'Top five myth busting tips on nicotine use' for treatment of tobacco dependence in inpatient settings

For patients admitted to hospital who smoke, combination NRT (patch plus faster-acting NRT product) is the recommended initial treatment and should be initiated as soon as possible to rapidly treat withdrawal and manage urges to smoke and ideally within 2 hours of admission. NRT should be readily available 24 hours a day and prescribed/initiated by all admitting clinicians. Patients will feel much less agitated and irritable if nicotine withdrawal is addressed and managed quickly, assisting with improving the quality of care provided.

NRT delivers a therapeutic form of nicotine without the 5,000+ harmful chemicals contained within tobacco smoke and so does not cause smoking-related illness to the individual or those in close proximity. NRT is well tolerated by most patients who smoke and is proven to assist with acute management of withdrawal symptoms, urges to smoke and increase success with stopping long-term. NRT has a good safety profile, and most side effects are mild to moderate and can be managed through correct use.

There are some myths reported which may limit clinician confidence in using NRT in inpatient settings. We review below five myths about use of NRT and summaries clinical guidance to address these myths based on latest evidence.

MYTH 1: Patients become addicted to NRT

FACT	**It is very uncommon for patients to become addicted to NRT products**.

This is because nicotine is more addictive when it is delivered more rapidly to the centers of the brain, as is the case with combustible tobacco. NRT delivers slower and lower doses of nicotine. As a result, the risk of becoming addicted to NRT is very small.

Some patients use NRT products for extended periods and these tend to be individuals who smoked heavily for many years. These individuals are often using a faster-acting NRT product, typically when they have urges to smoke. It is safe to use NRT products for extended periods (even years).

MYTH 2: It is not acceptable to smoke while using first-line tobacco dependence medications and aids

FACT	**All tobacco dependence medications and aids are safe to use while smoking and there is no contraindication.**

While smoking is not permitted on the grounds of Smokefree NHS trusts, if a patient reports or is observed smoking, they should be supported to continue to use vapes and/or NRT. The fact that a patient is still smoking suggests the nicotine strength in the vape or NRT product might need to be increased and additional support is needed.

MYTH 3: NRT is not safe to use in patients with current or a history of cardiac events

FACT	**There is an abundance of high-quality data demonstrating that NRT is safe to use in patients with cardiovascular disease.**

There has been some confusion among both patients and clinicians about the safety of NRT in patients with a cardiac disease. This is primarily due to product warning labels, which in the past advised patients with cardiovascular disease to speak to their physician before using NRT. Healthcare professionals should feel comfortable prescribing NRT to their patients and confident that it will increase their success with stopping.

The subgroup of patients for which there is less evidence in terms of safety is patients with **unstable acute coronary syndromes** i.e. experiencing unstable angina. Trials that have examined the use of NRT after acute coronary syndromes revealed **no increased risk** of adverse cardiovascular events. It is important to recognise that the patient will receive far less nicotine via the method of NRT they choose to use versus continuing to smoke, regardless of the dose. Therefore, treatment is always the better option for someone with tobacco dependence.

MYTH 4: Surgical patients should not have NRT

FACT **For the majority of patients, there is no known risk of NRT use or strong evidence to suggest that NRT adversely impacts healing or surgical outcomes.**

Smoking is associated with a high perioperative risk and contributes to poor surgical and anaesthetic outcomes. Specifically, stopping smoking is associated with a 41% reduction in post-operative complications. Whilst there are substantial benefits from abstaining for as little as 24 hours before the operation, the largest benefits for surgical patients occur when smoking is stopped four to eight weeks prior to surgery. Patients requiring surgery during an admission should be supported to remain abstinent.

For the majority of patients, there is no known risk of NRT use or strong evidence to suggest that NRT impacts healing or cardiovascular complications. This is because NRT delivers nicotine by the blood system (venous) and rates of delivery are much lower than those delivered via a cigarette (pulmonary system) and are free of the carbon monoxide (CO) and other toxins present in tobacco. There is the exception however with patients undergoing **small vessel surgery** like facial-cranial surgery for which there is minimal research to guide practice. Patients with history of smoking will have a reduced response to nicotine exposure relative to a person who has never smoked. If there is a risk that they may continue smoking, the levels of nicotine delivered via NRT are far lower and without the toxins and carbon monoxide which are known to affect healing. The risk-benefit assessment for NRT use versus the known effects of smoking should guide decision making.

MYTH 5: It is not safe to use NRT whilst undergoing cancer treatment

FACT	**NRT is a recommended treatment for use for patients undergoing cancer treatments who smoke**.

Supporting oncology patients with stopping smoking is a powerful, evidence-based intervention for improved cancer treatment outcomes. There is a growing body of evidence that continued smoking following a diagnosis of cancer promotes tumour progression, increases risk of additional primary and secondary cancers, and reduces the effectiveness of cancer treatment, and survival.

NRT is a recommended treatment for use for patients undergoing cancer treatments who smoke. There is no evidence that NRT adversely affects radiation, chemotherapy or radiology treatment. There is high quality evidence of the effectiveness of NRT in supporting stopping among oncology patients.

It may be important to highlight that nicotine from smoking cigarettes (and not NRT) can reduce the effectiveness of radiotherapy. Nicotine has been shown in vitro to affect a number of the cell signaling pathways which could make the cancer more biologically aggressive or resistant to therapy. Because of these concerns, some radiation oncologists will advise their patients not to smoke for half an hour or more prior to radiotherapy treatment. While some practitioners may worry that NRT may cause the same effects, **there is no evidence to support this**. The levels of nicotine delivered by NRT administer much lower and slower doses of nicotine and as such have not been shown to result is same effect as nicotine delivered by combustible cigarettes.

Additional Resources

Inpatient Tobacco Dependence Treatment: Best Practices and Key Messages

This document summarises best practice and provides key messages for tobacco dependence treatment in inpatient settings.

www.ncsct.co.uk/publications/inpatient-TDT-key-messages

NHS Standard Treatment Plan (STP) for Inpatient Tobacco Dependence

This NHS Standard Treatment Plan (STP) for Inpatient Tobacco Dependence provides guidance to support delivery of the Inpatient Tobacco Dependence Treatment Care Bundles.

www.ncsct.co.uk/publications/STP-inpatient-acute

Tobacco dependence aids – Quick reference

This quick reference clinical tool has been to support stop smoking NHS staff with discussing first choice tobacco dependence aids. The quick reference summarises instructions for use, contraindications and side effects.

www.ncsct.co.uk/library/view/pdf/NCSCT-tobacco-dependence-aids-quick-reference-v1.pdf

Secondary care resources

The NCSCT factsheets series presents the clinical case to support the delivery of stop smoking support in secondary care.

www.ncsct.co.uk/publications/category/secondary-care-resources

Cardiovascular factsheet

www.ncsct.co.uk/publications/intervention-in-secondary-care-june-10-cardiovascular-patients-factsheet

Surgical patient factsheet

www.ncsct.co.uk/publications/interventions-in-secondary-care-june-10-surgical-patients

Oncology factsheet

www.ncsct.co.uk/publications/interventions-in-secondary-care-june-10-oncology-patients-factsheet