at a time.\textsuperscript{12} For example, NPs must use interventions that will result in progression from contemplation to preparation — as opposed to using techniques such as group support, which is not effective for patients in this stage but is applicable for patients who are in the action stage.

First-Line Pharmacotherapy

Pharmacotherapy can improve smoking cessation rates by alleviating the symptoms of withdrawal. The most notable choices are nicotine replacement therapy (NRT), bupropion (Zyban) and varenicline (Chantix).

The Agency for Healthcare Research and Quality (AHRQ) recommends that in most cases, pharmacotherapy should be offered to all patients willing to reduce or quit smoking, regardless of stage of change. Pharmacotherapy is not recommended, however, for patients with contraindications to a specific NRT delivery system. In addition, bupropion is not recommended for adolescents because of the potential for increased suicide risk. Other exceptions include patients who smoke fewer than 10 cigarettes per day and pregnant or breastfeeding women.\textsuperscript{2}

Nonprescription Nicotine Replacement

Nicotine gum (Nicorette) and lozenges (Commit) provide a ready source of nicotine while offering a form of oral satisfaction. The lozenge form was developed to prevent jaw irritation experienced by some consumers who used the gum and is effective for people with temporomandibular joint disorder.

Transdermal nicotine patches (Nicoderm CQ, Nicotrol) release nicotine more slowly than gum or lozenges, but they do so consistently. The user applies a patch daily to an appropriate skin site, a relatively hairless place between the neck and the waist. This nicotine delivery system may be preferred by patients who have trouble with compliance or who desire the convenience of having to take no action after a patch is applied.

Prescription Nicotine Replacement

Nicotine nasal spray (Nicotrol) was developed to provide more rapid absorption of nicotine. This helps decrease withdrawal symptoms such as irritability, nervousness and nicotine cravings.

The nicotine inhaler (Nicotrol) also provides rapid nicotine absorption. In addition, it provides behavior modification mechanisms for people who need oral satisfaction or derive benefit from holding an object in lieu of a cigarette.

Because NRT can be delivered by several mechanisms that affect absorption rates, combination therapy using the transdermal patch and nicotine nasal spray is sometimes used to decrease withdrawal symptoms. Combination therapy offers the advantage of consistent nicotine delivery (the patch) and rapid resolution of withdrawal symptoms (nasal spray or inhaler).\textsuperscript{13}

Non-nicotine Replacement Medication

Bupropion, a well-known antidepressant, decreases nicotine withdrawal symptoms and cravings by altering dopamine in the brain. It is indicated for smoking cessation in patients 18 and older. In addition to decreasing cravings, cessation-associated weight gain may not be as dramatic with bupropion — especially when used in combination with NRT. It is important to note, however, that smoking cessation rates after 6 months are no greater with combination therapy than bupropion alone.\textsuperscript{14}

Few studies have examined the effectiveness of bupropion for smoking cessation in

Table 2

Smoking Cessation Pharmacotherapy Decision Tree

\begin{table}
\centering
\begin{tabular}{|c|}
\hline
\textbf{Is patient willing to quit?} \\
\hline
\textbf{YES} \\

\begin{itemize}
\item Determine best pharmacotherapy for patient.
\item \textbf{What symptoms do you have when you do not smoke?}
\item \textbf{When do you first crave a cigarette upon awakening?}
\item \textbf{What have you tried in your attempts to quit?}
\item \textbf{What methods worked better for you? Why?}
\item \textbf{What methods did not work well? Why?}
\item \textbf{Are you willing to quit within the next 1 month?}
\end{itemize}

\hline
\textbf{NO} \\

\begin{itemize}
\item Consult pharmacotherapy guidelines.
\end{itemize}

\hline
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\begin{table}
\centering
\begin{tabular}{|c|}
\hline
\textbf{Is patient willing to reduce smoking?} \\
\hline
\textbf{YES} \\

\begin{itemize}
\item \textbf{Assess patient’s stage, and implement appropriate interventions.}
\item \textbf{Review negative effects of smoking: asthma, COPD, heart disease, stroke, cancers — lung, oral/esophageal, kidney, bladder, pancreatic, cervical}
\item \textbf{Review increased risk of asthma, COPD, respiratory and ear infections in those exposed to secondhand smoke.}
\item \textbf{Review pregnancy risks.}
\item \textbf{Identify patient benefits of not smoking.}
\item \textbf{Review vanity issues: yellow teeth and nails, offensive breath, body and hair odor.}
\end{itemize}

\hline
\textbf{NO} \\

\begin{itemize}
\item Consult pharmacotherapy guidelines.
\end{itemize}

\hline
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