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INSIDE

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Late for Y2K? You *can* begin today, say experts, and you *should* begin now

This year, the adage 'better late than never' takes on new meaning

Year 2000 (Y2K) compliance is a task that every department has to take seriously this year. You as a quality professional are under a special mandate to oversee the work, not only from the standpoint of the Joint Commission on Accreditation of Healthcare Organizations in Oakbrook Terrace, IL, but also from the more global standpoint of being in charge of quality maintenance.

"Y2K is a global problem," says **Wendy Walschlager**, RN, director of health information at Good Samaritan Hospital in Downers Grove, IL. **(See next month's issue of *Hospital Peer Review* for an article on the Joint Commission's expectations regarding Y2K preparedness.)**

Although computer-related duties typically fall under the aegis of information management departments at most hospitals, this is not an issue you can assume others are taking care of. A first priority is to make sure the equipment you are using for your quality management tasks is Y2K-compatible. But you cannot stop there.

If you find that your organization has been putting off dealing with the crucial millennium bug issue, the good news is that all is not lost. There's still time to begin emergency procedures. But don't get too comfortable: The bad news is that workable solutions must be constructed as soon as possible. Y2K is a problem that has to be addressed, and today's the day to start. This is not the time for fixing blame for the delay. Whatever the cause of the delay, time is now of the essence.

"Those entering the remediation calendar late can head off most Y2K problems," says **Audie G. Lewis**, director of material program development at Lee Memorial Health System in Fort Myers, FL. "If you've got six months or less, you're not going to be doing major capital acquisitions replacement. But you do have time to do contingency planning — deciding what you're going to do when this happens."

At the very least, you should be able to institute a number of contingency operations plans, Lewis says. "In the same way as if you suddenly learned that a flood was coming tomorrow, you have a day to quickly prepare for it."

Countdown to Y2K readiness

How one facility 'migrated into compliance'

Dwain Shaw, director of information services and year 2000 (Y2K) project director at the Medical College of Georgia in Augusta, says his organization was rooted in 1970's technology as late as 1992. At that time, however, new staff were brought in to rebuild the campus information systems network. "As we went in to evaluate the need for new applications," he says, "the CEO had us make sure that any new applications installed were Y2K-compliant. So we started our preparations with our remediation back in 1995."

The facility's original Y2K task force was formed in August 1995, and held its first meeting in September of that year. There were 18 people on the team, including representatives of every member of the president's executive council.

A retired U.S. Army lieutenant colonel, Shaw says the easiest way to handle a project of this magnitude is to reduce it to its simplest terms and get on with it. "We went with a program that was as simple and logical as we could make it," he says. "We met once a month and gave our task force members a homework assignment at each meeting. We didn't tell them how to do it, but only to get it done within 30 days." That technique worked well, and today the campus is at a "reasonable level of compliance," as he describes it.

"We made a giant leap forward," Shaw says. "We still have things to do, but we know what they are." In fact, today the Medical College of Georgia is held up as an example of a facility that has some of the most advanced computer architectures in the nation.

Because the Medical College of Georgia is a health sciences university, the Y2K task force has to deal with "the business side of the house, the academic side of the house, and the clinical side of the house," he says. To form his team, he selected subject matter experts from across the campus:

- The manager of the information systems help desk became responsible for getting all the personal computers compliant.
- The director of the physical plant was made responsible for seeing that building facilities were prepared.
- The director of public safety was put in charge of security issues.
- The chief of biomedical engineering has been working to get clinical devices ready.

Shaw says one of the first things they did was to declare all 1,700 of their 486-generation computers non-Y2K-compliant. "After all, they were using technology that was 10 to 12 years old," he says.

His advice: Take the challenge of the Y2K crisis as an opportunity to operationally migrate into compliance. "We migrated into compliance through our operational budget. We have not allowed anything to be funded solely on the basis of Y2K. Every upgrade had to have an operational reason for replacement."

One last bit of advice: "Take care of your staff. Make sure they are personally prepared," he says. "If they're going to have to be there at midnight 12/31, make sure they are comfortable that their families are safe. Provide child care and places to sleep and eat."

Two adages that Shaw stresses are "Plan for success; prepare for failure," and "Please take *know* for an answer." ■

Here's how to condense your Y2K program in a limited amount of time. Experts say the first step is education, even when you start this late in the game. Present a senior leadership retreat or other educational program so each of your key leaders clearly understands what he or she has to do over the remaining next few months.

Then assess your facility's internal and external risk exposure by conducting a Y2K compliance survey. Inexpensive, off-the-shelf software is available for such self-assessments.

There are two ways in which an abbreviated, emergency Y2K plan is different from one that has been developed over a long period. First, the necessary steps have to be apportioned among a larger group of people to ensure the same tasks are accomplished within a shorter time frame.

For example, a review of risk management processes may be completed by one or two employees when an organization has 12 to 24 months to prepare. The same task may require 10 employees when reduced to a 60- to 90-day timetable.

Experts advise that Y2K project leaders be given full responsibility for their areas of concern. Their duties should not be compromised by conflicting responsibilities. Use assembly-line techniques: Divide tasks into manageable pieces that can be executed by several individuals at the same time.

Second, financial resources may not be available for major midyear fiscal budget adjustments that will be necessary to accommodate Y2K initiatives. Money issues may be further complicated by the possible loss of Medicare and other receivables likely to occur after Jan. 1. **(See article on Medicare readiness on p. 56.)**

Organizations typically have needed to suspend at least 30% of their annual operating budgets in order to reach their Y2K compliance goals. The cost of compliance is high, but the cost of complacency is much higher, says Lewis.

How can you work with a 30% budget cut without sacrificing quality of patient care? Tighten your belt in the following ways:

- **Postpone expenditures that are not absolutely necessary for current operations.**
- **Eliminate excess inventories of supplies that are routinely held in reserve.**
- **Consume those second-choice inventory items not routinely used by staff because of personal preferences.**
- **Review major projected cash-related capital equipment expenditures that cannot be postponed to determine if they can be converted into lease or credit purchases.** Purchase contracts might be structured to contain a buy-out clause that can be exercised later.
- **Lessen personnel requirements by soliciting temporary help and volunteers from the community.**

Address anticipated payment interruptions, such as those from Medicare, with a contingency plan. Some manual payment and audit arrangements may have to be established prior to the millennium changeover to guarantee uninterrupted payments. Test them before the deadline to uncover and correct problems.

