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Chair

Mrs. Joy Smith

Standing Committee on Health

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● (1530)

[*English*]

The Chair (Mrs. Joy Smith (Kildonan—St. Paul, CPC)): Good afternoon, ladies and gentlemen. I want to welcome you to the health committee. I am Joy Smith, the chair of the committee. We're very pleased to have you here today.

Pursuant to Standing Order 108(2), this is a briefing on the health implications of the supply of radioisotopes.

Today we're going to ask each organization, in turn, to make a presentation. Each person will have a five-minute presentation.

We have before us today Dr. Jean-Luc Urbain, president of the Canadian Association of Nuclear Medicine. Welcome, Dr. Urbain.

We have Dr. Anne Doig, president of the Canadian Medical Association. Thank you, Dr. Doig .

We have, from the Ontario Association of Nuclear Medicine, Dr. Christopher O'Brien. Welcome, Dr. O'Brien.

From the New Brunswick Cancer Network, we have Dr. Eshwar Kumar. Welcome to you. I welcomed you a little earlier, but I'll welcome you again, Doctor.

And from the European Association of Nuclear Medicine, we have Patrick Bourguet, who is president-elect of the European Association of Nuclear Medicine.

We also have Dr. Alexander McEwan, who has joined us. I looked up and there you were, Dr. McEwan. Thank you for being here. Dr. McEwan is a special adviser on medical isotopes to the Minister of Health.

We welcome you here. As I said, you'll each have a chance. We're going to start with Dr. Anne Doig from the Canadian Medical Association, who will have a five-minute presentation. Following all of your presentations, we'll then go into questions and answers.

Dr. Doig, welcome.

Dr. Anne Doig (President, Canadian Medical Association): Thank you, and good afternoon, Madam Chair. It is my pleasure to address the committee as part of its monitoring of the situation related to the supply of medical isotopes.

As a family physician, I am not an expert in nuclear medicine, but I do refer patients for diagnostic and treatment services that require the use of medical isotopes.

First and foremost, I want to note that the CMA is proud of the efforts and dedication of health care providers from across the country who have stepped up to meet patients' needs during this ongoing stressful and demanding time. Through their concerted efforts and those of the industry and governments, the system appears to be coping. Patients are receiving needed diagnostic and treatment services, either through radiopharmaceutical models or their alternatives. However, there are reports of sporadic adverse events, as has been the case since the beginning of this situation. These include delays of 48 to 72 hours and suboptimal imaging due to the extensive use of thallium-201 rather than technetium-99m, which is in short supply.

The CMA and representatives from the nuclear medicine community continue to work with Health Canada to mitigate the impact of the shortage of medical isotopes. Scheduling appropriate care commensurate with the expected supply of isotopes has been aided by the efforts of Lantheus and Covidien, suppliers of generators and radiopharmaceuticals who regularly share vital production information with the nuclear medicine community. This has improved communications and allowed for the better predictability of supply than had been the case last May and June.

Lest you interpret my comments to mean all is well, let me be clear. Much is being done, but the current situation is neither optimal nor sustainable, and there appears to be no long-term plan. Canada's physicians are concerned about the toll the current shortage of isotopes is taking on the health care system as a whole. In particular, the resulting increased demand on resources, both human and financial—and especially now in the midst of a pandemic—is not sustainable. Therefore, we have called upon governments to invest in a five-year action plan that includes an emergency fund to increase the use of positron emission technology and the production of associated radiopharmaceuticals across Canada.

At our annual meeting this August, Canada's physicians expressed their concern by passing a series of motions calling for government action. This action included demands that the federal government retain Canada's leadership and ability to produce and export medical isotopes and reconsider its decision to withdraw from their production. The motions also called for the appointment of an international independent expert panel to thoroughly assess the decision to abandon the MAPLE 1 and MAPLE 2 nuclear reactors at Chalk River and promptly release the conclusions and recommendations of the panel to the public.

Our delegates also demanded that the federal government conduct open, meaningful, and ongoing consultations with nuclear medicine physicians and their respective national associations on any and all federal decisions directly affecting the supply of medical isotopes. Concern was expressed that decisions have been and will continue to be made for political and financial expediency without taking into account the medical ramifications of those decisions.

