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What You Need To Know: Addiction - Cough Mixture

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The commonly used cough mixtures that contain codeine are Phensedyl™ and Procodin™. Procodin contains 9.0 mg of codeine per 5 mLs and procodin 3.6 mg of codeine per 5 mLs. Codeine is an opiate and a popular drug of abuse. It is mainly metabolised by glucuronidation, but minor pathways are N-demethylation to norcodeine and O-demethylation to morphine.

Patients who are dependent on codeine frequent casualty departments, government out-patient clinics and private clinics. Such patients are not uncommonly seen in hospital inpatient units as well. The patients who are at risk of developing codeine dependence are those with chronic painful medical conditions, eg low back pain, sinusitis, migrainous headaches and arthritic pains. Rheumatic disease causing night pain has been a common reason cited by patients who use codeine for night sedation. A study published in the Annals of Rheumatic Disease revealed that about one fifth of patients with rheumatic disease needed night sedation for insomnia related to pain - of these patients, one third used codeine[1].

Another worrying trend is that patients who are dependent on codeine may end up using preparations that contain codeine and analgesics like paracetamol eg Panadeine™ or aspirin. This can lead to dual problems of analgesic overdose and codeine addiction[2].

Patients who have taken overdoses of codeine containing cough mixtures will have a combination of anti-histaminergic effects and opiate intoxication. The common symptoms of opiate intoxication include sedation which can progress to coma if severe, pinpoint pupils,. euphoric mood and slow shallow respiration. Acute management of overdoses is straightforward with a parenteral opiate antagonist and supportive treatment. Table 1 summarises the acute and chronic sequelae of codeine use.

Management of cough mixture addicts can be done on an in-patient or out-patient basis. In addition, the clinician will have to decide on either abstinence or maintenance medication as the goal of treatment. The main mode of treatment in the detoxification phase involves pharmacotherapy for example with chlormethiazole[3]. Other medications that help are clonidine 0.025 mgs tds with thioridazine 100 mg ON. Clonidine helps ameliorate the opiate withdrawal symptoms and thioridazine helps promote sleep. The doses of clonidine are as follows:

0.025 mgs three times a day for 2 days
0.025 mgs twice a day for 2 days
0.025 mgs once a day for 2 days, and then stopped.

If the patient still has sleep difficulties, diazepam 10 mg ON can be added but tapered after 1 week and taken off. If there is no improvement after about

Table I - Summary of acute and chronic sequelae of codeine use

System	Acute effects	Chronic effects
Central Nervous System	Analgesia Euphoria Sedation Cough suppression	Dependence Mood instability Peripheral neuropathy Amblyopia
Respiratory	Respiratory depression	Increased lung disease (TB, pneumonia)
Gastrointestinal	Diminished propulsive contractions Decreased secretions	Constipation, nausea, vomiting, impaired liver function
Eyes	Miosis	
Renal	Inhibition of urinary voiding reflex	Narcotic induced nephropathy
Metabolic		Altered adrenal metabolism
Sexual	Reduced libido	Irregular menstruation

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1 month of pharmacotherapy and psychological techniques, the patient should be referred to a psychiatrist. The psychiatric referral should be made with a full explanation given to the patient that his medical problem needs specialist help. Psychological techniques (eg counselling, cognitive therapy or psychotherapy) are needed to help such patients deal with their chronic painful medical conditions.

Codeine addiction is often a chronic relapsing illness. Cessation of cough mixture ingestion, like other opiate ingestion, is a long term process. The other factors that will have to be considered in treatment are the patient's social support, his socio-economic status, his personality and most importantly, his motivation to stop. Prevention is another important aspect of management. When patients are seen in clinics for common ailments like cough and colds, a good background history is important. If there is a history of substance abuse or addiction, or even if there is just a strong index of suspicion, cough mixtures containing codeine are best avoided. Likewise, if a patient has a chronically painful condition, other modalities like non-opiate analgesics, pain control techniques and counselling should be administered instead of prescribing opiate analgesics routinely.

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