

## Nicotine Replacement Therapy – Managing Inpatient Nicotine Dependence

A patient's smoking status should be assessed at the time of admission. While this is largely a secondary issue to the presenting complaint, the dependence on nicotine for smokers needs to be managed during a hospital stay.

The primary aim of this bulletin is to highlight the management of nicotine dependence in inpatients. Patients interested in quitting smoking should be referred to a smoking cessation programme.

Nicotine Replacement Therapy (NRT) should be offered to patients who are current smokers, whether or not they wish to quit for good. This should assist in a smoking reduction, which may be crucial in patients admitted with a cardio-respiratory illness &/or those needing oxygen treatment. NRT may also help those unable to leave the ward to smoke. Be supportive & non-judgemental.

### Guide for the Management of Nicotine-Dependent Inpatients

(Refer also to guidelines in the Blue Book)

1) **Identify** smokers on admission & document smoking status in clinical notes. Inform patient of the 'CDHB Smokefree Policy' & specify the risks to their health of leaving the hospital to smoke. Use the smoking status ID sticker where available.

2) **Discuss** with the patient, options for management of nicotine dependence while in hospital (including feasibility of each). This includes: abstinence; abstinence supported by NRT (unless contraindicated\*); or smoking offsite.

3) **Assess level of nicotine dependence** and prescribe appropriate NRT on medication chart (refer to recommended dosage table).

4) **Monitor patient** for withdrawal or overdose symptoms. This may require a change to the NRT prescription (dose &/or product). The patient may benefit from combination therapy (eg. patch + gum or inhaler). Patches offer a sustained amount of nicotine during the day, with the gum/inhaler being used "when necessary" to treat cravings. Gum & the inhaler release nicotine quicker than patches.

5) **Discharge:** Encourage **ALL** smokers to quit smoking & to seek cessation support from their GP, Quitline (0800 778 778), Te Aukati Paipa or other providers. In some areas at Christchurch Hospital a free 2 week supply of NRT can be provided to facilitate enrolment in a quit programme.

\***Contraindications** to NRT (most are relative) include: nicotine hypersensitivity, recent MI (within 3 months), unstable angina, Prinzmetal's variant angina, certain cardiac arrhythmias or recent stroke. [NB: Smoking cessation may affect clearance of some medications. Talk to your ward pharmacist or Drug Information].

### Assessing Nicotine Dependence:

Nicotine dependence may be assessed using the 'Fagerstrom Test' (which is based on criteria listed in the DSM-IV).

### Fagerstrom Test for Nicotine Dependence

Question	Answer	Score
How soon after waking up do you smoke your first cigarette?	Within 5 mins	3
	6-30 mins	2
How many cigarettes a day do you smoke?	10 or less	0
	11-20	1
	21-30	2
	31 or more	3
<b>Total</b>		

**Score:** 0-2 very low dependence; 3 low dependence; 4 moderate dependence; 5 high dependence; 6 very high dependence.

### Nicotine Replacement:

Recommended NRT Dosage		
< 10 cigarettes/day (or very low - low dependence)	10-20 cigarettes/day (or moderate - high dependence)	>20 cigarettes/day (or high - very high dependence)
Often not necessary	14mg/24h patch	21mg/24h patch
Consider PRN gum (2mg). Use a 7mg/24h nicotine patch if deemed useful.	Consider PRN gum (2mg) Increase to 21mg/24h patch if required	Consider adding PRN gum (2 or 4mg) or inhaler.

### Overdose symptoms of NRT

Include: upset stomach/abdominal pain, nausea/vomiting, diarrhoea, dizziness, tachycardia, change in hearing/vision, headache, flushing, confusion, hypotension and hiccups. (Mild symptoms may also reflect the common effects of nicotine).

### Withdrawal symptoms / underdosing of NRT

Craving, irritability, anxiety, sleep disturbance, impaired concentration, hunger, depression, decreased heart rate.

### NRT PRODUCTS AVAILABLE WITHIN CDHB

Product	Dosage (should be individualised for each patient)	Use (Adverse effects usually similar to effects of nicotine as above)
<b>Patches</b> 7,14,21mg/24h	Apply 1 patch daily and remove next morning.  Time to peak concs: 6-12h. (initial onset ~1-2h) [Patch left on for 16 or 24h depending on formulation]	Apply to clean, non-hairy, unbroken skin. Apply new patches to fresh skin site daily, do not use old site for 3 days. Rash may occur at site of placement. (NB: Funded in community via Quitline, Aukati or PEGS programmes)
<b>Gum</b> 2,4mg	One piece chewed slowly for 30min. "Dose" usually 8-12 pieces/day. Maximum of 25 (2 mg) or 15 (4mg) pieces/day.  Time to peak concentrations: ~20-30min	When urge to smoke is felt, chew 1 piece of gum until taste becomes strong; rest gum between gum and cheek, chew again when taste fades; continue for 30 min. Mild adverse effects include hiccups, upset stomach. (NB: Funded in community via Quitline, Aukati or PEGS programmes)
<b>Inhaler</b> 10mg	Use whenever there is an urge to smoke. Dose usually 6-12 inhaler cartridges daily. [In combination with nicotine patch: use 14mg/24h patch with 4-5 inhaler cartridges daily (max. 12/day)] Time to peak concentrations: ~15min	Use approx 6 cartridges for smokers of <24 cigarettes/day and up to 12 cartridges for >40 cigarettes/day. Adverse effects include mouth/throat irritation & cough which usually resolve with continued use. (NB: Not funded in community)