Similar preventive measures should be taken with companies that handle outsourced business functions for your hospital, such as payroll and accounting services. Canvass them, too, to ensure Y2K compliance.

Experts advise that you be prepared for less than 100% accuracy. "Even when we think we've fixed everything within a hospital's accounting system, for example, keep in mind that the best tool out there for remediating lines of code is 99% accurate," says Lewis. "No one is offering anything better than that. If you've got 10 million lines of code and a 1% error rate in finding and correcting dates, that can mean a lot of problems down the road. They may not all show up on Jan. 1, but will eventually surface. It's a toss of the dice whether those affected dates crop up in mission-critical functions."

Borrow from others willing to share

It might be possible to quickly adapt another facility's compliance and contingency operation plans to your facility. Lewis advises, "Borrow expertise from other successful organizations that have completed their projects and that are willing to loan experienced project managers and team members. Even if you have to sign hold-harmless agreements, that's better than entering the millennium without having something accomplished." (Hold-harmless agreements are disclaimers that limit risk of the institution providing assistance.)

Also approach the companies that make your equipment, their vendors, and independent service companies for help. **(See next month's issue of *HPR* for an article on equipment problems.)**

Should you purchase Y2K insurance to deal with risk exposure? It is expensive, but some agencies are offering refundable policies that provide coverage at the same rates as nonrefundable plans, meaning the upfront premiums are partially refundable if the number and dollar amounts of Y2K claims turn out to be lower than anticipated.

Be prepared for the fact that Y2K troubles don't go away quickly. A facility can do a great job of preparing for Y2K and still be hurt by post-Y2K issues. Be sure to create audit trails to prove what you have done. Problems such as litigation issues, financial recovery issues, and business recovery operation issues will probably raise their unwelcome heads, says Lewis. "Even if internally you've done everything you need to do, if you can't prove it, you're going to have a rough time not only with lawsuits, but with insurance providers and other third-party payers."

He points out that there's a lot of connectivity in this business — interfaces and external partners such as suppliers, the Health Care Financing Administration, and other players. "Someone is going to cause you harm," Lewis says. "Also consider the domino effect of patients not getting paychecks on time. All these factors will impact health systems." ■

Medicare's ready . . .

But a glitch-free Jan. 1 depends on you

"War room" operatives at the Health Care Financing Administration (HCFA) in Baltimore have been working feverishly over the past months to respond to the Y2K challenge for Medicare and Medicaid claims.

According to a recent Fact Sheet, as of Dec. 31, 1998, all of HCFA's mission-critical internal systems were certified as Y2K-ready. Also, most of the 73 external systems owned by the private insurance companies that process and pay Medicare claims were certified ready in January. Follow-up work still is needed in some areas, but HCFA expected to meet its goal of having all systems ready by the end of March.

The federal agency holds providers — including hospitals, physicians' offices, laboratories, medical equipment suppliers, managed care plans, and Medicaid state agencies — accountable for their own compliance because their conversion is critical to the smooth processing of claims. "As we certify our own systems and those of our contractors who pay Medicare claims, we are reaching out with information and guidance to help our partners in the private sector achieve Y2K compliance," stated HCFA Administrator **Nancy-Ann DeParle**. "They must take action themselves so every Medicare provider will be protected. The Medicare program will be ready — and individual providers must be ready, too."

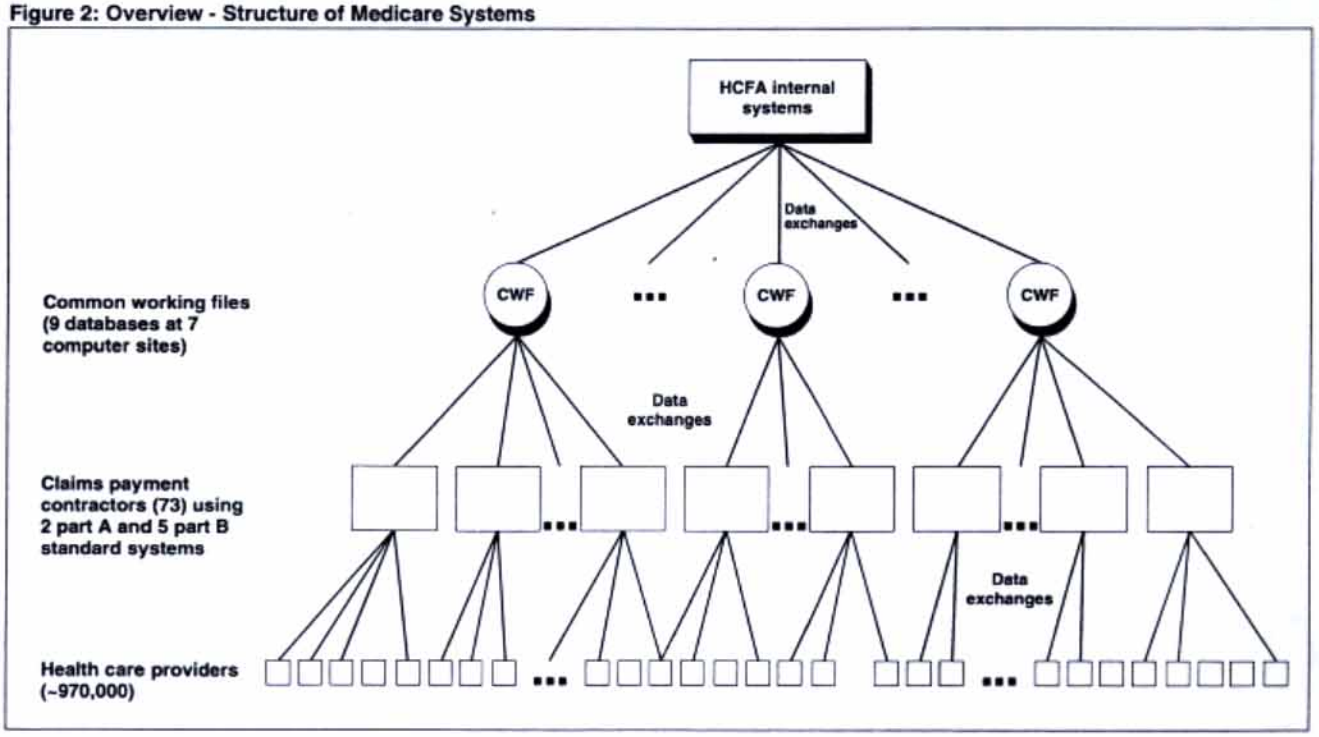
HCFA's Web site, at www.hcfa.gov/Y2K, provides tools and support materials that tell you:

