The potential consequences of smoking cigarettes are well known but the tobacco-related carnage continues unabated within our society. On November 10, the Centers for Disease Control and Prevention issued a press release that includes the following observations and statistics:

“Tobacco use remains the leading preventable cause of death and disease, including cancer, chronic obstructive pulmonary disease and other lung disease, in the United States. Smoking and exposure to secondhand tobacco smoke kill an estimated 443,000 Americans each year. For every 1 smoking-related death, another 20 people live with a smoking-related disease….Approximately 26 percent of heart attacks and 12-19 percent of strokes are attributable to smoking.”

It has seemed almost impossible to capture or describe the impact of these consequences in a manner that motivates sustained action that will substantially reduce disease and deaths attributed to smoking. Every year statistics similar to those above are communicated, but ignored or quickly forgotten by most. Some years ago I was a participant in a meeting on tobacco-related problems in which a physician speaker made the following statement:

“The tobacco industry should be treated as a criminal enterprise that thrives on addiction and murder.”

Some find it convenient to ignore this observation because it is legal to produce and sell tobacco products. However, many years later I remember this statement verbatim because of its boldness in identifying the addiction and other destructive health consequences that result from using tobacco products. Although some may take exception to an allegation of “murder,” there can be no debate that death is a consequence. The statement serves as a reminder for me to persist in efforts to discourage the use of tobacco products and to discontinue their sale in pharmacies.

Cigarettes in pharmacies

Except in San Francisco, Boston, and several other cities that have taken actions to prohibit such sales, it is legal
to sell cigarettes in pharmacies. However, this does not mean that selling cigarettes in pharmacies is the right thing to do and I strongly contend that such sales are contradictory to the role of pharmacists as health professionals and providers of medications and information that promote and improve the health of patients and communities. Indeed, it is hypocritical to promote such a message at the same time that products that can cause harm and death can be purchased just steps from the prescription counter.

Most independent pharmacies do not sell cigarettes whereas most chain pharmacies do. Accordingly my efforts to have the sales of cigarettes discontinued have primarily been directed to chain pharmacies. In speaking with numerous chain pharmacists and other employees, I found that the vast majority agreed with my concerns but felt they have no authority or influence with respect to this decision. They identified the CEO of their company as the only individual with the authority to make a decision to discontinue the sales of cigarettes. It was at this point that I decided that my efforts should be directed to meeting personally with the CEOs of four of the largest chains that sell tobacco products – CVS, Rite Aid, Walgreens, and Walmart. Just these four companies operate more than 20,000 pharmacies and, therefore, account for a large percentage of the tobacco sales in the United States, as well as a corresponding percentage of the victims of resultant disease and death.

Communications with chain CEOs

My first communication with the CEOs of these four companies encouraged them to be a leader among chain pharmacies in discontinuing the sale of tobacco products, and also requested the opportunity to meet with them. My experiences in communicating with these four chains are described in more detail in the March, 2010 issue of The Pharmacist Activist (www.pharmacistactivist.com). Continuing communications have identified a number of what I consider to be advantageous reasons for the particular chain to discontinue the sale of tobacco products. However, to date, my efforts have not been successful. None of these companies have changed their policies, and none of the CEOs has been willing to meet with me. In fact, there has been turnover in the executive ranks of each of these four companies since I began communicating with them, with the result that there have now been eight CEOs who have either not responded to me at all or have declined to meet with me in a written response. The highest executive officer currently serving at each of these companies is identified below:

- CVS  Mr. Larry Merlo
- Rite Aid  Mr. John Standley
- Walgreens  Mr. Gregory Wasson
- Walmart  Mr. Mike Duke

My lack of success in what I have been attempting to accomplish could be attributed to naivety in anticipating affirmative responses to what I considered to be appropriate requests, or written off as an exercise in futility. However, I can’t ignore the realization that hundreds of thousands of our family members and neighbors are dying every year from the consequences of smoking cigarettes. It is no consolation to hear that they made the choice to smoke or if they couldn’t buy their cigarettes in pharmacies that they would buy them somewhere else. Indeed, most smokers have tried on multiple occasions to stop but the addiction to nicotine that has been described as “second to no other” is so powerful that they have not been successful in quitting.

Smoking kills! Certain pharmacies have enabled and even promoted the purchase of these products that are known to cause addiction, disease, and death. Most importantly, this is a potentially deadly disservice to their customers. It also is a betrayal of the role of the profession of pharmacy as an advocate for wellness and restoration and improvement of health. As noted above, there is only one individual at CVS, Rite Aid, Walgreens, and Walmart who has the authority to make a decision that his company will no longer sell cigarettes. I urge these individuals to make this decision and to be leaders among chain pharmacies in providing an example that I am confident other pharmacies that sell tobacco products will follow. If, however, they continue to permit their companies to sell these products, they, at the very least, are contributors to the sequence of events that, for many, will be the cause of death. They will become known as MERCHANTS OF DEATH.

Daniel A. Hussar
Telaprevir (Incivek – Vertek)
Antiviral Agent

Indications:
Treatment of chronic hepatitis C genotype 1 (HCV) infection, in combination with peginterferon alfa and ribavirin, in adult patients with compensated liver disease, including cirrhosis, who are treatment-naive or who have been previously treated with interferon-based treatment, including prior null responders, partial responders, and relapsers.

