

Increased Media Focus

The New York Times

Health

WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION

THE RADIATION BOOM

Radiation Offers New Cures, and Ways to Do Harm

By WALTER S. BRONFMAN
Published: January 24, 2010

As Scott Parks, 37, radiation therapy to swallow, and three weeks later he be studied and talked about publicly so that others might not have to live his nightmare.

While new technology saves the lives of countless cancer patients, errors can lead to unspeakable pain and death. **January 24, 2010**

Sensing death was near, Mr. Jerome-Parks summoned his family for a final

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New York Times Articles

January 27, 2010

- THEY CHECK THE MEDICAL EQUIPMENT, BUT WHO IS CHECKING UP ON THEM?

Loose regulation of medical physicists has allowed problems to enter a part of the process meant to make health care safer.



A Request You Can't Ignore

February 4, 2010



Michael G. Herman, Ph.D.
President
American Association of Physics
in Medicine
One Physics Ellipse
College Park, MD 20740

Dress Dr. Hauseman

I am writing to request your testimony at a hearing before the Subcommittee on Health on Wednesday, February 10, 2010 at 2:00 p.m. in room 2123 of the Rayburn House Office Building. The hearing, entitled "Medical Radiation: An Overview of the Issues," will examine the potential benefits and risks of the use of radiation in medicine.



Increased regulation likely:

The New York Times

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February 10, 2010

F.D.A. to Increase Oversight of Medical Radiation

By WALT BOGDANICH and REBECCA R. RUZ

The federal **Food and Drug Administration** said Tuesday that it would take steps to more stringently regulate three of the most potent forms of medical radiation, including increasingly popular CT scans, some of which deliver the radiation equivalent of 400 chest X-rays.

With the announcement, the F.D.A. puts its regulatory muscle behind a growing movement to make life-saving medical radiation — both diagnostic and therapeutic — safer.

Last week, the leading radiation oncology association called for enhanced safety measures. And a Congressional committee was set to hear testimony Wednesday on the weak oversight of medical radiation, but the hearing was canceled because of bad weather.

**House of Representatives
Subcommittee on Health Hearing**

- Hearing - Medical Radiation: An Overview of the Issues (originally scheduled Feb 10, 2010)
- Expert panel
- Invited organizations
 - AAPM
 - ACR
 - ASTRO
 - ASRT
 - MITA



Congressional Focus

American Association of Physicists in Medicine

**Statement of Michael G. Herman, Ph.D., FAAPM, FACMP
On Behalf of the American Association of Physicists in Medicine (AAPM)
Before the Subcommittee on Health of the House
Committee on Energy and Commerce**

February 26, 2010

Chairman Pallone, Ranking member Deal and members of this distinguished morning and thank you for the opportunity to testify today on Medical Issues.

It is my pleasure to be here representing the American Association of Physics in Medicine generally as the AAPM. AAPM is a scientific and professional organization



AAPM Testifies Before Congress



- As many of you know, there have been a number of recent articles in the press related to tragic errors in radiation therapy. This combined with the recent publicity on CT perfusion dose problems has prompted Congress to call a hearing entitled "Medical Radiation: an Overview of the Issues". AAPM, along with ASTRO, ACR, ASRT and MITA have been asked to testify to help guide direction for improving patient safety in the medical use of radiation. We sincerely believe that working together with all stakeholders that we can improve safety and quality in the medical use of radiation.

Mike Herman, AAPM President



Congressional Hearing Transcript

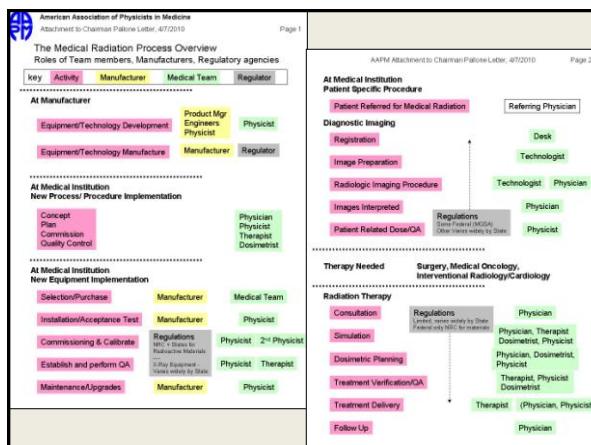


- http://energycommerce.house.gov/index.php?option=com_content&view=article&id=1910:medical-radiation-an-overview-of-the-issues&catid=132:subcommittee-on-health&Itemid=72



AAPM Statement

- In summary, the AAPM believes that patient safety in the use of medical radiation will be increased through: consistent education and certification of medical team members, whose qualifications are recognized nationally, and who follow consensus practice guidelines that meet established national accrediting standards. We must also learn from our mistakes by collecting and evaluating them at the national level. AAPM has been working directly and in cooperation with other stakeholders for years on some of these issues and we are saddened that some people are injured during what should be beneficial procedures. We believe that more effort on all seven areas of focus, by all of us, working cooperatively, will continue to make the use of medical radiation safer and more effective for the people that need it.



Increased media focus

The screenshot shows a news article from "St Louis Today: Rural Missouri". The headline is "Inadequate regulation puts patients at risk". Below the headline is a photo of a medical professional. The text discusses a problem at CoxHealth where patients received 50 percent more radiation than prescribed due to equipment calibration issues.



Congressional Hearings

- Recommendations included:
 - Expanding federally mandated accreditation requirements to include all clinical settings (diagnostic and therapeutic)
 - Federally mandated CT dose index registry
 - National database for reporting linear accelerator errors
 - Enhanced adoption of electronic medical records
 - Legislation to enforce patient safety
 - Increased funding for National Cancer Institute and the Radiological Physics Center



Congressional Hearing

- Recommendations included continued:
 - Federal mandate for board certification of medical physicists and uniform licensing requirements
 - Passage of the CARE Act, which requires minimum educational and credentialing standards for technical staff
 - Rigorous minimum standards for accrediting clinical practices
 - Mandatory public, anonymous reporting of radiation therapy “near misses”
 - Development of radiation dose reference levels



CONGRESSIONAL Staff Briefing
IN COOPERATION WITH

March 31, 2011

Participating:
 Rep. Myrick, R-NC
 Rep. Capps, D-CA
 National Patient Advocate Foundation
 AAPM
 ASRT
 ASTRO

The Important Role of Radiation Oncology in Cancer Treatment
Learn About the Role Today's Radiation Oncologists Play in Your Community

MARCH 31, 2011
10:00 AM - 12:00 PM
1539 LONGWORTH HOUSE OFFICE BUILDING
RSVP to Katherine Herberg at katherine.herberg@mail.house.gov or (202) 546-0019

The email invitation for the Congressional Staff Briefing on March 31, 2011, at 1539 Longworth House Office Building. It features the title "CONGRESSIONAL Staff Briefing IN COOPERATION WITH", the date "March 31, 2011", and the theme "The Important Role of Radiation Oncology in Cancer Treatment Learn About the Role Today's Radiation Oncologists Play in Your Community". It lists participating members of Congress (Rep. Myrick, R-NC; Rep. Capps, D-CA), the National Patient Advocate Foundation, and professional organizations (AAPM, ASRT, ASTRO). It also includes the time (10:00 AM - 12:00 PM), location (1539 LONGWORTH HOUSE OFFICE BUILDING), and RSVP information (katherine.herberg@mail.house.gov or (202) 546-0019).



