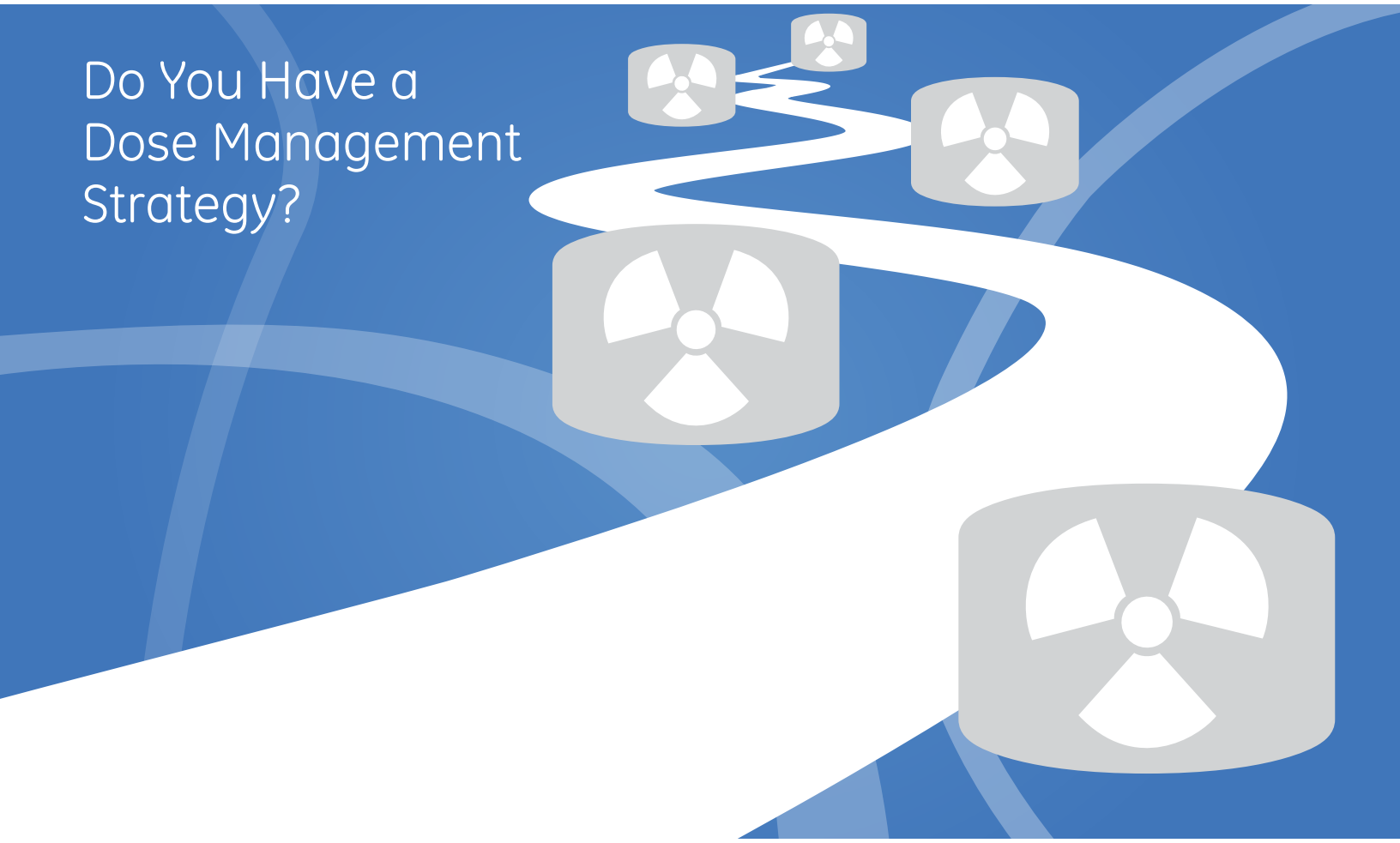
GE Healthcare

Do You Have a Dose Management Strategy?



The Path to Delivering the Right Dose

Not long ago, radiation dose wasn't even on your radar as a pressing concern. Today, it's one of the top ten technology issues confronting administrators at hospitals and radiology clinics. Recently, the media has given significant attention to the potentially harmful impact of radiation dose.