Comparable drug:
Boceprevir (Victrelis).

Advantages:
• May be more effective (based on results of noncomparative studies in which the incidence of sustained virologic responses [SVRs] was higher with telaprevir-containing regimens);
• Less likely to cause anemia and neutropenia;
• Treatment regimen is less complex;
• Treatment is for a shorter duration (i.e., 24 weeks) for many patients;
• Labeled indication includes prior null responders.

Disadvantages:
• More likely to cause rash and serious skin reactions;
• Use is not recommended in patients with moderate or severe hepatic impairment;
• May increase uric acid concentrations.

Most important risks/adverse events:
Contraindicated in women who are pregnant and in men whose female partners are pregnant (because the ribavirin component of the regimen may cause birth defects and fetal death; negative pregnancy test must be obtained; two forms of effective contraception should be used during treatment and for at least six months after treatment has been concluded); serious skin reactions, including Drug Rash with Eosinophilia and Systemic Symptoms (DRESS) and Stevens-Johnson syndrome (if a serious skin rash occurs, telaprevir and the other agents in the regimen should be immediately discontinued; patients who experience a rash should be monitored with respect to worsening of the rash or the development of systemic symptoms); anemia (hemoglobin should be monitored prior to and at least every four weeks during treatment); is an inhibitor of CYP3A and P-glycoprotein (P-gp), and a substrate for both; may increase the action of and concurrent use is contraindicated with alfuzosin (Uroxatral), ergot derivatives, atorvastatin, lovastatin, simvastatin, pimozide, triazolam, midazolam (orally administered), cisapride, and sildenafil (Revatio) and tadalafil (Adcirca) when used for pulmonary arterial hypertension; may also increase the activity of certain antiarrhythmic agents (e.g., amiodarone, propafenone, quinidine), digoxin, azole antifungal agents, colchicine, desipramine, trazodone, alprazolam, calcium channel blockers, bosentan, cyclosporine, sirolimus, tacrolimus, and the phosphodiesterase type 5 (PDE5) inhibitors used for erectile dysfunction; may decrease the action of ethanol estradiol (e.g., in hormonal contraceptives); action may be reduced and concurrent use is contraindicated with rifampin and St. John’s wort; action may also be reduced by carbamazepine, phenobarbital, and phenytoin; action may be increased by the concurrent use of a CYP3A inhibitor (e.g., clarithromycin, itraconazole) and reduced by CYP3A inducers (e.g., rifabutin), and treatment should be closely monitored; concurrent use has been reported to increase and decrease the action of warfarin.

Most common adverse events (and their incidences in patients receiving the 3-drug [with telaprevir] and 2-drug regimens, respectively):
Rash (56%; 34%), fatigue (56%; 50%), pruritus (47%; 28%), nausea (39%; 28%), anemia (36%; 17%), diarrhea (26%; 17%), vomiting (13%; 8%), hemorrhoids (12%; 3%), anorectal discomfort (11%; 3%), dysgeusia (10%; 3%); elevated uric acid concentrations (75%).

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Usual dosage:
750 mg three times daily (every 7-9 hours) with food (not low fat); telaprevir, peginterferon alfa, and ribavirin are used as triple therapy for the first 12 weeks of treatment; HCV-RNA concentrations should be monitored at weeks four and 12 to determine the effectiveness of treatment and treatment duration; depending on patient status and monitoring parameters, treatment with peginterferon alfa and ribavirin is continued for a total of 24 or 48 weeks.

Product:
Tablets – 375 mg.

Comments:
The standard of treatment for chronic hepatitis C virus infection has been peginterferon alfa and ribavirin for 48 weeks. This treatment has produced sustained virologic responses (SVRs and considered a cure), characterized by undetectable plasma HCV-RNA 24 weeks following discontinuation of therapy. However, SVRs are attained in fewer than 50% of patients. Boceprevir was the first HCV protease inhibitor to be approved for the treatment of chronic HCV infection, and telaprevir was approved less than two weeks after boceprevir. Both agents act by inhibiting the HCV non-structural protein NS3/4A serine protease that is necessary for the proteolytic cleavage of the HCV encoded protein into mature forms of the proteins necessary for viral replication. Telaprevir and boceprevir are used in combination regimens with peginterferon alfa and ribavirin, and must not be used as monotherapy.

The SVR rate for patients treated with telaprevir as part of a 3-drug regimen, across all studies and all patient groups, was between 20% and 45% higher than in the patients treated with peginterferon alfa and ribavirin. In one of the studies in previously untreated patients, 79% of those treated with telaprevir (for a period of 12 weeks) as part of a 3-drug regimen experienced a SVR, compared with 46% of those treated with the 2-drug regimen plus placebo.

In a study in previously treated patients, telaprevir or placebo was administered for a period of 12 weeks, and peginterferon alfa plus ribavirin for 48 weeks. The SVR rates for the 3-drug and 2-drug regimens, respectively, were 86% and 22% in prior relapsers, 59% and 15% in prior partial responders, and 32% and 5% in prior null responders (patients who experienced less than a 2-log10 decrease in HCV-RNA by week 12 of previous treatment).

When administered with a standard fat meal, the exposure to telaprevir was increased by 237% compared to when it was administered under fasting conditions. Therefore, it should always be administered with food (not low fat).

Daniel A. Hussar