Press Release

FOR IMMEDIATE RELEASE
March 31, 2011

Contact: Rebecca Reid
(410) 212-3843

Cancer Care Experts, Physicians, Patient Advocates, Lawmakers Gather on Capitol Hill to Discuss the Value of Radiation Oncology

Representatives Sue Myrick (R-NC) and Lois Capps (D-CA) take part in briefing to raise awareness about the important role of radiation therapy in cancer treatment

Washington, DC-Leaders from the radiation oncology community – representing patients, physicians, providers, and manufacturers – met on Capitol Hill today to educate lawmakers and their staffs about the latest in radiation therapy technologies and techniques, improvements in patient care and the continued focus on patient safety in radiation therapy delivery. Representatives Sue Myrick (R-NC) and Lois Capps (D-CA) participated in today's briefing to share their personal experiences with cancer care and underscore the importance of this vital health care tool in our nation's continued fight against cancer.

Representative Sue Myrick [R-NC-9th]



- "As a cancer survivor myself who has undergone radiation therapy, I can personally attest to the value of this cancer treatment," Myrick said. "Radiation therapy technology has become more precise and state of the art compared to just a decade ago. It is important that cancer patients have access to this critical therapy. It allowed me to continue my normal routine while undergoing treatment. I credit my speedy recovery in large part to radiation therapy, and the caring expertise of my doctors."



Representative Lois Capps [D-CA-23rd]



- "I applaud this community for coming together to raise awareness about the benefits of advanced radiation therapy services in cancer care," added Capps. "As a nurse, I remain committed to working with the medical community, and my fellow lawmakers, to build on the important protections for individuals with cancer in the Affordable Care Act and protect access to potentially life-saving treatments upon which so many patients depend."



Dr. Gary Ezzell, AAPM President-elect



"Radiation therapy has become much more complex, both in technology and procedures. We are able to better control the shape and location of the radiation dose," added Dr. Gary Ezzell, president-elect of the American Association of Physicists in Medicine (AAPM). "AAPM supports efforts to further improve these potentially life-saving therapies for patients."



AAPM Remarks

- Improvements in patient safety for the medical use of radiation
 - Radiation therapy has become much more complex, both in technology and procedures. We are able to better control the shape and location of the radiation dose. This is good for patients, as long as it is done well.
 - In many states, the requirements for professional training and accreditation of non-physician team members are weak or non-existent. AAPM supports the passage of the CARE bill to address this problem.



AAPM Remarks (continued)

- Improvements in patient safety for the medical use of radiation
 - AAPM also supports the concept of practice accreditation to help ensure that well-trained individuals are working together following nationally accepted guidance.
 - Errors and near-misses will still sometimes occur. AAPM is working with ASTRO and other professional organizations to develop a national event reporting system, so that we can more readily learn from each other's experiences.



AAPM Remarks (continued)

- Improvements in patient safety for the medical use of radiation
 - AAPM supports and is working toward safety improvements in the medical device manufacturing and regulatory approval process.
 - AAPM appreciates congressional support for these safety improvements.



Congressional Offices Represented

- Senator Kent Conrad (D-ND)
- Senator Charles Grassley (R-IA)
- Senate HELP Committee
- Rep. John Conyers (D-MI)
- Rep. Gene Green (D-TX)
- Rep. Patrick Meehan (R-PA)
- Rep. Anna Eshoo (D-CA)
- Rep. Allyson Schwartz (D-PA)
- Rep. Jim Gerlach (R-PA)
- Rep. Steve Israel (D-NY)
- Rep. Mary Bono Mack (R-CA)
- Rep. Frank Pallone (D-NJ)



ADVANCES for Imaging

A Radiation Oncology

DAILY NEWS UPDATE
Physicians, Advocates, Lawmakers Gather on Capitol Hill to Discuss the Value of Radiation Oncology
Posted on: April 3, 2011

- Leaders from the radiation oncology community--representing patients, physicians, providers, and manufacturers--recently met on Capitol Hill to educate lawmakers and their staffs about the latest in radiation therapy technologies and techniques, improvements in patient care, and the community's focus on patient safety in radiation therapy delivery. Representatives Sue Myrick (R-N.C.) and Lois Capps (D-Calif.) participated in the briefing to share their personal experiences with cancer care and underscore the importance of this vital health care tool in our nation's continued fight against cancer.



ASTRO American Society for Radiation Oncology

Why Provide Radiation Therapy?
The success of a cancer management program depends not only on technology and equipment, but also on the skills of the personnel responsible for understanding the technology and operating the equipment. Radiation therapy is a complex medical procedure that requires a team of professionals including radiation therapist, medical dosimetrists, and medical physicists. To be effective, each team member must be well trained, clinically competent, and able to respond to a patient's needs in a coordinated manner.

The CARE Act:
The Coalition for Accuracy, Responsibility and Excellence (CARE) in Medical Imaging and Radiation Therapy Act will help to reduce medical radiation errors and misadministration by the technical personnel involved in the delivery of radiation therapy. The CARE Act will require that all radiation therapy treatments. More than 1 million Medicare patients undergo radiation therapy each year, and having highly qualified and experienced radiation therapy professionals on the treatment team is crucial for patient safety. The CARE bill will ensure that radiation therapy professionals, including radiation therapists, medical physicists, and medical dosimetrists who treat Medicare patients. Additionally, the bill will ensure that radiation therapy procedures are accurate and precise, leading to higher patient survival rates.

Our members and patients confidence that the personnel involved in their treatment can effectively and efficiently operate the high tech equipment used in radiation therapy.

Important to note, the CARE Act will ensure that radiation therapy professionals can care better if used properly, but can harm patients if incorrectly administered.

Recent article in the New York Times focused on medical radiation errors have put a spotlight on one of the most important issues in radiation oncology. The CARE Act will help to reduce medical radiation errors and misadministration by the technical personnel involved in the delivery of radiation therapy. The organizations making up the Alliance for Quality Radiation Oncology include the American Association of Medical Dosimetrists, the American College of Radiology, the American Society of Radiation Oncology, the National Council on Radiation Oncology, the American Cancer Society, and the National Coalition for Cancer Survivorship.

