



AMERICAN COLLEGE OF SURGEONS

SURGERY NEWS

Huge Variance Found in Worldwide Cancer Survival

BY MICHELE G. SULLIVAN
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The first global study of survival in breast, colon, rectum, and prostate cancer has found enormous variations among the 31 countries it surveyed.

In general, relative 5-year survival was highest in North America, the United Kingdom, Australia, and western, eastern, and southern Europe. Algeria and Brazil had the lowest survival rates. For example, while prostate cancer survival reached 92% in the United States, it was only 21% in Algeria and 34% in some areas of Brazil, Dr. Michel Coleman wrote in an early online edition of the August issue of the *Lancet Oncology* (doi:10.1016/S1470-2045(08)70179-7).

However, the CONCORD study found significant interracial differences among U.S. patients, with poorer survival for blacks than for whites in almost every type of cancer studied.

Most of the wide range in survival is probably due to differences in access to diagnostic and treatment services, wrote Dr. Coleman of the London School of Hygiene and Tropical Medicine. This can be seen as a proxy for a country's economic status, he noted. "Survival is positively associated with gross domestic product and the amount of investment in health technology such as CT scanners. Part of the international variation in sur-

vival is thus probably attributable to underinvestment in health resources. The variation might be considered intuitively obvious, given wide global variation in expenditure on health care, whether that is expressed in absolute terms or as a proportion of national resources."

In the CONCORD study, Dr. Coleman and his colleagues extracted data from 101 population-based registries that comprised more than 2 million patients; all were diagnosed with a first primary cancer sometime during 1990-1994, and followed until 1999. By controlling for other factors that influence survival in various countries, the researchers were able to determine relative survival—the ratio of survival in cancer patients to background mortality in each country. Thus, Dr. Coleman said, relative survival can be interpreted as survival from the cancer after correction for other causes of death.

Relative 5-year survival for breast cancer was highest in North America, Sweden, Japan, Finland, and Australia, where it exceeded 80%. Survival in Brazil and Slovakia was less than 60%, and was just 38% in Algeria.

In the United States, survival was highest in Hawaii and Seattle (90%) and lowest in New York City (78%). Survival was lower for blacks than for whites in all 17 populations assessed. The age-adjusted pooled survival estimate was 85% for whites and 71% for blacks.

In Europe, survival was highest in Sweden (82%) and lowest in Slovakia (58%).

Relative 5-year survival for colon cancer was highest in North America, Japan, Australia, and some western European countries (about 60%), and lowest in Algeria, Brazil, the Czech Republic, Estonia, Poland, Slovenia, and Wales (40% or less).

In the United States, colon cancer survival was highest among men in Hawaii (68%) and lowest among women in New York City (54%). The age-adjusted pooled analysis was 61% for white men and women, and 52% for black men and women.

In Europe, colon cancer survival was lowest in Poland (28%) and highest in Spain, Finland, Austria, and France (54%-57%).

Relative 5-year survival for rectal cancer was highest in Japan, Canada, the United States, France, the Netherlands, Sweden, and Australia (about 60%) and lowest in Algeria, Estonia, Poland, and Slovakia (20%).

In the United States, survival stayed in a narrow range of 55%-60% for men and 57%-62% for women. However, the age-adjusted pooled survival estimate for men was 47% for blacks and 57% for whites; for women, the estimate was 49% for blacks and 60% for whites.

In Europe, women in France had the highest survival rate for rectal cancer (64%).

Relative 5-year survival for prostate cancer was highest in the United States (92%), Canada (85%), and Austria (80%), and lowest in Denmark (40%), Poland (40%), and Algeria (21%).

In the United States, survival ranged from 82% in New York City to 95% in Seattle. Again, blacks had lower survival rates than whites (86% vs. 92%). In Europe, the overall survival rate was 57%.

Overall, survival in all cancers was highest in patients who carried private insurance, intermediate in those with federal insurance, and lowest in the uninsured. The authors noted that the analysis could not determine the cause of survival differences between blacks and whites in the United States.

CONCORD is the first phase of a three-part study designed to quantify international differences in survival, interpret those differences with clinical data obtained from records of patients diagnosed with the same cancers during 1996-1998, and conduct a blinded, expert review of the pathologic diagnoses of a subset of patients from the phase II study. The goal is to assess how much of the international survival differences may be attributable to differences in the definition of disease.

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PET/CT Accurate for Staging Early NSCLC

BY FRAN LOWRY
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CHICAGO — In patients with early-stage, biopsy-proven non-small cell lung cancer, the combination of ¹⁸fluorodeoxyglucose (FDG)-PET and cranial imaging can reduce stage-inappropriate surgeries by providing more accurate staging than conventional imaging, a randomized trial suggests.

Of 163 patients who were randomized to positron emission tomography/computed tomography (PET/CT), 23 (14%) were correctly upstaged, which prevented inappropriate surgery, compared with 11 (7%) of 157 patients randomized to conventional imaging ($P = .05$), Dr. Donna E. Maziak reported at the annual meeting of the American Society of Clinical Oncology.

