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Managing year 2000 (Y2K) compliance in the medical practice

ABSTRACT

It is the responsibility of every medical practice to examine the year 2000 compliance of all medical devices, facilities, and computer systems that it uses, and whether external business partners are also taking appropriate steps in this area. You need a plan, and you need to start right now.

P ROBLEMS ARISING FROM the transition from the year 1999 to the year 2000 (Y2K) will affect all medical practices. The impact will vary depending on the degree of automation used in each organization. However, before you dismiss this issue because you believe you have little automation in your office, you would do well to take a closer look at your practice—and at the companies with which you do business. To ensure business continuity and patient safety, the Y2K issue must not be taken lightly or, worse yet, ignored. This issue, unlike many others, cannot be put off and considered at a later date.

This article gives examples of what to look for and what to ask of those you count on to run a typical medical office practice.

FALSE ASSUMPTIONS ABOUND

Many false assumptions surround the Y2K issue, such as:
- "This issue is simply too large of a project for my size group."
- "Vendors and others on whom I rely will address the issue."
- "I do not have a computer in my office, so I am fine."
- "Someone will come out with a 'silver bullet' fix to resolve the issue."

- "I have not been notified that I have a problem, therefore I am compliant."
- "I have not had a problem yet, so I should not be at risk."

These assumptions represent wishful thinking. The problem is real, and you ignore it at your own risk. Every medical practice has the responsibility to ensure that it will be able to carry on business as usual come January 1, 2000.

AREAS TO REVIEW

Four primary areas need to be reviewed to determine the compliance status of a practice: medical equipment, facilities, software and computer systems, and business partners.

Medical equipment

Many devices used in patient care employ a date calculation to do their jobs. Y2K-related problems may be more apparent in some medical devices than in others. If a machine displays a date or uses a date to calculate a result, it should be checked for compliance.

Do not assume, however, that a machine does not use a date calculation just because it does not display a date. Some medical devices that do not display a date use a date routine to determine maintenance schedules or perform a calculation to determine the dose of a medication or the amount of energy delivered to a patient.

For example, some defibrillators use a date calculation to determine the need for maintenance. If a program in the machine determines it has not received maintenance in the recommended time frame, it displays a warning suggesting preventive maintenance is required. If this warning is ignored for a pro-

Do not assume you do not have a Y2K problem

longed time the machine may stop working until maintenance is performed.

Another example of a device that could experience a Y2K problem is a visual field analyzer, which is used for vision testing. These devices utilize the date for printing test results in a chronological format. When dates before and after January 1, 2000 are listed, the test results could be arranged in an incorrect chronological order. In addition, some machines create a baseline based on the date of the first test, to serve as a reference to evaulate later test results. If the computer fails to properly recognize the year a test is performed, the wrong reading may be used as the baseline result.

If you cannot easily ascertain the risk of a Y2K problem for a particular piece of equipment, contact the vendor to have it tested. Test procedures may be available from the vendor or manufacturer.

If you lease your medical equipment, it may be worth the time to review your lease agreement and call your representative to determine the obligation of the leasing company or vendor as it relates to Y2K compliance. Likewise, if the medical equipment is under a maintenance agreement, you might be able to get Y2K testing procedures and upgrades from your maintenance vendor.

A defibrillator may use a date calculation to determine the need for maintenance

Facilities

This broad category includes all devices used in operating the facility and your practice, other than medical equipment. Examples include security systems, fax machines, telephone systems, elevators, and heating, ventilation, and air-conditioning systems. The issues and logic that apply to failures in this equipment are much like those in medical equipment.

If you own your building or are obligated to maintain your facility within a lease, you will need to ascertain its Y2K compliance yourself. Start by taking an inventory of all items. As with your medical equipment, you should contact your vendors, leasing agents, and maintenance providers for Y2K compliance information and testing procedures. If you lease your facility and equipment, contact the landlord and request a statement ensuring the compliance of the facility. Without a func-

tioning building your practice will be unable to operate.

Software and computer systems

Software and computer systems make up the most complex category to consider. If you have automated any portion of your practice, such as scheduling or billing, your practice has likely become dependent on computer systems. To ensure the continuity of these functions, you need a plan for testing these systems for Y2K problems and, if necessary, for fixing them.