In addition to potential impact on patient care, radiation use has caught the attention of legislators. After several episodes of overexposures at a few hospitals in California, the state passed a law requiring radiologists to record radiation estimates from CT scans and to report high-dose incidents. In early 2013, Texas also added regulations around dose reporting and optimization.

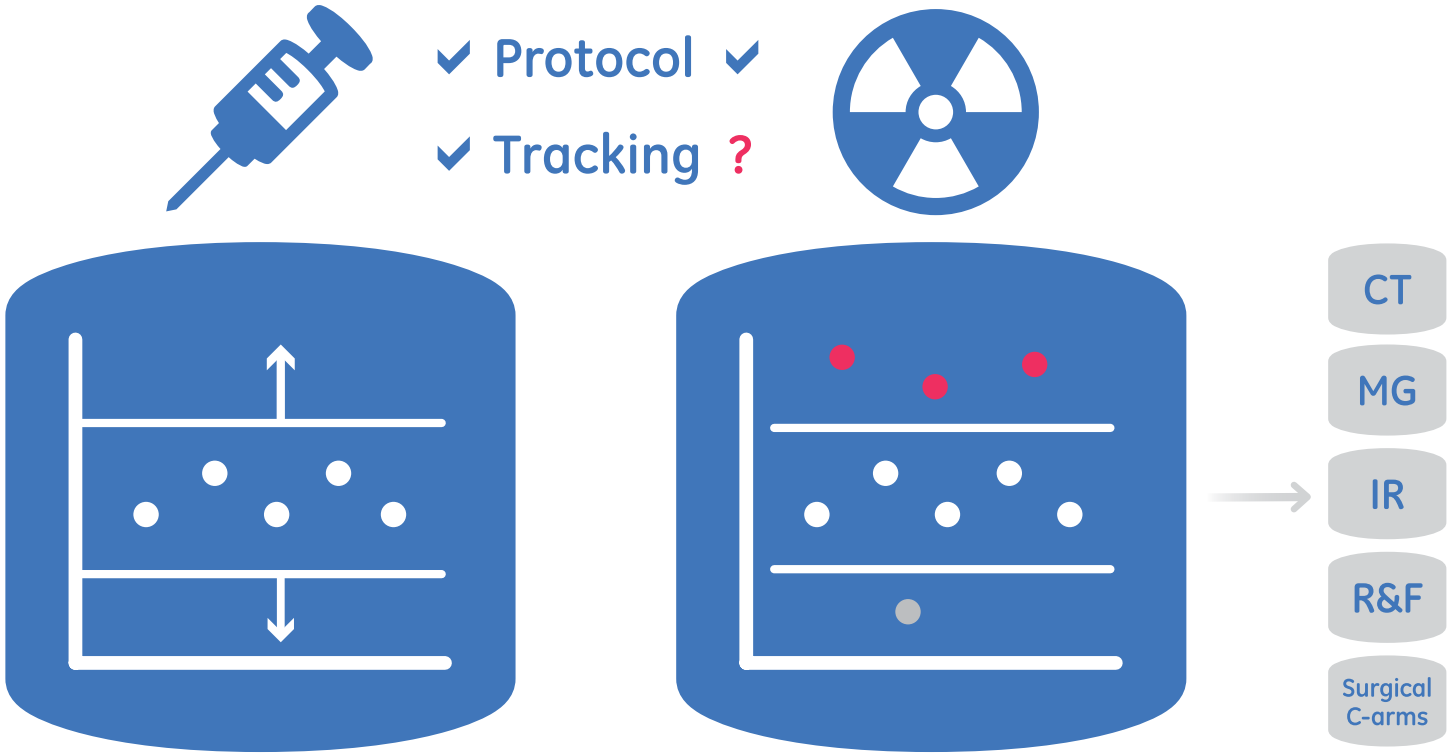
The benefits of indicated and appropriate diagnostic tests using radiation are generally proven to outweigh any downsides. However, when it comes to radiation dose, it's variability that presents the greatest risk, and your facility may not have an accurate estimate of the radiation your imaging practices are using—and how much your patients are exposed. A recent study in the Archives of Internal Medicine revealed that patients receiving the same type of study were exposed to a range of doses that varied up to 13 times.[1] It's no wonder hospitals around the world, and down the street, are taking steps to ensure they adhere to ALARA (As Low As Reasonably Achievable) principles.

Delivering the Right Dose: What's Your Status Quo?