- **How to inventory hardware and software programs and identify everything that is critical to business operations.**
- **How to assess the readiness of programs.** To do this, providers will need to contact hardware and software vendors, maintenance and service contractors, and state professional and business associations. They also will need to obtain key information from various vendors' Web sites to determine readiness as well as to learn options for systems upgrade or replacement.
- **How to update or replace systems.**
- **How to test existing and newly purchased systems and software.** Providers will need to contact vendors, billing services, banks, and insurance companies.
- **How to develop contingency plans in case of unexpected problems.**

Y2K analysts at the Gartner Group in Stamford, CT, predict that 30% to 60% of the nation's health

(Continued on page 58)

Figure 2: Overview - Structure of Medicare Systems



Source: Health Care Financing Administration, Baltimore.

Common Y2K Issues

Major concerns
- Litigation for wrongful injury or death from malfunctioning equipment
- Lack of adequate contingency planning for "foreseeable" events arising from the millennium changeover
- Lost or late receivables due to electronic interface issues between third-party payers and providers
- Operational impact of nonfunctioning equipment such as computers, medical equipment, telephones, and utilities
- Medical and/or business insurance that doesn't cover Y2K

Expected impact (Any electronic data exchange is suspect, including banking, payroll, supplier relationships, invoicing, fax networks, phone systems, copiers)
- Late or lost reimbursements
- Computers and information systems that crash and won't reboot
- Lost patient records, accounting systems, and other information system functions
- Support system failures such as elevators, heating, air conditioning, and ventilation equipment
- Probably best compared to the amount of confusion, interruption, and work created by a hurricane or other natural disaster — except it won't go away as fast
- Much of the impact may be external, in that devices such as traffic lights, power supplies, telephones, and other similar devices may be inoperable

Preparations
- Inventory all computer systems, software, and external interfaces such as telephones, utilities, and suppliers.
- Don't assume anything is compliant (even Windows 98 has minor Y2K bug problems).
- Check with manufacturers, software providers, and repair companies.
- Verify any "important" suspect functions, both internal and external to the organization.
- Educate personnel on Y2K issues.
- Get involved in contingency planning for any unresolved issues.
- Conduct a risk assessment.
- Record all compliance initiatives (in order to prove due diligence process in court and protect against rework).

How big is your problem?
- The answer is as varied as the number of software providers, manufacturers, suppliers, vendors, support organizations, types of equipment, number of embedded systems, and age or complexity of equipment.
- In some cases, the same model number and year of equipment can vary in Y2K compliance (due to different embedded systems).
- Typically, the older the equipment, the more frequent and complex the Y2K issues.

Codes to be rewritten
- Much of it cannot be done because of fragility of older codes.
- 80% of Y2K problems are written into firmware or embedded systems and cannot be fixed except by replacement of embedded systems or devices.
- Only 1% to 5% of embedded systems are affected, but the affected ones can only be found by testing the total.

HCFA's role and Medicare
- It appears unlikely that reimbursement issues will be resolved in time, but the extent of delays is difficult to define.
- Anticipate payment delays by analyzing the impact on your organization. The positive side is that payables will likely be delayed as well.

Record-keeping
- Its very nature imparts time, date, and duration-sensitive problems — the three big hits.
- The older the system, the higher the risk, but even new systems frequently fail some Y2K functionality checks.

Expected compliance costs
- This figure depends on organization size. The Gartner Research Group estimates that the average health care organization will spend millions of dollars to become compliant, and contends that most are underestimating the cost by as much as half. The field will likely spend the most long-term when litigation costs are factored into the equation post-millennium.

Source: Audie G. Lewis, director, material program development, Lee Memorial Health System, Fort Myers, FL, and co-author of *The Year 2000 Health Care Survival Guide,* AHA Press, Chicago.

care facilities will not be completely ready and will encounter bugs in about 10% of their most vital systems. Here are two organizations doing their best to meet the Y2K challenge:

• **Kaiser Permanente** in Oakland, CA, is spending at least $200 million — more than two months' worth of the hospital's drug budget — on its Y2K contingency plan. The organization houses about 82,000 critical items that have to be checked for Y2K compliance, because each item contains at least one embedded computer chip that makes it a Y2K problem waiting to happen.

The hospital is planning to scale back some services around the turn of the year to allow for problems. No elective surgeries will be scheduled, so that all of the hospital's resources can be mobilized in case of unforeseen crises. The high-tech facility, like others around the country, may find itself doing things the old-fashioned, manual way in the new year.

• **Egleston Children's Hospital** in Atlanta has been checking every piece of equipment to see which ones need adjustment. Even if a device continues to function, it could have serious flaws. For example, entering a child's birthday as 12-31-00 could register as 12-31-1900. That would result in computing a dose of medicine for a 100-year-old person — possibly fatal for a child.

Getting ready for Y2K is not easy for a program as large and complex as Medicare, which pays about $207 billion each year to about 39 million beneficiaries. The government program uses seven standard claims processing systems and deals with 73 private contractors and financial institutions around the country to process the 800 million claims that come in each year from a million hospitals, physicians, and equipment suppliers. **(See chart giving an overview of the structure of Medicare's system, p. 56.)** Over 85% of the claims are submitted and paid electronically. HCFA recently estimated that its internal and external Medicare systems contain 49 million lines of computer code that must be assessed for Y2K compliance. Its estimated costs for the effort range between $917 million and $1.3 billion.

Until late 1998, HCFA foresaw a disruption to critical Medicare functions. According to *Medicare Computer Systems: Year 2000 Challenges Put Benefits and Services in Jeopardy*, a federal publication, HCFA and its contractors were "severely behind schedule in repairing, testing, and implementing the mission-critical systems supporting Medicare." HCFA's contractor remediation, testing, and validation effort has cost a total of $350 million.

