NCSCT

Streamlined Secondary Care System

Project Report

June 2012

Contents

Executive summary

Smoking increases the risk of post-operative complications and increases recovery time.[1] In 2009/10 there were 1.5 million hospital admissions for adults aged 35 and over with a primary diagnosis of a disease caused by smoking.[2] It is estimated that treating smoking-related illnesses cost the NHS £2.7 billion in 2006/7, or over £50 million every week.[3]

A standardised method of identifying and referring hospital patients to stop smoking support does not currently exist in England, with a real need for modernisation. Referral pathways are largely inefficient and not fully embedded or implemented within existing hospital systems. As a result, the NCSCT Community Interest Company (NCSCT) was commissioned by the Department of Health to test a streamlined, systematic and robust referral system in one acute trust that would increase the referral of smokers to appropriate stop smoking support.

The Streamlined Secondary Care System

The Streamlined Secondary Care System is a whole hospital approach to stop smoking support for patients. The system includes an innovative electronic referral system that is incorporated within the existing hospital IT system. The approach ensures that there is a straightforward and efficient method for referring smokers on to their local stop smoking service. It focuses on implementing systems that support staff to deliver 'Very Brief Advice' (VBA) and electronically refer patients. The electronic referral system sorts patients by their postcode to ensure that they are automatically referred to the correct local stop smoking service. The system also includes an online training programme that provides the necessary knowledge required to deliver VBA in the hospital setting.

The system was piloted in the Queen Alexandra Hospital within Portsmouth Hospitals NHS Trust for three months from 15 November 2011 to 17 February 2012. Whilst the intention was for all referrals to be made electronically from the seven pilot departments, there were also additional referrals made via existing referral systems (e.g. paper based) as departments not directly involved in the pilot engaged with the project.

Outcomes and recommendations

Key outcomes from the pilot included:

- In total there were 187 referrals made via the 'Referral Management System' (RMS) and 330 referrals made overall by all referral methods. This equates to a total increase of 602% when compared to the 47 referrals made during the same period in the previous year.
- Prior to the pilot 55 members of staff were reported as being trained in VBA by the local stop smoking services. From 1 September 2011 staff were asked to complete the online VBA training developed for the pilot. This resulted in a 415% (n=282) increase in the number of staff trained to give VBA to patients via the online training programme.

- The simplicity of the Streamlined Secondary Care System has proven to effectively increase the identification and referral of hospital patients into local stop smoking support. Key benefits of the approach include:
  - A simple and time efficient referral system that is easily incorporated within existing day-to-day practice
  - An effective, accessible and measurable online VBA training programme
  - A system that enables stop smoking services to respond quickly and efficiently to referred patients
  - A whole hospital approach that stimulates progress towards providing a supportive environment for patients to stop smoking

The evaluation of the Streamlined Secondary Care System pilot has resulted in the development of eight key recommendatons. The recommendations cannot be specifically aimed at acute trusts or local commissioners due to the radically changing landscape, however, the general recommendations are as follows:

1. The need for senior level engagement, passion and dedication to drive forward a cultural change within an acute trust
2. The need for thorough whole hospital engagement with frontline hospital staff, right through from senior and middle management
3. Referrals from acute settings on to stop smoking services should be made via a robust, secure, efficient electronic system, which can provide an auditable solution to measure performance against smoking related CQUIN indicators
4. Frontline hospital staff should be trained online to give VBA
5. Local areas should dedicate funding to develop hospitals into supportive environments for their patients to stop smoking, and for stop smoking medicines to be available on the hospital formulary
6. A programme management approach to implementing changes within an acute trust is required, supported by a dedicated project manager that includes the IT department being a key and willing stakeholder
7. The IT department in the acute trust is a key stakeholder, and it needs to be open, willing, flexible and accommodating to allow changes to be made to the internal IT system and able to work around challenges that may arise with existing, potentially antiquated, electronic systems to enable referrals to be made. In addition, it is also recommended that all patient electronic data capture methods for hospitals include a smoking status field.
8. NRT and other stop smoking medicines should be available on hospital formularies with information provided to both staff and patients on how to use this medication effectively, even for temporary abstinence purposes.

1. Introduction

Smoking increases the risk of post-operative complications and increases recovery time.[1] Smokers are also more likely to experience slower wound healing which can result in the need for further surgery, a longer hospital stay and increased costs to the health service. There are multiple health problems that can be linked directly to smoking, including cancer, cardiovascular disease and lung diseases, which frequently lead to a period of hospitalisation.[4]

In 2009/10 there were 1.5 million hospital admissions for adults aged 35 and over with a primary diagnosis of a disease caused by smoking: approximately 4,100 admissions per day. This figure has been rising steadily since 1996/97 when the number of such admissions was 1.1 million. In 2009/10 it was also estimated that around 461,700 hospital admissions were directly attributable to smoking, accounting for 5% of all adult hospital admissions. In addition there were 81,700 deaths which were estimated to be attributable to smoking in 2010, totalling 18% of all adult deaths.[2]

It is estimated that treating smoking-related illnesses cost the NHS £2.7 billion in 2006/7, or over £50 million every week.[3] It is important to note that these are costs of treating smoking-related illnesses and do not include costs related to working days lost or incapacity benefit payments for ill health for example, nor do they include any costs related to the effects of secondhand smoking.[2]

Benefits of hospital stop smoking interventions

Patients are more receptive to an offer of stop smoking support while in hospital. In particular, patients often experience a period of heightened motivation to stop smoking following admission which can be an excellent time to offer 'Very Brief Advice' (VBA, see appendix A).[4] A Cochrane review confirmed the positive impact of implementing stop smoking services for inpatients. This systematic review found that programmes to stop smoking that begin during a hospital stay, and include follow-up support for at least one month after discharge, are effective. Such programmes were found to be effective when administered to all hospitalised smokers, regardless of admitting diagnosis.[5]

Offering VBA is the single most cost effective and clinically proven preventative action a healthcare professional can take [6] and it is important to keep giving advice at every opportunity, as smokers may take several attempts to stop smoking successfully.[7] In addition, by referring a patient to a local stop smoking service, they are up to four times more likely to stop smoking.[8]

Prevalence and activity

Whilst exact hospital smoking prevalence is unknown, the Department of Health's 'Stop Smoking Interventions in Secondary Care' pilot pre-implementation data showed a smoking prevalence among hospital patients of 30.7%, which is well above the national average of 21%.[9] The pilot also showed that under 25% of patients were offered a referral to local stop smoking services, which highlights a huge number of missed opportunities with this highly captive audience.[10]

Stop smoking support in secondary care has developed significantly over recent years, although this is diverse, ranging from no activity in some acute trusts to established systems and activity in others. A standardised method of identifying and referring hospital patients to local stop smoking services in England does not currently exist. Rather, anecdotal evidence suggests that this is varied, with patient smoking status mostly being recorded on patients' (paper based) notes rather than electronically and referral pathways not fully embedded or implemented within existing hospital systems. A survey carried out in March 2011 of those delivering stop smoking support in acute settings, showed that nearly 90% of respondents believed that not having a robust electronic referral system from the hospital was limiting current activity and that such a development would be of value.[11]

Policy context

There is a wide range of smoking related CQUIN indicators in place across England, many of which aim to benefit patients by encouraging routine delivery of interventions that can lead to an attempt to stop smoking, including a referral on to stop smoking support. These indicators can also be very financially lucrative for acute trusts, and in turn beneficial for stop smoking services in terms of referrals. However, the issue remains that indicators are not standardised and many, for example, are not easily measurable and therefore do not support accurate local performance management. The most frequently reported challenge is that the indicator has been put in place with little consultation or assessment as to how the acute trust will deliver the required activity, or measure and accurately report on their performance, as recording is often paper based.

The Quality, Innovation, Productivity and Prevention (QIPP) agenda is a large scale transformational programme for the NHS, involving staff, clinicians and, patients; plus the voluntary sector. The aim of QIPP is to improve the quality of care the NHS delivers whilst making financial savings, which are hoped to be reinvested in frontline care. As part of this programme there has already been some work to engage and train staff to provide VBA to patients, and make referrals. Making these referrals, specifically electronically is very supportive of the QIPP agenda. In addition, development of referral pathways and training staff to give VBA to hospital patients supports the NHS Future Forum's 'Make Every Contact Count' recommendations.