The CARE Act will be introduced in the House soon by Rep. Ed Whitfield (R-KY), and referred to the House Energy and Commerce Committee. Co-sponsors on Ways and Means: Rep. Mike East (R-Wyo) and Sen. Tom Harkin (D-Iowa) have committed to introducing the CARE Bill in the Senate during the 112th Congress.

Leave Behinds The Need for the CARE Act



The New York Times

THE RADIATION ROOM
After Stroke Scans, Patients Face Serious Health Risks

By DALE M. BLOOMBERG
Illustrations by JEFFREY L. BROWN

When Alain Rayes's hair suddenly fell out in a freakish band circling his head, he was not the only one worried about his health. His coworkers at a shipping company avoided him, and his boss sent him home, fearing he had a contagious disease.

Only later would Mr. Rayes learn what had caused him so much physical and emotional grief: He had received a radiation overdose during a test for a stroke at a hospital in Glendale, Calif.

Other patients getting the procedure, called a CT brain perfusion scan, were bitten by bees, too — 27 of them — on the freeway at Providence Sainte-Philomene Hospital in Burbank, 260 miles west of the recent Medical Center in Los Angeles and hospital in Huntsville, Ala.

The overdoes, which began to set off an investigation by the U.S. Administration into why patients get highly regulated yet relatively inexpensive radiation. After it is completed, the Food and Drug Administration expanded its investigation to include the overdoses in Huntsville. The agency is expected to provide a final report on what it

California Tightens Oversight of CT Scans

By MICHAEL WOODWARD
Illustrations by JEFFREY L. BROWN

California's governor has signed tough new legislation tightening oversight of diagnostic CT scans, largely in response to the overdoses of patients who underwent brain scans for stroke in 2008 and 2009.

Rating:
Radiation from scans . . .

Blog:
The Cameraus

Gov. Arnold Schwarzenegger signed a bill on Wednesday that will require hospitals to record radiation doses for CT scans and to report any overdoses to patients and their doctors.

Never Let Me Go

Medical Center in Los Angeles last year at Cedars-Sinai, up to eight times the radiation that was expected. The discovered them.

So far, higher than expected radiation doses have been uncovered at eight hospitals, six in California. The New York Times reported in August that excessive radiation doses had been given to more than 400 patients, including some at Huntsville Hospital in Alabama who received up to 12 times the expected amount.

In response to the Times report, the Food and Drug Administration expanded its investigation to include the overdoses in Huntsville. The agency is expected to release the

California CT Law

- Senate Bill 1237 amended Section 11511 of the CA Health and Safety Code to mandate strict procedures and reporting requirements for CT scanners and radiation-therapy procedures to include radiation overdoses to the Department of Public Health.

– Effective date July 2012

- MDs must record radiation dose on the radiology report and attach the protocol to the report
- Dose must be verified annually by a medical physicist to ensure that the displayed dose is within 20% of the measured dose
- Reporting requirements if radiation dose is exceeds or include the wrong area of the body
- July 2013 all facilities that offer CT must become accredited by an organization approved by CMS
- Because this bill expands the definition of a crime, it will impose a state-mandated local program.



California CT Law

- Law does not require
 - Quality Assurance or equipment standards
 - Training and education for operators
 - Qualification and education of Medical Physicists
 - Radiation dose tracked on a per-exam basis
 - Only concerned about individual procedures and lifetime accumulation of radiation



Information Notice Regarding Senate Bill (SB) 1237, California Health and Safety

- CA Issues Frequently Asked Questions and Answer – January 14, 2011
- (H&S) Code Section 115113
- Sent to All Facilities Using X-Ray Computed Tomography (CT) Equipment
- This Q&A only applies to H&S Code Section 115113, recently enacted by SB 1237 (Padilla, Chapter 521, Statutes of 2010), which added reportable events from the use of X-ray CT and therapy. H&S Code Section 115113 became effective January 1, 2011.
- <http://www.cdph.ca.gov/certlic/radquip/Documents/RH-B-SB1237-FAQ.PDF>



American Medical Isotopes Production Act of 2011



USA Today – August 14, 2009

Medical isotope shortage threatens treatments

Updated 8/14/2009 6:34 PM | Comments 0 | Recommend 0

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Whole grain cereal may help control blood pressure! <http://usat.ly/hfMzDq>

March 27, 2011, at 3:45 p.m.

ALBUQUERQUE, New Mexico (AP) — The shutdown of a nuclear reactor in Canada has caused a shortage of a radioactive isotope used to detect cancers and heart disease, forcing hospitals to use costlier procedures that can be less effective and expose patients to more radioactivity.

Some 16 million people in the United States — 40,000 patients each day — undergo medical imaging procedures using the isotope, technetium-99. Eighty percent of nuclear medicine scans use it.



July 15, 2009

medical isotope shortage reaches crisis level

Robust solutions sought urgently to shore up fragile supply chain.

The worldwide shortage of medical isotopes is about to get worse, as the High Flux Isotope Reactor at the National Institute of Standards and Technology in Gaithersburg, Maryland, closes for a major inspection. The reactor's next scheduled inspection, by the International Organization for Standardization, is set for October.

Keywords:

- Isotope
- molybdenum
- cancer
- reactor
- radiation
- medical
- science
- health
- chancery
- Research Universal reactor
- nuclear energy

Comments on this story

Published online 15 July 2009 | Nature 460, 312–313 (2009) | doi:10.1038/460312a

Recent news

- Enriched boron-10: boron neutron capture therapy
- The 2009 year-end climate puzzle
- New lead in deadly pancreatic cancer
- China's first test-launch through China's 2009
- Chinese Academy of Sciences has big plans

Related stories

- Accelerating resolution of medical isotopes 28 January 2009
- Accelerating alternative will continue into 2010 28 January 2009



PHYSICS TODAY – FEBRUARY 4, 2011

Senate committee seeks to create a US source for widely used medical isotope

By [Physics Today](#) on February 4, 2011 9:24 AM | [No Comments](#) | [No Trackbacks](#)

A bill to create a domestic supply base for molybdenum-99, a short-lived radioactive isotope widely used for medical imaging, was introduced in the Senate in late January. Virtually identical to a measure that passed the House by a 400–17 vote just days earlier, the bill would only provide authorization funds for an interagency effort already under way to help establish a US supply of ⁹⁹Mo that would be produced without the use of highly enriched uranium (HEU).

The introduction of S-99 renews a legislative push that stalled last year due to opposition from a Senate committee. Chairman Dianne Feinstein, D-Calif., introduced the measure in December, used a Senate procedure known as a hold to prevent the measure from coming to a vote. The measure aims to establish a reliable source of ⁹⁹Mo in the US and to prevent a recurrence of a shortage like the one that occurred last year, when two of the five research reactors that account for nearly all the world's



American Medical Isotopes Production Act of 2011

S.99

To promote the production of molybdenum-99 in the United States for medical isotope production, and to condition and phase out the export of highly enriched uranium for the production of medical isotopes.

