

# The ABC Pathway

## Key messages for frontline health care workers



### Purpose

The purpose of this document is to communicate some key messages about the 'ABC approach' for frontline health care workers to help people stop smoking.

### What is the ABC pathway?

The ABC pathway is a simple memory aid that incorporates the key steps for screening and advising on tobacco use and its treatment. **A** is for **Asking** about and documenting every person's smoking status; **B** is for giving **Brief advice** to stop to every person who smokes; and **C** is for strongly encouraging every person who smokes to use **Cessation support** (a combination of behavioural support and stop-smoking medicine works best) and offering them help to access it.

The rationale for this approach is to encourage more people to make more quit attempts, supported by evidence-based treatments, more often.

### General messages

#### 1. 15 percent of New Zealanders smoke; most want to quit

- Since 2006, smoking prevalence has dropped from 23 to 15 percent.<sup>1</sup> We have also seen the rate drop among priority groups. Smoking rates have decreased from 42 to 33 percent among Māori and from 30 to 23 percent among Pacific peoples.
- People smoke mostly because they are addicted to tobacco.

- The majority of people who smoke want to quit<sup>2</sup> and appreciate help from their health care workers.<sup>3</sup>
- Stopping smoking can be difficult for many people. Your average 40-year-old smoker who started smoking at age 18 is likely to have already made 22 unsuccessful quit attempts.<sup>4</sup> We tell our patients not to give up on giving up, and this should also remind us not to give up on offering support at every opportunity.

#### 2. Smoking kills

- Around 5000 deaths each year are related to tobacco use and exposure. A third of these deaths occur in middle age.<sup>2</sup>
- Smoking is associated with increased peri-operative complications and impaired wound healing.
- Smoking during pregnancy has adverse effects on the pregnancy, the fetus, the infant and the mother.

#### 3. Stop-smoking treatment works and is highly cost effective<sup>5</sup>

- For half of all smokers, stop-smoking treatment will be a life-saving intervention.
- Brief advice to quit from health care workers is effective. The evidence shows that for every 40 people advised to stop smoking, one will go on to stop smoking long term.<sup>6</sup>
- The long-term (one-year) quit rates associated with unaided quit attempts are low: only 3 to 5 percent of smokers who quit unaided will succeed in not smoking for a year.

- There are no ‘silver bullets’ to quit. However, there are a number of interventions that increase long-term quit rates. A combination of behavioural support and pharmacotherapy increases quit rates at least fourfold.
- Quitline and local stop-smoking services provide behavioural support.
- All effective pharmacotherapies (nicotine replacement therapy, bupropion, nortriptyline and varenicline<sup>1+</sup>) are available and subsidised.

#### **4. The ABC pathway for helping people to stop smoking**

- ABC represents a simple and evidence-based approach to guide and support health care workers to help people who smoke to quit. ABC is about providing good clinical practice with the best-quality care for your patient.
- Brief stop-smoking interventions should not be seen as nagging patients to stop smoking. Rather, these interventions are providing them with best-practice and evidence-based advice.
- Your patients expect you to ask about smoking and will appreciate your help and advice.
- The Better help for smokers to quit health target is a way of measuring what we are doing to better help people who smoke.
- The ABC pathway should be included in the list of generic competencies that house officers are expected to achieve.

Below are some key messages for different sectors.

#### **Key messages for maternity services**

- Smoking in pregnancy is high risk for both pregnancy and child health outcomes. The adverse effects of smoking in pregnancy are numerous and include:<sup>1</sup>
  - ectopic pregnancy
  - spontaneous abortion
  - placenta insufficiency
  - low birthweight babies
  - preterm delivery
  - sudden unexplained death in infancy (SUDI)
  - childhood respiratory disease
  - attention deficit disorder.

- Advise pregnant women who smoke that stopping smoking completely is important for the health of their baby and their pregnancy.
- Women who continue to smoke in pregnancy are generally most heavily addicted and find it difficult to stop. Continue to address it with them at every opportunity.
- Offer nicotine replacement therapy. It is much safer than continued smoking.
- Even ‘light or occasional’ smoking poses health risks. Women should plan to be completely smokefree as quickly as possible; in the first trimester is best, but it’s never too late.
- Find the right balance of advice – non-judgmental, persuasive and supportive.

#### **Technical information**

The best outcomes in pregnancy are achieved with complete cessation (not reduction).

