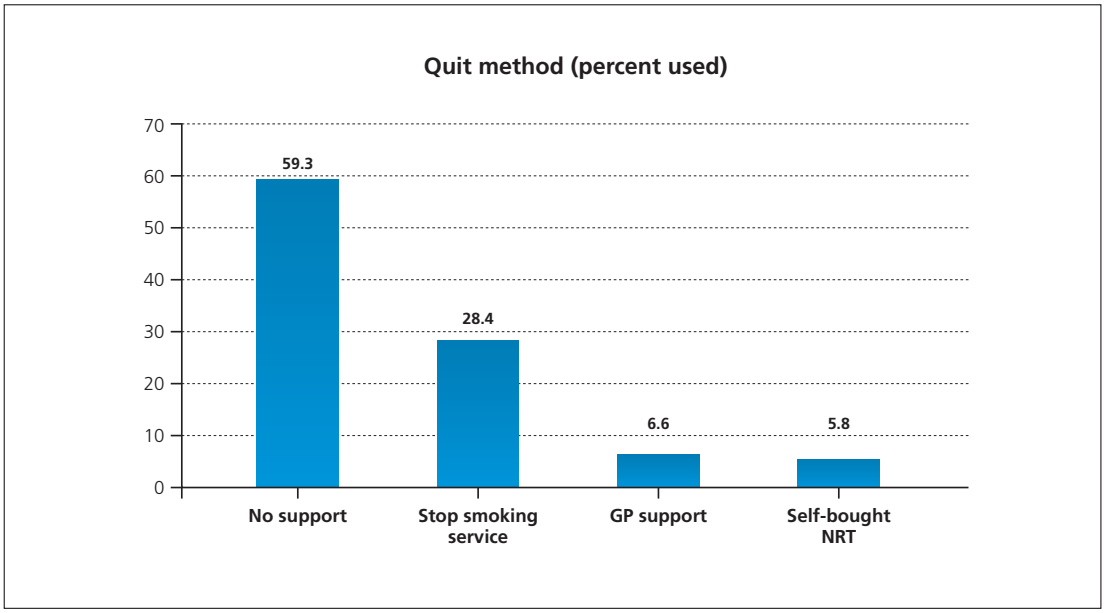
Smoking behaviour	% (n)
Smoked in the last six months (last seven day status unknown)	41.8 (1440)
Current smoker (smoked in last six months and last seven days)	31.8 (1097)
Recent quitter (smoked in last six months but not last seven days)	9.2 (318)
Non-smoker (not smoked in last seven days or six months)	54.6 (1883)
Not reported	0.7 (25)
Unknown	3.6 (123)

As shown in Table 1, the cohort also contained a group of recent quitters (9.2%, n=318) who reported smoking six months ago but not in the last seven days. This could indicate a pre-admission quit attempt, but could also plausibly include some forced abstinence since average length of stay was eight days. While this data is interesting, it has several limitations. It is not possible to separate out those who quit intentionally from those who were forced to be abstinent due to an extended hospital stay. It is also not possible to separate out those who quit as a part of their preadmission with those who either quit well in advance of hospitalisation or spontaneously upon admission. Finally, due to the varied methods of data collection used by the pilot sites, it is difficult to gauge how representative these figures are of the general hospital population. For example, some areas collected data in selected wards such as cardiology or respiratory where one would expect to see more smoking-related admissions than on other wards.

Of all of the patients who indicated they were smokers in the initial assessment (n=1440) the most common form of tobacco used was cigarettes (84.7%, n=1219) with a small number (1.4%, n=20) reported as smoking cigars, and pipe use reported by 1.2% (n=13). A further 9.1% (n=131) reported 'other' tobacco use (including hand rolled and cannabis) while 3.8% (n=55) were unknown. The average cigarettes smoked per day was 15 cigarettes (with a range of 1– 60). This indicated that these smokers may smoke slightly more than the average smoker, however since other relevant questions such as time to first cigarette were not asked, it is not possible to gauge whether these smokers were more dependent than those in the general population.

The pre-implementation questionnaire asked several questions which helped to define quitters, quit date and method of stopping smoking. When looking at the cohort of 'recent quitters' (n=318) who had indicated that they had not used tobacco in the last seven days, 78.6% (n=250) reported setting a quit date and 76.4% (n=243) reported a method of quitting. As shown in Figure 1, out of the 243 people who specified the method of quitting, the majority used no support (59.3%, n=144), while use of the stop smoking service was reported by 28.4% (n=69) which is well above the national average currently reported at 1.4%.[8] Other supported methods of stopping included GP support at 6.6% (n=16) and self-bought NRT at 5.8%, (n=14). As the majority specified that they used 'no support' to stop smoking, it is evident that further work is required to support smokers who want to stop to use the most effective method.