We appreciated having the opportunity to participate in discussions with the Expert Review Panel on Medical Isotope Production appointed by the Minister of Natural Resources. While it is anticipated the panel will report to the minister by the end of this month, we do not know when that report will be made public and how long it will take to move recommendations to action.

Canadian physicians also urge the federal government to immediately invest in research in basic and clinical science to find viable alternative solutions to the production and use of technetium-99m. The announcement of $6 million for research into alternatives to medical isotopes through a partnership between the Canadian Institutes of Health Research and the Natural Sciences and Engineering Research Council of Canada is a good start. We must emphasize that bench-to-bedside research is critical. There must be a clinical translation of new technology to the provision of care.

● (1535)

To conclude, the CMA remains concerned about health care providers and the health care system's ability to sustain the current shortage, Canada's ability to ensure a long-term stable and predictable supply of medically necessary isotopes, and our lack of contingency planning for the next shortage. The CMA will continue to work with all involved to ensure Canadians have access to the best possible care and treatment.

The Chair: Thank you, Dr. Doig.

We'll now go to Dr. Jean-Luc Urbain.

Please make your presentation.

[*Translation*]

Dr. Jean-Luc Urbain (President, Canadian Association of Nuclear Medicine): Thank you very much, Madam Chair.

Madam Chair, honourable members of the committee, on behalf of the Canadian Association of Nuclear Medicine or CANM, I would like to thank all of you for giving our organization the opportunity to appear in front of the Standing Committee on Health and to report back to the committee on the effects of the isotopes shortage on Canadians. As you know, the CANM is the national voice of the nuclear medicine physicians across Canada and the 2 million patients that they serve every year.

[*English*]

Since the first shutdown of the NRU reactor in December 2007, the Canadian Association of Nuclear Medicine has worked relentlessly with all stakeholder organizations involved in the field of nuclear medicine.

[*Translation*]

The NRU reactor has now been out of service for seven months. The impact on Canadians and the Canadian nuclear medicine community has been very significant. It will also have a lasting effect on patients' health, the practice of medicine in Canada and across the world, the Canadian and international nuclear medicine community and the Canadian nuclear technology.

[*English*]

Over the past seven months, the weekly supply of technetium across Canada has varied between zero and 100%, with an average of 50% to 70% depending on the geographic location and the suppliers. Nuclear medicine professional technologists, physicists, radiopharmacists, support personnel, and physicians across Canada have worked tirelessly to accommodate the needs of their patients. By working double shifts, reorganizing the examination around the timing of the delivery of the spare technetium available by using different protocols and isotopes, and by spending an enormous amount of time over the phone contacting patients and referring physicians to reschedule studies, and also by not providing on-call services, our committee was able to minimize the effect of the shortage of isotopes on the Canadian patients.

● (1540)

[*Translation*]

Through that very delicate balancing act and at the expense of a significant increase in operational costs, the cancellation of patients' tests has been limited. This extraordinary and unsustainable effort of our community, the unreliability of technetium supply and the uncertainty of medical isotopes production in Canada have already generated serious and damaging consequences. The enrolment of students, mainly technologists and physicians, in nuclear medicine sciences is down, layoffs of technologists have been witnessed and nuclear scientists are contemplating or are moving south of the border.

[*English*]

By its unique ability to investigate the function of cells, tissues, and organs, the isotopes enable the detection and treatment of disease at the molecular level before it becomes evident anatomically and before patients become symptomatic. You have available the schematic that we have drawn to your attention. The earlier the diagnosis of the disease is made, the better the chance of a cure for the disease. I would hope you were given reference one and two related to the early diagnosis of cancer and cardiovascular disease. The CNM is extremely concerned by the significant decrease—from 10% to 25% depending on the region—of patient referral for nuclear cardiac and oncological tests. Without early detection, assessment, and treatment, cardiac disease and cancer progress to a point where patient well-being is severely compromised and morbidity is higher regardless of management, not to mention the financial burden on the health care system in society, which is becoming enormous.

[*Translation*]

Many of us attended the annual meeting of the European Association of Nuclear Medicine that was held in September in Barcelona. The annual EANM meeting is one of the largest annual gatherings of nuclear medicine professionals in the world. This year, more than 5,000 people attended the conference.