To support development within this area, the NCSCT Community Interest Company (NCSCT) was commissioned by the Department of Health to test a streamlined, systematic and robust referral system in one acute trust by March 2012 that would increase the referral of smokers to appropriate stop smoking support. The primary outcome measured throughout the pilot was the number of referrals from the hospital on to local stop smoking support. Although not in the initial scope of the project, the number of quit attempts and four-week quit outcomes were also captured as secondary measures. This report provides an overview of the model tested and the findings from the pilot carried out in the Queen Alexandra Hospital in Portsmouth.

2. The model

2.1 Model overview

The 'Streamlined Secondary Care System' is a whole hospital approach to stop smoking support for patients. The model includes:

- Online VBA training for frontline hospital staff
- Routine recording of smoking status for all patients
- Routine delivery of VBA on smoking
- An electronic referral system without the need for the entry of patient details to be duplicated
- Stop smoking medicines on the hospital formulary including nicotine replacement therapy available for withdrawal management
- Rapid access to effective and appropriate stop smoking support

2.2 Training

In order to equip frontline staff with the necessary skills and knowledge to effectively deliver VBA within their local environment, an evidence-based online training programme is an essential component within the model. The training includes local information to increase salience for participating staff, and an assessment to ensure that the key learning points have been understood. The training is structured as follows:

- A screen highlighting the senior level endorsement from the hospital
- Local statistics on smoking related activity
- Three pre-pilot 'confidence in competence' questions
- The 30 second VBA, 'Ask, Advise, Act' approach
- Advice on provision of NRT for patients during periods of forced abstinence and if a referral is declined
- A brief overview of how to make a referral
- A short assessment of knowledge

2.3 Electronic referral system

The main objective of the streamlined system is for frontline hospital staff to deliver VBA to all patients and then indicate in patients' notes if a referral for stop smoking support is needed. An electronic referral is then made by administrative staff within the ward, and sent to the RMS (as illustrated in figure 1) which is hosted on a server within the NHS N3 network.

The RMS has the capacity to deal with a large number of referrals instantly, and works by sorting patients by their postcode and referring them on to their local stop smoking service according to specific rules. It is designed so that if patients visit a preoperative assessment or outpatient clinic their details would be sent to their local stop smoking service; but if they were an inpatient they would be seen whilst in hospital by an advisor from the closest local stop smoking service.

These rules are used in order to reduce the risk of patients getting lost in the system or unnecessary delays in receiving support. For example, this overcomes potential situations such as the referral of a smoker from Manchester who becomes unwell whilst visiting Portsmouth. In this situation, if seen as an outpatient their details would be sent to their local service in Manchester. If however they were admitted as an inpatient, they would be seen by an advisor from Portsmouth to ensure that they were seen and supported promptly after being referred.

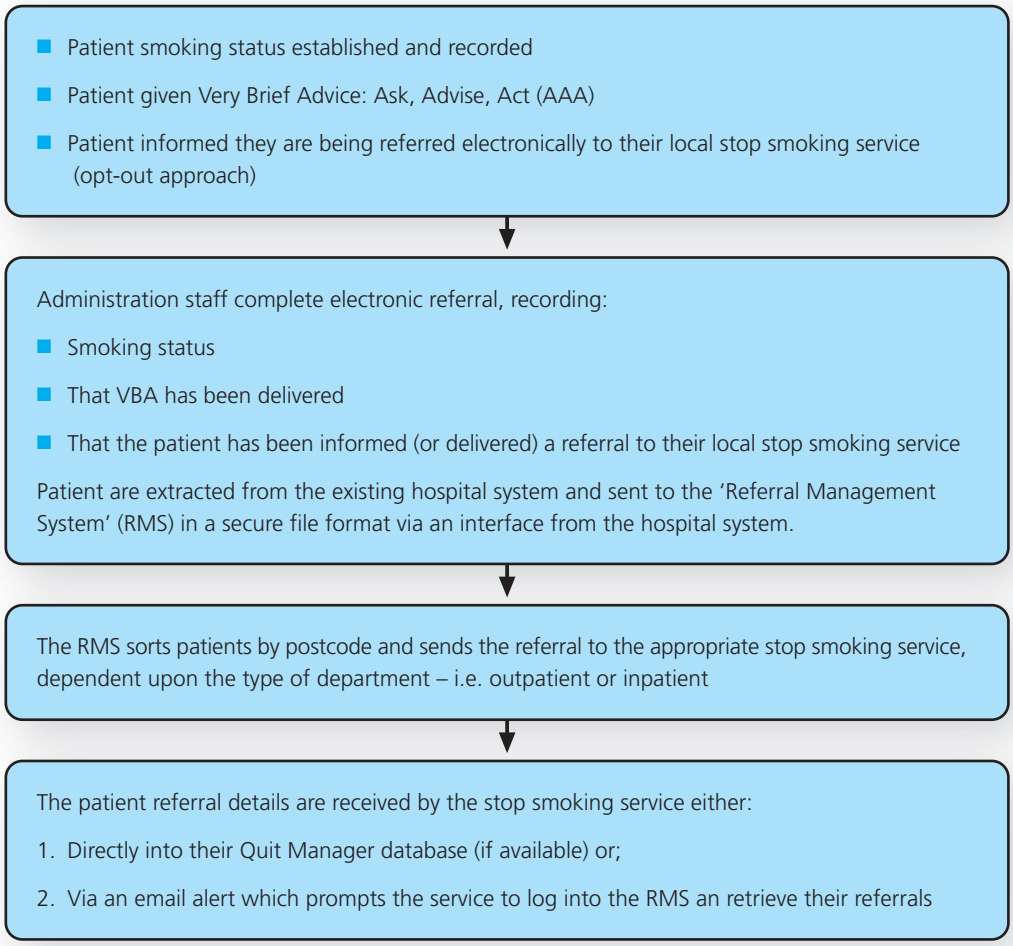
An entry, involving nothing more than answering five short questions (see section 3.2), is made in the patient's electronic records and a referral generated. This not only provides an auditable system, but also ensures that patients are seen and supported to stop smoking much quicker than by using existing models.

2.3.1 Receiving referrals

All of the stop smoking services in England can receive a referral via the RMS. This is important as although it is anticipated that the majority of patients within a hospital would fall within the geographical catchment of a small number of services, it is also recognised that patients from outside of this catchment could also be admitted.

The RMS is programmed so that when a referral is made, an e-mail alert is automatically sent from the system to the relevant stop smoking service, indicating that there is a referral waiting for them. This e-mail alert prompts the service to log-in and securely retrieve the referral, and action as per their normal protocol. If a stop smoking service has the 'Quit Manager' database, they are able to receive referrals directly into their database providing they have the referral module.

Figure 1: The Referral Management System (RMS) including flow chart of the referral process



2.4 Medication and protocols

As part of the whole hospital approach, recommendations and guidance for implementing a policy on NRT for withdrawal management and stop smoking medicines being made available on the hospital formulary are provided and support given for their development.

The recommendations include:

- NRT should be offered to ease withdrawal during a period of forced abstinence
- NRT should always be offered if a patient refuses a referral to their local stop smoking service
- Both NRT and varenicline (Champix) should be offered as first line treatments for patients
- Patients admitted to hospital that are using any stop smoking medicine are able to continue using this during their hospital stay

3. Testing the model

Following a request for potential pilot sites, Portsmouth Hospitals NHS Trust submitted a comprehensive application, accompanied by a supporting letter from the Medical Director of Portsmouth Hospitals NHS Trust, and the Director of Public Health in NHS Portsmouth. The site was appointed in May 2011, with the set-up phase starting in June 2011 and continuing over the summer months. The Streamlined Secondary Care System was piloted within seven departments in the Queen Alexandra Hospital in Portsmouth.

The primary aim of the pilot was to test an effective electronic referral system, with the key outcome being to increase the number of patient referrals from the hospital on to local stop smoking support. Whilst increasing conversion from referral to setting a quit date and four week quit outcomes was not directly within the scope of the project, these were also measured as secondary outcomes.