Figure 2: Reported quit method

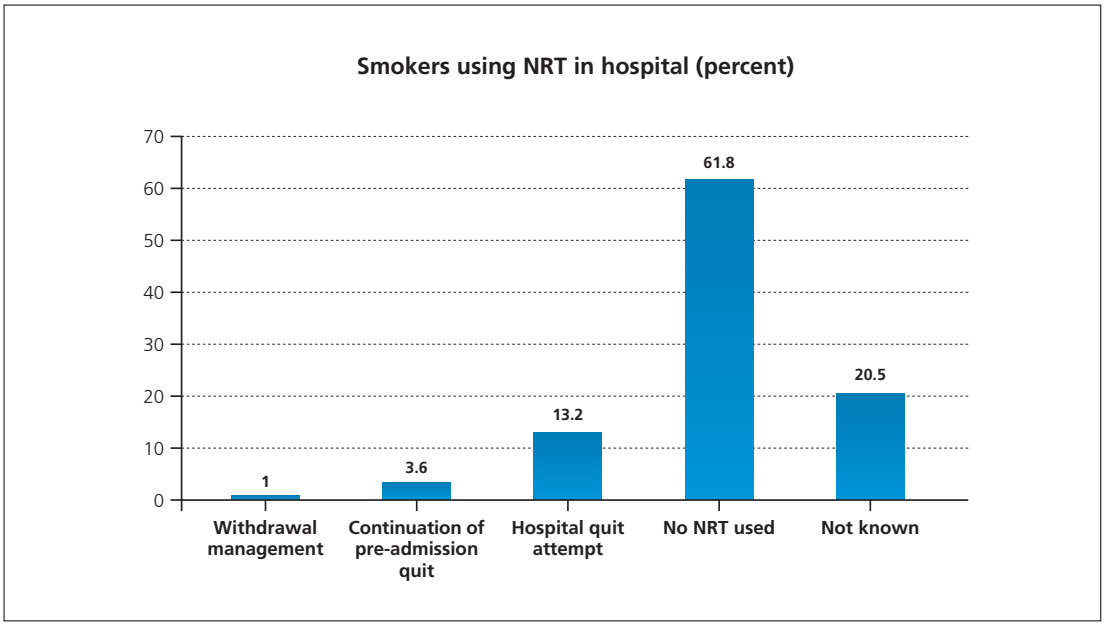


3.1.2 Information provided in hospital

This section of the pre-implementation questionnaire sought to identify the interventions currently provided in hospital, thereby providing a baseline of activity against which to benchmark future intervention levels. Many patients were given some type of advice on smoking in relation to their admission. Just under 40% (38.9%, n=560) of patients reported being given information or advice and of this, 65.9% (n=369) included verbal advice as opposed to just written. The most common single intervention was a healthcare professional providing advice verbally (51.3%, n=287). Over 57.3% (n=825) were not given any information or advice and 3.8% (n=55) were unknown.

In total 17.7% (n=255) of patients who smoked reported using NRT while in hospital, 61.8% (n=890) were not provided with NRT, and 20.5% (n=295) were not known (see Figure 3). Of patients who had used NRT in hospital 84.3% (n=215) were provided with NRT to take home upon discharge; which was very positive. However, when compared to the whole cohort of smokers (n=1440) only 14.9% (n=215) received NRT upon discharge, which is a concern. Failure to provide NRT upon discharge can be very problematic for vulnerable patients whose quit attempt may be at risk if they do not obtain NRT quickly and easily upon discharge. These figures could indicate low awareness of NRT availability by staff and patients, as well as difficulties associated with having NRT available on the hospital formulary.

Figure 3: Percentage of smokers who reported using NRT in hospital



The majority of smokers (51.5%, n=741) reported not being offered a referral to their local stop smoking service. Of the 326 (22.6%) patients who were, the majority were offered this during their hospital stay (43.3%, n=141) in comparison to on admission (36.5%, n=119) and on discharge (20.2%, n=66). A smaller number (14.4%, n=47) were given self-referral details.