The eight-center trial also found that conventional imaging erroneously understaged 47 (30%) patients, whereas PET/CT erroneously understaged 18 (11%) patients ($P = .00003$).

"These results show that PET can replace conventional staging in early-stage non-small cell lung cancer," said Dr. Maziak of the University of Ottawa. The study was conducted by the Ontario Clinical Oncology Group, and funded by the Ontario Ministry of Health and the Canadian Institutes of Health Research.

Investigators randomized patients with biopsy-proven non-small cell lung cancer who were felt to have resectable disease on the basis of physical examination, CT of the chest or a chest x-ray, conventional staging (CT scan of the abdomen, bone scan, and brain imaging), or to PET staging (whole-body PET scan and cranial imaging by CT or MRI).

The patients were matched for age (mean 67 years), Eastern Cooperative Oncology Group (ECOG) performance status, and smoking status. Half of the study population was female.

Discussant Dr. Reginald F. Munden, chair of the department of radiology at the University of Alabama at Birmingham, said the conclusion that PET/CT can replace conventional staging of non-small cell lung cancer has to be qualified.



The results show that PET/CT can replace conventional staging in early-stage non-small cell lung cancer, said Dr. Donna E. Maziak.

He reminded delegates that the CT being done with PET must be done at full aspiration, so that small lesions are not missed. "The lung windows have to be done in a diagnostic mode; otherwise, you cannot replace conventional CT with a routine PET/CT."

He added that the degree to which futile surgeries can be reduced with the use of PET/CT remains debatable. "I suspect the reduction in futile surgeries probably has as much to do with local

practice as it does with the imaging itself," he said. "As we know, some surgeons would prefer to do mediastinoscopy on everyone. Most of the studies seem to suggest there is a reduction, but the question is, Is it a significant reduction or not?"

Neither Dr. Maziak nor Dr. Munden disclosed any conflicts of interest. ■

Infection Control Requirements Issued for Hospitals

BY MARY ELLEN SCHNEIDER
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The Joint Commission has issued new requirements for hospitals in an effort to prevent infections from multidrug-resistant organisms, central line-associated bloodstream infections, and surgical site infections.

The requirements, which are part of the 2009 National Patient Safety Goals for hospitals, include a 1-year phase-in period with full implementation by Jan. 1, 2010.

It is critical for hospitals to begin addressing the issue of health care-associated infections and to try to keep the problem from worsening, said Dr. Peter Angood, vice president and chief patient safety officer for the Joint Commission.

The new infection control requirements build on an existing National Patient Safety Goal on health care-associated infections that had previously included only requirements for compliance with hand hygiene guidelines and had called on hospitals to manage serious infections as sentinel events. Those requirements will remain in place along with the new elements of the goal.

The Joint Commission also has put new requirements in place to prevent central line-associated bloodstream infections and surgical site infections.

Hospitals will be expected to use a catheter checklist and a standardized protocol for central venous catheter insertion and an all-inclusive standardized supply cart or kit for insertion of central venous catheters. The requirements also call for the use of standardized protocols for maximum sterile barrier precautions during insertion of a central venous catheter and when disinfecting catheter hubs and injection ports before accessing the ports.

To prevent surgical site infections, hospitals will have to conduct periodic risk assessments, select surgical site infection measures based on evidence, and evaluate the effectiveness of their prevention efforts. Also, hospital staff will need to measure infection rates for the first 30 days following most procedures and for the first

year after procedures involving implantable devices.

The surgical site infection requirements were developed to be in line with well-established guidelines and should help organizations move toward compliance with those guidelines, Dr. Angood said.

All of the new requirements related to health care-associated infections include a 1-year phase-in period, with milestones for planning, development, and testing throughout 2009.

Allowing organizations to phase in complex requirements over the course of a year helps them to perform better by achieving concrete goals before full compliance is expected, Dr. Angood said.



There is sufficient evidence to show a clinical benefit from implementing infection control strategies.

DR. MICHOTA

Under the new 2009 requirements, hospitals are being asked to begin preparing to prevent infections resulting from multidrug-resistant organisms such as methicillin-resistant *Staphylococcus aureus*, *Clostridium difficile*, vancomycin-resistant enterococci, multidrug-resistant gram-negative bacteria, and other epidemiologically important organisms.

Starting in January 2010, hospitals will need to conduct periodic risk assessments for acquisition and transmission of multidrug-resistant organisms, and educate staff and independent providers about prevention strategies and their roles. Hospitals also will be required to provide education about infection control strategies to patients and families who are infected or colonized with multidrug-resistant organisms.

Hospitals will be required to have a surveillance program up and running by Jan. 1, 2010, that is based on the hospital's risk assessment.

When indicated by the risk assessment, hospitals will need to implement a laboratory-based alert system to identify new patients with multidrug-resistant organisms, and an alert system to identify readmitted or transferred patients who have multidrug-resistant organisms.

Addressing health care-associated infections is a worthy goal, said Dr. Franklin Michota, director of academic affairs for the department of hospital medicine at the

Cleveland Clinic. There is sufficient evidence to show a clinical benefit from implementing infection control strategies. "It's not an experiment to see if these things work," he said.