IN THE SENATE OF THE UNITED STATES
JANUARY 25 (legislative day, JANUARY 31, 2011)
Mr. BINGAMAN (for himself and Ms. MURKOWSKI) introduced the following bill, which was read twice and referred to the Committee on Energy and Natural Resources.

A BILL
To promote the production of molybdenum-99 in the United States for medical isotope production, and to condition and phase out the export of highly enriched uranium for the production of medical isotopes.



Credentials of Imaging and Radiation Therapy Personnel



New York Times Article on Babygrams – February 27, 2011

February 27, 2011

X-Rays and Unshielded Infants

By WALT BOGDANICH and KRISTINA REBELO

It was well after midnight when Dr. Salvatore J. A. Scalfani finally hit the "send" button.

Soon, colleagues would awake to his e-mail, expressing his anguish and shame over the discovery that the tiniest, most vulnerable of all patients — premature babies — had been over-radiated in the department he ran at State University of New York Downstate Medical Center in Brooklyn.

A day earlier, Dr. Scalfani noticed that a newborn had been irradiated from head to toe — with no gonadal shielding — even though only a simple chest X-ray had been ordered.

"I was mortified," he wrote on July 27, 2007. Worse, technologists had given the same baby about 10 of these whole-body X-rays. "Full, unshielded, total irradiation of a neonate," Dr. Scalfani said, adding, "This poor, defenseless baby."



New York Times Article on Babygrams February 27, 2011

- "The errors at Downstate raise broader questions about the **competence, training and oversight of technologists** who operate radiological equipment that is becoming increasingly complex and powerful. If technologists could not properly take a simple chest X-ray, how can they be expected to safely operate CT scanners or linear accelerators?"



New York Times Article on Babygrams February 27, 2011

- With technologists in many states lightly regulated, or not at all, their own professional group is calling for greater oversight and standards. For 12 years, the American Society of Radiologic Technologists has lobbied Congress to pass a bill that would establish minimum educational and certification requirements, not only for technologists, but also for medical physicists and people in 10 other occupations in medical imaging and radiation therapy.



AAPM Responds to New York Times

AAPM Responds to the NY Times Article: "X-Rays and Unshielded Infants"

See also: AAPM's Letter to the Editor of the NY Times

March 3, 2011

The American Association of Physicists in Medicine (AAPM) is a scientific and professional organization composed of scientists (medical physicists) whose clinical practice is dedicated to accuracy, safety and quality in radiation oncology, medical imaging, image-guided medical procedures and medical radiation safety. Articles published recently in the New York Times have highlighted rare events in radiation therapy and imaging that have resulted in tragic consequences for patients. The AAPM and its members demand that these events have occurred, and are committed to actions to further reduce the likelihood of similar events in the future.

"The American Association of Physicists in Medicine (AAPM) believes that one way to address concerns about health care quality, radiation safety and safe equipment operation is to enact legislation that would establish minimum education, training, and experience requirements for all individuals involved in imaging and radiation therapy," said AAPM President J. Anthony Seibert, FAAPM, FACP.

For the past 12 years, the AAPM along with the other members of the Alliance for Quality Imaging and Radiation Therapy have lobbied Congress to pass a bill that would establish minimum educational and certification requirements, not only for medical physicists, but also for technologists and people in 10 other occupations in medical imaging and radiation therapy. AAPM strongly supports the CARE bill, which stands for Consistency, Accuracy, Responsibility and Excellence in Medical Imaging and Radiation Therapy, as a method to improve patient safety.



AAPM Responds to New York Times

- In summary, AAPM believes that patient safety in the use of medical radiation will be increased through: **national recognition of required radiation team member qualifications**; improved and consistent accreditation processes to ensure qualified people in appropriate staffing numbers perform medical radiation procedures following national consensus best, safe practices; **a consistent and accessible national event reporting/recording system**; and enhancement of the FDA 510k process with objective technical support.



CARE Bill and the 112th Congress

- CARE stands for: *Consistency, Accuracy, Responsibility, and Excellence in Medical Imaging and Radiation Therapy Act of 2011*
- Anticipate introduction by end of May
- Draft Bill text is similar to the S. 3737
- Does not include exemption for MIPPA Advanced Imaging Modalities



Safety Culture Policy



Draft Safety Culture Policy Statement

- Commission directed staff to expand safety culture policy to all licensees
- Initial statement published January 23, 2009 (74 FR 4260)
- Revised statement published September 17, 2010 (75 FR 57081)
- Commission Approved Publication of Safety Culture Policy March 7, 2011
- Final Federal Register Notice in Process



Revised Definition of Nuclear Safety Culture

- “Nuclear Safety Culture is the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment.”



Purpose of this Statement of Policy

- Is to set forth the Nuclear Regulatory Commission's expectation that individuals and organizations, performing or overseeing regulated activities involving nuclear materials, establish and maintain a positive safety culture commensurate with the safety and security significance of their activities and the nature and complexity of their organizations and functions.



THE BALTIMORE SUN 82° F JUN 13 Friday News Quiz

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The Maryland Department of the Environment announced Friday that it fined the Johns Hopkins University and Johns Hopkins Hospital \$370,000 - the largest such penalty ever paid by Hopkins - for failing properly to store radioactive materials, maintained radiation materials, maintained radiation machines and administered radiation to one patient.

Ads by Google

Malibu

Patient Release Rule Issues



http://www.usatoday.com/briefs/03-15-endocrinecancer_ST_N.htm Page 1 of 2

USA TODAY

Report: Thyroid cancer radiation a public threat

By Steve Sternberg, USA TODAY



A National Thyroid Cancer Research Foundation study found that thyroid cancer rates have risen 50% since 1970, and the agency says the increase is linked to radiation exposure from nuclear weapons testing.

ANCHOR: 4 min. Beyond cancer, India radiation alert

FORUM: Coming up: Cancer

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USA Today Article

March 17, 2010.



