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Fetal Protection and Employment Discrimination - The Johnson Controls Case

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ENHANCE COMMUNICATION: AVOID RED AND GREEN IN SLIDES

To the Editor: A picture is worth a thousand words. Judging by the ubiquitous use of slides and overhead projections at scientific meetings, continuing-medical-education courses, and the like, this aphorism has been embraced by the medical profession. Indeed, the appropriate use of graphs and tables can clarify and enhance understanding of much material in medicine. Recognition of the importance of the visual component of oral presentations has resulted in specific guidelines for speakers to follow when creating slides. A recent development has been the widespread availability of computer software programs enabling almost anyone to create professional-appearing multicolored slides and highlight important information through the use of contrasting colors.

On the basis of my personal observations at educational conferences and several recent meetings, the popularity of multicolored slides is burgeoning. Unfortunately, too frequently the color used to highlight important data or emphasize critical points is red. Despite being in the medical profession, many speakers seem to have forgotten that approximately 8 percent of white men are colorblind,* although the condition is rare in women, and that the most common variety is red–green colorblindness. For those of us who are red–green colorblind, it is annoying at best to hear phrases such as "illustrated by the red line" or "the key correlations are highlighted in red" during a presentation. While we are trying to figure out what the speaker is referring to, important concepts are missed.

Although multicolored slides can be esthetically pleasing and a pleasure to create, I want to remind speakers to avoid using red or green to emphasize data or ideas. The whole purpose of the visual portion of oral presentations is to enhance communication. The members of your audience who are red–green colorblind will also benefit from your creative slide preparation if you remember to use colors other than red and green for emphasis.

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*Goldstein JL, Brown MS. Genetic aspects of disease. In: Wilson JD, Braunwald E, Isselbacher KJ, et al. Harrison's principles of internal medicine. 12th ed. Vol. 1. New York: McGraw-Hill, 1991:28.

Letters to the Editor should be typed double-spaced (including references) with conventional margins. The length of the text is limited to 40 typewritten lines (excluding references). Abbreviations should not be used.

LEGAL ISSUES IN MEDICINE

FETAL PROTECTION AND EMPLOYMENT DISCRIMINATION — THE *JOHNSON CONTROLS* CASE

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EMPLOYERS have historically limited women's access to traditionally male, high-paying jobs.[1] In one famous case early in this century, the U.S. Supreme Court upheld an Oregon law that forbade hiring women for jobs that required more than 10 hours of work a day in factories. The Chief Justice explained that this restriction was reasonable because "healthy mothers are essential to vigorous offspring" and preserving the physical well-being of women helps "preserve the strength and vigor of the race."[2] This rationale was never particularly persuasive, and women's hours have not been limited in traditionally female, low-paid fields of employment, such as nursing. Although such blatant sex discrimination in employment is a thing of the past, the average man continues to earn "almost 50 percent more per hour than does the average woman of the same race, age, and education."[3]

The contemporary legal question has become whether employers can substitute concern for fetal health for concern for women's health as an argument for limiting job opportunities for women. The U.S. Supreme Court decided in March 1991 that the answer is no and that federal law prohibits employers from excluding women from job categories on the basis that they are or might become pregnant.[4] All nine justices agreed that the "fetal-protection policy" adopted by Johnson Controls, Inc., to restrict jobs in the manufacture of batteries to men and sterile women was a violation of law, and six of the nine agreed that federal law prohibits any discrimination solely on the basis of possible or actual pregnancy. The ruling in *International Union* v. *Johnson Controls* applies to all employers engaged in interstate commerce, including hospitals and clinics.

Title VII of the Civil Rights Act of 1964 forbids employers to discriminate on the basis of race, color, religion, sex, or national origin. Explicit discrimination on the basis of religion, sex, or national origin can be justified only if the characteristic is a "bona fide occupational qualification." The federal Pregnancy Discrimination Act of 1978 made it clear that sex discrimination includes discrimination "on the basis of pregnancy, childbirth, or related conditions."[5]

THE FETAL-PROTECTION POLICY OF JOHNSON CONTROLS

Beginning in 1977, Johnson Controls advised women who expected to have children not to take jobs involving exposure to lead, warned women who took such jobs of the risks entailed in having a child while being exposed to lead, and recommended that workers consult their family doctors for advice. The risks were said to include a higher rate of spontaneous abortion as well as unspecified potential risks to the fetus. Between 1979 and 1983, eight employees became pregnant while their blood lead levels were above 30 μg per deciliter (1.45 μmol per liter) (a level the Centers for Disease Control had designated as excessive for children). Although there was no evidence of harm due to lead exposure in any of the children born to the employees, a medical consultant for the company said that he thought hyperactivity in one of the children "could very well be and probably was due to the lead he had."[6]

In 1982, apparently after consulting medical experts about the dangers to the fetus of exposure to

lead, the company changed its policy from warning to exclusion:

> . . . women who are pregnant or who are capable of bearing children will not be placed into jobs involving lead exposure or which could expose them to lead through the exercise of job bidding, bumping, transfer, or promotion rights.