3.1 Programme management approach

3.1.1 Establishing milestones

In addition to the quality indicator (non-CQUIN) already in place within the pilot site, specific roles and responsibilities were agreed for the pilot, as well as key milestones and targets:

- 50% of the following staff groups in the pilot departments to complete online training by 1st October 2011:
  - Doctors
  - Nurses
  - Health Care Assistants
  - Midwives
  - Pharmacists
  - Administrative Staff

- Key departments such as respiratory and cardiology were chosen due to the likely high volume of smokers being admitted. Departments were also chosen based upon their level of engagement, both to support and develop some existing low-level activity, or as a tool for engagement that would involve a key department. The departments provided a range of settings to test the model, which would therefore be useful for potential future roll-out. The pilot departments were:
  - Trauma and Orthopaedics Outpatients
  - Respiratory Ward
  - Respiratory Outpatients
  - Cardiology
  - Maxillofacial Outpatients
  - Maternity Inpatients*
  - General Surgery
- The delivery of VBA to every identified smoker and referral (as appropriate) in the identified departments
- Development of guidelines for NRT and adding additional NRT products to the hospital formulary to be made available in order to improve patient choice

* Maternity inpatients were not included within the original selection of wards; however maternity colleagues proactively requested to be involved and as a result, following a delay in accessing the relevant IT training, began their implementation in January 2012.

3.2 IT

One of the key elements during the set-up phase of the pilot was the liaison and development of the IT system, to ensure referrals could be sent from the hospital system to the 'Referral Management System' (RMS). The original intention was for a smoking status field to be incorporated within the existing Patient Administration System (PAS) used within the hospital; however this was not possible due to a 14 month lead in time required in order to make any changes to PAS. This obstacle was overcome by using an 'Order Communication Module' (OCM) screen for the referrals to be made. The OCM screen was embedded within the existing system and extracted the specified fields required from the PAS system to send into the RMS. The use of an OCM screen was a viable alternative because hospital staff were already using these screens to complete social services and substance misuse service referrals. The screen developed asked five key questions:

1. Does the patient smoke?
2. Has stop smoking advice been given?
3. Refer the patient to their local stop smoking service?
4. Was patient given NRT?
5. Is the patient pregnant?

Once the OCM screen was completed, the following details were extracted from the PAS system and sent to the RMS:

- Forename
- Surname
- Date of birth
- Home telephone
- Mobile telephone
- Home address and postcode
- GP NACS code
- Practice NACS code
- If patient is pregnant
- Estimated discharge
- Date
- Referring organisation
- Referring department, i.e. ward etc.

The RMS would then sort the patient's details by postcode and refer on to the appropriate stop smoking service. As previously mentioned, there were three rules applied to the RMS when sorting the patients:

1. If an outpatient, refer directly to the patient's local stop smoking service
2. If an inpatient, refer to the pilot coordinator based in the hospital (to ensure patient is seen promptly)
3. If patient has no postcode (estimated at 5% of patients), refer to pilot coordinator based in the hospital (to ensure patient is seen promptly)

Portsmouth and Hampshire were identified as the two main services linked to the pilot hospital. Portsmouth had the 'Quit Manager' database and were able to receive referrals directly, whilst Hampshire did not have a web based system, and therefore received e-mail alerts. To ensure that any referrals outside of these services were responded to, an e-mail was sent out to all of the services across England which provided brief instructions and information on how to retrieve any referral(s) sent to their service.

3.3 Pharmacy

During the pilot set-up phase it was suggested that the pharmacy technicians in the pharmacy team could be utilised and trained to give patients VBA, as well as to discuss and provide NRT, and make a referral as part of their duties on in-patient wards. It was anticipated that this would also support the provision of NRT to patients for temporary abstinence and withdrawal management during their hospital stay. Due to initial financial issues the technicians were only able to start in the final month of the pilot, however despite this, their input worked well and proved to be a useful resource for engaging with patients, delivering VBA and facilitating referrals (n=12) into stop smoking support.

Before the pilot started, the only Nicotine Replacement Therapy (NRT) product available on the hospital formulary was the 24 hour nicotine patch. As part of the pilot, NRT guidelines were created and made available on the hospital intranet, and to improve patient choice the nicotine inhalator, gum and mouth spray were also added to the hospital formulary and stocked in the hospital pharmacy. An area on the staff intranet under the pharmacy section was created, to ensure up to date information about all of the products was available for staff, including instructions for dispensing NRT to patients by indicating on their patients' notes. Varenicline (Champix) was already available on the hospital formulary prior to the pilot starting.

3.4 Training

The VBA training was made available online so that it was easily and readily accessible for frontline hospital staff and was hosted on the NCSCT server to reduce the IT burden on the hospital. It was preferable for the VBA training to be online so that it was available at the convenience of staff, and to reduce the pressure of staff needing to be released for a face-to-face training course. This option for training staff was measurable and provided a step-by-step guide to support implementation of the pilot.

To ensure staff were trained and ready to identify and refer smokers when the electronic referral system was in place, a link to the training was made available one month before the system launched. Prior to the pilot going live, targets for the proportion of staff to be trained were agreed and disseminated to ensure that frontline staff fully understood what they needed to achieve. To measure any changes in confidence, staff were asked at the beginning of the training to self-report their confidence in asking, advising and referring patients who smoke. Trainees were then asked, via an automated e-mail, to repeat the 'confidence in competence' questions three months after completing the training.

The training launch was complemented by a programme of communications (see section 3.5).

3.5 Pilot promotion and communications

To ensure comprehensive awareness of the pilot and the need to complete the VBA training amongst staff, the trust's internal communications team incorporated key messages within their existing range of communication channels. These included:

- A message from the Chief Executive within the trust's monthly bulletin
- Articles within the staff magazine
- Promotional messages on the staff intranet
- Electronic short messages prompting staff to access the training and deliver VBA after logging into the computer
- E-bulletins and global emails

To complement the electronic communications, staff were also provided with a credit card sized resource to remind them to access the training and deliver VBA (see appendix B).

4. Outcomes

4.1 Training

Overall there was a 415% increase in the number of staff trained to give VBA, as previously just 55 staff were trained to give VBA via face-to-face training over the two years prior to the pilot. In total 282 members of staff in the pilot departments completed the training, and table 1 shows the breakdown by staff group. As expected, the highest proportion of staff who undertook the training were nurses (39.7%, n=112). This was anticipated as they would have the majority of contact with patients and therefore have the greatest opportunity to deliver VBA. Encouragingly, this was followed by doctors (17.4%, n=49), which given that this is often a group which are difficult to release for training and engage in training sessions, was very positive.

Table 1: Completion of online training by staff group

Staff group	% (n)
Doctors	17.4 (49)
Nurses	39.7 (112)
Pharmacists	1.1 (3)
Administrative staff	9.6 (27)
Health care assistants	16.7 (47)
Midwives	15.6 (44)
Total	100 (282)

Within some departments over two-thirds of staff were trained in VBA and in two (Maxillofacial Outpatients, Respiratory Outpatients) virtually all (97%, n=34, and 91.3%, n=23 respectively) were trained (table 2). Other departments (staff, general surgery, cardiology, and trauma and orthopaedics) had virtually two-thirds or more of their staff complete the training. One of the lower achievers was surprisingly the respiratory ward at 34% (n=19). The lowest percentage of staff trained was from maternity inpatients, however, this is a large department and the actual number of staff trained was encouraging, representing nearly one-fifth of all trainees.