PHYSICS TODAY – FEBRUARY 4, 2011

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Senate committee seeks to create a US source for widely used medical isotope

By [Physics Today](#) on February 4, 2011 9:24 AM | [No Comments](#) | [No Trackbacks](#)

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The introduction of S.99 renews a legislative push that stalled last year due to opposition from a small group of senators. Chairman Dianne Feinstein (D-Calif.) introduced the measure in December, used a Senate procedure known as a hold to prevent the measure from coming to a vote. The measure aims to establish a reliable source of ⁹⁹Mo in the US and to prevent a recurrence of a shortage like the one that occurred last year, when two of the five research reactors that account for nearly all the world's



NRC's Patient Release Rule

- Questions 10 CFR § 35.75
- In 2005 Peter Crane filed a Petition for Rulemaking questioning the regulation
- Most in the medical community requested NRC deny the Petition
- NRC denied the Petition but this did not end Mr. Cane's concerns



Rep. Markey – Patient Release

RADIOACTIVE ROULETTE:
How the Nuclear Regulatory Commission's
Cancer Patient Radiation Rules Gamble with
Public Health and Safety



A report by the Staff of Edward J. Markey (D-MA)
Chairman, Subcommittee on Energy and Environment
House Committee on Energy and Commerce
U.S. House of Representatives
March 16, 2010

EMBARGOED UNTIL AFTER MARCH 16, 2010
12:00 AM



Patient Release Public Dose Limits – Per Annum v. Per Episode

- NRC's current regulations are silent on the issue of per annum v. per episode
- RIS-08-07 (March 2008) states: "NRC intends to pursue rulemaking to clarify the 5 mSv (0.5 rem) limit in 10 CFR § 35.75 as an annual, rather than a per episode release limit"
- The Statements of Consideration support the NRC determination that the regulation as it is currently written intended an annual dose limit based on the presumption appropriate at the time the regulation was developed



Patient Release Public Dose Limits – Per Annum v. Per Episode - continued

- January 5, 2011 ACMUI recommended that NRC pursue rulemaking to clarify the criteria, and endorsed a per episode limit.
- April 11, 2011 confirmed the January 5th recommendation and stated that **they do not recommend any change to the regulation** and does not recommend the NRC consider this topic during the current rulemaking process, as there is no clinical advantage or advantage to members of the public for using an annual limit.



DR. OZ AND THYROID GUARDS

First aired September 2010

- Thyroid cancer is 4 times more common in women than men, so the finger naturally points to estrogen
- Interestingly, the increase in thyroid cancer also began to rise just as X-ray radiation was being routinely used to diagnose and treat disease. This was a time when X-rays were not only stronger, but also used indiscriminately for some unworthy conditions such as acne and tonsillitis.
- The thyroid gland however, is very sensitive to radiation; it is a leading risk factor for the condition, especially if exposure occurred during childhood.



Dr. Oz' Comments

- And although routine **dental X-rays, chest X-rays and mammograms** of today use much lower and safer amounts of radiation, **some worry about this as a thyroid-damaging source**. Some professionals say to protect the thyroid **people should wear a lead thyroid shield (and apron when possible)** when undergoing these procedures block radiation reaching the thyroid gland, and to limit tests using X-rays to those that are absolutely necessary. Other risk factors for thyroid cancer include hereditary conditions and iodine deficiency (rare in the US because of iodized salts).



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Viral Email: Precautions re: Mammograms and Dental X-Rays/ A Useful Warning

On Wednesday, Dr. Oz had a show on the fastest growing cancer in women, thyroid cancer. It was a very interesting program and he mentioned that the increase could possibly be related to the use of dental x-rays and mammograms. He demonstrated that on the apron the dentist puts on you for your dental x-rays there is a little flap that can be lifted up and wrapped around your neck. Many dentists don't bother to use it. **Also, there is something called a "thyroid guard" for use during mammograms.** By coincidence, I had my yearly mammogram yesterday. I felt a little silly, but I asked about the guard and sure enough, the technician had one in a drawer. I asked why it wasn't routinely used. Answer: "I don't know. You have to ask for it."

Well, if I hadn't seen the show, how would I have known to ask?

Someone was nice enough to forward this to me. I hope you pass this on to your friends and family.



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Professional Societies React

The ACR and Society of Breast Imaging Statement on Radiation Received to the Thyroid From Mammography

April 4, 2011

Some Americans have expressed concern, due to an [erroneous media report](#), that the small amount of radiation a patient receives from a mammogram may significantly increase the likelihood of developing thyroid cancer. This concern simply is not supported in scientific literature.

The radiation to the thyroid from a mammogram is extremely low. The thyroid is not exposed to the direct X-ray beam during the image acquisition and receives only a tiny amount of scattered X-rays (less than 0.005 milligray). This is equivalent to only 30 minutes of natural background radiation received by all Americans from natural sources.

For annual screening mammography from ages 40-80, the cancer risk from this tiny amount of radiation scattered to the thyroid is incredibly small (less than 1 in 17.1 million women screened). This minute risk should be balanced with the fact that thyroid shield usage could interfere with optimal imaging and could result in artifacts - shadows that might appear on the mammogram image. Both of these factors reduce the quality of the image and interfere with diagnosis. Therefore, use of a thyroid shield during mammography is *not recommended*.



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Dr. Oz - "Thyroid Shield Controversy"

In response to the Joint ACR/SBI Statement issued, the Dr. Oz show aired a rebuttal show last week. The show aired Thursday, April 14, 2011. With Breast Imaging experts Daniel Kopans, MD - ACR, W. Phil Evans, MD - SBI Jocelyn Rapelyea, MD -George Washington University

<http://newsfuzion.com/2011/04/15/dr-oz-confronts-critics-of-thyroid-protection/>



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AAPM Response to Dr. Oz Show

In guidance to medical professionals, the AAPM also cautions that thyroid shields can obscure mammography results to the point that otherwise unnecessary follow-up tests are required. As stated:

"The use of thyroid shields during mammography exams is unsupported by the scientific literature, and could result in unnecessary increases in breast dose due to repeated mammography exams. Thus the use of thyroid shields is strongly discouraged. The use of lap shields is voluntary and is only recommended in women who are or may be pregnant at the time of the exam."

Full statement: <http://aapm.org/public/general/LeadApronsMammographyResponse.asp>

ASRT Responds

News Release Thyroid Shield Not Recommended During Mammograms

Apr. 16, 2011

Mammographers have reported to ASRT that a growing number of patients are requesting a thyroid shield be used during their mammography examinations. The requests are the result of advice originally given on a television talk show last year and repeated in an e-mail message that has circulated to thousands of American women in the past few weeks. The talk show and the e-mail incorrectly linked the radiation delivered during a mammography examination to an increased risk of developing thyroid cancer.

Although every institution has its own mammography protocols, the ASRT does not recommend the regular use of a thyroid shield during mammography exams. "It can obscure important anatomy and interfere with breast pathology interpretation and diagnosis," said ASRT Resident James Tschirhart, M.P.A., R.T.(R)(Q), FASRT. In addition, use of the shield can result in the entire exam having to be repeated, which doubles the patient's radiation dose.

If patients ask for a thyroid shield, ASRT suggests that mammographers explain that the radiation dose to the thyroid is very low because the thyroid is not in the direct path of the x-ray beam during a mammography exam. The American College of Radiology and Society of Breast Imaging have provided information about the estimated radiation dose to the thyroid that may be useful in answering your patient questions. Mammographers also can explain that using a thyroid shield might interfere with the accuracy and quality of the examination.