The fact that 57.3% (n=825) of patients who smoke reported receiving no information or advice and 51.5% (n=741) were not offered a referral, is demonstrative of the huge missed opportunities that existed in the secondary care setting prior to this project.

3.1.3 Hospital admission information

Hospital length of stay averaged at eight days (Range: 0–186 days); however, the median was three days. Surgical procedures varied greatly from those likely to be smoking related such as amputations and heart surgery to those less likely such as bone or joint repairs. However, the question style used (free text response) to gather this information made it impractical to code these for the purpose of this report.

3.1.4 Pre-implementation follow-up

The follow-up data consisted of a set of questions asked of patients who participated in the screening assessment questionnaire and who smoked. It should be noted that the number of smokers in these datasets is small due to the small numbers of smokers to start with, difficulties the sites had in following them up, and some sites not completing all three follow ups. An overview of the outcomes from the three, six and twelve month follow-ups is provided in Table 2 below.

Table 2: Three, six and twelve month pre-implementation follow-up outcomes

	Three months %(n)	Six months %(n)	Twelve months %(n)
Number contacted	54 (777)	39 (561)	23.5 (339)
Smoked since discharge			
Yes	61.3 (477)	72.7 (408)	77.3 (262)
No	29.6 (230)	22.8 (128)	22.7 (77)
Not recorded	9.1 (71)	4.5 (25)	0 (0)
Quit attempt made in relation to hospital stay	46.6 (362)		
Stage of hospital quit			
Pre-admission	7.5 (27)		
During admission	29.6 (107)		
Upon discharge	3.6 (13)		
Not recorded	59.4 (215)		
Quit method used			
Stop smoking service	21.5 (78)		
GP	1.9 (7)		
Self-bought NRT	1.1 (4)		
No support	14.4 (52)		
Not recorded	61 (221)		

Note: Due to the method of data collection and reporting, it was not possible to robustly report outcomes for the same smokers across the 3, 6 and 12 month follow-ups. Therefore, only smoking status following discharge is given at the 6 and 12 month stage.

3.2 Post-implementation results

3.2.1 Post-implementation data: Smoking prevalence and behaviour

Two sites submitted patient data for smokers and non-smokers; of which only one site completed a full data set. Data from this one site showed a smoking prevalence of 18.9% (n=45) when looking at patients who had smoked in the last six months and last seven days.

It was however possible to include data from the 11 sites that submitted their post-implementation figures in the remainder of the analysis. Table 3 depicts smoking behaviour.

Table 3: Smoking Behaviour

Smoking behaviour	% (n)
Smoked in the last six months (last seven day status unknown)	52 (312)
Current smoker (smoked in last six months and last seven days)	38.8 (233)
Recent quitter (smoked in last six months but not last seven days)	12.5 (75)
Non-smoker (not smoked in last seven days or six months)	7 (42)
Not recorded	13.2 (79)
Unknown	28.5 (171)

Where recorded, the most common form of tobacco used was cigarettes (84.9%, n=265) with a small number reporting using cigars (1.3%, n=4), pipes (0.6%, n=2) and 'other' (11.5%, n=36). The amount smoked varied from one to 70 per day, and the average amount smoked per day was 15 cigarettes.

The post-implementation questionnaire asked several questions which helped to define quitters, quit date and method of stopping smoking. When looking at the cohort of 'recent quitters'* (n=75), 72% (n=54) reported setting a quit date and 80% (n=60) indicated a method of stopping smoking (n=60).

Of the 60 patients who indicated a quit method, the most frequently reported was 'no support' (55%, n=33), while use of the NHS stop smoking service was reported by 30% (n=18). Other methods of support used included self-bought NRT at 10% (n=6) and GP support at 5% (n=3).

