

Stop before your Op!

In addition to the general health risks associated with smoking, smokers are also more likely to suffer surgery related complications. The Royal College of Anaesthetists advises smokers should quit for several weeks before their surgery in order to reduce the risk of complication. There is clear correlation between these complications, increased age and smoking.

The Northumbria Healthcare Trust (NHCFT) approach to the promotion of smoking cessation prior to orthopaedic surgery

The Case for Change

The aim of the project was to promote smoking cessation prior to surgery, thus increasing the referral rate of elective orthopaedic surgery patients into smoking cessation services. The benefits of being offered an intervention at this point should help to increase the chances of reduced complications associated with surgery and the damaging long-term effects of smoking in general. Evidence suggests that quitting smoking pre-op has the following benefits:

- Decreased risk of post-operative complications
- Decreased lung, heart and wound-related complications
- Decreased wound healing time
- Decreased bone fusion time after fracture repair
- Decreased length of stay in hospital.

Complications associated with smoking and hospital admission/surgery include increased risk of deep vein thrombosis (DVT) or pulmonary embolism (PE) within 60 days, pneumonia or myocardial infarction (MI) within 30 days, interstitial pneumonia (IP) or general re-admission within 30 days

Proposed organisational targets are to:

- Reduce smoking patients admitted for primary joint replacement by 80%

- Increase the pre-operative referrals to smoking cessation teams by 500%
- Reduce cost, based upon bed days, for the whole cohort of primary joint replacements
- Reduce length of stay for primary joint replacement patients for all smokers/quitters.

Overview of Innovation

Change was managed and embedded through the design and implementation of a sustainable referral model delivered through education to staff, generation of data and feedback to the groups involved. The key intervention point was intended to be the Orthopaedic Surgeon at the time of listing a patient, normally 8 weeks prior to surgery. With an intervention taking place at this stage and by offering support networks to the patient, it was anticipated most patients can stop smoking and proceed with the planned operation date. However, one of the preventative factors was the inconsistent approach taken by clinicians to clarify smoking status. This problem was resolved through the empowerment of the supporting clinical staff, using the concept of 'Making Every Contact Count.' Having the resources to refer patients offered a significant opportunity to promote smoking cessation services.

Data is captured on a monthly dashboard, reported back to teams via Steering Groups and success is celebrated within teams. Engagement from the staff and teams wishing to participate in smoking cessation following training/education sessions is increasing.



- Staff empowered to feel comfortable asking a patient's smoking status and consent for referral
- Healthy competition encouraged between Trust sites to achieve higher levels of referral numbers
- Links established between local councils, local pharmacies & CCGs to (NHCFT)
- Development of an e-referral form between NHCFT and Northumberland GP practices, reducing paper referrals and encouraging real time referrals with a robust audit trail
- Evidence of data gathered confirms this is an effective referral process/intervention opportunity
- "Stop Before Your Op" processes and results are to be used as a platform to roll out across other specialities within the Trust

Site	Elective Orthopaedic Stop Smoking 1st quarter referrals
North Tyneside	83
Wansbeck	28
Alnwick	3
Berwick	1
Hexham	7
Blyth	0
NSECH	4
Other/Unknown	5
GP	13
Total	144

Assuming each patient smokes 20 cigarettes per day, spend on cigarettes would be:
 $£7.87 \text{ per day} \times 365 \text{ days} = £2,872.55 \text{ per annum}$
 $144 \text{ potential quits} \times £2872.55 = £413,647.20 \text{ per annum}$
 back into the regional economy.

Next Steps and Plans for the Future

Smoking cessation could be achieved in other specialities. We plan to expand this project to include all elective surgery, respiratory patients and cardiology patients within the area of Northumbria hospitals. The work also links to the broader plans of working towards a SMOKE FREE NHCT site by March 2018.

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Progress to Date

The project achievements are reflected in a clear increase of elective orthopaedic surgery patients being referred into smoking cessation services. Data from 2012-2015 shows 60 patients were referred for smoking cessation before orthopaedic surgery. Increased referral rates was a key objective for the Stop Before Your Op project; following official launch of the project, together with utilisation of a project co-ordinator from February 2016, referrals have risen by 624%. Education delivered to staff around promoting smoking cessation has gained considerable buy-in and has also prompted many staff to participate in smoking cessation and raise awareness around the dangers of smoking and second hand smoke.

Additional operational functions of the project include:

- The introduction of 'Do You Smoke YES/NO' to patient demographics when they attend for clinic
- The use of a CO monitor in pre-assessment clinics has become normal practice
- A streamlined and efficient referral service
- Development of a referral form to be added to ICE service within the Hospital Trust and GP practices

Funding to support this project was provided by the AHSN-NENC, aiming to demonstrate positive results over a short space of time with a small group of patients. Project outcomes suggest that this model could provide an effective platform to roll out work on a larger scale within the Trust. The AHSN are confident that the success of this project can be used as an educational tool to share with other organisations across the region.

Impact

- Staff educated on the complication risks associated with surgery and smoking