In addition, mammographers can direct patients to the ASRT-sponsored site www.xrayrisk.com to learn more about radiation exposure and to track their medical imaging history. Patients also can learn about the risks and benefits of imaging procedures at the Image Wisely website, www.imagewisely.org.



VA Brachytherapy Incident Example



NRC Proposed Rule on Medical Events from Brachytherapy

- RIN 3150-AI26 draft rule language for proposed changes to 10 CFR §35.40 and §35.3045 related to medical events in brachytherapy. The first notification of the proposed changes was issued February 7, 2008 and revision 1 February 21, 2008.
- Proposed Rule for Medical Use of Byproduct Material—Amendments/Medical Event Definitions (RIN 3150-AI26, NRC-2008-0071) [See 73 FR 45635 (August 6, 2008) and 73 FR 58063 (October 6, 2008)]



NY Times Article – At V.A. Hospital, a Rogue Cancer Unit – June 21, 2009

The New York Times
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WIN WIN
NOW PLAYING

June 21, 2009

At V.A. Hospital, a Rogue Cancer Unit

By MICHAEL BORDNER

For patients with prostate cancer, it is a common surgical procedure: a doctor implants dozens of radioactive seeds to attack the disease. But when Dr. Gary D. Kao treated one patient at the veterans' hospital in Philadelphia, his aim was more than a little off.

Most of the seeds, 40 in all, landed in the patient's healthy bladder, not the prostate.

It was a serious mistake, and under federal rules, regulators investigated. But Dr. Kao, with their consent, made his mistake all but disappear. He simply rewrote his surgical plan to match the number of seeds in the prostate, investigators said.

The revision may have made Dr. Kao look better, but it did nothing for the patient, who had to undergo a second implant. It failed, too, resulting in an unintended dose to the rectum. Regulators knew nothing of this second mistake because no one reported it.

Two years later, in 2005, Dr. Kao rewrote another surgical plan after putting half the seeds in the wrong organ. Once again, regulators did not object.



June 29, 2009

U.S. SENATE COMMITTEE ON VETERANS' AFFAIRS

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Hearing

Philadelphia VA Medical Center's Terminated Cancer Treatment Program

UNITED STATES SENATE
COMMITTEE OF VETERANS' AFFAIRS

Field Hearing on Philadelphia VA Terminated Cancer Treatment Program

June 29, 2009, 10:00 AM

Philadelphia VA Medical Center

[Click Here to Listen to Part 1 of the Hearing](#)

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Regulatory Enforcement Conference

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NRC TO HOLD ENFORCEMENT CONFERENCE DEC. 17 WITH DEPARTMENT OF VETERANS AFFAIRS

The Nuclear Regulatory Commission will hold a predecisional enforcement conference Dec. 17 in Rockville, Md., with officials from the Veterans Affairs Medical Center in Philadelphia (VA Philadelphia) and the Department of Veterans Affairs to discuss apparent violations of NRC requirements associated with a large number of medical errors at VA Philadelphia.

Medical errors at VA Philadelphia involved the incorrect placement of iodine-125 seeds to treat prostate cancer. The NRC conducted special inspections to determine how 97 out of 116 procedures that took place between 2002 and 2008 could have been executed incorrectly. NRC inspectors identified eight apparent violations. They are associated with the lack of procedures that would help ensure that each prostate cancer treatment adheres to the prescription written by the physician; absence of verification tools to ensure that the treatment was delivered as prescribed; failure to instruct personnel in identification and reporting requirements for medical errors; failure to record the dose required by a patient on the doctor's prescription form;



Recent NY Times Articles

- **V.A. IS FINED OVER ERRORS IN RADIATION AT HOSPITAL**

The Nuclear Regulatory Commission cited an "unprecedented number" of mistakes by the Philadelphia Veterans Affairs Medical Center in treating prostate cancer patients. March 17, 2010.



NRC Fines VA - \$227,500

Fine against VA Hospital Is Second Largest in NRC History

March 21, 2010. By Gordon Gibb

Philadelphia, PA: On St. Patrick's Day the Nuclear Regulatory Commission (NRC) hit the Philadelphia VA Medical Center with \$227,500 in penalties—one of the largest fines ever levied against a medical institution. While VA hospital malpractice was not alleged, the errors that triggered the large fine could very well be of interest to VA medical malpractice lawyers.



According to a story published on 3/27/10 in the New York Times, federal investigators found that the hospital misplaced radioactive seeds in 97 out of 116 procedures involving patients with prostate cancer between 2002 and 2008.

The report cited the number of radiation errors as "unprecedented." "The lack of management oversight, the lack of safety culture to ensure patients are treated safely, the potential exposure to the public who come to the hospital, and the sheer number of medical events, show the gravity of these violations," said Mark Satorus, a regional administrator for the commission.



NRC Issues Orders - February 23, 2011

NRC ISSUES ORDERS TO TWO INDIVIDUALS INVOLVED IN 2002-2008 MEDICAL ERRORS AT VA MEDICAL CENTER IN PHILADELPHIA

The Nuclear Regulatory Commission has issued an order that bars a former Veterans Administration (VA) physician from engaging in NRC-regulated activities unless he undergoes certain training and meets other requirements spelled out by the agency. The order involving Dr. Gary Kao, who previously worked at the Veterans Affairs Medical Center in Philadelphia (VA Philadelphia), takes effect 20 days after its issuance.

At the same time, the NRC has issued a separate order requiring a medical physicist who worked at the same facility to notify the agency if he accepts employment in that capacity involving NRC-regulated activities. Gregory Desobry must carry out such notification within 20 days of beginning such work.

The orders are the latest actions taken by the NRC in response to an unprecedented number of medical errors identified at VA Philadelphia. The errors involved the incorrect placement of iodine-125 seeds in patients to treat prostate cancer. Out of 116 such brachytherapy procedures performed at the facility between 2002 and 2008, the VA reported that 97 were carried out incorrectly. On March 17, the NRC issued a \$227,500 fine against the Department of Veterans Affairs for violations of agency regulations associated with the errors.



NRC Proposed Rule on Medical Events from Brachytherapy

- Rule initially proposed August 6, 2008
- Large number of medical events reported in Summer-Fall of 2008 caused re-evaluation of the proposed rule (VA incident happened)
- Commission put proposed rule on hold until investigation was over
- Revised proposed rule based on VA investigation
- Request to NRC Commission to issue repropose rule – SECY-10-0062 May 18, 2010
- Commission disapproved publication of repropose rule and directed staff to work with ACMUI and stakeholders on new proposed language – August 10, 2010
- ACMUI met April 11, 2011 to discuss this issue



NRC STAFF'S ISSUE

- How do we appropriately balance between the medical community's desire to define a medical event in terms of clinical significance with the need to have mistakes in the NRC process reported, even if there is no actual negative consequence to the patient?



