NEW HAZARD COMMUNICATION LAW

THE GLOBALLY HARMONIZED SYSTEM, AND WHAT TO EXPECT

Infection Prevention Corner KAY C. CARL, RN, BS, CIC

LEARNING OBJECTIVES:

After reading this article, the reader should be able to:

- Identify key OSHA requirements for the new Hazard Communication Law;
- describe the reasoning behind OSHA's adaptation of the Globally Harmonized System;
- identify methods to update your dental facility to comply with the new standard.

AUTHOR'S NOTE

Since I started writing articles on Infection Control in the *Inscriptions* in 2006, I have addressed many different subjects on infection control and prevention, some of them multiple times. One subject I have avoided has been the Occupational Safety and Health Administration (OSHA) Hazard Communication law. After an updated standard was passed in March last year I briefly mentioned the changes in

my June 2012 column, but I have not considered it to be an infection control subject to expand upon. I have been presenting OSHA workshops for AzDA for many years and have stressed the importance of the bloodborne pathogen and tuberculosis plans. I have included hazard communication, medical and fire plans, as you need that for a comprehensive program. I know many dental personnel in Arizona call me the "OSHA Lady," but I am really an Infection Preventionist, so I have resisted addressing "HazCom." In reality, this needs to be discussed, as disinfectants are covered under the plan and are a major component in infection prevention. I must admit that I recently have had a lot of questions from dental professionals now that literature with new pictograms is accompanying dental products. Word is out that there is a new law and dental professionals want and need to know what is expected of them. So it's time.



HISTORY

President Richard M. Nixon signed The Occupational Safety and Health Act (OSHA) on December 29, 1970. This act was the result of a public outcry concerning the increase in injuries and illnesses in the American workplace. Targeted areas of concern ranged from grain elevator explosions to exposures to hazardous chemicals and asbestos.

By the time of the signing, each year:

- 14,000 workers were dying on the job
- 2.5 million were sustaining job-related disabilities
- 300,000 new cases of job-related illnesses were being reportedⁱⁱ



The Occupational Safety and Health Administration was established in 1971 but it wasn't until 1983 that OSHA's Hazard Communication Standard was adopted for the manufacturing sector of industry. In August of 1987, the Agency expanded the scope of coverage to all industries where employees were potentially exposed to hazardous chemicals. Workers were handling unknown materials without being informed of the dangers. The rule provided definitions of health and physical hazards to use as criteria for determining risk to workers. All employers with hazardous chemicals in their workplaces were required to have a hazard communication program, including container labels, safety data sheets, and employee training.

OSHA'S GENERAL DUTY CLAUSE:

(a) Each Employer

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act

(a) Each Employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.ⁱ

In the private practice dental community we were not aware of this law until we were included in the new OSHA Bloodborne Pathogen (BBP) Law published December 6, 1991, with an effective date of June 6, 1992. At the time leading up to the effective date of compliance, I developed a relationship with the industrial hygienist who was responsible for enforcing the new BBP standard for the Industrial Commission of Arizona Division of Occupational Safety and Health. I wanted to determine what was expected of Arizona dental practices regarding this new law. I invited her into my husband's dental office for a voluntary consult/inspection feeling very confident that we would pass with flying colors. Actually, I was pretty smug about it, expecting no problems. After all, I was an infection control nurse, so I was a step ahead of most and had already instituted many sound infection control systems in the practice. Much to my surprise, the inspection turned something up! We had not labeled our Cidex container correctly even though it was in a container from the manufacturer with the Cidex name on it. Whoops. I was totally unaware that not only were we to follow the BBP law, but the Hazard Communication Standard as well. Please note: I initiated the consult. My husband was not very keen about the invitation and



The Best of Both Worlds

You can golf, be home for dinner, meet a friend, get to the game, and be a great dentist. Working with us means you'll have the work life you need, and the personal life you want.

Talk with our doctors about their experiences with Mountain Dental and see how well we can fit together.