The policy defined women capable of bearing children as all women except those who "have medical confirmation that they cannot bear children."

In 1984, a class-action suit was brought challenging the policy as a violation of Title VII of the Civil Rights Act of 1964. In 1988, a federal district court ruled in favor of Johnson Controls, primarily on the basis of depositions and affidavits from physicians and environmental toxicologists regarding the damage that exposure to lead could cause in developing fetuses, children, adults, and animals.[7] The U.S. Court of Appeals for the Seventh Circuit affirmed this decision in 1989 in a seven-to-four opinion.[6] The majority based its opinion primarily on the medical evidence of potential harm to the fetus and on their view that federal law permitted employers to take this potential harm into account in developing employment policies.

The Supreme Court's Decision

The U.S. Supreme Court unanimously reversed the decision in an opinion written by Justice Harry Blackmun. The Court had no trouble finding that the bias in the policy was "obvious," since "fertile men, but not fertile women, are given a choice as to whether they wish to risk their reproductive health for a particular job."[4] The Court noted that the company did not seek to protect all unconceived children, only those of its female employees. The policy was based on the potential for pregnancy and, accordingly, directly in conflict with the Pregnancy Discrimination Act of 1978. The key to the case was determining whether the absence of pregnancy or the absence of the potential to become pregnant was a bona fide occupational qualification for a job in battery manufacturing.

Employment discrimination is permitted "in those certain instances where religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of that particular business or enterprise."[4] The Court's approach was to determine whether Johnson Controls' fetal-protection policy came within the scope of those "certain instances." The statutory language requires that the occupational qualification affect "an employee's ability to do the job."[4] The Court determined that the defense was available only when it went to the "essence of the business" or was "the core of the employee's job performance."[4]

The Court had previously allowed a maximum-security prison for men to refuse to hire women guards because "the employment of a female guard would create real risks of safety to others if violence broke out because the guard was a woman." Thus, sex was seen as reasonably related to the essence of the guard's job: maintaining prison security. Similarly, other courts had permitted airlines to lay off pregnant flight attendants if it was considered necessary to protect the safety of passengers. The Court agreed that protecting the safety or security of customers was related to the essence of the business and was legitimate.

The welfare of unconceived fetuses, however, did not fit into either category of exception. In the Court's words, "No one can disregard the possibility of injury to future children; the BFOQ [bona fide occupational qualification], however, is not so broad that it transforms this deep social concern into an essential aspect of battery making." Limitations involving pregnancy or sex "must relate to ability to perform the duties of the job. . . . Women as capable of doing their jobs as their male counterparts may not be forced to choose between having a child and having a job." The Court concluded that Congress had left the welfare of the next generation to parents, not employers: "Decisions about the welfare of future children must be left to the parents who conceive, bear, support, and raise them rather than to the employers who hire those parents."[4]

The Court finally addressed potential tort liability should a fetus be injured by its mother's occupational exposure and later sue the company. The Court wrote that since the Occupational Safety and Health Administration (OSHA) had concluded that there was no basis for excluding women of childbearing age from exposure to lead at the minimal levels permitted under its guidelines, the likelihood of fetal injury was slight. And even if injury should occur, the injured child would have to prove that the employer had been negligent. If the employer followed OSHA guidelines and fully informed its workers of the risks involved, the Court concluded that liability seemed "remote at best." Thus, just as speculation about risks to children not yet conceived has nothing to do with job performance, speculation about future tort liability — at least one step further removed from harm to the fetus — is not job-related.

The Concurring Opinions

Justice Byron White wrote the main concurring opinion for himself, Chief Justice William Rehnquist, and Justice Anthony Kennedy. Although they agreed with the outcome in this case, they dissented from the bona fide occupational-qualification analysis as it applied to tort liability, and warned that the case could be used to undercut certain privacy rights. These three justices believed that under some circumstances it should be permissible for employers to exclude women from employment on the grounds that their fetuses could be injured and sue the employers (the women themselves could not sue because they would be covered by workers' compensation as their exclusive remedy). Their rationale was that parents cannot waive the right of their children to sue, that the parents' negligence will not be imputed to the children, and that even in the absence of negligence, "it is possible that employers will be held strictly liable, if, for exam-

ple, their manufacturing process is considered."[4] Avoiding such liability was, in the view of these justices, a safety issue relevant to the bona fide occupational-qualification standard.