[Editor's note: For a free copy of the publication cited above, GAO/AIMD-98-284, or its update due to be published in March, call the U.S. General Accounting Office at (202) 512-6000, or write to P.O. Box 37050, Washington, DC 20013. Information also is available on the Internet at www.gao.gov.] ■

Y2K: Help is at hand

Seminars to attend and a book to send away for

If you're still in the throes of addressing the year 2000 (Y2K) issue at your facility, help is available, some free and some for a fee. The General Accounting Office has published a 37-page booklet called "Year 2000 Computing Crisis: A Testing Guide," which presents a step-by-step framework for managing all testing activities related to the Y2K problem.

The publication describes five phases of testing activities, beginning with establishing an organizational testing infrastructure, followed by designing, conducting, and reporting on four incremental levels of system-related testing — software unit testing, software integration testing, system acceptance testing, and end-to-end testing. To support these five phases, the guide also describes test oversight and control activities. To order the free booklet, write to the U.S. General Accounting Office, P.O. Box 37050, Washington, DC 20013, or call (202) 512-6000, fax (202) 512-6061, or visit the GAO's Web site, www.gao.gov.

In addition, ECRI of Plymouth Meeting, PA, is hosting a series of Y2K health care telephone seminars. The first two were in February and March, but you can take advantage of four others:

• April 14 — Y2K remediation: What to do about noncompliant devices

• May 12 — The many legal issues of Y2K

• Oct. 13 — Y2K staff awareness and media relations

• Nov. 10 — It's quarter to midnight: Are you ready for Y2K?

The seminars are held from 1:00 to 2:30 p.m. EST on the second Wednesday of the month and include participation by Y2K experts from hospitals, health care systems, the medical device industry, the legal arena, and ECRI. Registration for each seminar costs $129, and audiotapes will be available. To register, contact ECRI, 5200 Butler Pike, Plymouth Meeting, PA 19462-1298, or call (610) 825-6000, ext. 5888; fax: (610) 834-1275. ■

Discharge Planning Advisor®

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HCFA's new 'transfer DRGs' can cost your hospital money

Know the formula, financial risk, expert advises

Recent changes to the diagnosis-related group (DRG) system as dictated by the Balanced Budget Act (BBA) of 1997 are confusing even veteran discharge planners, says **Jackie Birmingham**, RN, MS, A-CCC, CMAC. That confusion, she adds, involving the transfer of Medicare patients to long-term care and home care, could result in financial losses for institutions.

"Discharge planners are especially impacted by a change in the hospital prospective payment system [PPS] related to qualified discharges, also known as 'transfer DRGs,'" says Birmingham, a consulting associate for the Center for Case Management in South Natick, MA. "I'm finding that even experts don't know the formula."

The distinction between a discharge and a transfer was established in 1982 when the Health Care Financing Administration (HCFA) created the original PPS for hospitals, she points out. "A discharge occurs when a patient leaves an acute-care hospital after receiving complete acute-care treatment, and a transfer occurs when a patient is transferred to another acute care hospital for related care," Birmingham explains. "The transferring hospital and the receiving hospital were paid for the acute care services rendered to the patient based on an established formula."

The BBA, however, added a new definition of "transfer" for 10 selected DRGs, she says. When these 10 DRGs are involved, it now will be considered a "transfer" if the patient is discharged to home without services, home with services, or to a skilled nursing facility before the geometric length of stay (GEO LOS) is met, Birmingham notes.

"The hospital will be paid, according to a predetermined formula, less than the full DRG rate," she says. "The GEO LOS — a number based on the national average stay for a particular DRG — is used since it is the LOS used to calculate the per diem rate."

These 10 DRGs were selected, Birmingham adds, because they have the highest volume of discharges to post-acute care. **(See chart, p. 60.)**

The financial risk can be calculated by using a published formula and determining which patients are eligible for the transfer DRG — that is, all patients who are straight Medicare, who are discharged before the GEO LOS, and who are referred for postacute care services, she says.

"There are two formulas for the new transfer DRGs," Birmingham points out. "The 'orthopedic DRGS' — 209, 210, 211 — will be paid on one formula, and the remaining DRGs will be paid according to the existing transfer formula. The DRG payment for 209, 210, and 211 is calculated to be one-half the DRG plus the full per diem for day one, and then one-half transfer per diem for remaining days up to the full DRG payment."

With the entire health care continuum undergoing changes, the clinical questions involved become complicated, she notes. "If the patient stays in the hospital so the hospital can receive the full DRG payment, is that appropriate care for

(Continued on page 61)

"Transfer DRGs": Table Based on a Sample Hospital Blended Rate of $6,000

A transfer DRG rule is used if the patient is admitted to one facility and is transferred to another. The Balanced Budget Act of 1997 required that 10 DRGs be treated as transfer if the patient is discharged still needing services which will be billed to Medicare. For the purposes of 'transfer DRG' the Geometric Length of Stay (LOS) will be used to determine if the patient was discharged before the DRG LOS was met. The arithmetic LOS is used to determine outlier status.