Getting dose right is essential when a physician prescribes a medication, but it's just as critical for diagnostic imaging practices. In the case of medication, there is an acceptable dosage range. Protocols have been defined and tracking methods put in place to keep medication dosage within the targeted range.

Radiation dose is much the same. There is a reasonable dosage range for a given clinical need, with potential unknown adverse reactions for a dose too high, and loss of image quality for a dose too low. There are also accepted protocols, but unlike medication, radiation dose is not tracked to the same extent.

This is changing. Radiation dose is beginning to go through the same evolution medication dosage went through years ago, which will require a shift in thinking among hospital leadership, radiologists and imaging personnel. You may have already purchased technology to make improvements, but without data, your processes and people are still not managing dose. To provide the best care to patients and get ahead of the regulatory changes, hospitals need a comprehensive plan for monitoring and managing the radiation dose delivered. Does your hospital have this kind of plan in place?



1 "Radiation Dose Associated with Common Computed Tomography Examinations and the Associated Lifetime Attributable Risk of Cancer," by Rebecca Smith-Bindman, et al, Archives of Internal Medicine, December 14-28, 2009.

2 "The Age of Data-Driven Medicine: Big Data Helps Reveal Hidden Health Trends and Build Risk Models," Across Technology, September 2012.

Develop a Dose Management Strategy

Technology can improve your operations substantially, but technology alone cannot create sustainable and scalable improvements. To be successful, a dose management program requires strong, committed leadership from the people who administer, oversee and execute it. It also requires you to equip your people with processes, which can get the best results from your investments.

That's why at GE Healthcare we created a dose management solution called the GE Blueprint. GE Blueprint helps healthcare organizations build a strategic roadmap for a comprehensive radiation dose management program encompassing leadership, practices and technology. The GE Blueprint team reviews and assesses your current dose usage and dose-management capabilities, to help identify opportunities for improvement, and develop an ongoing plan for effective dose management. A successful dose management program requires dose-reduction technology that, when combined with use of current technologies, helps you continually optimize dose while maintaining diagnostic image quality, across all diagnostic modalities.

To realize all the potential benefits of a dose-reduction program, you need to optimize practices, procedures, and protocols. To do this, you need access to all the data across your healthcare system. Unfortunately, much of that information is considered useless, or at least it's treated that way: Hospitals, clinics, and other healthcare providers discard 90% of the data they generate.[2] Much of your valuable information probably sits dormant on a computer server, tucked away in a file drawer, or is simply deleted or tossed out. And the dose data you collect likely comes from devices made by different manufacturers and is stored in disparate databases, making it difficult for you to see and adjust dose across your system.

Gain Greater Visibility Across Your Healthcare System

One of the biggest challenges to tracking and monitoring dose is the vast amount of data generated from imaging equipment throughout your enterprise. Not only is this equipment often in multiple locations, but it may also be from different vendors. An effective dose strategy has to cover more than just one type of equipment or procedure. It must automatically capture complete and accurate data from imaging equipment throughout your enterprise.

DoseWatch is GE Healthcare's dose management solution that can serve as the cornerstone of a dose optimization program. DoseWatch allows you to gather standards-based data from your comprehensive imaging enterprise and use that information to produce sharp and focused diagnostic images with the lowest possible exposure, detect the causes of excessive radiation, and measure cumulative dose over time.

With GE Healthcare's DoseWatch, you can:

- Analyze radiation data across all modalities and devices regardless of manufacturer
- Execute a plan to decrease variability and shift the overall dose exposures at your facilities, while staying within ALARA radiation safety principles
- Gain a partner with an eye to the shifting regulatory environment in imaging

Most people we talk to in your position want to implement a dose strategy because it leads to better clinical and quality outcomes. But as more and more states enact laws, you must be ready to address compliance requirements. It's also likely payers will impose rules, so you'll face competitive pressures—and opportunities—when your organization demonstrates results.

When you take this comprehensive approach to an overall dose strategy for your organization, you go beyond compliance and minimizing potential risk. You can improve clinical and quality outcomes, enhance your reputation in your community, and even drive a competitive advantage for your system.

You know what's acceptable today won't be good enough tomorrow; you need a way to stay ahead of the curve.

Learn More at:
www.doseoptimization.gehealthcare.com

About GE Healthcare

GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter - great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

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