#### MANAGEMENT OF TOBACCO DEPENDENCE

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Acting Dean (Academics) Professor & Head Department of Pharmacology All India Institute of Medical Sciences (AIIMS) Raipur (C.G.) Nicotine present in Tobacco is a ganglionic cholinergic agonist and its repetitive exposure leads to neuroadaptation and dependence.

Heavy Nicotine consumption leads to both Psychic & Physical dependence.

#### BASIC PRINCIPLES IN MANAGEMENT OF NICOTINE DEPENDENCE

# Psychotherapy

# Pharmacotherapy



(Effective when person is ready to quit)

AIM is to-

- Suppress the withdrawl syndrome.
- Prevent relapse and improve abstinence

rate.

#### **MANAGEMENT OF NICOTINE DEPENDENCE**

#### **FIRST LINE DRUGS**

- Nicotine Replacement Therapy (NRT)
- Bupropion
- Verenicline

# **NICOTINE CHEWING GUM**

- \* 2 mg (Cigarettes <25/d)</p>
  - 4 mg (Cigarettes > 25/d)
- Taken when urge to smoke
- Not more than 24 pieces per day
- Duration 12 weeks
- Avoid acidic food during intake.

# **NICOTINE NASAL SPRAY**

0.5 mg delivered to each nostril minimum 8/day to maximum 40/d for 3-6 month. Than gradually reduced in 3 months.

### **NICOTINE TRANSDERMAL PATCH**

- Applied as soon as person wakes up on quit day
  - 21 mg daily for 4 wks

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- 12 mg daily for 2 wks
- 7 mg daily for 2 wks
- Applied over non hairy skin for 16-24 hrs

## **NICOTINE LOZENGE**

- 2 mg If person normally smoke first cigarette 30 min after awakening
- 4 mg If person normally smoke
- first cigarette within 30 min after awakening.
- Not more than 20 Lozenges/d
- **Duration of treatment 12 weeks**

#### **BUPROPION**

- Blocks reuptake of dopamine and Noradrenaline.
- Started 2 Week before stoppage of smoking.
- 150 mg once a day 3 days,150 mg twice a day - 7 to 12 Weeks may be continued for 6 months.

### VERENICLINE

- \* Partial agonist at Nicotinic Receptor
- Started 1 2 Week before stoppage of smoking.
- \* 0.5 mg daily 3 days, 0.5 mg twice a day 3 days,1.0 mg twice a day - 12 weeks. May be continued for further 12 weeks.
- Concern Psychiatric ADRs and Cardiovascular events.

SECOND LINE DRUGS IN MANAGEMENT OF TOBACCO DEPENDENCE

- Clonidine (α<sub>2</sub> Receptor Agonist)
   (.15 .75 mg/d Orally)
   (.1 .2 mg/d Transdermally)
- Nortriptyline
   (NA reuptake inhibitor)
   25-100 mg/d for 12 weeks

#### NEWER DRUGS IN MANAGEMENT OF TOBACCO DEPENDENCE

 Mecamylamine (Nicotinic Recepter Antagonist)

 Naltrexone (Opioid – Receptor Antagonist)

#### MANAGEMENT OF NICOTINE DEPENDENCE DRUGS/METHOD OF UNCERTAIN EFFICACY

Buspirone

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- Benzodiazepines
- Propranolol
- Cystisine
  - Selegiline
- Silver acetate
  - **Citric acid inhaler**
- Acupuncture

# TOBACCO DEPENDENCE Vaccine

# for prevention of smoking

relapse is under trial.

**TOBACCO DEPENDENCE** TREATMENT IS BOTH CLINICALLY EFFECTIVE AND **COST-EFFECTIVE RELATIVE TO OTHER MEDICAL AND DISEASE PREVENTIVE** MEASURES.

## Good Political Commitment.

- Awareness and participation of public.
- Proper implementation of Health Programme.
- Policies to discourage Tobacco use and promote cessation.

ARE CORNERSTONE IN THE SUCCESS OF TOBACCO CESSATION



# <u>Thank You</u>