DRG #	Description	Geometric LOS	Arithmetic LOS	RW ratio	DRG Rate ($)	Per Diem Rate ($)
14- M	Specific cerebrovascular disorders except TIA: examples: subarachnoid hemorrhage, subdural hemorrhage, cerebral aneurysm, nonruptured cerebral aneurysm, cerebral vascular accident	**5.1**	6.8	1.1889	7,133.40	1,398.70
113-S	Amputations for circulatory system disorders except upper limb and toe: example: lower limb amp, below-knee amp, above-knee amp, disarticulation of the hip	**9.7**	13.2	2.6579	15,947.40	1,644.06
209-S	Major joint and limb reattachment procedures of lower extremity: example: total hip.replacement, total knee replacement; limb reattachment	**5.3**	5.9	2.2337	13,402.20	2,528.67
210-S	Hip and femur procedures except major joint: example: open reduction of fracture of the head of femur with various hardware	**6.5**	7.6	1.8265	10,959.00	1,686.00
211-S	Hip and femur procedures except major joint w/o cc	**5.0**	5.6	1.2541	7,524.60	1,504.92
236-M	Fractures of hip and pelvis: example: fracture of pelvis such as acetabulum and pelvis, femoral neck fracture such as subtrochanteric or intratrochanteric fractures	**4.3**	5.7	.7338	4,402.80	1,023.90
263-S	Skin graft &/or debridement for skin ulcer or cellulitis w/cc: skin graft for cellulitis, any site, decubitus ulcer, chronic skin ulcer	**8.9**	12.6	2.0221	12,132.60	1.363.21
264-S	Skin graft &/or debridement for skin ulcer or cellulitis w/o cc: skin graft for cellulitis, any site, decubitus ulcer, chronic skin ulcer	**5.4**	7.3	1.0773	6,463.80	1,197.00
429-M	Organic disturbances and mental retardation: example: organic brain syndrome	**5.4**	7.9	.8728	5,236.80	969.77
483-S	Tracheostomy except for face, mouth & neck diagnosis	**33.8**	43.5	16.0451	96,270.60	2,848.24

Source: Center for Case Management, South Natick, MA.

the patient? Can the hospital meet the continuing care needs of the patient? If the hospital keeps the patient, will there be beds available for other patients needing to be admitted?"

In addition, subacute and transitional care units can be affected if there is a change in the pattern of discharges, Birmingham says. These post-discharge units might be bypassed if the patient's stay in the hospital is for a longer time.

> "By changing the definition of a transfer, there will be considerably less payment to hospitals."

Hospitals will be monitored closely for changes in discharge and referral patterns, and more DRGs will be added to the list of 10, she predicts. "The fact that HCFA has been paying a full DRG rate and billed for extra services provided within the GEO LOS has cost a lot of money. By changing the definition of a transfer, there will be considerably less payment to hospitals."

It is crucial, Birmingham adds, that discharge planners be aware of the issues related to the patient's readiness for discharge along with the financial risk to the hospital or to the integrated network of providers.

The change to the DRG system is one of several BBA regulations to which hospitals must adapt, she points out. Those rules, along with provisions of the Social Security Act and the Conditions of Participation for Hospitals, should be part of a hospital's corporate compliance program, Birmingham advises.

"Discharge planners should be aware of the rules and regulations and work with the corporate compliance officer to assure not only that there is an understanding of the rules, but that they are being implemented within the organization," she adds.

[Editor's note: Jackie Birmingham is the author of Discharge Planning: The Rules and Reality, *published in November 1998 by the Center for Case Management, 6 Pleasant St., South Natick, MA 01760. The book, which covers the Balanced Budget Act, changes in the Conditions of Participation for Hospitals, and the most recent revisions of the Social Security Act, is available at a cost of $90 by calling (508) 651-2600. Birmingham may be reached at (860) 668-7575.]* ■

Clinical paths, wound clinics expand home care

30% of clients can be treated away from home

Two new practices designed to more efficiently deliver care to patients recovering from wounds are part of a pilot program by the Calgary (Alberta, Canada) Regional Health Authority.

Clinical pathways and wound clinics are the foundation of an innovative effort by Calgary Home Care, a division of the Regional Health Authority, to customize care to an individual patient's needs, explains **Heather Orsted,** RN, BNET, clinical nurse specialist for wounds.

After discovering through a survey that about 30% of its clients with wounds were mobile enough to receive care away from home, Calgary Home Care opened its first wound clinic in downtown Calgary, Orsted says. A second clinic was opened in January at Forest Grove Care Center, a long-term health care facility in Calgary, she adds. Calgary Home Care plans to eventually have a wound clinic in each of six regions.

"We're no longer only providing care in people's homes," says Orsted. "We're saying to the patient, 'You can have your care met in another site,' we're maintaining quality, and we're increasing the capacity of the program. It takes a nurse an hour to do care in the home, due mainly to travel time, but that nurse can see three patients in an hour in a clinical setting."

Under Calgary Home Care's system, community care coordinators practice case management in all facets of a patient's care, Orsted says. That includes screening, assessing, planning, and arranging and coordinating services, she adds. "They balance the allocation of services consistently, approve service financing, monitor, and reassess to promote quality cost-effective outcomes."

When a wound client is admitted to home care, the community care coordinator screens the client with a "service delivery tool," Orsted explains. "It helps the coordinator make an unbiased decision, in cooperation with the client, on how the client's needs are best met — at home or in another setting. There are 10 questions on everything from whether there are architectural barriers to whether the client needs oxygen. Would a trip outside the home

tax their energy so much it would affect their health?"

This screening tool also addresses, for example, whether the client has mental health problems that might make his or her presence at a clinic a risk to others receiving care, she points out. "We don't want to put residents of a nursing home at risk."

Community teams handle clients

Calgary Home Care recently developed an algorithm whereby a wound client is admitted to home care and triaged to one of six community teams, Orsted says. First, the community care coordinator makes a visit to the client's home and assesses his or her needs, she explains. "After that, the client may have all, some, or none of the care met in a clinic setting. The client might do his own dressing every day of the week, but come into the clinic once a week for assessment by the entire care team."

The various team members, Orsted notes, perform the following functions:

- The registered nurse (RN) looks at the wound using a pressure source status tool and determines if it's healing as expected. A clinical pathway is designed every week for acute wounds, every two weeks for chronic wounds, or as often as change occurs. The RN will triage the patient to other team members, as needed.
- The physical therapist (PT) may, for example, assess calf pump action and mobility, and may reinforce any exercise that needs to be done. The PT also may advise and guide the delivery of adjunctive therapies.
- The occupational therapist (OT) may look at pressure relief and pressure reduction, and do mobility and activity assessments. The OT does pressure ulcer mapping using an X-sensor mapping device.

"We all have tools we use to allow us to state concretely that the wound is healing," she says, adding there are four possible outcomes:

— The wound is healing.
— The client is in agreement with the care.
— Interventions are appropriate.
— The wound is closed.

Because it takes up to two years for the wound to actually heal, the team uses the term "closed" rather than "healed," Orsted notes. "We don't want the client to be misled. Education is a big part of what we do."