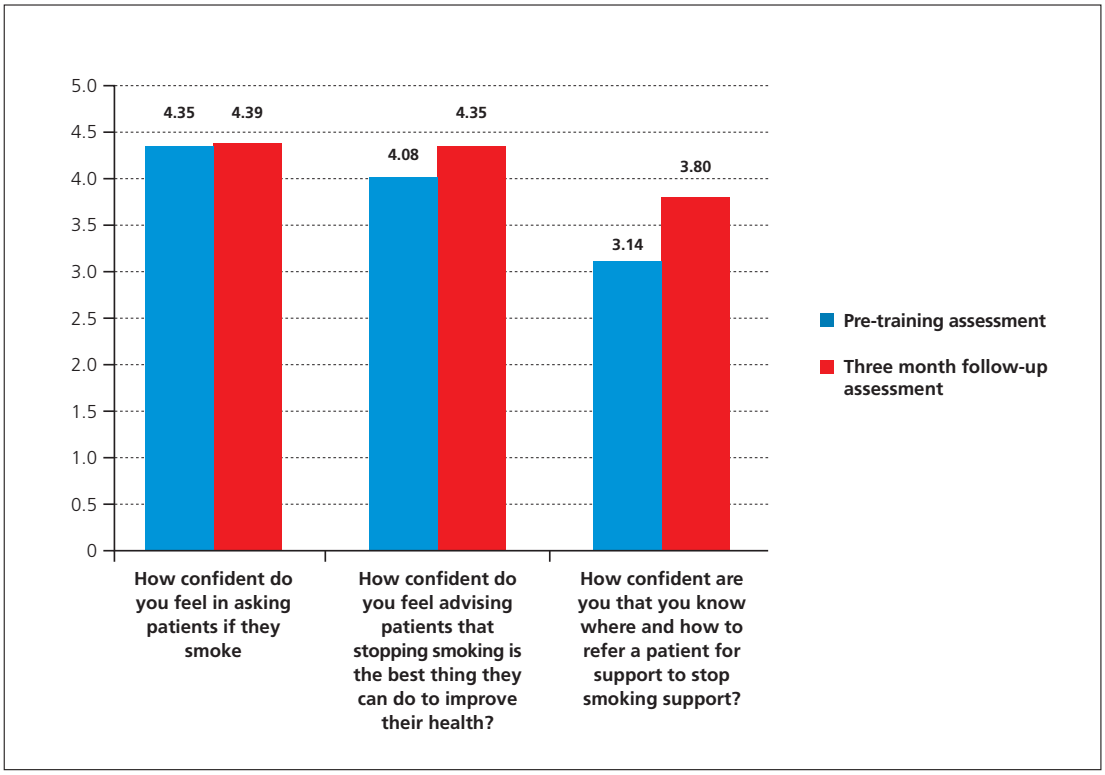
Table 2: Completion of online training by department

Department / Ward	Total number of staff in department % (n)	Staff trained % (n)
Trauma and Orthopaedics Outpatients	65 (62)	14.2 (40)
Respiratory Ward	34.0 (56)	6.7 (19)
Respiratory Outpatients	91.3 (23)	7.4 (21)
Cardiology	65.3 (72)	16.6 (47)
Maxillofacial Outpatients	97.1 (35)	12.1 (34)
Maternity Inpatients	29.2 (185)	19.1 (54)
General Surgery	77.8 (18)	5.0 (14)
Other	N/A	18.8 (53)
Total		100 (282)

In terms of staff demographics, the average age of staff completing the training was 42 years (range 18–65). On average staff had been qualified for 15.8 years, ranging from one to 37 years, with their average number of years in their current role being nine years (ranging from two to 37 years). It was positive, that not only staff who had been in a role for 37 years had agreed to and completed the training, but also that those who had been qualified for just one year had done so too. This showed that the training had reached all degrees of experience, and also indicated that even those members of staff with long service recognised the opportunity to improve day-to-day practice.

As previously mentioned, staff confidence in competence was measured at the start of the online training, and then repeated three months later (figure 2). Statistical significance was difficult to establish because initial confidence levels were high; however, encouragingly staff confidence in asking patients if they smoke increased overall by 0.04 (from 4.35 to 4.39), and by 0.27 (from 4.08 to 4.35) when staff were asked how confident they felt when advising patients that stopping smoking was the best thing they could do to improve their health. The greatest increase (0.66, from 3.14 to 3.80) was in relation to staff reporting how confident they felt in referring patients for support, which was statistically significant (<0.001).

Figure 2: Comparison of staff 'confidence in competence' – Average scores for pre-training and three month follow-up



Variations in confidence were reported between staff groups in the initial measurement, and in the three month follow-up measure. On the whole confidence improved in most staff groups, particularly amongst administrative staff, nurses and doctors. However, a decrease in confidence was reported among health care assistants in relation to asking patients if they smoke and advising patients to stop smoking. This group did report an increase, however, when asked about their confidence in knowing where and how to refer patients for support to stop smoking.

It is suggested that decreases in confidence could be due to a longer than three month delay in completing the follow-up measure, and therefore the need for a refresher training or negative experiences for a few individuals which could have skewed the results. However, on the whole confidence improved and this showed that firstly the training improved confidence, and secondly that this increase was positively reinforced when staff put the points learnt within the training into practice.

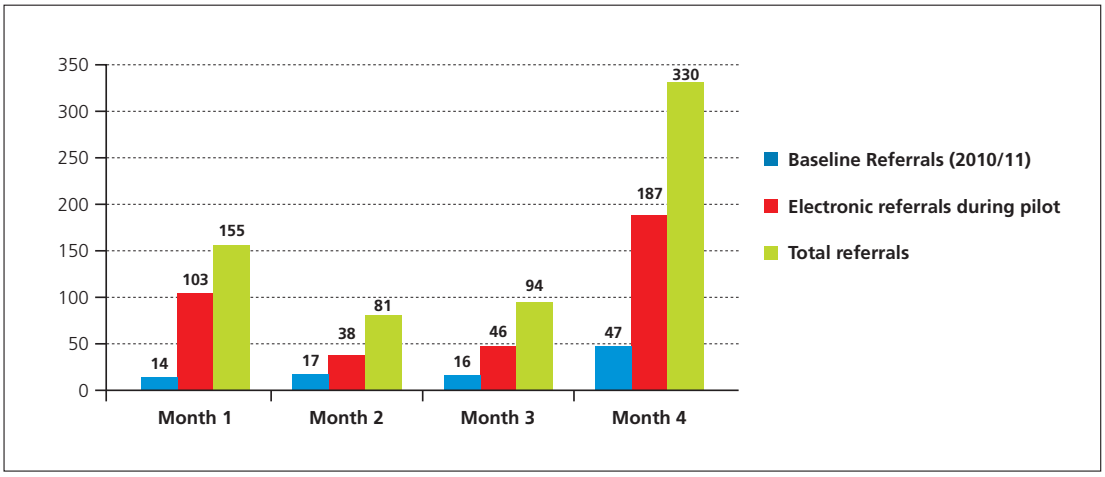
Staff knowledge was assessed in the final part of the online training, in the form of seven 'true or false' questions. The questions were related to the 'ask, advise, act' training screens, smoking related facts around patients expecting to be asked about smoking, and the 'how to refer' details. The average pass rate was 93.7%, which showed that the training had been understood and the majority of staff had an excellent level of knowledge in terms of their role in the pilot

However, there were some differences in staff knowledge when comparing staff groups. Nurses achieved the highest percentage of answers correctly at 95.3% (n=104), followed by doctors at 94.1% (n=46), health care assistants and midwives both achieving 93% (n=45, n=41 respectively), and administrative staff at 88.8% (n=23). The staff group with the lowest percentage of passing the knowledge assessment were the pharmacists with 85.7% (n=3). Overall, it was very positive that all groups achieved a pass rate above 85%, indicating that the training was understood by a range of audiences and roles.

4.2 Referrals

In total, there were 187 referrals made electronically by the pilot departments via the RMS on to local stop smoking support, over the pilot period. The breakdown of referrals over the three months is shown in figure 3.

Figure 3: Referrals made from the Queen Alexandra Hospital on to local stop smoking services in comparison to the same period in 2010/11

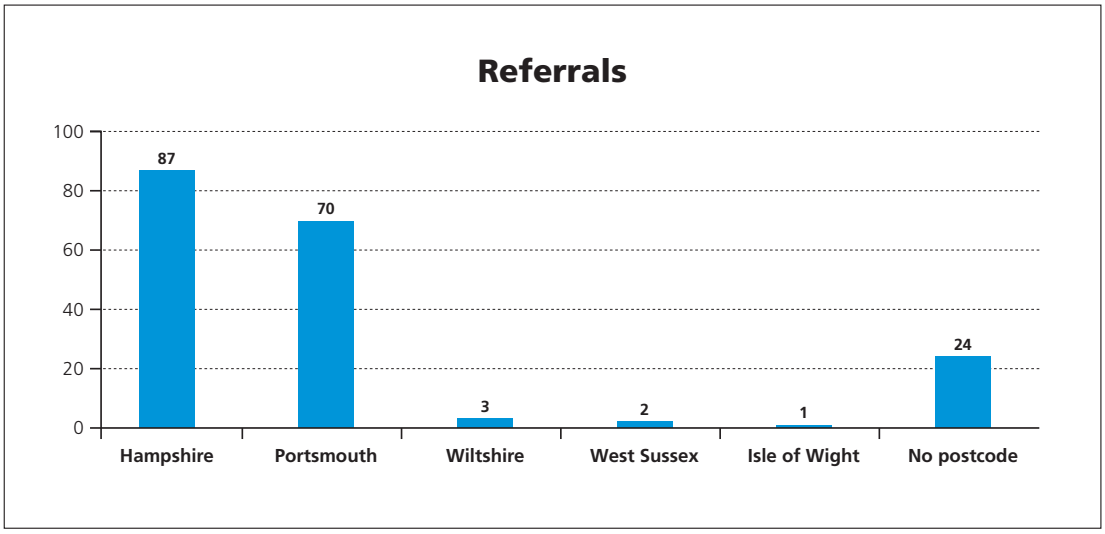


As shown the referral rate was very high in the first month. The dip in the second month was attributed to the two week Christmas period which resulted in lower activity. Overall referrals increased by 140 over the three months when compared to the same period in 2010/11, from 47 to 187 referrals. This resulted in a 298% increase, which was extremely positive and demonstrated that the system had worked efficiently and effectively. Based upon these results it appears plausible to expect a similar increase in referral activity if the system had been implemented in further hospital departments.

