

# Guide for the management of nicotine dependent inpatients – *Flowchart*

## 1 Identify every tobacco user on admission

- Use *Substance Use History* form or include smoking status on existing admission forms
  - **Ex-smokers** – Encourage continued abstinence
  - **Daily/occasional smokers** – Follow steps 2-5

## 2 Manage inpatient nicotine dependence

- Inform patient of the 'NSW Health Smoke Free Workplace Policy' and specify contraindications to their treatment regime if they leave the ward/facility to smoke
- Discuss options for management of nicotine dependence while in hospital such as:
  - abstinence
  - abstinence supported by nicotine replacement therapy (NRT), unless contraindicated
  - smoking offsite/in outdoor designated areas if available
- If a patient has a history of mental health problems consult with treating clinician

## 3 Prescribe nicotine therapy

- Arrange prescription for NRT (with patient consent)
- Record
  - type (patch/inhaler/gum) and dose on medication chart
  - 'nicotine dependent' in patient notes

## 4 Monitor patient's withdrawal symptoms

If patient is still experiencing withdrawal symptoms:

- review NRT dose/product (patient may benefit from combination therapy)

## 5 Discharge

Ask **all** smokers – *"Do you plan to smoke when you go home?"*

- **"Yes"**
  - Encourage future quit attempt *"The best thing you can do for your health is to stop smoking. When you're ready, phone the **Quitline** or talk to your doctor."*
- **"No"**
  - Arrange three day post discharge NRT
  - Include treatment summary in discharge plan
  - Advise patient to seek cessation support from GP/pharmacist/**Quitline** ☎ 131 848

**NSW Health Smoke Free Workplace Policy (1999)** – This Policy prohibits smoking in all buildings, vehicles and grounds controlled by NSW Health with the exception of approved designated outdoor areas. The rationale of the Policy is to reduce the harms of smoking, to prevent exposure to environmental tobacco smoke and to promote the message that smoking is a serious chronic condition that is lethal for one in two regular users. This flowchart is a companion to the *Guide for the management of nicotine dependent inpatients: summary of evidence*.

## Nicotine

Nicotine is the drug in tobacco that causes dependence. This dependence is reinforced by:

- the rapid delivery of nicotine to the brain which inhaled cigarette smoke provides (10-19 seconds)
- positive reinforcement linked to dopamine release in the brain
- relief of withdrawal symptoms by continued smoking

Nicotine dependence can be assessed using these two questions:

*Fagerstrom KO, Heatherton TF, Kozlowski LT. Nicotine Addiction and Its Assessment. Ear, Nose and Throat Journal 1990. Vol 69, No 11 . 763-765*

Question	Answer	Points	Scoring
1. How soon after you wake do you smoke your first cigarette?	Within 5 minutes	3	0-2 very low 3 low
	6-30 minutes	2	
2. How many cigarettes per day do you smoke?	10 or less	0	4 moderate 5 high 6 very high
	11-20	1	
	21-30	2	
	31 or more	3	

## Nicotine withdrawal symptoms

Symptoms include cravings plus four (or more) of the following within 24 hours of cessation – depressed mood, insomnia, irritability frustration or anger, anxiety, difficulty in concentrating, restlessness, decreased heart rate, increased appetite or weight gain. These symptoms cause clinically significant distress and are not due to a general medical condition and are not better accounted for by another mental disorder (DSM-IV).

## Nicotine Replacement Therapy (NRT)

NRT provides lower nicotine levels than those achieved by smoking and relief from physiological withdrawal symptoms. This helps resist the urge to smoke cigarettes. Delivery of nicotine via the oral mucosa (gum/inhaler) and transdermally (patch) is slower than delivery by smoking. NRT medications do not contain other toxic substances found in cigarettes such as carbon monoxide and tar, they do not produce dramatic surges in blood nicotine levels and they do not produce strong dependence.

The 'Cochrane Review' (Silagy *et al* 2001) found that:

- odds ratio for abstinence with NRT compared to control was 1.73 (patch 1.76, gum 1.66 and inhaler 2.08)
- these odds were largely independent of the intensity of additional support provided to the smoker
- in highly dependent smokers there is significant benefit of 4mg gum over 2mg gum (odds ratio 2.67)
- NRT increases quit rates approximately 1.5 to 2 fold regardless of setting

*"All of the evidence indicates that nicotine administered as a medication is always safer than that obtained by cigarette smoking."* (Benowitz 1998)

In Australia, NRT is currently contra-indicated for some patient groups and use by these patients requires special consideration.

## Contraindications to use of NRT (MIMS April/May 2001)

- Gum (S2)** Non tobacco users, pregnancy, lactation, children (<12 yrs).
- Patch (S2)** Non tobacco users, acute MI, unstable angina pectoris, severe arrhythmias, recent CVA, skin disease, children (<12 yrs), pregnancy and lactation.
- Inhaler(S3)** Non tobacco users, hypersensitivity to menthol, pregnancy, children (<12 yrs).

## Dose (MIMS April/May 2001)

- Gum (S2)** Maximum 40mg daily
- Patch (S2)** Healthy people, >10cigs/day, >45 kgs: one patch daily 21mg/24hr or 15mg/16hr  
Cardiovascular disease, <10cig/day, <45 kgs: one patch daily 14mg/24hr or 10mg/16hr
- Inhaler (S3)** 6-12 cartridges/day

## How to use NRT

- Gum** The gum is effectively a mouth patch and nicotine is absorbed through the oral mucosa. Chew till a peppery/tingling feeling, flatten and 'park' between the gum and the cheek. Chew and 'park' several times per piece. (Avoid coffee/soft drinks 15 minutes before and while using gum.)
- Patch** Place on clean, non-hairy site on chest or upper arm upon waking. Rotate site each day.
- Inhaler** Inhale air through cartridge for 20 minutes. Self-titrate dose according to withdrawal symptoms.
- Bupropion is not an appropriate medication for management of short-term nicotine withdrawal.**

## Resources available on [www.health.nsw.gov.au](http://www.health.nsw.gov.au)

**For patients** *Products to help you quit smoking.*

**For staff** *Guide for the management of nicotine dependent inpatients: summary of evidence.*