Part of the community care coordinator's job is to make sure there is good communication across all the care delivery sites, including the clinics, physicians' and specialists' offices, and physioclinics, she says. Everyone involved in the client's care is encouraged to use and make notes on the clinical pathway, Orsted adds. "Other members of the health care community are concerned with the wound healing, and it's easy for them to review [the notes] and see how the patient is doing."

Calgary Home Care's wound program is a pilot, she points out. "We don't have pathways in other parts of home care, but we are working toward having them for diabetic and respiratory patients in the future."

Wounds common in home care

Calgary Home Care has a population of about 7,000, and some 10% of those clients have wounds, she notes. "On any given day, we're seeing about 700 wounds in the community. Wounds are often a result of everything else going to heck in a handbasket. With early hospital discharge and an aging population prone to debilitating illnesses, there are a lot of wounds."

The community care coordinators call in specialists as needed, Orsted says, including her own team, which is the skin and wound assessment and treatment (SWAT) team. There also is a pediatrics team, an intravenous therapy team, a respiratory team, a mental health team, and a palliative team, she adds.

"Each team has a clinical specialist, and they all support evidence-based, cost-effective health management," Orsted explains. The focus, she says, is on having the right policies in place, on ensuring evidence-based practice through literature reviews, and on engendering cost-effective care. On one typical day, Orsted, as the leader of the SWAT team, had two home care visits, a teaching session for practitioners conducting a weekend wound clinic, and a meeting with representatives of a long-term care center interested in having an on-site clinic.

"I do consults [with community care coordinators], and if it sounds like more than conversation is required, we go out and see the client together," she says. "All my visits are done with the community care coordinator. If we feel we need the expertise of other health care professionals, such as the OT, the PT, or a dietitian, we initiate a multidisciplinary referral. The family physicians are part of our team, and occasionally, with complex cases, make client visits with us as well." ■

NAMI calls for restraint reforms

Psych facilities are focus of remedies

In a move to stem a tide of death resulting from the inappropriate use of physical restraints in psychiatric facilities, the National Alliance for the Mentally Ill (NAMI) in Arlington, VA, is calling for an immediate federal investigation into the problem.

A 50-state survey conducted by a Hartford, CT, newspaper revealed that at least 140 deaths in the past decade were connected to the use of physical restraints or the practice of seclusion. The report also suggested that the actual number of deaths is many times higher because many go unreported. According to a separate statistical estimate conducted by the Harvard Center for Risk Analysis, between 50 and 150 such deaths occur every year.

Independent monitoring recommended

To remedy the situation, NAMI recommends the following steps:

- Independent, third-party entities should conduct thorough and immediate investigations into all deaths and serious injuries that occur during psychiatric treatment. The entities should be vested with the authority to recommend and institute changes and practices to prevent future abuses.
- The Department of Justice and the Department of Health and Human Services should launch a thorough investigation to determine the magnitude of abusive and harmful seclusion and restraint practices in psychiatric treatment facilities and programs nationwide.
- National standards for the appropriate use of restraints, representing best clinical practices, should be developed and enforced for the Medicaid and Medicare programs by the Health Care Financing Administration, and commercial insurance payers should adopt the standards.
- States should adopt laws authorizing the establishment of independent third-party monitoring groups to conduct unannounced inspections of psychiatric facilities.
- States should allocate funds for training individuals who work with psychiatric patients on the appropriate use of restraints. ■

IV insulin: Culprit in med errors

A clear head, and a few rules, can avoid blunders

A study recently conducted by the Institute for Safe Medication Practices (ISMP) in Warminster, PA, revealed that 11% of serious medication errors involve insulin misadministration.[1] Errors occur when an overdose is given or when insulin is mistakenly administered in place of other medications. The Institute cites the following cases as examples of both types of errors.

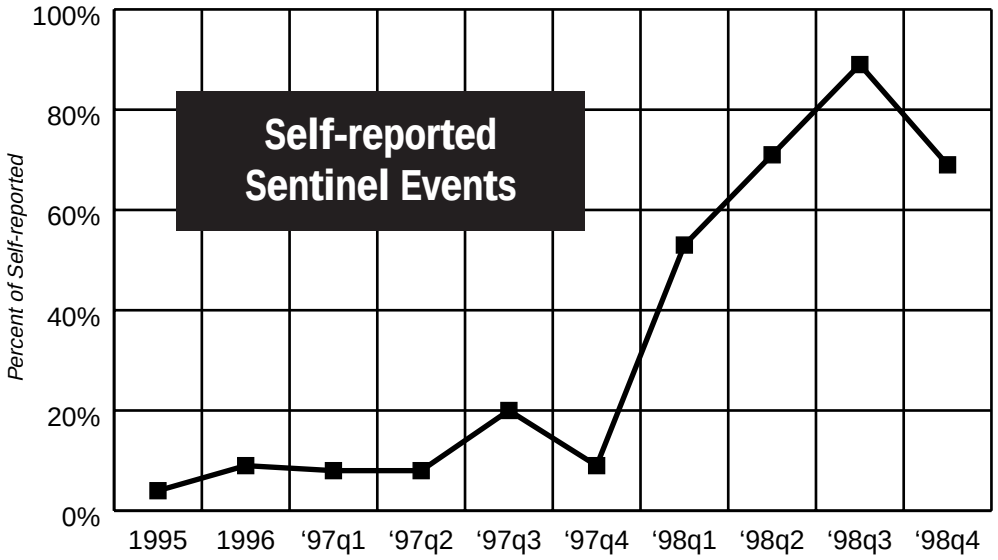
Two of the cases involved dose misinterpretations when using the abbreviation "U" for "units." When a dietitian wrote an order to add "10U of regular insulin to each TPN bag," the pharmacist preparing the TPN misinterpreted the dose as 100 units. In a similar case, a new pharmacy technician entering orders misinterpreted a sliding scale when insulin was ordered using "U" for units. Although the pharmacist checking the technician's order entry did not detect the error, a nurse intercepted the 10-fold overdose while reviewing the computer-generated report.

Two other events occurred when staff confused insulin with other products. In the first case, a verbal order to resume an insulin drip was transcribed incorrectly by a nurse as "resume heparin drip." A pharmacy technician entered the order and labeled a premixed heparin solution. The pharmacist caught the error when he noticed a flow rate of 1.5 units / hour and recognized the patient's name from a recent call for help calculating an insulin flow rate.