When reviewing the total number of referrals received by the Portsmouth and Hampshire stop smoking services from the hospital, an even greater increase was evident. When accounting for all referrals and not only those received via the RMS, a total number of 330 were received, an impressive 602% increase in referrals overall. When looking at the referrals broken down by month, the highest number were again received in the first month with 155 (47.0%) being made in total, 81 (24.6%) in the second month and 94 (28.5%) in the third and final month. The general increase is likely to be due to the training, and an increased awareness of the need to refer amongst staff generated by the pilot. This demonstrated that the ability to make an electronic referral is not necessarily the most important element to the system, but rather it is the staff engagement that ensures that referrals are made. However, it is important that the method of referral is easy and efficient. It is also likely that the general increase in referrals was due to some departments not having access to the IT system at the start of the pilot, and therefore referring via other means, i.e. fax, telephone etc. as an interim solution.

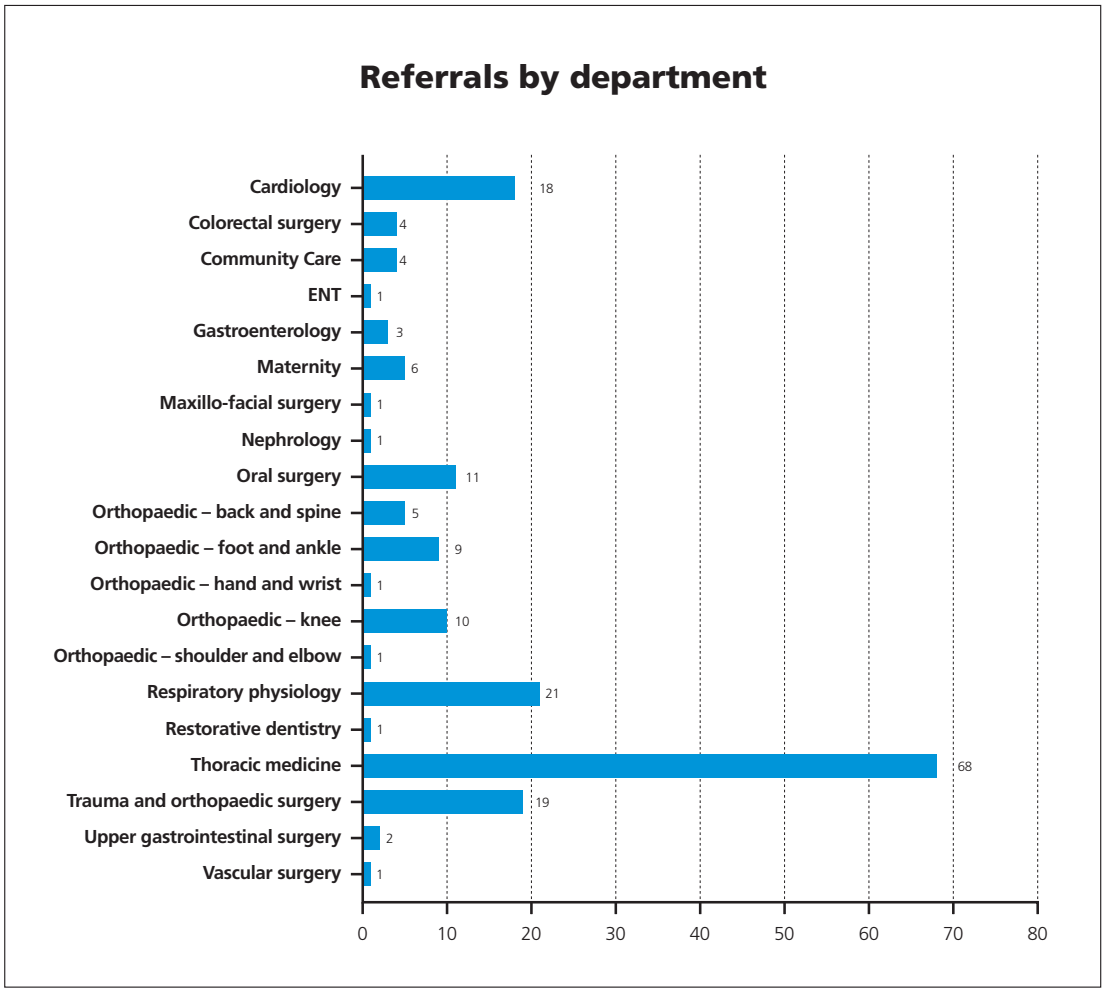
Patients entered into the RMS were referred to five different stop smoking services during the pilot, as illustrated in figure 4. As expected, the highest number of referrals were sent to the two local stop smoking services, Hampshire service, 'Quit 4 Life' (46.5%, n=87) and the Portsmouth service, 'Pompey Quit' (37.4%, n=70). The referrals sent to the other stop smoking services were successfully sent and received, with feedback confirming that referrals were easy to retrieve. There were 24 (12.8%) referrals made that did not have a postcode due to an initial IT error which meant that the incorrect code was used to extract the patient postcode, but this was easily corrected within the early stages of the pilot. These referrals were contacted by the pilot coordinator or re-referred if the postcode had been established.

Figure 4: Referrals made from the Queen Alexandra Hospital on to local stop smoking services via the Referral Management System, broken down by receiving stop smoking services



When looking at the referring departments, it was encouraging to see that there was a wide range in referral source, showing a good level of engagement and knowledge across the hospital, as illustrated in figure 5. The highest referring department was 'Thoracic medicine' with 68 (36.4%) referrals in total, which was an excellent achievement. There was even an encouraging number of referrals from Maternity (4.8%, n=6) who only started referring in the final month of the pilot due to an IT related training issue.

Figure 5: Referrals made from the Queen Alexandra Hospital on to local stop smoking services via the Referral Management System, broken down by referring department



A larger proportion of referred patients were male (55%, n=102), 45% (n=85) were female. Those aged between 45 and 59 were most frequently referred (40.1%, n=75), with the 60 plus age group being the next highest (23%, n=43). The number of referrals were the same for the 18 to 34 year olds (n=34, 18.2%) and the 35 to 44 year olds (n=34, 18.2%), with just one referral for an under 18 year old (0.5%).

Overall the number of referrals, range of referring departments and range of receiving stop smoking services indicated that the RMS was effectively used by a wide range of departments and staff. This also suggested that the system was easy to use and ensured that patients were referred on to their local stop smoking service quickly and efficiently without requiring a time intensive intervention from hospital staff.

4.3 Conversion and treatment outcomes

The aim of the pilot was to test an effective electronic referral method from the hospital for patients being referred on to local stop smoking support. Therefore, the primary outcome measured was the number of referrals made from the hospital. Although not the principal aim of the project, secondary outcomes such as the number of patients referred accepting support and quitting were also captured. It is clear that additional work is required to further develop services when supporting hospital patients to stop smoking, especially in terms of the initial contact being made.

In total 64 (40.8%) of the 157 patients referred via the RMS on to the Hampshire and Portsmouth stop smoking services, accepted support when contacted. Of these 64, at the time of data capture, 22 (34.4%) had gone on to set a 'quit date' and 14 (22%) were reported as four week quitters.*

4.4 Local implementation costs

The pilot had a three to four month preparation period, and was 'live' for three months. The costs to alter the hospital IT system were approximately £7,000, although this is significantly higher than would be anticipated for any future testing due to the lessons learnt. The pilot coordinator worked for three days a week based in the hospital, and was paid an NHS Band A&C six. In addition £1,200 contributed to the training costs of the pharmacy technicians, and towards their time spent on giving VBA to patients.