Networks should be considered first. If you can access information from more than one device (personal computer or terminal), you probably have a network, which is driven by a combination of hardware and software. To adequately validate your network for compliance you, will likely need a network technician. This person should test all components, including switching equipment, routers, hubs, servers, network software, and each workstation that requires access to the network, including hardware and operating systems.

Personal computers. If you use a single or stand-alone personal computer, you can disregard the network-related issues, but you must still confirm the compliance of your hardware and operating system. A number of commercially available programs can do this. A good deal of information is also available on the Internet from software vendors.

Application software should be validated next, especially the programs you use for scheduling, billing, and medical records. Each program should be tested by entering a variety of year 2000 dates in each function that the program performs. For example, try to schedule a patient for a return visit in January 2000, or put a reminder for a follow-up call in February 2000 on your accounts-receivable system.

However, these are only two of potentially hundreds of date-related scenarios to be tested with each software application. The software vendor should be contacted and asked to provide test scripts for your specific software.

Moreover, simply confirming that the application functions with a year 2000 date is just one of many date tests that should be performed. Others dates with potential problems include:

- 9/9/99 (some systems are programmed

to respond differently when encountering a field with all nines)

- 12/31/99 (the last day of 1999)
- 1/1/00 (the first day of 2000)
- 2/29/00 (2000 is a leap year)
- 3/1/00 (the first day after 2/29/00)
- 12/31/00 (the first year end)
- 2/29/04 (the next leap year date)
- 3/1/04 (the first day after 2/29/04).

If errors or failures occur in the testing of an application, the software needs to be updated with a corrective software "patch." Many practice management systems are installed without the original programming code, in which case all changes must be made by the software vendor. The major application vendors should have software patches scheduled for release or available to make their products Y2K-compliant.

If your application was custom-written for your practice rather than purchased "off the shelf," or if the vendor is no longer in business but you have access to the source code, the alternative is to have a programmer test the system and fix it to bring it into compliance. If none of the above are possible options, you may need to replace the application.

External business partners

No man is an island, and no medical practice is either. To function, most practices rely on a number of external partners, such as health maintenance organizations, other payers, suppliers of medical equipment and supplies, banks, accountants, billing services, hospitals, ambulatory surgery centers, utility companies, and other medical practices. You cannot control how they run their own businesses, but if they have a problem, you have a problem too.

Most business organizations have already implemented a Y2K remediation program. As part of that effort, they provide summary information of their projects and progress towards reaching compliant status. Requesting this information should help the owners of a medical practice assess their risk with an individual business partner.

■ LEGAL RAMIFICATIONS

While moving through the Y2K project, it is essential to maintain proper documentation during all phases. Legal cases based on Y2K issues are likely to occur. In fact, litigation related to the Y2K initiative is estimated to equal the cost of the repair: $400 to $600 million nationally.

It is in your best interest to document the diligent efforts that you are making to avoid Y2K problems. Legal counsel should be involved early in the process to help avoid pitfalls. Documentation of the overall plan and specific remedies should be maintained in case an unexpected failure occurs with a system that has been "repaired."

■ GET STARTED NOW

When considering a problem the size of Y2K, it is important to separate the project into manageable components. The categories listed above are just one method of compartmentalizing the project initiatives. The important thing at this point is to get started—not to worry about the specific method.

Medical practices will not be in a position to address all components of the year Y2K project themselves. Fortunately, many resources are available. For example, consider your local hospital. Hospitals face issues similar to those faced by medical practices, and many have a team dedicated to the Y2K effort, which may be able to help you. Other sources are software consultants, biomedical engineering contractors, healthcare software vendors, and computer vendors. As in purchasing any service, it is important to find a reputable partner. Spend time talking to the consultants and develop a comfort level with their work. It is important to get a list of previous clients and a customer reference list.

The important thing to remember is—get started now. ▣

■ SUGGESTED WEB SITES

American Hospital Association. Year 2000 resource center. http://www.aha.org/y2k/defaut.html.

Food and Drug Administration. Year 2000 impact on biomedical equipment. http://www.fda.gov/cdrh/yr2000/year2000.html.

Michigan Electronic Library. Health information resources. Y2K-Year 2000 resources for health care. http://mel.lib.mi.us.health/health-yr2k.html.

National Institutes of Health. Year 2000 working group. http://wwwoirm.nih.gov/y2000.

Document your Y2K efforts