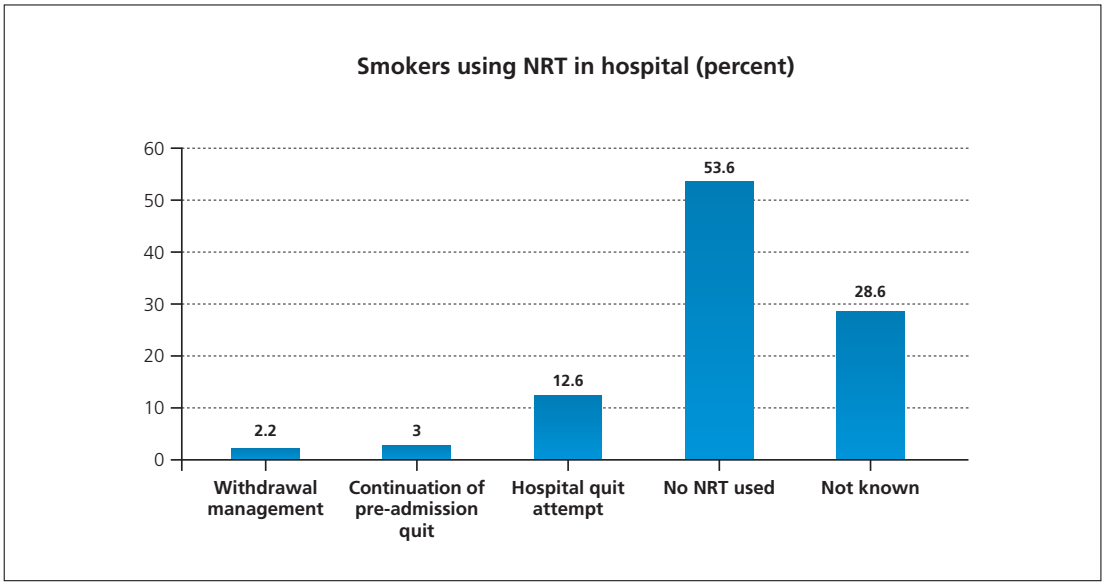
* Recent quitters defined as patients who reported smoking in the last six months but not the last seven days. Limitations of this definition are discussed on page 10.

3.2.2 Information provided in hospital:

For this section of the post-implementation phase, the questionnaire sought to identify the interventions currently provided in hospital. In total 54.2% (n=169) received information regarding stopping smoking, whereas 42% (n=131) did not, and the remainder were unanswered. Of those who were given some type of advice about stopping smoking, the most frequently reported was verbal advice (84%, n=142).

Where known, NRT was used in 20.8% (n=65) of cases, compared with 62.2% (n=195) where it was not. Of those whose NRT use while in hospital was reported, an encouraging 66.2% (n=43) were provided with NRT to take home following discharge; 24.6% (n=16) were not.

Figure 4: Percentage of smokers who reported using NRT in hospital



The majority of smokers (46.8%, n=146) were not offered a referral to their local stop smoking service. Of the 70 (22.4%) of patients who were, the majority were offered this during their hospital stay (68.6%, n=48), in comparison with on admission (27.1%, n=19), and on discharge (4.3%, n=3). There were also a small number of patients (4.1%, n=15) who were given self-referral details. As in the pre-implementation section of this report, this again shows a large incidence of missed opportunities to intervene with this vulnerable and motivated group of smokers.

3.2.3 Hospital admission information

Hospital length of stay averaged at seven days (Range: 1–90 days); however, the median was three days. Surgical procedures varied greatly from those likely to be smoking-related to those less likely. However, as with the pre-implementation data, the question style used (free text response) to gather this information made it impractical to code these for the purpose of this report.

3.2.4 Post-implementation follow-up

As per pre-implementation, the follow-up data consists of a set of questions asked of patients who participated in the screening assessment questionnaire and who smoked. It should be noted that the number of smokers in these datasets is low due to small numbers of smokers to start with, difficulties the sites had in following them up, and some sites not completing all three follow-ups. An overview of the outcomes from the three, six and twelve month follow-ups is provided in Table 4 below.

Table 4: Three, six and twelve month post-implementation follow-up outcomes

	Three months %(n)	Six months %(n)	Twelve months %(n)
Number contacted	56.1 (175)	80.1 (250)	80.1 (250)
Smoked since discharge			
Yes	59.4 (104)	36 (90)	18 (45)
No	26.9 (47)	14.8 (37)	6 (15)
Not recorded	13.7 (24)	49.2 (123)	76 (190)
Quit attempt made in relation to hospital stay	50.9 (89)		
Stage of hospital quit			
Pre-admission	7.9 (7)		
During admission	43.8 (39)		
Upon discharge	2.2 (2)		
Not recorded	46.1 (41)		
Quit method used			
Stop smoking service	30.3 (27)		
GP	1.1 (1)		
Self-bought NRT	2.2 (2)		
No support	16.9 (15)		
Not recorded	49.4 (44)		

Note: Due to the method of data collection and reporting, it was not possible to robustly report outcomes for the same smokers across the three, six and twelve month follow-ups. Therefore, only smoking status following discharge is given at the six and twelve month stage.