4.5 Qualitative analysis

In order to qualitatively evaluate the pilot, telephone interviews were conducted with staff at the start of the pilot (November / December 2011) and two months later (January / February 2012) in order to capture opinions pre and post implementation of the project. Participants were recruited from the pilot departments (referred to as 'operational staff' where quoted), and the project co-ordinator and stop smoking service managers (referred to as 'coordinating staff' where quoted). In addition, the Medical Director of Portsmouth Hospitals NHS Trust and the Director of Public Health for Portsmouth City (referred to as 'senior management' where quoted) were interviewed in January / February 2012. Participants were asked about their thoughts on the online training, the pilot itself and future recommendations. Interviews were, with permission, recorded and transcribed verbatim.

*Outcome data is correct at time of submission.

4.5.1 'Very Brief Advice' online training

Almost all participants responded positively when asked their opinions of the VBA online training. It was generally reported as being straightforward, quick and easy to access, with very few negative comments regarding the training itself.

> *It was very easy to access, it worked as it said it was going to, it was as short as it said it was going to ... and because it was as short as it said it was, we were able to go round everybody in our department and say come on guys you can do this, it really is only six minutes long or something. (Operational staff, early interview)*

> *I thought it was all pretty straightforward ... the time was very quick. It didn't take long at all to do that; it took about ten, 15 minutes. Easy and simple to understand. (Operational staff, early interview)*

Only one respondent indicated that whilst she was aware that the aim of the pilot was simply to refer patients, she was not aware of what happened after the referral was made and so would not be able to answer questions should the patient ask.

4.5.2 Potential problems or concerns

When asked at the outset about any concerns staff had regarding the successful completion of the pilot, a range of potential issues were reported. The amount of time the intervention would take, both for making the online referral and for having the initial discussion with patients at a time when staff were under pressure to see more patients was reported by a number of participants. Concern was also raised around the timing of the pilot as it was approaching winter, with the obvious potential for even greater activity across the hospital.

> *One of the concerns we had was that when you started asking people the questions that we needed to ask them, that it would be quite difficult to get them to do that briefly, because we're quite a friendly department and, um, our patients like us, and they tend to talk to us. And we ... you know, it was like we were saying to the clinic girls, you know, you cannot talk to people for 20 minutes about this, we just don't have the time in the department to do this. (Operational staff, early interview)*

> *In terms of processing patients, like anything at the moment, we're under a little bit of pressure to see more patients in the same amount of time ... we have the nurses do an assessment before they go in to see the consultant and ... we're very much under pressure to, kind of, reduce that amount of time we spend, not, not chatting but, for us it's weighing and doing lung function and doing a proper nursing assessment. If you add the smoking questions into that equation, then it makes that whole process a bit longer, so there is that to think about as well. (Operational staff, early interview)*

Another concern raised by a number of participants was around the issue of access to IT systems and training to use the computer system. Despite the pilot being up and running, some departments were not yet trained in how to use the online referral programme at the point of initial interviews.

> *The only problem, as I said, that we've got at the moment is, is purely that we haven't had the training to be able to allow us to make the necessary referrals, so we're still having to refer via the old system at the moment. (Operational staff, early interview)*

There was also concern regarding getting and keeping staff engaged, both in terms of motivation for participation and remembering about the project. Interestingly, one participant highlighted a concern that the pilot may not be successful in their department as a result of an attitude of apathy amongst the consultants.

> *When everyone's in a rush, and they're running around, it'll probably be one of the things they don't think of, because you get into a habit of doing things in certain ways, in a certain order, and if that's not part of your routine, then it is going to be forgotten. So people will need to be reminded. (Operational staff, 9, early interview)*

> *My consultants. I want to come out of this with our department having really good feedback for you, and at the moment I haven't got that feeling because there's so much apathy with ... with these doctors ... (Operational staff, 5, early interview)*

Another concern raised was the question of the appropriateness of staff asking patients about their smoking behaviour.

> *I'd say that, that, you know, some people think, you know, do we have the right really to question people on their, on their social aspects or, you know, it's another question to ask a patient. (Operational staff, 6, early interview)*

4.5.3 Positives of the pilot

Positive feedback from early interviews tended to be general in nature, and more in support of the concept of the pilot rather than for the pilot itself as many were in very early days of implementation. The majority of participants had positive things to say about the aims of the pilot, highlighting the importance of addressing the issue of smoking with patients. It was felt that it was beneficial to have a system in place to identify smokers, to document smoking status and to smokers on to appropriate support. It was also perhaps becoming apparent to operational staff that patients may not actually mind being approached about their smoking behaviour but instead respond positively to the offer of support.

> *If this works, and this makes it easy and it sort of means that more people are stopping smoking, I would like this to continue forever because I think it's fantastic. (Operational staff, 2, early interview)*

... initially you feel a bit hesitant about asking patients. But if you realise that they're coming to the hospital expecting to be asked that question, that's fine, you can, you know, it gives you a bit more confidence to go ahead with that ... I think, just having a scheme that backs you up makes you more confident in approaching the patient ...And in fact also that you have somewhere you can refer them to, so, and you're not just advising ... giving them advice, you can actually put them in touch with the right people. (Operational staff, 10, early interview)

One service manager felt that a big positive of the pilot was that it had brought together groups of people who had not worked together previously, both within the hospital and the wider smoking lobby. It was also felt that having a dedicated project manager had been a very helpful aspect to the project. Staff engagement was reported as an encouraging factor by both service managers and senior management, with the good intentions of hospital staff being recognised by both groups.

I think the intention by senior management has been good ... and certainly having spoken to some of the, for example, the orthopaedic consultants, really positive, really up for it, absolutely supportive, been 100% behind it, so some of the senior staff really, really, brilliant. (Coordinator, 2, early interview)

The good thing is ... is that, you know, individuals do want to, to do this, they do want to move it forward, and when you, when you, when you speak to individuals in the hospital, you know, they're, they're more than happy to do this sort of thing. (Coordinator, 1, early interview)

Feedback from later interviews was more focussed upon the details of the pilot than previously, and remained largely in favour of the project and referral system. Participants reported that the pilot was a good idea, had been well received by patients, was running smoothly and, after the initial issues had been addressed, was well organised. Engagement of nursing and administrative staff was largely reported as being positive and it was felt that the referral process was much simpler as a result of the pilot and allowed staff to offer support to more patients.

Certainly, from our point of view it's been absolutely great; I mean, I'm very happy doing it, and I think it's a fantastic idea, and I've been really pleasantly surprised at how many patients have embraced it and have been like, oh, yes, please, I'd really like to be referred. (Operational staff, 2, later interview)

... the fact that patients are being identified and.. having the access now to being able to refer online is, is better, is a better process than we were doing previously. (Operational staff, 4, later interview)

Service managers and the project co-ordinator were also positive in later interviews, reporting that a large number of staff had undertaken the very brief advice training and an increase in the number of referrals was evident. On a particularly encouraging note interest in participating in the pilot had extended from those departments initially included, indicating that there was a wider support for the pilot than just those selected to participate.

The numbers of people that have done the very brief advice training is very high, I think it's like 270-something, so actually I think that's a really good reflection on the staff that, that want to, to do it. (Coordinator, 1, later interview)

Well the amount of referrals that have come through as a whole compared to the referral rates from last year to the two smoking NHS local smoking services that we're using, is massive, it's a huge, huge difference. (Coordinator, 1, later interview)

4.5.4 Challenges of the pilot

In the early interviews, one negative point raised by interviewees was that they had not received the necessary training from the internal IT department on how to use the referral screen, meaning that almost all departments had been delayed in starting. This was due to a communication issue in the IT department, indicating that this training had taken place when in fact this was not the case. It was also felt that there should have been more communication about the pilot during the implementation phase and consultation regarding staff capacity to deliver. However, this is recognised as a common challenge in hospitals with projects of this nature, due to the sheer volume of staff and staff that often have an overstretched workload.