One study<sup>8</sup> showed that there was no difference in anthropometric measurements (eg, birthweight, crown–heel length, occipitofrontal circumference) between babies born to mothers who reduced and those who did not change their cigarette consumption during the first trimester. In contrast, babies born to mothers who had quit smoking or had never smoked had significantly higher measurements than smokers. These findings reflect earlier data showing no significant differences in birthweight between those who reduce consumption versus those who continue to smoke, yet significant positive differences among those who quit smoking entirely during pregnancy.<sup>9,10</sup>

#### **Key messages for mental health services**

- People with mental illness who smoke also want to stop.
- Many suffer from physical illness related to their smoking.
- Stopping smoking can improve some aspects of mental health.
- Mental health service users who smoke typically need more intensive support to stop than those without mental illness.
- Use nicotine replacement therapy (NRT) to manage nicotine withdrawal in smokers who may not want to stop but are unable to smoke while in smokefree environments.

## Technical information

Tobacco use among people with mental illness is higher than in the general population.<sup>11</sup> For example, the odds of being a smoker if diagnosed with schizophrenia is approximately six times greater than for those people without schizophrenia.<sup>12</sup>

Stopping smoking, compared with continuing to smoke, is associated with an improvement in positive mood and a reduction in depression, anxiety and stress.<sup>13</sup>

Those with mental illness also tend to be more dependent smokers<sup>12, 14, 15</sup> and have a higher cigarette consumption.<sup>12, 17</sup> This has implications for treatment (eg, they may need higher doses of NRT and require longer use).

NRT use should also be considered for those who currently don't wish to stop smoking but are residing in smokefree environments. Recent data show that use of NRT can reduce agitated behaviour in people with mental health illness.<sup>18</sup>

Smoking tobacco causes induction of the liver enzyme cytochrome P450 (CYP1A1, CYP1A2).<sup>19</sup> This is mainly the effect of the polycyclic aromatic hydrocarbons present in tobacco smoke, not an effect of nicotine. CYP1A2 is responsible for the breakdown of a number of medications, and in a smoker medications metabolised by this enzyme will be metabolised faster. On cessation of smoking, these enzymes return to a normal level of activity, but may mean that a number of medications are metabolised more slowly and so may need a dosage adjustment.<sup>19</sup> See 'The effect of stopping smoking on the metabolism of other drugs' in Part 3 of *Background and Recommendations of The New Zealand Guidelines for Helping People to Stop Smoking*.

## Key messages for emergency departments

- Smoking prevalence has been shown to be higher among patients accessing an emergency department than in the general population.
- Smoking is often directly relevant to the presenting complaint and may also be relevant to recovery (eg, wound healing is impaired in smokers).
- Many patients that present to an emergency department are interested in quitting smoking.
- Brief interventions are effective. For example, for every 40 smokers advised to quit by their doctor, one will go on to become an ex-smoker.<sup>20</sup>
- Intensive stop-smoking support does not have to be delivered in the emergency department, but patients can be offered a prescription for nicotine replacement therapy, or referred to a stop-smoking

treatment provider (eg, Quitline) or to their general practitioner for follow-up.

- Around 1 in 10 smokers is not registered with a general practice and so advice from emergency department staff is important.

## Technical information

In a New Zealand study, smoking prevalence in emergency department patients was 33 percent, compared with only 20 percent in the general population.<sup>21</sup> Furthermore, 26 percent of the smokers presenting to an emergency department were highly dependent and would stand to benefit most from stop-smoking treatment. The majority of smokers accessing an emergency department (75%) wanted to quit and 57 percent were ready to do this in the next month. Fourteen percent of smokers were not registered with a general practice and so stop-smoking advice from emergency department staff may be one of only a few opportunities to intervene.<sup>21</sup>

A recent audit of records of patients discharged from the emergency department of Middlemore Hospital also shows encouraging findings.<sup>22</sup> A total of 104 patients who were discharged from the emergency department during a one-month period, identified as currently smoking, over the age of 18 and coded as receiving the ABC smokefree intervention were contacted via telephone four weeks after discharge. Eighty-three percent of them (86 people) remember being spoken to about stopping smoking and of these 51 (59%) actually made a quit attempt. At four weeks post-discharge 26 (51%) of those who made a quit attempt reported being smokefree and 14 (27%) remained smokefree at three-month follow-up. Although a degree of caution needs to be applied when interpreting these results, the audit suggests that basic stop-smoking interventions (ABC) delivered in the emergency department can prompt people who smoke to make positive changes.