3.3 Pilot Site Survey

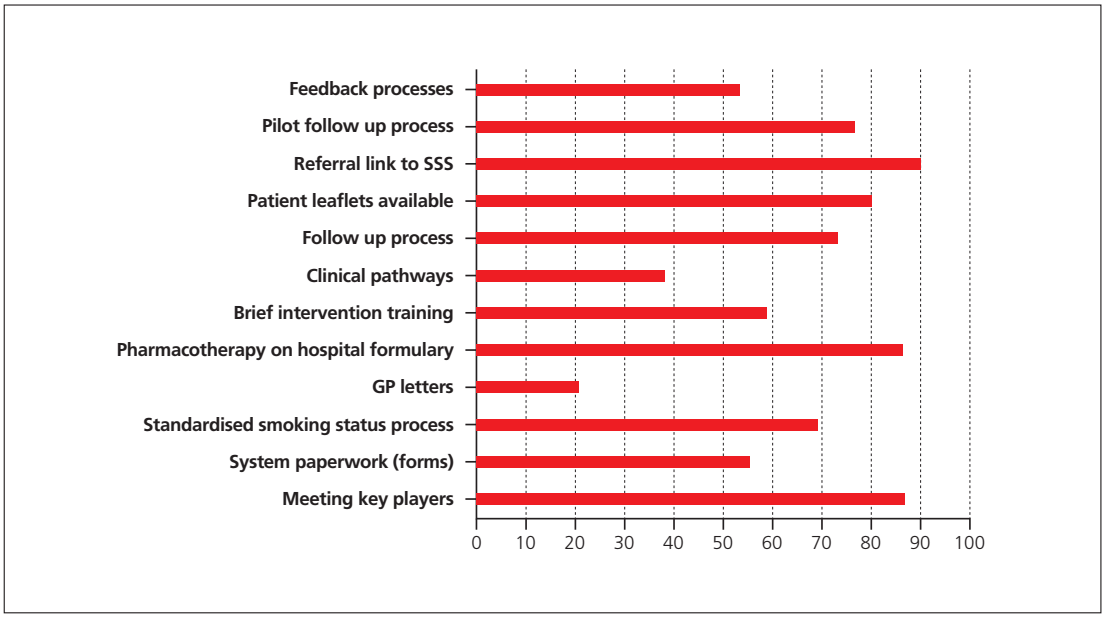
Responses were returned by 44% (n=30) of the sites. Many of the non-responders were no longer participating in the pilot or did not undertake the data collection.

3.3.1 Implementation of the approach

An implementation checklist was included within the project toolkit for local areas to follow. The data showed that the items most commonly implemented from the checklist were: meeting with key staff, setting up referral processes and ensuring pharmacotherapy availability via hospital formularies (see Figure 5). Other areas that were not implemented as frequently included setting up clinical pathways, standardising the identification of smokers in hospital settings and implementing paperwork to support these systems.

Figure 5: Implementation-percentage of sites reporting they implemented the following changes

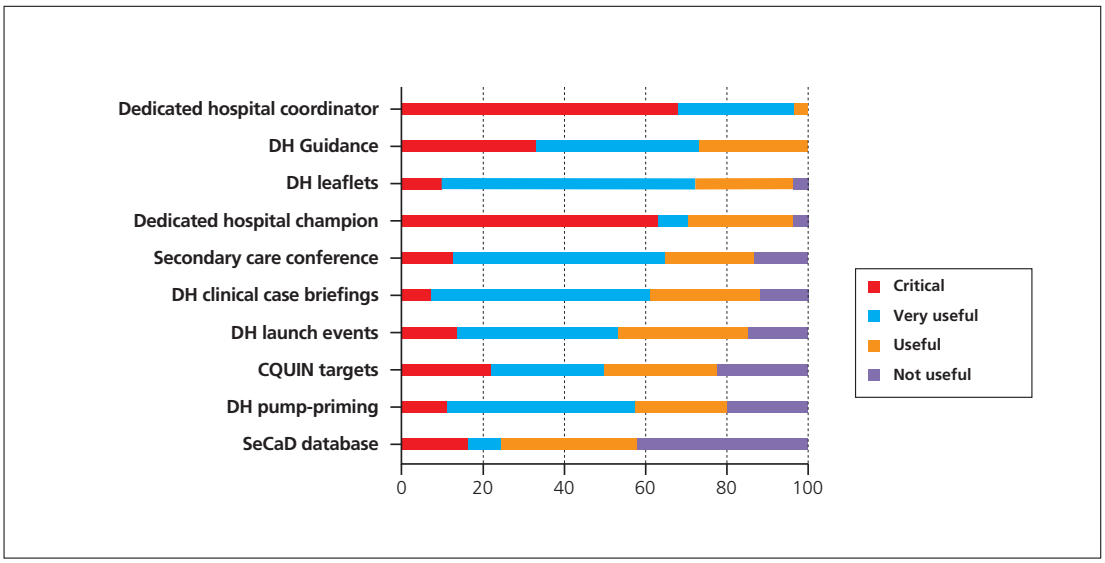
Question: Please indicate which of the following items from the DH Guidance implementation checklist your site fully implemented (tick all that apply)



