2012: What's Ahead

A panel of industry leaders talks about what they expect for the coming year

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By Jeanne-Marie Phillips, president, HealthFlash Marketing Communications

As the year draws to a close, *ITN* asked a few industry veterans to share their views about current issues shaping medical imaging today and what they foresee for the industry in 2012. Following are their responses to our Q&A.

Our Panelists

Robert Cooke, independent business leader in medical imaging, Redding, Conn.
Steve Deaton, VP of sales, Viztek, Garner, N.C.
Anne LeGrand, VP and general manager of X-ray division, GE Healthcare, Chalfont St. Giles, U.K.
Diana L. Nole, MBA, president, digital medical solutions, Carestream Health, Rochester, N.Y.
Henri "Rik" Primo, director of marketing and strategic relationships, SYNGO Americas, Siemens Healthcare, Malvern, Penn.

Outlook for 2012

Q: From the perspective of your particular market segment, what is your outlook or expectation for the coming year in terms of technology developments or trends?

Robert Cooke, independent business leader in medical imaging: The three trends I foresee for 2012 are massive computing, cloud computing and consumerism.

"Watson," the IBM super computer that dominated a Jeopardy match earlier this year, is learning medicine and even has a "job" with a major insurance company. For a computer, it's a short jump from pop-culture to medicine.

Advances in delivery of Web content and bandwidth will create the means to deliver meaningful functionality and collaboration across a variety of platforms.

People want to be involved in their healthcare; people want to see their test results. The public is also now concerned about the potential impact of radiation exposure.

Steve Deaton, VP of sales, Viztek: We expect to see the cost of film cause more facilities to abandon analog imaging and convert to a picture archiving and communications system (PACS) environment. From a financial perspective, we expect to discover many more digital replacement opportunities in 2012.

Facilities with computed radiography/digital radiography (CR/DR) or PACS systems that are more than three years old can definitely realize improved workflow by replacing their equipment — although many CFOs would argue that financially, it does not make sense to repurchase something that is functional.

Anne LeGrand, VP and general manager of X-ray division, GE Healthcare: I see three prominent trends in X-ray technology — the ongoing conversion from analog to digital; the push for easy-to-use, patient-friendly and cost-effective

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equipment and body composition analysis advances will continue through 2012.

As a first-touch modality for many patients seeking care, X-ray is becoming more compact, mobile and precise. In fact, the use of digital imaging is transforming X-ray to become a more specific investigational filter used prior to other diagnostic procedures and lifestyle interventions.

Diana L. Nole (MBA), president, digital medical solutions, Carestream Health: Use of mobile devices for image viewing is a new development that promises to speed treatment and enhance patient care. Zero-footprint enterprise image viewers are an integral ingredient in this new mobile workflow because they enable rapid data access without the time or expense of downloading and maintaining software applications on dozens of workstations. Independent viewers are preferred, since they can be integrated with other vendors' PACS systems, DICOM archives or XDS repositories. If viewers can be embedded in a health information system (HIS) or electronic medical record (EMR) portal, authorized users can view patient data and images with a single login.

Henri "Rik" Primo, director of marketing and strategic relationships, SYNGO Americas, Siemens Healthcare: As aging baby boomers dramatically increase the demand for healthcare services, the focus will be on demonstrable treatment efficacy and cost-cutting. Vast amounts of healthcare data useful in addressing these issues already exist. The focus will be on creating cross-departmental IT systems that can analyze this information and use it to create effective and efficient models for disease management, as well as applications that will help caregivers monitor and manage patient care every step of the way.

Other applications, for instance those that can measure quality, will monitor physician performance in detail. It will also be necessary to facilitate cross-enterprise information exchange, which can help reduce redundancies in administrative and diagnostic cycles.

Q: What are your expectations about the governmental or regulatory pressures to come?

Cooke: Meaningful use incentives sought to improve coordination of care, yet healthcare largely runs on a fee-per-service model. This does not foster coordination.

We can expect to see initiatives seeking to integrate diagnostic services around specific disease states. Integrating care settings, imaging, tissue and blood analysis into a single pathway has the potential to improve this coordination of care.

A big challenge will be navigating the

U.S. Food and Drug Administration (FDA) processes. We have technologies and approaches in imaging that are becoming increasingly complex, and the approval pathways haven't kept up.

Deaton: Government pressures should hurt small PACS companies' competitiveness, because it will require more interfacing between imaging departments and information systems. Small companies simply do not have the programming manpower to keep up with the interfacing, and we expect small vendors to struggle to compete.

LeGrand: The regulatory process will continue to play an important role in the healthcare industry. As regulatory processes vary in complexity and length of time from country to country, it is important that we have the appropriate technology on a global basis. As a global provider of healthcare equipment, it is imperative we remain current, aligned and responsive to the changing healthcare environment.

Nole: Meaningful use is driving the need for flexible radiology information system (RIS) platforms that allow workflows to be quickly and easily adapted to meet new government regulations. Our RIS already meets the first phase of meaningful use requirements. We have applied for certification and are expecting it to be finalized by RSNA. In addition, both our RIS and PACS platforms share data with EMR systems to assist healthcare facilities in meeting meaningful use requirements.

Primo: Accountability is becoming the watchword in healthcare today. A challenge for healthcare IT will be to support healthcare institutions and individual professionals in meeting and measuring performance benchmarks and also in determining ways to increase collaboration among institutions.

