Management of Nicotine Addiction Fact Sheet

MINIMAL CLINICAL INTERVENTIONS

- Helping people quit smoking can yield significant health and economic benefits. An estimated 70% of smokers (33.2 million) want to quit, but only 2.5% (1.2 million) per year succeed in quitting smoking permanently.[1,2]

- According to three study findings, nearly 70% of American smokers (36 million) make at least one outpatient visit each year, but health care providers gave smoking cessation advice to only 40% to 52% of the smokers.[3]

- One recent study reported that only 15% of smokers who saw a physician in the past year were offered assistance with quitting, and only 3% were given a follow-up appointment to address the problem.[3]

- In 1992, about half of all adult U.S. smokers visited a dentist, but only 25% were advised to quit by their dentist.[3]

- Effective strategies for treating tobacco use include brief advice by medical providers, counseling, and pharmacotherapy.[3]

- Advancements in treating tobacco use and nicotine addiction were summarized in a recent guideline, *Treating Tobacco Use and Dependence: A Clinical Practice Guideline*, published by the U.S. Public Health Service. The guideline provides a blueprint to health care professionals and health insurance providers for implementing appropriate medical services that will help treat nicotine addiction.[4]

- Less intensive interventions, as simple as physicians advising their patients to quit smoking, can produce cessation rates of 5% to 10% per year. More intensive interventions, combining behavioral counseling and pharmacologic treatment, can produce 20% to 25% quit rates in one year.[3]

- Self-help interventions, such as manuals, pamphlets, booklets, videos and audiotapes, and Internet/ computer programs, have had only modest and inconsistent success at helping smokers quit. However, self-help interventions can be delivered easily to smokers who want to quit on their own, and proactive telephone counseling may significantly increase their effectiveness.[4]

INTENSIVE CLINICAL INTERVENTIONS

- Intensive clinical interventions serve a relatively small population of smokers who find it most difficult to quit. Through various strategies they try to give smokers the knowledge and skills necessary to cope with cessation. Three types of counseling and behavioral therapies result in the highest abstinence rates: (1) teaching problem-solving skills; (2) providing social support as part of treatment; and (3) helping smokers obtain social support outside of treatment.[4]

- Rapid-smoking cessation strategies typically require that smokers inhale deeply from a cigarette about every 6 seconds until they become nauseated. In theory, this strategy changes smokers' perception of smoking from a pleasurable activity to an unpleasant one, thereby making it easier for them to quit.[4]

- Skills training, rapid smoking, and both intra- and extra-treatment social support have been associated with successful smoking cessation. When such treatments are shown to be effective, they usually are part of a multifactorial intervention.[4]

PHARMACOTHERAPY

- Pharmacotherapy is a vital element of a multicomponent approach. The PHS's guideline identifies five first-line medications (bupropion SR, nicotine gum, nicotine inhaler, nicotine nasal spray, and nicotine patch) and two second-line medications (clonidine and nortriptyline) for treating tobacco use.[4]

- First-line pharmacotherapies have been found to be safe and effective for treating tobacco dependence and have been approved by the U.S. Food and Drug Administration (FDA) for use. Second-line medications have shown evidence of efficacy for treating tobacco dependence, but they are not FDA approved and may cause potential side effects. Second-line treatments should be considered on a case-by-case basis only after first-line treatments have failed.[4]

- Bupropion, an antidepressant prescription medication, is the first non-nicotine medical smoking cessation aid. According to the PHS guidelines, bupropion is an effective aid in helping smokers to quit. In addition, bupropion is safe when used in conjunction with nicotine replacement therapy.[4]

- Nicotine gum is approved as an over-the-counter nicotine replacement product. Chewing the gum releases nicotine, which is absorbed through the mouth and mucous membranes. Nicotine gum is available in a 2-mg dose introduced in 1984 and a 4-mg dose introduced in 1994. The higher dose of nicotine gum may be a better aid for heavier smokers or for those highly dependent on nicotine.[4]

- Nicotine patches contain a reservoir of nicotine that diffuses through the skin and into the smoker's bloodstream at a constant rate. Patches are available both as over-the-counter and prescription medications.[4]

- Nicotine nasal spray was approved for prescription use in March 1996. The spray consists of a pocket-sized bottle and pump assembly, with a nozzle that is inserted into the nose. Each metered spray delivers 0.5 mg of nicotine to the nasal mucosa.[3,4]

- In May 1997 the nicotine inhaler was approved as a prescription medication to treat tobacco dependence. The inhaler consists of a plastic tube about the size of a cigarette and contains a plug filled with nicotine. Menthol is added to the plug to reduce throat irritation. Smokers puff on the inhaler as they would a cigarette. Each inhaler contains enough nicotine for 300 puffs.[3,4]

- Clonidine is used primarily to treat high blood pressure and has not been approved by the FDA as a smoking-cessation medication. Abrupt discontinuation of clonidine can result in nervousness, agitation, headache, and tremor accompanied or followed by a rapid rise in blood pressure. Therefore, clinicians need to be aware of potential side effects when prescribing this medication to smokers.[4]

- Nortriptyline is used primarily as an antidepressant and has not been evaluated or approved by the FDA as a smoking-cessation medication. The antidepressant produces a number of side effects, including sedation and dry mouth. It is recommended that nortriptyline be used only under the direction of a physician.[4]

TREATING OTHER TOBACCO USE

- Smokeless tobacco users should be strongly urged to quit and treated with the same cessation counseling interventions recommended to smokers. Clinicians delivering dental health services should conduct brief interventions with all smokeless tobacco users.[4]

- Users of cigars, pipes, and emerging novel tobacco products such as bidis and kreteks (clove cigarettes) should be urged to quit and offered the same counseling interventions recommended for smokers.[4]

ECONOMIC BENEFITS

- Cost-effectiveness analyses have shown that smoking cessation treatment compares favorably with hypertension treatment and other preventive interventions such as annual mammography, pap tests, colon cancer screening, and treatment of high levels of serum cholesterol.[3]

- Treating tobacco dependence is particularly important economically because smoking cessation can help prevent a variety of costly chronic diseases, including heart disease, cancer, and lung disease. In fact, smoking cessation treatment has been referred to as the "gold standard" of preventive interventions.[3]

- Progress has been made in recent years in disseminating clinical practice guidelines on smoking cessation. Healthy People 2010 calls for universal insurance coverage, both public and private, of evidence-based treatment for nicotine dependency for all patients who smoke.[3]

- The Centers for Disease Control and Prevention recommends that treatment for tobacco addiction should include (1) population-based counseling and treatment programs, such as cessation helplines; (2) adoption recommendations from the PHS clinical practice guideline; (3) coverage of treatment for tobacco dependence under both public and private insurance; and (4) elimination of cost barriers to treatment for underserved populations, particularly the uninsured.[5]

REFERENCES

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