Respondents were also asked which of the elements recommended as part of the approach were useful, as shown in Figure 6.

Figure 6: Degree to which these elements were felt to be useful to the pilot (percentage agreement)

Question: Which of the following have you found useful or helpful in undertaking this pilot?



3.3.3 Barriers to implementation

Respondents were asked to describe any barriers they faced in trying to implement the data capture required as part of the project. Table 5 provides a summary of the responses received.

Table 5: Barriers encountered

Question: Please briefly describe any problems or barriers your site encountered in completing any aspects of data collection, input, follow up or implementation

	% (n (count))
Lack of hospital support – general	2 (5)
Lack of hospital support – training	10 (2)
Problems with questionnaire / follow-up question design	13 (4)
Difficulty in completing the screening assessment form	37 (10)
Difficulty in getting hold of patients to follow-up	47 (9)
Problems entering data on database	40 (9)
Staffing issues	17 (6)
Lack of resources from DH	3 (1)
Lack of support from region	6 (2)

These barriers may also explain to some extent why the project timescales slipped for a number of areas. This was possibly also affected by the degree to which systems were already in place prior to the pilot. Several sites had longstanding relationships and working practices, while some were starting from a less developed base for action.

4. Comparison and conclusion

4.1 Comparison

Due to the aim of the pilot, the comparison has been limited to only those sites who submitted both pre and post-implementation data (n=11) in order to compare changes in activity. Table 6 provides a comparative summary of the initial screening results. Follow-up data has not been compared as, due to the nature of the data collection, it was not possible to identify smokers and therefore conduct further analysis with any confidence.

Table 6: Comparison of pre and post-implementation screening outcomes

	Pre-implementation % (n)	Post-implementation % (n)
Smoking Prevalence[a]	28.7 (50)	18.9 (45)
Recent Quitters[b]	21 (102)	25 (75)
Quit date set[c]	81.4 (83)	72 (54)
Quit method[c]	Total = 102	Total = 75
GP	6.9 (7)	4 (3)
SSS	12.7 (13)	24 (18)
No support	61.8 (63)	44 (33)
Self-bought NRT	2 (2)	8 (6)
Information given in hospital?[b]	Total = 485	Total = 312
Yes	31.6 (153)	54.2 (169)
No	64.1 (311)	42 (131)
Of yes responses % (n) given verbal Information	68.6 (105)	84 (142)
NRT used[b]	Total = 485	Total = 312
Yes	14.2 (69)	20.8 (65)
No	65.2 (316)	62.2 (194)
NRT TTO[d]	Total = 69	Total = 65
Yes	78.3 (54)	66.2 (43)
No	14.5 (10)	24.6 (16)
Referral offered?[b]	Total = 485	Total = 312
Yes	17.9 (87)	22.4 (70)
No	58.1 (282)	46.8 (146)
Self-referral	2.3 (11)	4.8 (15)
Referral (by stage)[e]	Total = 87	Total = 70
Admission	34.5 (30)	27.1 (19)
During stay	55.2 (48)	68.6 (48)
Discharge	10.3 (9)	4.3 (3)

a. Comparison of only one site
b. Comparison using all identified smokers within the 11 sites that submitted both pre and post-implementation data
c. Comparison using all identified 'recent quitters' within the 11 sites that submitted both pre and post-implementation data
d. Comparison using all identified smokers within the 11 sites that reported receiving NRT whilst in hospital
e. Comparison using all identified smokers within the 11 sites that reported being offered a referral

4.1.1 Smoking prevalence and recent quitters

Unfortunately, only one of the pilot sites that submitted post-implementation data included non-smokers and followed the 250 patients/50 smokers screening rule. Therefore it was only possible to compare the smoking prevalence within this one site. Whilst it is positive that prevalence appeared to reduce by 9.8% following the implementation of the system, this should be interpreted with some caution. In particular, the breakdown of patients included in the data collection by ward is not known and therefore it is possible that more patients from wards where a higher prevalence of smoking would be expected, such as respiratory wards for example, could have been included in the pre-implementation dataset. Patient demographics and dependence scores were also not routinely captured which would also influence this.