ASTRO

TARGETING CANCER CARE

Statement of
Sammy Sone, MD
Associate Professor and Clinical Director
Department of Radiation Oncology and Molecular Radiation Sciences
Johns Hopkins University School of Medicine
On Behalf of the American Society for Radiation Oncology (ASTRO)
Before the Nuclear Regulatory Commission's Advisory Committee on the Medical Use of Isotopes
April 11, 2011

- ASTRO recommends that the written directive refer to the total source strength implanted after administration, but before the patient leaves the post-treatment recovery area rather than an arbitrary pre-implantation written directive.



ACMUI Recommendation

- At the April 11, 2011 meeting the ACMUI recommended:
 - Permanent Implant Brachytherapy Rulemaking, the ACMUI endorses ASTRO's approach to Permanent Implant Brachytherapy as the most appropriate approach for patient welfare. The ACMUI recommended that the NRC require Post-Implant dosimetry following brachytherapy treatment. The ACMUI also believes that prostate brachytherapy is a unique subset of brachytherapy and should therefore require a separate set of rules from non-prostate brachytherapy. The recommendation passed unanimously with eleven favorable votes.



10 CFR Part 35 Expanded Rulemaking



Background Part 35 Rulemaking

- Revised in its entirety in 2002
- Training and Experience regulations in 2005
- Three additional rulemaking in 2007 and 2009



Part 35 Expanded Rulemaking

- Since the issuance of the revised rule in 2005, there have been a number of items identified that need clarification or amendment
- A total of 28 specific items/issues have been identified
 - Many fall in four topic areas
- Link to the List of specific items:
 - <http://pbadupws.nrc.gov/docs/ML1110/ML111010731.pdf>



Part 35 Expanded Rulemaking

- Main issues to be discussed:
 - Medical Event Definition for Permanent Implant Brachytherapy
 - The Ritenour Petition
 - Patient Release – 10 CFR § 35.75
 - Frequency of Molybdenum-99m testing
 - Naming Associate Radiation Safety Officers (RSOs) on a medical use license



Upcoming NRC Public Workshops on 10 CFR Part 35

- NRC will hold two public workshops to discuss potential amendments to 10 CFR Part 35
- June 20 – 21, 2011 at the Flatotel Hotel, New York City
- Looking at week of August 8, 2011 in Houston, TX
- Federal Register notice has not been issued yet
- Will be a facilitated roundtable format – AAPM has been asked to participate



The Ritenour Petition Recap

- 2005 T&E regulations have inadvertently affected a group of board certified professional
- These individuals must now apply through the “alternate” pathway
- Alternate pathway places an undue burden and could result in a shortage of AMPs and RSOs



Ritenour Petition Resolution (PRM-35-20)

- NRC resolved the petition in May 2008 and concluded that 2005 revision may have adversely affected some board-certified professional, including authorized users.
- Issues raised in the petition will be considered for rulemaking if a technical basis can be developed.



Technical Basis Development

- In October 2008, NRC staff asked certifying boards to survey their Diplomates who are or may be affected by the 2005 T&E revision
- Responses were received from 5 of the 9 contacted boards
- Approximately 10,000 individuals may be potentially affected



Survey Result: Response Rate

- ABHP 44%
- ABMP 90%
- ABR
 - Radiologists 36%
 - Oncologists 42%
 - Physicists 52%
- AOBR (American Osteopathic Board of Radiology)
 - Radiologists) 47%
 - Oncologists 50%



Individuals Potentially Affected

- ABHP 848
- ABMP 148
- ABR
 - Radiologists 7,900
 - Oncologists 260
 - Physicists 415
- AOBR (American Osteopathic Board of Radiology)
 - Radiologists) 77
 - Oncologists 0



Boards That Did Not Respond

- American Board of Nuclear Medicine
- American Board of Science in Nuclear Medicine
- American Osteopathic Board of Nuclear Medicine
- Board of Pharmaceutical Specialties



Current T&E Attestations

- Requires each individual have a written attestation, signed by a preceptor authorized ..., that the individual has satisfactorily completed the board or alternate pathway T&E requirements in ..., and achieved a level of competency sufficient to function independently as an authorized



April 29, 2008 ACMUI Meeting

- Does each individual have to have a written attestation?
- Does each attestation have to be signed by a preceptor authorized individual?
- Does each attestation have to attest that the individual has achieved a level of competency sufficient to function independently as an authorized ...?



Commission Direction

- SRM M080429, May 15, 2008: Coordinate with ACMUI and Agreement States to amend preceptor requirements in 10 CFR Part 35
- SECY-08-0179, November 20, 2008: Recommendations on amending preceptor attestation requirements
- SRM SECY-08-0179: January 16, 2009: Approved recommendations.



Conceptually . . .

- Eliminate written attestation for board certification pathway
- Revise the attestation to say . . . Has demonstrated the ability to function independently to fulfill the radiation safety related duties required by the license
- Residency program directors can sign attestations if ...



Discussion

- Comment on the conceptual direction
- Potential Rulemaking Challenges
 - Unintended consequences
 - The certification program may not adequately cover NRC's regulated modalities
 - Perceived relaxation of safety requirements?



Discussion

- In the Part 35 expanded rulemaking, removal of the attestation requirement for board certified individuals is under consideration.
- However, the NRC staff proposes to maintain the attestation requirements for "grandfathered" individuals.



April 11, 2011 ACMUI Recommendations

- Eliminate the written attestation for board certification pathway, regardless of date of certification.
- The attestation to be revised to say ... "has received the requisite training and experience in order to fulfill the radiation safety duties required by the licensee."
- Supports the statement that residency program directors can sign attestation letters, representing consensus of residency program faculties, if at least one member of the faculty is an authorized user (AU) in the same category as that designated by the applicant seeking authorized status, and that AU did not disagree with the approval.



Medicare News



MEDICARE NEWS - April 6, 2011

- Hospital Compare website offers new data about hospital acquired conditions at more than 4,700 hospitals across the nation - www.HealthCare.gov/compare
- For the first time, Medicare patients can see how often hospitals report serious conditions that develop during an inpatient hospital stay and possibly harm patients with important new data about the safety of care available in America's hospitals added today to the Centers for Medicare & Medicaid Services' (CMS) *Hospital Compare* website.



MEDICARE NEWS - April 6, 2011

- "Any potentially preventable complication of care is unacceptable," said CMS Administrator Donald Berwick, MD. "We at CMS are working together with the hospital and consumer community to bring hospital acquired conditions into the forefront and do all we can to eliminate harm from the very healthcare system intended to heal us."
- CMS has gathered Hospital Acquired Conditions (HACs) rates from hospitals since 2007. Since 2008, Medicare has not provided additional reimbursement for cases in which one of the HACs was reported as having developed through the course of a patient's hospital stay.