There was a delay in getting referrals because of the electronic set up but ... some of our staff have now got that. So, we can't enter it ourselves but some of our staff can so that's fine. (Operational staff, 10, early interview)

It's most definitely been a top down initiative rather than the other way, you know, rather than garnering ... what we could do. (Operational staff, 1, early interview)

Service managers and the project co-ordinator were also conscious of the issues arising from IT, but it appeared they were more of the view that the issues stemmed from the IT department at the hospital not being fully on board with the project and not providing the necessary communications. Opinions of this did not appear to improve in the later interviews.

What's been challenging is ... there was some sort of information from ICT that we really needed to know prior to the project commencing, around level of training that staff needed to be able to make the referrals ... and as far as we were aware that this was going to happen prior to the project starting. I think there was a bit of a miscommunication, and actually, we found out a week before the pilot was supposed to go live that this wasn't the case, that's why there's been such a delay. (Coordinator, 1, early interview)

A challenge raised by the operational staff was the communication of information around the pilot, although this was primarily reported in the early interviews. Whilst information was cascaded through all of the communication channels across the trust as a whole, some staff highlighted that it would have been better if they had been directly briefed about the pilot project. The project co-ordinator, service managers and senior management were also aware of the challenges posed by poor communications within the hospital and the possible effect this would have on the pilot as a result of operational staff not being aware of what was expected.

> *You run into the problem of, sort of, fortress middle-management, where for no particular ... you know not that anybody obstructs you wilfully, but actually it is just hard work trying to get things through the morass of – I don't know – IT departments, communication departments, communicating with a whole organisation, which is a massive organisation. And it's all of that stuff that is difficult and it's actually making sure that the message at the top is the message that's heard at the bottom and that what people at the frontline do is actually what we want them to do. (Senior management, 2)*

A lack of engagement from the doctors also appeared to be a major issue in the pilot, both as a result of a lack of information and lack of willingness, with some participants reporting that the pilot was actually not running in their department as a result of a lack of commitment from the doctors.

Operational staff reported that doctors were reluctant to participate in the pilot, feeling that it was not part of their role but the responsibility of the GP. This view persisted throughout both the early and late interviews.

> *We've come to a standstill with it, purely because the doctors aren't on board, you know. (Operational staff, 6, early interview)*

> *They (doctors) still baulked against it and said it is not their place to be doing this it is a GP surgery. I don't know, I can't do anything else. (Operational staff, 5, later interview)*

In the early interviews, a number of participants were also concerned about the additional work the pilot would cause on top of already stretched workloads. In particular, this appeared to be a concern for the clerical staff who, in some departments, were taking responsibility for making the referrals where not all staff had undertaken the necessary training. This was especially the case within outpatient wards due to the sheer volume of patients attending clinics. Concerns about workload were not, however, raised in follow up interviews indicating that once training issues had been resolved this became less of an issue.

> *You know, they have an awful lot to do. I mean on a typical day we can have 50, 80 patients through our department. Then you think for, you know, even if it just takes a couple of minutes that's still at least two hours extra work. (Operational staff, 7, early interview)*

Service managers and the project co-ordinator reported that they found particular difficulties with the hospital trust not taking ownership of the project and doing what they said they would do. Being an outsider to the hospital gave them little opportunity to influence what was going on.

I think the difficulty is that the hospital itself has taken very little responsibility inasmuch as in an ideal world we would have had perhaps a member of staff from the hospital side, maybe attending regular meetings but also perhaps being the champion. (Coordinator, 3, early interview)

I think what's been bad about it is the frustration of working as an outsider to an organisation with incredible kind of political barriers and, and sort of processes that don't really help. (Coordinator, 2, later interview)

4.5.5 Day-to-day impact

Operational staff generally indicated that the pilot did not have a detrimental impact on their day to day job role and it was felt that the model had been incorporated into everyday practice. These views did not appear to differ from the early interviews to the later ones. Where there was a noticeable increase in workload it was largely acknowledged that the extra time was acceptable for the desired outcomes of the pilot, although it was mentioned that the pilot was possibly introduced at a challenging time due to low staffing levels.

Yes, the girls have got a little bit more extra work to do, I mean, you know, making sure they remember it, that it's all absorbed into their daily routine and I get them all back at the end of the day to check them. It's not time consuming, you know, it's not noticeably time consuming. (Operational staff, 5, early interview)

I mean, it's been quite a few weeks ... or months that we've been doing it; and it's just sort of been incorporated into everyday life now. (Operational staff, 2, later interview)

4.5.6 Benefit to patients and patient response to the pilot

Most participants reported in the later interviews that they felt the pilot was beneficial to their patients. Some participants did highlight that they would like a feedback loop to see how the patients had done in terms of stopping smoking.

I think the fact that they are referred via a central system that can, can be monitored and they can be directed to the appropriate support, the fact that the project is there offering them support ... has to be advantageous to the patient. (Operational staff, 4, later interview)

When asked about the reaction of patients to the pilot, the general response was that they had been positive and responded well to the offer of referral; in many instances it appeared that patients were actually expecting to be asked about their smoking status and were grateful of the offer of support. Perhaps more importantly, given the concern about maintaining good relationships between patients and nursing staff, negative feedback about the pilot was limited to a minority of patients approached, and there was no suggestion that patients had been offended or taken the offer of support badly.

I think they're, they're open-minded. I think they're grateful that, that help is available to them for helping to give up smoking. (Operational staff, 4, later interview)

... the patients ... I don't think anybody's been offended. (Operational staff, 5, later interview)

... they either seem to be one or the other, yes, they're interested, or, no, I'm definitely not ... they don't mind being asked, I think sometimes if they're a smoker they almost expect that they might get asked that. (Operational staff, 10, later interview)

4.5.7 Rollout

When participants were asked whether they thought the pilot should be rolled out on a wider scale, the majority of operational staff responded positively to the concept in the early interviews, although many also emphasised that it would need to be accompanied by a comprehensive communications strategy. In later interviews however, respondents were even more positive, stating that they felt that the referral system could indeed be rolled out on a wider scale and was proving to be simple and beneficial.

It should be something that could be rolled out quite successfully to all hospitals, health centres ... I think personally that you would need to make sure that the appropriate training is in, in place prior to, to the project starting so staff are able to refer straightaway. (Operational staff, 4, early interview)

well, it could be ... I think it would be ... yes, definitely. Um, just the... just the fact that you have a very simple, um, tick box where, you know, people say they want Smoking Cessation advice, and then it gets triggered into another system where they actually get it; so it sounds very simple. (Operational staff, 1, later interview)

Views from the project coordinator and service manager were also positive, although there was an acknowledgement in early interviews that changes would need to be made for the pilot to run successfully on a wider scale. In later interviews, however, their views seemed to be more optimistic suggesting that since the early issues had been resolved the pilot could be successfully rolled out.

I think that this type of a paperless system providing everybody takes on board the lessons learned, around the IT side of things, I think could be the very easy system that can be implemented. (Coordinator, 1, early interview)

I actually think it should be rolled out across England. (Coordinator, 3, later interview)

5. Discussion

The Streamlined Secondary Care System has been successfully piloted and implemented in the Queen Alexandra Hospital in Portsmouth. The main findings following the implementation of the system included a dramatic increase in the number of staff trained, the delivery of VBA and referral activity. In total there were 187 referrals made via the RMS on to local stop smoking support, and an additional 143 referrals made via other methods, resulting in a total of 330 referrals being made during the three month pilot. This equated to an impressive 602% increase in referrals when compared to the same reporting period in the previous year, when just 47 referrals were made. There were 282 frontline members of staff trained from the pilot departments, ranging from doctors and nurses to administration staff, with the average pass rate of the post-training assessment being 93.7%. In addition, staff confidence in giving VBA had improved when this was measured in a follow-up assessment three months later. Overall, this success was due to excellent staff engagement throughout the hospital, and an increase in knowledge of how to give VBA and refer patients on to appropriate stop smoking support.

The conversion rates from initial referral through to stopping smoking are, as so commonly found when referring from acute settings, very low. The primary outcome of the pilot was to increase referrals, with the secondary outcome being that the patients would stop smoking when they accessed their local stop smoking service. The quality of the initial contact with these patients is very important, and future consideration needs to be made as to how the conversion from referral into accessing the service and stopping smoking could be improved. Encouragingly, although the numbers are small, the actual quit rate of the referred hospital patients in the pilot was excellent (64%, n=14).

The pilot emphasised the importance of the approach being a whole hospital initiative, and involving operational staff and ward managers from the outset, as opposed to being a top-down project. In addition the need to have a local project manager in place from the early stages of the pilot, who in turn would support effective communication from within the hospital is also evident.