715-926-5050 or development@mountaindental.com



MOUNTAIN DENTAL mountaindental.com

was concerned about the outcome, but he reluctantly agreed to go through with it. In the years since, I have subjected my husband to many new ideas to deal with OSHA changes, Infection Control standards and best practices. Some things worked and others did not. I have to give him credit for being such a good sport about it.

Labels: I researched what was expected of us for the HazCom law and found out that we had to have warning labels for all chemicals used in the dental office. I found these little diamond stickers that we could buy to label all of our materials but quickly realized that I would have to be a chemist and a research scientist to determine what risk these chemicals were to staff. The MSDSs were confusing so I asked the industrial hygienist how to label our products. She told me that we did not have to put stickers on primary containers that have the warnings already on them. We just had to label secondary containers when we transferred material into them. We could get all the information we needed from the original label. We had to label all secondary containers with the:

- name of material
- warnings
- name of manufacturer
- address of manufacturer

At the time, many offices were mixing up their own disinfectants by diluting a concentrate with water. We used an iodine preparation due to its low toxicity and prepared the solutions daily. We bought the spray bottles from a hardware store and then made up our own labels to tape onto them. For any container that would not be practical to label, such as a glutaraldehyde container, we printed out the information and placed it in a sheet protector and placed it on the wall directly behind the container. Secondary containers of chemicals commonly in need of labeling were the soaking tub for alginate trays, the ultrasonic machine that contained enzymatic solution and our film processing machine that had housed fixer and developer.

MSDSs: We had to provide matching MSDSs that would be readily available to accompany an employee in case an exposure to a chemical warranted a trip to a physician. Tracking down the appropriate MSDSs was an overwhelming task, as our dental suppliers did not supply them with the distribution of their products. They were not getting anything from the manufacturers and were unaware that they should be supplying the information to us. When we did get the MSDSs, they were difficult to interpret. I had a hard time tracking down an MSDS for Clorox bleach, as we were not allowed to have generic MS-DSs in our folders. No wonder many dental offices did not have a HazCom program or understand what they should be doing.

THE PRESENT

OSHA results: OSHA has had a dramatic effect on workplace safety. Since the passage of the original OSHA law, the rate of reported serious workplace injuries and illnesses has declined from 11 per 100 workers in 1972 to 3.6 per 100 workers in 2009. OSHA safety and health standards, including those for trenching, machine guarding, asbestos, benzene, lead, and bloodborne pathogens have prevented countless work-related injuries, illnesses and deaths.ⁱⁱⁱ With the advent of the HazCom standard, other countries have followed suit and initiated their own labeling systems that can differ from each other.

GHS: The Haz/Com standards have been updated over the years with minor changes until OSHA published a final rule updating OSHA's Hazard Communication Standard on March 26, 2012.^{iv} This 323 page document requires changes to the MSDSs, now called safety data sheets (SDSs) and new labeling of chemicals. New pictograms are to be used universally

from country to country so that it would traverse language barriers and provide increased safety to human health and the environment. The requirements are designed to follow the worldwide Globally Harmonized System (GHS).^v This system was initiated to guide chemical manufacturers in the assessment of the hazards of a chemical. If carried out world-



wide, OSHA expects reduction of chemical-related workplace injuries and illnesses from these changes. OSHA says, "The Hazard Communication Standard in 1983 gave the workers the 'right to know,' but the new Globally Harmonized System gives workers the 'right to understand."^{vi} The Hazard Communication Standard (29 CFR 1910.1200) will remain the same except for these new changes.

An explanation of the new rule from OSHA is 858 pages long. If you wish to explore the reasons further, go to <u>http://www.osha.gov/dsg/hazcom/</u> <u>GHSfinal-rule.pdf</u>.

The main points of the new standard are:

- The manufacturers and importers must evaluate the hazards of the chemicals they produce and label their materials accordingly.
- The labels should include a signal word, a GHS universal pictogram, hazard statement, and precautionary statement.
- The manufacturers and importers are required to put the appropriate labels on their containers
- Distributors are to provide the SDSs to the end user.
- The SDSs provided should have a new consistent format.