To enable this data sharing with respect to imaging, I think we will see a greater reliance on the cross-enterprise document sharing for imaging (XDS-1.b) integration profile as defined in the Integrating the Healthcare Enterprise (IHE) profile. This profile is a standards-based specification for managing the sharing of imaging objects among healthcare enterprises. My belief is that nearly every PACS request for proposal (RFP) in the next two years in the United States will include some specification of XDS functionality.

Q: What are your thoughts about business and workflow challenges in the next 12 months?

Cooke: As the government seeks to control costs, imaging exams have the potential to be performed across a variety of care settings.

As reimbursement and dose concerns take center stage, more point-of-care oriented imaging exams will be performed. Low-cost, no-dose procedures such as ultrasound also create the potential to head off higher cost, more complex, dose-intensive procedures.

The challenge will be to integrate and structure all of this information from diverse care settings into a single view physicians can use to help make the appropriate decision.

Deaton: There is a history of extremely high service contract pricing from manufacturers. These service/maintenance prices will decrease drastically in 2012.

We are seeing medium-sized PACS vendors replace large PACS vendors at large hospitals for the cost of a few years of what the large vendor would charge for ongoing service/maintenance. Medium-sized PACS companies such as Viztek are catching up and often surpassing the big brand names in terms of functionality and are willing to offer very low service costs to help close a large PACS sale. Facilities can realize 18-month return on investments (ROIs) for replacing existing equipment, based on service and upgrade contract pricing alone.

LeGrand: As access to healthcare and cost pressures increase globally, healthcare facilities are seeking ways to do more with less. It will continue to be important to offer solutions and tools that help improve the productivity and effectiveness of healthcare providers. Advanced technology, such as digital X-ray, mobile X-ray and workflow solutions, can help hospitals realize accurate diagnostic outcomes, improve patient safety and save considerable time and resources.

Nole: It has always been challenging to image critically ill or injured patients who cannot be moved and are surrounded by medical equipment. Carestream worked directly with customers to develop a new DR mobile X-ray imaging system.

Primo: Not only will we be doing more with less money, but it also stands to reason we will be asked to do more with fewer medical professionals because our population of physicians and nurses is also aging. IT can automate the communications and overall case management workflow, helping healthcare professionals work faster and smarter.

Also, imaging departments and imaging centers will have to work harder at documenting the need for diagnostic exams, and they will need to integrate this documentation step into their traditional workflows. They will also have to forge alliances with complementary providers and build their new referral networks. Establishing communication networks will enable this growth and also help streamline care.

Q: What is your outlook for the imaging industry as a whole in the coming year?

Cooke: Established IT vendors and technologies will be challenged by the potential to deliver the same services using cloud technologies.

Adoption of certain modalities may slow, given utilization management pressures, and focus will shift to extract more quantitative information from these devices. However, the introduction of

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these more complex imaging technologies may be slower in the face of the existing FDA approval pathways.

Decision-support tools to help automate the imaging process will also begin to take center stage. Initially, these tools will be based on published standards. But increasingly, these standards will be based on a more personalized approach driven by patient history and evidence.

Vendors will need to think outside of the traditional procedure model and start to think in terms of disease management to prepare for the future.

Deaton: 2012 will be a booming year specifically for digital X-ray. Growth in this product segment will be propelled by the rapidly decreasing price of DR panels. DR has no mechanical parts to fail and will soon be at current CR price points.

CR price-points can reduce somewhat, but costs for manufacturing and assembling are much higher than solid-state DR panels. So it will be hard for CR price-points to drop enough to maintain a hold on the market. We expect DR sales to surpass CR sales in 2012.

Currently in 2011, Viztek has sold more than 250 DR panels and will end the year with an equal number of CR and DR sales. CR has historically outsold DR in quantity, but this will flip-flop in 2012.

LeGrand: The imaging industry in 2012 will continue to focus on technology that can help reduce cost, improve quality and increase access to healthcare globally. We will need this ongoing focus as we develop technology "in country for country" to meet the unique needs of healthcare providers around the world. In X-ray, this will mean developing affordable technology that can deliver quality-of-care and continuing to facilitate the concept of mobile and "point-of-care" solutions.

Nole: Independent research firms report the overall demand for imaging services continues to grow. Since budgets are tight, healthcare providers are scrutinizing the value of every purchase. DR systems that can integrate with existing X-ray room or mobile-based systems offer significant cost advantages, while delivering rapid image access and excellent image quality.

The ability to use a DR detector in multiple systems also offers an exceptional return on investment. As an example, the same detector can be used in mobile systems for early morning exams and then placed in an X-ray room for general radiology exams.

Primo: The outlook for both imaging and imaging IT is strong. The aging population alone increases the need for quality diagnosis and healthcare. Imaging exams and technology will have to become more affordable, and technology trends are already supporting this.

What we will see is even greater reliance on imaging in both the context of pre-treatment planning and then in post-treatment followup. As the use increases, we will see proliferation of image management systems in these departments — leading to even more specialty-specific applications.

IDNs will archive all imaging studies generated by imaging systems in various hospitals and sub-specialty departments in a consolidated, standards-based enterprise archive (VNA). The archive could provide hyperlinks with metadata to the IDN's EMR, so that images can be accessed and called up by the EMR users in the Enterprise without having the EMR store all of these images. It is obvious that IT will be instrumental in supporting the information flow that leads to smarter ways for providing the cost-efficient healthcare the Baby Boomer generation will need. **itn**

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