MEDICARE NEWS - April 6, 2011

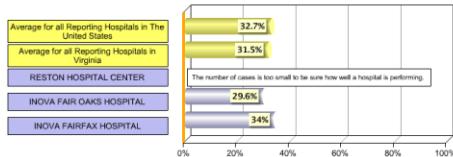
- Today's data release shows the number of times a Hospital Acquired Condition occurred for Medicare fee-for-service patients between October 2008 and June 2010. The numbers are reported as number of HACs per 1,000 discharges, and are not adjusted for hospitals' patient populations or case-mix.



Outpatients with low back pain who had an MRI without trying recommended treatments first, such as physical therapy.

The rates displayed in this graph are from data reported for discharges January 2008 through December 2008.

Outpatients with low back pain who had an MRI without trying recommended treatments first, such as physical therapy. (If a number is high, it may mean the facility is doing too many unnecessary MRIs for low back pain.)



(If a number is high, it may mean the facility is doing too many unnecessary MRIs for low back pain.)

Outpatients with low back pain who had an MRI without trying recommended treatments first, such as physical therapy.

- What does this measure tell you about a hospital's use of MRIs for low back pain?
- Although MRIs can be helpful for diagnosing low back pain, MRIs can be used too much.
- Usually, low back pain improves or goes away within six weeks and an MRI is not needed.



Outpatients with low back pain who had an MRI without trying recommended treatments first, such as physical therapy.

- **Standards of care** say that most patients with low back pain should start with treatment such as physical therapy or chiropractic care, **and have an MRI only** if the treatment doesn't help.
- Finding out whether treatment helps before having an MRI is better and safer for most patients because it avoids the stress, risk, and cost of doing MRIs that patients don't need.
- If a number is high, it may mean that the facility is doing unnecessary MRIs for low back pain. For some patients with certain conditions, getting an MRI right away is appropriate care. Patients with these conditions are not included in this measure.



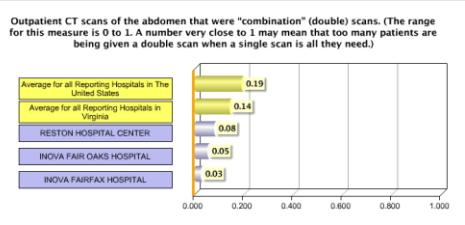
What are the risks of having an MRI?

- Since MRIs use magnets rather than x-rays, there is no radiation risk. However, because the magnets attract some kinds of metal, it's important for the technician to know if there are any metal objects or implants inside the patient's body, such as pacemakers, artificial joints, screws, stents, plates, or staples. Metal objects can pose serious risk to the patient and interfere with the test.
- For some MRIs, a substance called "contrast" is injected before the test to make parts of the body stand out more clearly on the images. Risks of contrast include possible harm to the kidneys or allergic reactions. Contrast shouldn't be used if it isn't needed.
- Having the test can be stressful for some people. Patients must hold still for about 15 to 45 minutes while lying on a table that moves inside a large scanning machine. While images are being taken, the machine makes loud noises.



Outpatient CT scans of the abdomen that were "combination" (double) scans.

The rates displayed in this graph are from data reported for discharges January 2008 through December 2008.



What does this measure tell you about the hospital imaging facility's use of CT scans of the abdomen?

- Combination scans involve additional radiation exposure and risks associated with use of contrast.
- For this measure, if a number is very close to 1, it may mean that the facility is routinely giving patients combination CT scans of the abdomen when a single scan is all they need.
- Giving patients two scans when they only need one needlessly doubles their exposure to radiation:
 - Radiation exposure from a single CT scan of the abdomen is about 11 times higher than for an ordinary x-ray of the abdomen.
 - For a combination CT scan, radiation exposure is 22 times higher than for an x-ray of the abdomen because the patient is given two scans.
- Risks of injected contrast include possible harm to the kidneys or allergic reactions. Contrast shouldn't be used if it isn't needed.



Inspector's Credentials



Checking Inspector's Credentials

- Do you verify the credentials of individuals from the state or federal agency when they are at your facility? If not, you might want to do so. On April 6, 2010, the State of Texas sent a letter to Industrial Radiographer Radiation Safety Officers informing them that there have been two separate, yet similar, incidents involving unidentified persons posing as radioactive materials inspectors working for the State of Texas. In both instances, the licensees stated that the individuals impersonating state inspectors approached radiography crews and attempted to conduct inspections of the crew's operations. Based on the specific questions asked of the radiographers, it appears that the impersonator(s) have knowledge and familiarity with industrial radiography.**



Checking Inspector's Credentials

- Remember, you have the right to ask for proof of the inspector's credentials. As a minimum, all Federal and State inspectors carry documentation complete with a photograph, physical description, and signature.**
- If you are unfamiliar with someone who claims to be acting for an Agency, you should ask to see this credentialing document. You should not accept any other form of identification from someone claiming to be an Agency inspector. You can also call the office to verify the inspector's identity.**



So Has There Been Progress with Educating the Media?



Bogdanich – Hazards of Radiation (Webcast) April 14, 2011

The New York Times Knowledge Network

Hazards of Radiation Treatment (Webcast)

April 14, 2011, 8:00 – 9:00PM Eastern Standard Time
Instructor: Walt Bogdanich
\$65.00

Americans today receive far more medical radiation than ever before. And this radiation plays a vital role in both diagnosing and treating cancer and other diseases. But the machinery and the people who operate it are far from infallible, and patients often know very little about the harm that can result when safety rules are violated, or complex technology goes awry. Learn what you and your family need to know in this Webinar taught by a three-time winner of the Pulitzer Prize for Journalism, who has researched and written an extensive Times series on radiation.

[REGISTER NOW!](#)

- Radiation therapy can be vital to treating cancer, but the machinery and the people who operate are far from infallible. Learn what you and your family need to know.
- \$65.00 – registration fee



Bogdanich's Comments Regarding Medical Physicists

- Stated:
 - He began the investigation because he did not know much about medical radiation.
- Discovered:
 - That he discovered there are no reporting requirements for reporting medical errors and no national registry.



Most important points he made were:

- Medical physicists were some of the most valuable individuals that he came across and did not know they existed before he did these stories,
- That medical physicists play critical roles in the safe delivery of radiation,
- That we want them to be certified by states and there is a bill in Congress that has been debated for ten years and despite bipartisan support the bill has not been passed,
- That medical physicists in some ways are the patient advocate, in some ways they have to stand up and say let's slow down and reevaluate what is being done
- Also mentioned that it was important to ask if your facility was ACR accredited.



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- "We live in a society bloated with data but starved for wisdom." -Elizabeth Lindsey