The online training was very positively received, and this suggests that this is a useful, effective and efficient method of training staff. The training did not burden the hospital IT department by being hosted on the NCSCT server, or burden the pilot departments by requiring staff to be released for face-to-face training events. This mode of training is ideal for acute settings as it can be made so easily and readily available to staff. In addition the project showed that it is possible for multiple large organisations to work together successfully, overcoming many barriers and challenges along the way.

An important lesson learnt from the IT element of the pilot is that a robust communication system and project management approach is essential when working with acute trust IT teams. This ensures that what needs to be achieved and what is expected is clear. Integrating the recording of smoking status into the national PAS computer system would also overcome many of the IT challenges that were faced in the early stages of the pilot.

In terms of wider communication within the hospital, a comprehensive communications strategy is required in order to ensure that information is cascaded to the appropriate staff, as well as engaging the key members of the hospital 'middle management' groups to improve awareness and consult on project developments. In addition, providing a feedback loop to operational staff on their performance in terms of referrals and completion of training is recommended, to sustain engagement and maintain both motivation and confidence in identifying and referring patients. It is also important that the profile of the stop smoking services is consistently championed throughout the hospital.

The pilot has raised many interesting results and findings which will help to further develop the system if implemented more widely. The enthusiasm of the frontline staff to find and utilise other methods of referring patients, when they were not able to access the OCM screen to electronically refer, showed that there is excellent engagement with this work. The staff reporting that they were surprised, and pleased at how receptive and open patients were to being asked about their smoking, is a very important message to communicate more widely.

Overall the RMS has proven to be an excellent tool for making referrals from the hospital to local stop smoking support. The system was successfully implemented within the existing hospital system, with easy access for staff. The process of staff giving VBA to patients and indicating on their notes that a referral needed to be made functioned effectively, and patients details were efficiently sent to the RMS for sorting by patient postcode. Patients' details were received securely by the stop smoking services and contacted via the standard protocols in place for contacting referred clients.

Each element within the Streamlined Secondary Care System proved important, and the model as a whole has resulted in its success. The system not only increased the number of referrals, which in turn increased the number of patients accessing stop smoking support, but it also encouraged a high level of engagement, enthusiasm and interest from staff which was very encouraging. The overarching programme management has been essential when giving the strategic oversight and vision of the project, accompanied by the local operation management and coordination within the hospital.

The project has shown that by making systems simpler, they can in turn be effective and modernised. The model tested provides an auditable and accountable system that can support the performance management of smoking related CQUIN and other quality related indicators. It also ensures that the duty of care that frontline hospital staff have, to identify and refer their patients who smoke, is met; which in turn could result in dramatically improving their patients' current and future health outcomes. It is therefore recommended that local areas dedicate funding and resources to implement a whole hospital approach which includes the same core principles. It is also suggested that the potential to transfer such a model to other settings, such as primary care and mental health services is considered.

6. Recommendations

The evaluation of the Streamlined Secondary Care System pilot has resulted in the development of eight key recommendations. The recommendations cannot be specifically aimed at acute trusts or local commissioners due to the radically changing landscape, however, the general recommendations are as follows:

1. There needs to be senior level engagement, passion and dedication to drive forward a cultural change within an acute trust. This should include working toward hospitals being supportive environments for patients that encourages stopping smoking and abstinence during a patient's stay. This starts with embedding routine delivery of VBA and patient referral into frontline staff's day-to-day practice, and awareness that they have a duty of care to ask a patient about their smoking.

2. There needs to be thorough engagement with frontline hospital staff, and with the hospital as a whole, right through from senior and middle management, to ensure that all staff are informed of developments to improve support that patients have to stop smoking are communicated. A strong communications strategy is required, which includes feeding back to staff about their impact in terms of supporting and referring patients on to stop smoking support.

3. Referrals from acute settings on to stop smoking services should be made via a robust, secure, efficient and effective electronic system, allowing services to have real-time referrals and therefore being able to contact patients far quicker than via existing referral methods. The method of referring electronically should be embedded within the existing hospital system to avoid double entry and duplication of inputting patient details, which, in turn provides an auditable system that can support measurement of performance e.g. against a smoking related Commissioning for Quality and Innovation (CQUIN) indicator. This system should be standardised in all acute trusts to ensure the high number of smokers in this setting are identified and referred to appropriate support.

4. Frontline hospital staff should be trained online to give VBA to all patients as it is an efficient and measurable method, enabling relevant information to be included as opposed to a generic training programme. This also provides an auditable system that can support measurement of performance.

5. Local areas need to dedicate funding to develop hospitals into supportive environments for their patients to stop smoking. This includes implementing efficient and effective systems for referring hospital patients on to stop smoking support, providing training to staff to give VBA and implementing protocols to ensure patients can be provided with NRT and other stop smoking medicines, all coordinated by a dedicated project manager.

6. For the implementation of a hospital based system that supports patients to stop smoking, there needs to be both strategic oversight led by a dedicated project manager as well as identified operational support to manage day-to-day implementation activity and issues.
7. The IT department in the acute trust is a key stakeholder, and it needs to be open, willing, flexible and accommodating to allow changes to be made to the internal IT system and able to work around challenges that may arise with existing, potentially antiquated, electronic systems to enable referrals to be made. In addition, it is also recommended that all patient electronic data capture methods for hospitals include a smoking status field.
8. NRT and other stop smoking medicines should be available on hospital formularies with information provided to both staff and patients on how to use this medication effectively, even for temporary abstinence purposes. In addition, where a quit attempt has been made or abstinence maintained, stop smoking medicines should be included in any medicines to take home upon discharge to reduce the risk of relapse.

Specific considerations for Public Health England include:

1. Measurable smoking related CQUIN indicators, (or similar quality related indicators) should be made mandatory for all acute trusts in England.
2. Research in to the conversion rates of referred hospital patients successfully stopping smoking needs to take place. This should look specifically at why there is a significant drop-off between the referral and access to stop smoking support, and the most effective method of follow up to improve uptake of support post referral.
3. There needs to be a comprehensive review of acute trusts' provision of identifying and referring their patients on to stop smoking support, and support and guidance given to standardise this provision throughout England.
4. Develop a user friendly costing tool for both acute trust managers and commissioners that can be used to build and justify the case for investing in the provision of stop smoking interventions for patients.

Anyone requiring further information about this project is encouraged to contact Liz Hughes (liz.hughes@ncsct.co.uk).

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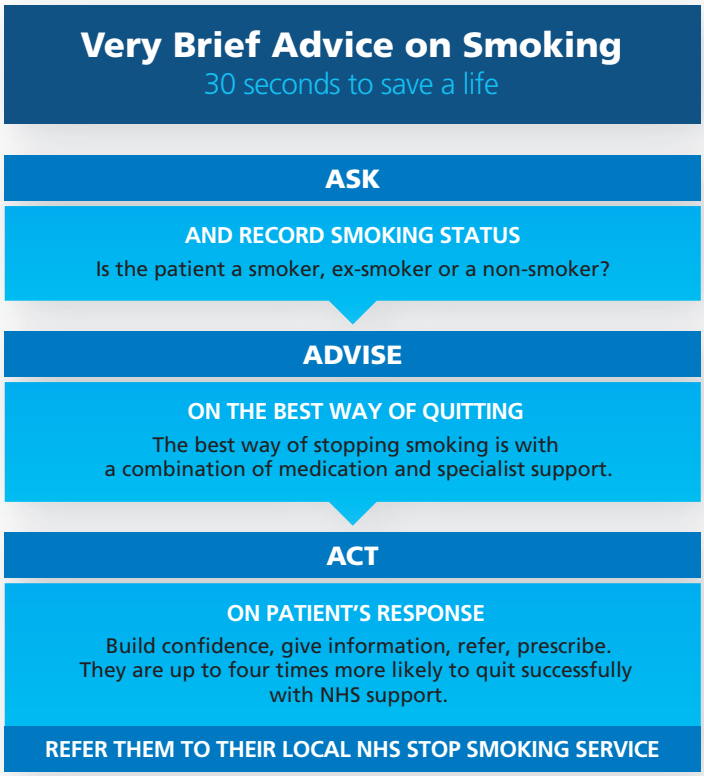
8. Appendix A: Very brief advice



9. Appendix B: VBA resource