As shown in Table 6, an increase of 4% was also seen in the reported number of recent quitters i.e. those patients who had smoked within the last six months but not the last seven days. This however cannot be associated with the reduction in prevalence as recent quitters were not included within this calculation.

4.1.2 Provision of information and referral

It is emboldening that 22.6% more smokers (an increase from 31.6% to 54.2%) reported being given information about the stop smoking support available whilst in hospital. This, in addition to the fact that the reported provision of verbal advice also notably increased by 15.4%, suggests that as a result of implementation, a change in practice did occur. An increase in staff trained to deliver very brief advice for example, could have been one cause of such an improvement.

Similarly, the proportion of smokers offered a referral also increased by 4.5% (from 17.9% to 22.4%) although the actual number of referrals was less during post-implementation.

4.1.3 Use of NRT

Encouragingly, a 6.6% increase (14.2% to 20.8%) in NRT use was reported, which could suggest a greater availability of NRT and awareness among staff as a result of the pilot implementation, although it should be noted that in real terms this represents only four more people receiving NRT across the 11 sites. This still equates to less than a quarter of identified smokers using NRT, which is discouraging, especially considering that even smokers who do not wish to stop are likely to require pharmacological support while in hospital to effectively manage withdrawal symptoms. Furthermore, the apparent 12.1% reduction in the provision of NRT upon discharge is also disappointing, and indicates that there is an on-going need to raise the profile of smoking within secondary care settings in order to achieve a greater rate of change in day-to-day practice.

4.2 Conclusion

It is clear that embedding the identification, referral and support for smokers within secondary care settings requires a significant period of time and dedicated capacity among staff, including senior management, to achieve a change in day-to-day practice. Whilst it is encouraging that fundamental activity such as providing advice, referral and NRT to smokers did appear to increase within the pilot sites following implementation, the data continues to suggest that there are still a substantial number of missed opportunities to intervene with this high risk group. It is concerning, for example, that even in the post-implementation phase, over 40% of patients reported not receiving any information about the stop smoking support available to them (42%, n=131) or being offered a referral to a stop smoking service (46.8%, n=146). This failure to maximise contacts with all smokers could account for the reported continued low use of effective quit methods such as stop smoking services (24% of recent quitters, n=18) and NRT (20.8% of identified smokers, n=65) post implementation, and demonstrates that on-going implementation and monitoring is required to maintain and improve the offer, and delivery, of stop smoking support within secondary care settings.

Overall, the 'Stop Smoking Interventions in Secondary Care' national pilot was an ambitious piece of work with varying levels of take up in local areas. Given the apparent disparity amongst pilot sites in the method of implementation, data collection and adherence to evaluation and monitoring instructions, it is suggested that future pilots of this nature would benefit from a phased approach, beginning with one or a small number of sites to initially test the pilot design and to assess initial outcomes.

Ultimately, it would appear that unless there is high level support, visible via funding for a dedicated hospital post, presence of a committed champion and dedication to thorough system improvement, changes in practice are unlikely to be achieved and even less likely to be sustained.

5. Recommendations

While effective provision has been implemented in some local areas, the outcomes of this report suggest that further work is required to standardise the provision of stop smoking care in hospitals. The following recommendations provide suggested next steps to support improvements in this area.

- Robust, efficient and effective systems for the identification and referral of hospital patients who smoke should be standardised in all acute trusts to ensure the high number of smokers in this setting are identified and referred to appropriate support.
- All frontline hospital staff should be trained to routinely deliver very brief advice and refer all smokers (unless they specifically decline) to stop smoking support.
- NRT and other stop smoking medicines should be available on hospital formularies with information provided on how to use this medication effectively for temporary abstinence purposes, where the smoker declines the offer of stop smoking support.
- Stop smoking medicines should be included in any medicines to take home (upon discharge) to reduce the risk of relapse and to allow time for community based follow-up and support, as well as allowing a patient to continue using their stop smoking medicine if they have quit prior to or following admission.
- The hospital should be a supportive environment for patients, that encourages stopping smoking and abstinence during a hospital stay. Hospital staff should have a good knowledge and awareness of support available for patients, including stop smoking medicine.
- For the implementation of a system that supports hospital patients to stop smoking there needs to be strategic oversight with a programme management approach to coordinate and work closely with stakeholders to ensure there is a systematic implementation.
- Pilot projects need to start small, be manageable, and build sufficient support mechanisms in order to help embed systematic and lasting change. Simple and clear data collection methods should be employed with clear communications provided to all relevant staff. A small working group should be initiated that can develop and implement changes both systematically and culturally within the hospital, with an identified champion and dedicated hospital coordinator.