The other error resulted in significant patient harm when a double concentration of a critical care drug was ordered for a cardiac patient in ICU. A nurse called the pharmacy and inadvertently requested a double concentration of insulin. During order entry, the pharmacist failed to notice that diabetes was not listed as a patient diagnosis. Then, without seeing a copy of the order, he prepared and delivered the insulin infusion. While in ICU, he also did not obtain a copy of the order or review the patient's chart to verify hyperglycemia. When the nurse hung the insulin, a second nurse did not independently verify the drug, concentration, infusion rate, and line attachment. No prominent cautionary labeling was present on the infusion to alert staff that

Some Sentinel Numbers

The Joint Commission on the Accreditation of Healthcare Organizations in Oakbrook Terrace, IL, has reviewed 374 sentinel events between January 1995 and mid-December 1998. Statistics on self-reported sentinel events are presented in the following chart:



The organization learns of 40% of sentinel events through institutions' self-reporting incidents, and 34% from media coverage. About 18% are identified during surveys. Patient deaths result from 80% of sentinel events. Of course, the Joint Commission's sentinel event database includes only those events that the organization is aware of, not the whole universe of events that injure or kill patients.

Source: Joint Commission on the Accreditation of Healthcare Organizations, Oakbrook Terrace, IL.

it contained insulin. The double concentration of insulin was administered at the rate intended for the critical care drug. The patient suffered permanent CNS impairment.

As a high-alert medication with serious risk of causing injury when errors occur, insulin requires special safety considerations, advises the ISMP. The first two errors above are clear examples of the need to educate all practitioners, including dietitians and others who may communicate drug information, to always write out the word "units." The last two incidents demonstrate the likelihood of mentally confusing products that are routinely used, especially if both are measured in units, such as heparin and insulin.

The Institute makes these recommendations:

• Verbal orders should not be accepted for IV insulin. Instead, orders should be faxed when the prescriber is off-site. If no other alternative exists, emergency telephone orders should be accepted with a second person listening, transcribing the order directly onto an order form, and repeating it back for clarification.

• Using a concentration of 1 unit / mL can eliminate the need for most double concentrations, making such orders unusual and subject to scrutiny.

• Assure that all insulin infusions are prepared in the pharmacy.

• Insulin must never be dispensed or administered without an independent check using the actual order and verifying that the patient needs insulin or has hyperglycemia.

• Special auxiliary labeling, such as "CONTAINS INSULIN," should be available to alert staff to its presence in IV solutions.

• Educate patients and include them in a double-check system to detect errors.

The direct cost of an inpatient adverse drug event (ADE) can range from $1,900 to $5,900.[2] ADEs can include wrong doses and wrong routes, missed allergies, and drug-on-drug interactions, and are the most common cause of hospital injury. Yet many events are preventable. A recent study from a large tertiary care hospital in Boston showed how an internally developed computerized physician order entry system reduced medication errors by half.[3] The system provided physicians with a menu of medications, including default doses, and a range of potential doses for each medication. Relevant lab results were displayed at the time of ordering, monitoring suggestions were made, drug allergy checks were performed, and drug-on-drug interactions were displayed.

(Editor's note: For more information on the Institute for Safe Medication Practices, see the Institute's Web site at www.ismp.org. E-mail: ismpinfo@ismp.org.

Source for insulin misadministration information: Educating the healthcare community about safe medication practices. ISMP Medication Safety Alert! *1998; 23.)*

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THE QUALITY - CO$T CONNECTION

Medical staff competency: How much is enough?

How much time can elapse after formal training?

By **Patrice Spath**, ART
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An increasing number of hospital departments are developing competency-based criteria to apply to medical staffing procedure privileges. The competency requirements are based on the number of patients treated by the individual physician as defined by the clinical departments. Medical staff ad hoc committees, with membership representatives of the physicians performing different categories of procedures, can be formed to develop the criteria. There are eight major considerations to be addressed by the group in the design of volume criteria. Last month we addressed the first four. Following are four more considerations:

• What is the maximum number of years that may have elapsed between the formal training program and the privilege request in order for the training experience to count for competency purposes? What if the physician has performed no procedures since completing the training program?

The ad hoc committees should set limitations regarding the amount of time that can lapse between training and the privilege request. Does training over three years ago with no intervening opportunity for the clinician to maintain his or her skills qualify as continued competency? If the applicant has failed to practice his or her skills, does the mere existence of formal training several years prior to the clinician's application for privileges still qualify the clinician for privileges? The ad hoc committee should address this question and provide definitive answers for the credentials committee.

• What is the number of procedures that should be performed by a physician during the time between reappointments in order to retain the privilege? If a sufficient number of procedures are not done at the primary hospital, how can procedures done at other facilities be documented?

In addition to defining the number of procedures or formal training necessary to receive initial privileges for a specific procedure, the ad hoc committee should define the yearly minimal number of procedures that must be performed in order to retain privileges.

Remember, a physician's competency is being reviewed not only from a numeric performance standpoint but also through the medical staff's quality measurement activities. Therefore, the annual number of required procedures may not need to be as high for reappointment purposes.

• If a physician reapplying for privileges has not performed the required number of procedures, can the physician still maintain privileges through a proctorship program?

If the physician applicant does not meet the minimal proficiency requirements for renewal of privileges, consideration may be given to the establishment of a provisional time period during which a minimum number of procedures will be observed by a physician proctor. Proctors should be chosen from medical staff members who already maintain the privileges or should be solicited from outside the hospital. The minimal number of observations may be suggested by the ad hoc committee.

This provisional status option may be appropriate for the newly established physician who

lacks the patient referrals sufficient to performance of an annual number of procedures or for the physician who practices at other hospitals or in an independent clinic where documentation of the physician's competency cannot be readily obtained.

• Is continuing education a requirement for continued competency in addition to completion of a specific number of annual procedures?

The ad hoc committee may wish to include continuing education requirements for physicians requesting renewal of specific procedure privileges. As technology evolves, maintenance of clinical decision making may be just as important as technical skills.

