

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
Total		

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)
Patches 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)
Gum 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)
Inhaler 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)