The other point made by the three justices was relegated to a footnote, but it is of substantial interest. They argued that the Court's opinion could be read to outlaw considerations of privacy as a justification for employment discrimination on the basis of sex because considerations of privacy would not directly relate to the employees' ability to do the job or to customers' safety. They cited cases in which the privacy-related wishes of some patients to be cared for by nurses and nurses' aides of the same sex had been upheld as a bona fide occupational qualification, including an instance regarding the sex of nurses' aides in a retirement home[8] and a policy excluding male nurses from obstetrical practice in one hospital.[9] The justices in the majority responded to this issue by saying simply, "We have never addressed privacy-based sex discrimination and shall not do so here because the sex-based discrimination at issue today does not involve the privacy interests of Johnson Controls' customers."[4] This issue has been left for another day, but it should be noted that the obstetrical-nurse case rests on outmoded judicial stereotyping of obstetricians as men and nurses as women.[10]

Implications of the Decision

The Court took the language of the Pregnancy Discrimination Act seriously, correctly observing that "concern for a woman's existing or potential offspring historically has been the excuse for denying women equal employment opportunities."[4] The purpose of the act was to end such employment discrimination, and the Court's opinion in *Johnson Controls* holds that recasting sex discrimination in the name of fetal protection is illegal. Johnson Controls had argued that its policy was ethical and socially responsible and that it was meant only to prevent exposing the fetus to avoidable risk. Judge Frank Easterbrook probably had the most articulate response to this concern in his dissent from the appeals-court decision:

> There is a strong correlation between the health of the infant and prenatal medical care; there is also a powerful link between the parents' income and infants' health, for higher income means better nutrition, among other things. . . . Removing women from well-paying jobs (and the attendant health insurance), or denying women access to these jobs, may reduce the risk from lead while also reducing levels of medical care and quality of nutrition.[6]

Judge Easterbrook argued that ultimately fetal-protection policies cannot require "zero risk" but must be based on reasonable risk. He correctly noted that it is good and reasonable to worry about the health of workers and their future children. But,

> to insist on *zero* risk . . . is to exclude women from industrial jobs that have been a male preserve. By all means let society lend its energies to improving the prospects of those who come after us. Demanding zero risk produces not progress but paralysis.[6]

The same zero-risk analysis can, of course, be applied to the possibility of tort liability as seen from the industry's perspective. The industry would like its risk to be zero. Six of the nine judges agreed that it is close to zero, or at least remote. As a factual matter, there has been only one recorded case of a child's bringing a lawsuit for injuries suffered while the mother was pregnant and continued to work. In this case, the jury found in favor of the employer, even though there was evidence that the employer had violated OSHA safety standards.[11] Two thirds of the justices on the U.S. Supreme Court think that state tort liability is preempted so long as the employer follows federal law, informs workers of the risks, and is not negligent. Added to this is the extraordinarily difficult issue of causation, even if the employer is negligent. Putting the two together may not eliminate all risk of liability, but the risk is as small as can reasonably be expected.

It has been persuasively suggested that fetal-protection policies that affect only women are based on the view that women are "primarily biologic actors" and not economic ones and that men are only economic actors who have no "biologic connections and responsibilities to their families."[12] The decision in *Johnson Controls* continues the legal and social movement to provide equality of opportunity in the workplace. It does not eliminate the duty to minimize workplace exposure to toxic substances. Indeed, it would be a hollow victory for women to gain the right to be exposed to the same high levels of mutagens and other toxic substances that men are exposed to. The real challenge for public policy remains to turn industry's focus away from new methods of sex discrimination and toward new ways to reduce workplace hazards. In this area, physicians continue to have a prominent role.

Physicians specializing in occupational health should continue to work to reduce exposure to toxic substances in the workplace for all workers (by replacing such agents with other, less toxic substances, reducing their volume, and encouraging the use of protective gear). In addition, all workers should be warned about the health risks of all clinically important exposures that cannot be avoided, and encouraged to be monitored for the early signs of damage. Personal physicians should take a careful occupational history and be sufficiently informed to be able to tell their patients about the risks of exposure to various substances, including what is known about their mutagenicity and teratogenicity. Armed with this information, workers — both men and women — will be able to make informed decisions about their jobs and the risks they are willing to run to keep them, as well as to pressure management intelligently to make the workplace safer.

Congress and the Court have made a strong statement about the use of fetal protection as a rationale to control or restrict the activities and decisions of women: the ultimate decision maker must be the worker herself. This policy is consistent with good medical practice as well — as is evident, for instance, in the

policy of the American College of Obstetricians and Gynecologists on "maternal–fetal conflicts."[13] To paraphrase Justice Blackmun, it is no more appropriate for physicians to attempt to control women's opportunities and choices on the basis of their reproductive role than it is for the courts or individual employers to do so.