The medical staff may choose to limit the types of procedures that require annual proficiency criteria to those procedures that require maintenance of technical and clinical skills that cannot be obtained through continuing education alone. In some specialties, it may not be necessary to develop numeric procedure requirements for each specific type of procedure because performance of one type of procedure, such as cholecystectomy, may ensure the surgeon's competency in other types of procedures, such as appendectomy. In these instances, numeric requirements by surgical category can be defined.

To identify those specific procedures requiring numeric annual performance criteria and those procedures that can be grouped into broader categories, the ad hoc committees may wish to survey the members of the clinical department.

Be sure to document all the decisions that the ad hoc committees make. The physicians charged with the credentialing function should be given clear and concise instructions for initial appointments, new privilege requests, and reappointment decisions. The objective competency criteria for each type of procedure or category of procedures should be included in the application form completed by new medical staff members and those applying for reappointment.

Whatever criteria are developed by the individual clinical departments, they must be applied uniformly to all medical staff members and new applicants requesting privileges to perform the procedure. Joint Commission standards very clearly state that any criteria used to measure medical staff competencies must be applied uniformly and consistently (MS.5.4.1: "Each clinical department makes recommendations to the medical staff regarding professional criteria for clinical privileges").

Potential problem areas are those procedures performed in more than one clinical department. For example, bronchoscopies might be performed by general surgeons as well as internal medicine physicians. Make sure competency criteria for bronchoscopies are jointly established by the surgery and medicine departments and applied equally to all physicians. ■

NEWS BRIEFS

CARF and JCAHO expand co-op agreement

The Joint Commission on Accreditation of Healthcare Organizations in Oakbrook Terrace, IL, and CARF, The Rehabilitation Accreditation Commission, in Tucson, AZ, have expanded their cooperative agreement to reduce duplicative on-site evaluations of rehab units within hospitals.

Units that have earned CARF accreditation may undergo a limited evaluation by the Joint Commission when that agency is surveying the rest of the hospital. A former agreement between

the two was limited to the recognition of CARF accreditation of programs that were part of a network seeking Joint Commission accreditation.

Under the expanded agreement, the commission will conduct a brief overview of the rehab program with the operational leadership to discuss standards, human resource issues related to staff competencies, medical records standards, performance improvement issues, and Environment of Care / Life Safety issues. The overview will address how the rehab program integrates with the hospital and meets its needs. The rehab program will not be required to participate in the other components of the organization's survey. For more information about the JCAHO / CARF cooperative agreement, call **Sally Saadeh**, director of special projects, Medical Rehabilitation Division, CARF, at (520) 325-1044, ext. 190. ▼

High court eases hospital suits

On Jan. 13, the Supreme Court made it easier for patients to sue hospitals for "dumping" patients who need emergency care onto other facilities. The decision cited the federal Emergency Medical Treatment and Active Labor Act (EMTALA) of 1986, which says such lawsuits do not have to allege or prove any improper motive behind the transfers from one facility to another and prevents such treatment of patients.

The decision represented a victory for a Kentucky woman who sued Humana Hospital-University of Louisville (KY) for $10 million after she was transferred to an Indiana nursing home following a six-week stay in 1992. She had been treated after being run over by a truck. The woman's lawsuit contends that her health at the time of her transfer remained in a volatile state, that her health deteriorated significantly after the transfer, and that the transfer was premature. The lawsuit says the Louisville hospital violated the federal law when it sent the woman to a nursing home, from which she later was transferred to an Indianapolis medical center. The patient's medical bills at that center totaled about $400,000, and Medicaid did not cover them because she was not an Indiana resident. The case is *Roberts v. Galen of Virginia, 97-53.* ▼

HHS launches Web repository for guidelines

There's a new quality resource on the Internet — a repository for more than 500 evidence-based clinical practice guidelines developed by the Agency for Health Care Policy and Research (AHCPR) with the American Medical Association and the American Association of Health Plans. The National Guideline Clearinghouse (Web address: www.guideline.gov) contains thousands of clinical practice guidelines created by medical and professional societies, managed care organizations, hospitals, state and federal agencies, and others.

Until now, guideline users often have had difficulty gaining access to a full range of guidelines,

Hospital Peer Reviewfi (ISSN# 0149-2632) is published monthly, and **Discharge Planning Advisor** and **Patient Satisfaction Planner** are published quarterly, by American Health Consultantsfi, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to **Hospital Peer Review**fi, P.O. Box 740059, Atlanta, GA 30374.

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This continuing education offering is sponsored by American Health Consultantsfi, which is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center s Commission on Accreditation and the Healthcare Quality Certification Board of the National Association for Healthcare Quality. Provider approved by the California Board of Registered Nursing, provider number CEP 10864.

and then had difficulty identifying which guidelines are based on evidence. There has been no efficient way of making comparisons to select the guideline that best meets your needs. The clearinghouse responds to that longstanding need by identifying and featuring evidence-based clinical practice guidelines presented with standardized abstracts and tables that allow for comparison of guidelines on similar topics. The tables provide information on the major areas of agreement and disagreement among guidelines, which will help users make informed selections.

"It is well known that variation in health care results partly from uncertainty and a lack of evidence for clinical treatment," said **John M. Eisenberg**, MD, AHCPR administrator. He said this clearinghouse will help reduce variation and improve health care quality.

The agency will continue to receive guideline submissions. Organizations wishing to submit should contact **Vivian Coates**, ECRI, NGC Project Director, 5200 Butler Pike, Plymouth Meeting, PA 19462-1298. For questions about guideline submissions, contact **Jean Slutsky**, NGC Project Officer, (301) 594-4042; jslutsky@ahcpr.gov. ■

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CE objectives

To earn continuing education (CE) credit for subscribing to *Hospital Peer Review*, CE participants should be able to meet the following objectives after reading the April 1999 issue:

- Explain why quality professionals have to be involved in year 2000 (Y2K) compliance issues.
- Describe how providers can avoid the loss or postponement of Medicare and other government receivables after Jan. 1 due to Y2K errors.
- List some ways to avoid an insulin overdose or a situation where insulin is mistakenly administered in place of other medications.
- Discuss how the numbers of sentinel events reviewed by the Joint Commission has increased dramatically since 1995.

If you're not an *HPR* CE subscriber and would like to sign up, call customer service at (800) 688-2421. ■