WHAT TO DO

Assign Duties: Designate a reliable back office staff member to collate the new SDSs so they are readily available during a chemical exposure. That person should collect the SDSs from your suppliers and keep such information current. Many of the SDSs can be now obtained on line from your dental suppliers and can be kept in the computer for easy access. The employer is ultimately responsible for his/her HazCom program.

Q. What is the phase-in period in the revised Hazard Communication Standard?

A. The table below summarizes the phase-in dates required under the revised Hazard Communication Standard (HCS):

Effective Completion Date	Requirement(s)	Who
December 1, 2013	Train employees on the new label elements and safety data sheet (SDS) format.	Employers
June 1, 2015* December 1, 2015	Compliance with all modified provisions of this final rule, except: The Distributor shall not ship containers labeled by the chemical manufacturer or importer unless it is a GHS label	Chemical manufacturers, importers, distributors and employers
June 1, 2016	Update alternative workplace labeling and hazard communication program as necessary, and provide additional employee training for newly identified physical or health hazards.	Employers
Transition Period to the effective completion dates noted above	May comply with either 29 CFR 1910.1200 (the final standard), or the current standard, or both	Chemical manufacturers, importers, distributors, and employers

► INFECTION CONTROL: continued from page 18

Label Properly: This whole process is much easier to deal with than in the past. Manufacturers now provide most of the labeling for us. Disinfectant wipes properly labeled in their original containers can be placed directly in the operatories. If you are using liquid disinfectant to decontaminate your impressions and are transferring disinfectant from a primary container to a secondary container, there are bottles available that are already properly labeled. Hopefully you now have digital radiography so you no longer have to deal with fixer and developer chemicals. There are a few containers that still need to be labeled, such as your soaking tub for your reusable impression trays, the ultrasonic machine, and your glutaraldehyde, if you have not eliminated it from use in you facility. Print the required information out and place it in a sheet protector on the wall directly behind the container.

Train Employees: We have until December 1, 2013, for employee training on the new label elements and SDS format. The entire transition is not required to be completed until the year 2016. The employers will have to provide training to their employees in interpreting the symbols and wording. You will be seeing changes in the SDSs as they convert to the new Globally Harmonized System, and it should start to make more sense.

An updated sample plan with the GHS is now included in the AzDental Foundation flash drive that is available through the AzDF OSHA Workshops given biannually and now available separately as advertised on the AzDA website.

CONCLUSION

The old sticker system that left the employer trying to decide what was flammable, corrosive, etc., was virtually unmanageable to the end user and the MSDSs provided were confusing. With the HazCom update utilizing the GHS, the bulk of the transition is the responsibility of the manufacturers, importers and distributors. Overall, I feel that this is an improvement that will make hazard warnings and SDSs easier to understand and members of our staff safer as a result.

Take the quiz on page 26 to earn your 1 CEU.

REFERENCES

ⁱ http://www.osha.gov/pls/oshaweb/owadisp.show_ document?p_table=OSHACT&p_id=3359

"http://www.osha.gov/history/OSHA_HISTORY_3360s.pdf

iii http://www.osha.gov/

^{iv} 29 CFR 1910.1200 Hazard Communication Standard. Available from http://www.osha.gov/pls/oshaweb/owadisp.show_ document?p_table=STANDARDS&p_id=10099.

^vA Guide to the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Available from: http:// www.osha.gov/dsg/hazcom/ghs.html.

^{vi} http://www.osha.gov/dsg/hazcom/index.html

Kay Carl is board certified in infection control and epidemiology. She has over 35 yrs experience in infection control and has worked in collaboration with AzDA since 1991 to provide CE in OSHA, infectious diseases and infection control. She is a prolific contributing author and editor for various industry print and electronic media.





Back row (I to r): Congressman Paul Gosar ('05); Mark Hughes ('11), Bryan Shanahan ('12), Robert Hawke ('94), Charles Siroky ('86), Brien Harvey ('02),
Michael Hauer ('99), Daniel Klemmedson ('06). Second row (I to r): Drs. Donald Simpson ('10), Morris Hicks ('90), Regina Cobb ('09), Bart Thompson ('00),
Michael Thompson ('07). Front row (I to r): Drs. William Gaylord ('83), William Hawkins ('81) and David Utzinger ('84).