6. References

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8. Annex A:
Screening Assessment Form

Stop Smoking Intervention in Secondary Care

Screening Assessment Form

Hospital: _____ **Planned Admission?** Yes No

Unit: _____

Admitting diagnosis: _____

Patient details:

Title: _____ Street: _____

First Name: _____ Address 2: _____

Last Name: _____ Address 3: _____

Date of birth: _____ Town/ City: _____

Gender: Male County: _____

Female Post Code: _____

We would like to contact you after your discharge to find out how you are progressing in terms of your smoking. Do you agree to be contacted by telephone? If so, please provide a contact number. Please sign the box below to confirm you are happy for us to contact you (by telephone on one of the numbers provided) at up to three single timepoints over the next 12 months to audit the services we provide and see if you are happy with them. If you do not want us to call you, and you do not consent to this contact, please do not sign the box – this will not affect your hospital treatment in any way.

Home: _____

Mobile: _____

Patient signature:	Nurse signature:

Date: _____ / _____ / 20_____

1. Have you used any form of tobacco in the last 6 months?
a. No (no further questions)
b. Yes (please circle)

Cigarettes Pipe Cigars Other: _____

i. Have you used any form of tobacco in the last 7 days?
1. No
a. Quit date: _____
b. Method of stopping smoking (please circle)

NHS Stop Smoking Service Self-brought NRT GP No Support

2. Yes
a. What was the average amount smoked per day?

ii. Have you been given any information about stopping smoking in relation to your admission?
1. No
2. Yes
Please describe who gave you the information and what it was:

For completion on discharge by nurse:

2. Was NRT used in hospital?
a. Yes – Continuation of quit attempt started pre-admission (NRT brought into hospital)
b. Yes – Withdrawal management only
c. Yes – Started quit attempt in hospital
d. No

3. TTO NRT?
a. Yes

Please list:

b. No

4. Was a referral to LSSS made by the hospital staff?
a. Yes – On admission
b. Yes – During hospital stay
c. Yes – On discharge
d. Recommendation and self referral details given
e. No

5. Date of discharge: _____

6. Discharge to:
a. Home
b. Hospital/other facility
c. Deceased
d. Other

7. Total length of stay (days):

8. Surgical procedures undertaken:

9. Comments:

To LSSS for data entry

9. Annex B: Follow-up form

FOLLOW-UP FORM

To be completed by the LSSS hospital co-ordinator.

Hospital: Unit:

Date: Admitting diagnosis:

1. Have you used any form of tobacco since you were discharged from hospital on _____ (discharge date)?

   a. Yes

      i. Please circle any used:

      Cigarettes Pipe Cigars Other – please state:

      ii. What was the average amount smoked per day?

      iii. Were you given advice relating to smoking while you were in hospital? Yes/No

      iv. If yes, what and by whom?

      v. Did you make a quit attempt related to your hospital stay? Yes/No

      vi. If yes, how long were you completely abstinent from smoked tobacco?

      vii. Comments:

      No further questions

   b. No – quit date:

2. What method did you use to stop smoking? – please circle the method used:

   NHS Stop Smoking Service Self-bought NRT GP No support

3. Was your quit attempt related to your hospital stay?
    a. Yes – I stopped before my admission
    b. Yes – I stopped during my admission
    c. Yes – I stopped because of discharge referral/advice
    d. Yes – I stopped after discharge because of complications
    e. No
    f. Other – please state:

4. Did you receive any advice or support about smoking when you were in hospital? – please circle all that apply:
    a. Yes – pre-admission service and medication
    b. Yes – withdrawal management (NRT)
    c. Yes – hospital stop smoking service quit attempt, including medication
    d. Yes – verbal advice to stop
    e. Yes – written advice to stop
    f. Yes – formal referral by hospital staff to LSSS
    g. No – self-referral to LSSS information
    h. Other – please state:

5. Do you have any other comments about the service you received while in hospital?