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BOOK REVIEWS

Atlas of Surgery

Vol. 1. By John L. Cameron, with Gregory B. Bulkley, Thomas R. Gadacz, Henry A. Pitt, James V. Sitzmann, and Michael J. Zinner. 478 pp., illustrated. Philadelphia, B.C. Decker, 1990. $250.

Surgeons probably spend more time than many using the left side of the brain, visualizing structures, imagining ways to tackle a problem, stacking the various layers of anatomy into a coherent whole that brings clarity to a potpourri of viscera, or simply running through a common procedure while standing at the scrub sink. It is hard to imagine anything visually comparable for the psychiatrist, pediatrician, or internist. Perhaps for that reason, surgical atlases are always a joy to explore and inspect. They appeal to our visual sense of problem solving, certainly, but they also serve to remind us of special points in operations infrequently performed or to demonstrate alternative ways to skin the surgical cat. Moreover, the narrative adds a personal flavor to the artwork and often subtly points out technical modifications or changes that may aid in the performance of an operation.

This atlas succeeds admirably in depicting an array of operations on the liver, biliary tree, and pancreas. Edited by John Cameron, professor of surgery at Johns Hopkins, it reflects that institution's long history of excellence in hepatobiliary and pancreatic surgery. The editor has asked current and former members of his staff to detail the procedures they commonly perform in the right upper quadrant. He has been immeasurably assisted in this task by the illustrator, Corinne Sandone. She has contributed a remarkably rich portfolio of watercolors that vividly depict the operations in these organs. The imaginative paintings, their beautiful reproduction, and the loving attention to detail make this a glorious atlas to peruse and study. The accompanying narrative includes many useful hints and clues to help both experienced surgeons and neophytes plan an operation from start to finish.

This book is written primarily for experienced surgeons and makes no effort to describe such items as suture technique or basic surgical anatomy. If there is any criticism to be made, it is that the narratives accompanying the illustrations are relatively sparse. This is truly an atlas for the surgeon who is already comfortable with procedures in the right upper quadrant. It neglects liver transplantation and the new technique of laparoscopic cholecystectomy. These are minor complaints as compared with the abundant riches awaiting the reader. This book is designated as volume 1. Although there is no mention of future releases, surgeons will be excited by the thought of a complete series of surgical atlases that so elegantly and vibrantly detail all the various techniques of clinical surgery.

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Management of Cardiothoracic Trauma

Edited by Stephen Z. Turney, Aurelio Rodriguez, and R. Adams Cowley. 417 pp., illustrated. Baltimore, Williams and Wilkins, 1990. $69.

This textbook has been edited by physicians who are on the staff of the Maryland Institute for Emergency Medical Services Systems. The three editors are a cardiothoracic surgeon, a traumatologist, and a physician who is expert in emergency room medicine. This mix of viewpoints gives the book a unique perspective not found in other textbooks on thoracic trauma.

The 23 chapters are generally well written and concise, and they include extremely useful and current bibliographies. The book includes exceptional illustrations covering standard diagnostic techniques in evaluating cardiothoracic trauma, as well as CT scans and magnetic resonance imaging. Pertinent diagrams illustrate mechanisms of injury and basic techniques used in the emergency room and the operating room.

The material covered is complete and extensive, with special chapters not often found in other books. There are chapters on the care of thoracic trauma before the patient reaches the hospital, a chapter on the initial evaluation of the patient and the indications for thoracotomy, one on the role of the emergency room physician in managing cardiothoracic trauma, and one devoted to imaging and anesthesia in thoracic trauma. Even such rare topics as gas embolism, traumatic chylothorax, and traumatic asphyxia have their own chapters. There is also a chapter on thoracic trauma in children.

This book is an important addition to the literature. It will be most useful to physicians specializing in thoracic surgery, traumatology, and emergency room medicine. The material is written in a concise manner that can be understood clearly by students and residents.

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Clinical Sports Medicine

Edited by William A. Grana and Alexander Kalenak. 527 pp., illustrated. Philadelphia, W.B. Saunders, 1991. $65.

Sports Medicine: The school-age athlete

Edited by Bruce Reider. 709 pp., illustrated. Philadelphia, W.B. Saunders, 1991. $110.

Has the field of sports medicine truly become more comprehensive? The first book reviewed here, Grana and Kalenak's *Clinical Sports Medicine,* is dedicated to Dr. Don O'Donoghue's 1962 classic *Treatment of Injuries to Athletes* (Philadelphia: W.B. Saunders). Comparing the two books suggests that the answer to that question is no. Both cover fundamentally the same body of information: preparing athletes for competition and caring for their ills. Sports medicine professionals have always been vitally concerned about these matters. What is apparent, however, is the tremendous growth of knowledge in these disciplines over the past 30 years. The team doctor can no longer be the primary source of advice on nutrition,