## Key messages for surgical services

- Smokers are at particular risk of post-operative complications and should be strongly encouraged and assisted to stop smoking prior to surgery.
- Surgical staff should strongly advise all patients who smoke to quit and recommend effective approaches. This may include making a referral to a local stop-smoking service or the Quitline (0800 778 778) or writing a letter to the patient's general practitioner asking them to instigate stop-smoking treatment.
- Use nicotine replacement therapy (NRT) to manage nicotine withdrawal in smokers who may not want to stop but are unable to smoke while in smokefree environments.

## Technical information

Preoperative cessation is associated with a reduced risk of post-operative pulmonary complications and improved wound healing. The Cochrane systematic review of preoperative smoking cessation<sup>23</sup> shows that both intensive and brief stop-smoking interventions increase the chances of quitting at the time of surgery. As expected, the more intensive the intervention, the greater the likelihood of cessation (RR = 10.76 for intensive 95% CI 4.55–25.46; RR = 1.41 for brief 95% CI 1.22–1.63). Stop-smoking interventions were associated with a reduced risk of developing post-operative complications (RR = 0.70, 95% CI 0.56–0.88); however, intensive interventions had the greatest effect (RR=0.42, 95% CI 0.27–0.65).

Preoperative cessation is particularly important in older patients. In a systematic review of smoking status and post-operative outcome in patients aged 70 years or over undergoing cardiac surgery, smokers had significantly higher rates of pulmonary complications (24.7 vs 8.2%,  $p < 0.0002$ ), infections (44.4 vs 23.8%,  $p < 0.0007$ ), longer stays in intensive care (6.2 vs 2.8 days,  $p < 0.002$ ), higher rates of readmission to intensive care, and increased rates of dying in hospital (14.8 vs 2.1%,  $p < 0.0001$ ).<sup>24</sup> Stopping smoking prior to surgery is important for all smokers, but even more important for the elderly population.

Post-operative smoking cessation is also beneficial. A recent randomised controlled trial investigated the effect of a stop-smoking intervention in patients requiring surgery for acute fractures. Those who received a stop-smoking intervention had a significantly lower incidence of at least one post-operative complication (20% vs 38%;  $p = 0.048$ ).<sup>25</sup>

Smoking is an important predictor of poor bone healing. Following surgery for lumbar spinal stenosis, smokers are more likely to be dissatisfied, use more analgesics, and make less improvement in walking ability.<sup>26</sup>

Smokers undergoing bowel surgery have an increased risk of anastomotic leak with fistula formation, infections, and complications of the abdominal wall (eg, hernia).

## Key messages for cancer services

- Almost 35 percent of all cancers are directly related to tobacco use.
- Smoking can impact on treatment outcomes and survival in cancer patients. Stopping smoking is associated with:
  - increased quality of life
  - decreased risk of secondary malignancies

- increased survival time
- decreased post-operative complications for those that need to undergo surgery
- improved response to chemotherapy and radiation.
- Many cancer patients who smoke want to stop and many make a quit attempt around the time of diagnosis.
- Patients who smoke do not usually ask how they should go about quitting.<sup>27</sup>
- Health care workers working with cancer patients should:<sup>28</sup>
  - routinely assess smoking status
  - give advice on the impact of smoking on survival and outcome of treatments (eg, surgery, chemotherapy, radiotherapy and biological therapies)
  - offer advice and assistance to stop smoking. In many instances people are seen frequently during oncology treatment, which provides a unique opportunity to offer stop-smoking support
  - use nicotine replacement therapy (NRT) to manage nicotine withdrawal in smokers who may not want to stop but are unable to smoke while in smokefree environments.

## Technical information

There is often some debate around stopping smoking in people diagnosed with cancer. Frontline health care workers caring for these patients will know best when and how to raise the issue of smoking. They should be careful to avoid assuming that people with cancer will not want to stop smoking.

People with lung cancer have an increased risk of developing a secondary tumour. Among smokers, this risk can be reduced by quitting.<sup>29</sup>

Among patients being considered for post-operative radiation for non-small cell lung cancer, quitting smoking before treatment confers additional treatment advantage.<sup>30</sup>

Smokers are more likely to experience complications and greater morbidity associated with chemotherapy and radiotherapy compared with non-smokers.<sup>3</sup>

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