Hospitals are likely to face some upfront costs when implementing the new requirements, Dr. Michota said, especially if they need to put a new educational process in place to prepare staff. To do so, hospitals may be looking to hospitalists, who are already on the payroll, to help develop process improvement plans, track requirements, or track infections. Those who are not involved on the quality side may be asked to champion changes at the floor level by modeling appropriate hand hygiene or compliance with contact precautions.

"Shining additional light on [health care-associated infections] is good," said Dr. Patrick J. Cawley, president of the Society of Hospital Medicine and executive medical director at the Medical University of South Carolina, Charleston.

The requirements for central line-associated bloodstream infections, in particular, are a significant step forward, he said. There is clear evidence in the literature that compliance with central line placement protocols can significantly drive down infection rates, he said. "This is something we all should be doing anyway," Dr. Cawley said.

Although many hospitals have made infection control a priority, having these new requirements from the Joint Commission will help to elevate those efforts, he added.

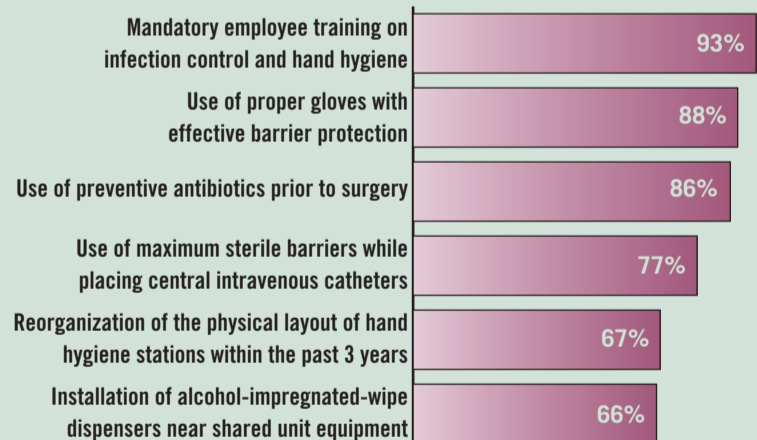
The Joint Commission also has added new requirements to the goal for medication reconciliation. Hospitals are advised to provide a complete and reconciled list of the patient's medications directly to the patient and explain the list at the time of discharge. In those settings where medications were used minimally or for a short duration, such as the emergency department, the hospital is required to perform a modified medication reconciliation process. For example, if a short-term course of an antibiotic is prescribed, the patient should be provided with a list containing the medications that the patient will continue using after leaving the hospital.

Also new in 2009 is a requirement to eliminate transfusion errors related to patient misidentification. Before beginning a blood or blood component transfusion, hospital staff must match the patient to the blood during a two-person bedside verification process.

In cases where two individuals are not available, a bar code or other automated technology can be used in place of one of the individuals, according to the Joint Commission. ■

DATA WATCH

Steps Taken in Hospital to Prevent Hospital-Acquired Infections



Note: Based on a 2008 survey of 539 members of the Association for Healthcare Resource and Materials Management.
Source: Perception Solutions Inc.

ELSEVIER GLOBAL MEDICAL NEWS

Surgeons Use Ultrasound for Pyloric Stenosis Diagnosis

BY MICHELE G. SULLIVAN

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PHOENIX — Pediatric surgeons can diagnose pyloric stenosis with ultrasound as accurately as radiologists, according to results of a prospective, blinded study.

"Ultrasound is an accurate and reliable method of diagnosing hypertrophic pyloric stenosis, but it isn't always available on nights and weekends due to staffing is-

suess. Having surgeons on hand to identify the disorder expedites both diagnosis and treatment," said Dr. Marcene McVay at the annual meeting of the American Pediatric Surgical Association.

In this study, a surgical resident trained in ultrasound diagnostics taught five other residents to use the technology to diagnose pyloric stenosis. Some of the trainees had formal experience, while others had only hands-on training doing ultrasound exams in the emergency department.

Each student performed a minimum of five proctored exams before being allowed to examine a patient independently. After the students established a record of diagnostic accuracy, their exams were compared with radiologic studies on the same patients.

Criteria for a positive exam were a muscle thickness of at least 4 mm or a channel length of at least 16 mm.

In all, the students performed 89 exams on 71 patients. Five of

the exams were negative and one was borderline; the rest were positive. There was no significant difference between the diagnostic accuracy of any student's exams, compared with the results of the radiologic studies, said Dr. McVay of Arkansas Children's Hospital, Little Rock.

The study clearly shows that surgeons can quickly and accurately diagnose the disorder, she said. "We use this as an adjunct to the physical exam to put the diagnosis back into the hands of

the surgeon. Currently we employ surgeon-performed ultrasound as the primary diagnostic modality at consultation, and use the radiology study only if ours is borderline."

As the program has expanded, each surgical resident must still perform at least five proctored exams before being allowed to do an independent exam. "If they are not accurate after five exams, they continue to do proctored exams until their accuracy improves," she said. ■