Association of Imaging Producers & Equipment Suppliers
European Industrial Association for Nuclear Medicine and Molecular Healthcare

COST-EFFECTIVE, MODERN MEDICINE: AIPES SYMPOSIUM SHOWS HOW MOLECULAR IMAGING CAN DRIVE TOMORROW'S HEALTHCARE

Brussels, October 10, 2016
Molecular imaging is poised to revolutionise healthcare as an efficient and cost-effective diagnosis and treatment tool, according to experts at a symposium on nuclear medicine organized by the Association of Imaging Producers & Equipment Suppliers (AIPES) at the historic Solvay Library in Brussels.

The Symposium, entitled, '***Saving Costs In Cancer Patient Management Through Nuclear Medicine'***, heard top practitioners, researchers, economists and decision makers explain how molecular imaging was slowly transforming key areas of healthcare.

Piotr Maniawski MSc, who is the director in charge of Clinical Science Advanced Molecular Imaging, at Philips Healthcare in Cleveland, Ohio, argued that molecular imaging helped patients, physicians, healthcare authorities and reimbursing bodies. "We think it is an efficient, cost-effective way of treating people. We have a very nice, non-invasive technique to see whether people are free of the disease," he said. "If we look at molecular imaging as a diagnostic test, it will always have competition from cheaper technologies. We need to see it also as a therapeutic tool. It is not a single procedure. It is much more than that."

From a business perspective, Piotr Maniawski pointed out that costs were coming down as the initial high prices of the first devices fell with improved manufacturing techniques and lower-priced competition from emerging markets like China. At the same time, the technologies themselves are getting better, he said. "As an industry, we are improving imaging techniques. We can be much more precise with PET/CT, putting higher doses at the heart of the tumour, and less in the surrounding tissues," he said. "On average, though, in the last ten years, we have lowered radiation doses by a factor of five on average. We are taking big steps to make it even safer."

But he warned that the sector suffered from a communications gap as authorities held back from investing in the technology. "Our ability to present the benefits of molecular imaging is lacking," he said, acknowledging that there is a perception problem with nuclear radiation. "Our job is to find a way to get the public to weigh the scientific evidence properly," he said. The task was made harder by economic constraints. "We are still suffering from economic downturn, with budget cuts across many parts of the healthcare sector," he said.

Piotr Maniawski pointed to a recent patient who had her cancer successfully diagnosed and successfully followed-up during the staging of her treatment by PET/CT technology. He noted with pride that she, Carmen F. , has been rightly demanding and grateful for the importance of being monitored by the imaging technology in the successful remission of her disease. Carmen has since gone from strength to strength, even competing marathons and IronMan events.

Siemens Healthineers Manager for Global Clinical Marketing Carl von Gall MD argued that SPECT technologies still had a role to play in healthcare, even if it was seen as less sophisticated that PET/CT. “Can we afford an imaging that only gives you a shape?” he said. “You need to find the function. For example, a lymph node that changes its function will change its shape.”

He said that SPECT scans are more widely used – some 34.6 million applications annually compared to 8.6 million for PET/CT – and more available and cheaper. And SPECT is better at showing changing shapes, Carl von Gall said. “PET CT is the latest and greatest. And SPECT CT is trying to catch up,” he said. “PET/CT is trying answer more sophisticated questions in a research setting. But SPECT CT has arrived in the 21st century and is ready for the challenges.”

David W. Lee PhD, GE Healthcare’s General Manager & Head of Market Access, an economist, explained that although the price of nuclear medicine could sometimes be high, most people would say it was worth it if it could save a lives. “The cost-effectiveness of PET/CT has been established in several cancers, and is promising in many others,” he said.

He said PET CT improves staging accuracy and treatment response, stops futile treatments, and allows doctors to try alternatives, all improving survival chances. In economic terms, Lee said the real benefits lay in the greater certainty about providing the right treatment. As an example, he said surveys on colorectal cancer found that while there was no major change in patient outcomes, there were some £2,671 in lower costs, as there were fewer futile surgeries or other treatments. In the case of neck dissections, he said PET/CT meant that surgery was reduced from 78.4% to 19.1%, again, with no difference in patient outcomes.

Fred Verzijlbergen, who heads the Department of Nuclear Medicine at the Erasmus Medical Centre in Rotterdam, said the new imaging techniques were driving personalised medicine. “Nuclear medicine is able to provide accurate images with targeted radioactive isotopes to visualize many functional aspects of cancer cells, avoiding unnecessary biopsies,” he said. “Radio-labelling of these new drugs will result in selecting the right patient for the right drug with the right dose.”
He pointed to research showing how Peptide Receptor Radionuclide Therapy (PRRT) had led to a 79% reduction in the risk of disease progression. He also said nuclear medicine would reduce some of the €800 billion spent globally on drugs for conditions ranging from Alzheimer’s, asthma and arthritis to depression and diabetes. Some 60%, or €480 billion of this figure was spent in vain, he said, a number that rose to 75% when it came to cancer drugs. “Current drugs are not effective enough, too expensive, not innovative and mainly for treatment of major diseases,” he said. Fred Verzijlbergen urged the EU to reassess its market authorization of radiopharmaceuticals, which he said were given in very small amounts, and whose side-effects are extremely rare, but were still treated as ordinary drugs. “Registration of radiopharmaceuticals is extremely expensive, the market is relatively small and new compounds are invented every day. We need small, smart trials for rapid market authorization,” he said.

AIPES President Jean-Michel Vanderhofstadt later referred to Piotr Maniawski's patient for the closing of the symposium. "It is for her, for Carmen and for all the patients represented here at the Symposium by the patient groups and the clinicians, that we get up in the morning day after day and go to work, in the factories and laboratories of our members all over Europe, in the hospitals, in the research centres. The reason we exist is indeed to develop accurate and safe methods that improve the chances of curing cancer and the quality of your life," Jean-Michel Vanderhofstadt said as he dedicated the symposium "to the patient, men, women and children, fighting cancer with all our support, mile after mile, like Carmen in her Marathon".

Jean-Michel Vanderhofstadt, who is also the Managing Director of IRE Belgium, outlined the broad range of the nuclear medicine industry, encompassing medical devices, diagnostic and therapeutic radiopharmaceuticals, nuclear reactors and cyclotrons for medical purposes. "The vast majority of these fields were initiated in Europe and this industrial sector has created jobs, expertise and wealth for the region," he said. "The nuclear medicine industry continues to support Europe economically. We believe that with several anticipated advancements, nuclear medicine will further benefit the economy of the region both through its activities and the medical breakthroughs that it brings."

Antonio Tajani, Vice President of the European Parliament and former EU Commissioner for Industry told the event that he welcomed the development of nuclear medicine as a diagnostic and treatment tool for cancer. "Nuclear medicine is definitely a technology of the 21st century and in the past 15 years contributed strongly to the improvement of patient care," he said. "Overall, this development is a true revolution in the medical landscape."

Antonio Tajani pointed to the huge diagnostic improvements in cardiology and neurology brought by nuclear medicine. "Tracers now identify precursor signs of Alzheimer years ahead of the onset of the clinical signs," he said.

And he hailed further breakthroughs as radio-therapeutic agents were harnessed to selectively destroy the metastases identified by imaging. "Nuclear medicine will not only almost guarantee the success of a treatment before this one is even started, but will considerably reduce the overall healthcare costs as unnecessary treatment will not be initiated," he said.

For information: admin@aipes-eeig.org