[*English*]

It is not an understatement to note that the credibility of Canada and its ability to build up nuclear reactors and produce medical isotopes has been totally shattered. Also, our colleagues from Europe simply do not understand why Canadians across Canada do not have equal access to technetium and the newer isotope and technology like FDG and positron emission tomography. Health care professionals and patients alike are now really questioning the relevancy of the Canada Health Act, and particularly its provision of portability and its criterion of comprehensiveness. It is difficult and shameful to have to admit to our international colleagues that in 2009 Canada is now delivering health care services with 20th century tools.

[*Translation*]

As you probably know, many western European countries have decided to continue to rely on their nuclear reactors technology for another 25 years. France, for instance, as Dr. Patrick Bourguet may mention, is currently building a reactor to produce medical isotopes in the south of the country and the European countries have reached an agreement to build up a replacement to the Petten reactor in Holland.

[*English*]

By refusing to investigate a situation of the MAPLE reactor by allocating $22 million to a 50-year-old reactor in Hamilton and by giving away $6 million or maybe $12 million to fund projects like the production of technetium with cyclotrons in order to mitigate, five to ten years down the road, the crisis, the current shortage of technetium, we have really become the mockery of the international medical and scientific community.

[*Translation*]

The CANM can only encourage members of this committee to consult the reports...

[*English*]

The Chair: Dr. Urbain, I'm sorry to interrupt you, but you're way over your time. We want lots of time for questions.

● (1545)

Dr. Jean-Luc Urbain: I'm sorry. I thought it was 10 minutes, as in the past.

I just want to reiterate our offer to collaborate with all stakeholders to make sure Canadians get what they deserve in terms of their health care system.

The Chair: Thank you so very much.

Now we'll go to Dr. Christopher O'Brien.

Dr. Christopher O'Brien (President, Ontario Association of Nuclear Medicine): Thank you, and good afternoon.

Nuclear medicine offers unique insights into disease that are not achievable with either CT or MRI alone. It is through a combination of functional imaging, which nuclear medicine excels at, and it is in conjunction with anatomic imaging such as CT and MRI that patients obtain the most benefit. Nuclear medicine also plays a vital role in the detection and treatment of various diseases such as cancer, heart disease, thyroid disorders, and blood clots in the lung, just to name a few.

Even though most of our conversation has been about cancer and heart disease, our patients range from newborns to people over 100 years old. So the impact of the medical isotope shortage is profound, affecting every Canadian who needs a nuclear medicine procedure. In order to accomplish this role, a steady supply of reasonably priced medical isotopes is essential. If medical isotopes become too expensive without the appropriate operational funds being transferred to the various hospitals and clinics, the effect would be the same as—

The Chair: Doctor, could I ask you to slow down just a little bit because the interpreters can't keep up to you.

Dr. Christopher O'Brien: Oh, I'm very sorry.

The Chair: That's okay. It's very interesting.

Dr. Christopher O'Brien: So the effect would be the same as not having any medical isotopes at all. We're beginning to see rationed access and staff lay-offs, and departmental closures would be a potential if the costs become incremental. The effect of this will not be in the urban centres; the effect will be in the smaller community hospitals across Canada that rely on nuclear medicine services, and it will have a patchwork but definite impact. If this were to occur, the negative impact on patient care would be profound, as we've heard before.

Not only are we looking at the present, but we have to look at what nuclear medicine will offer in the future in the role of personalized medicine. This looks at the ability to tailor treatment and diagnosis based on the characteristics of the disease process. In order for this to occur and in order for Canadian patients to access this, we will need a very strong nuclear medicine capacity in Canada that will be supported by research into the development of medical isotopes as well as pharmacological agents to allow us to position patients in a way that they can garner good access to medical care in a timely fashion.

There has been discussion in the past about the need for medical isotopes. This has been a discussion we've heard both in the lay press and through various committee meetings. In North America there has been a valuation for nuclear cardiology that between 2008 and 2012 we anticipate about a 46% increase in demand for nuclear services just to assess the heart. With general nuclear medicine and positron emission tomography, we're looking at an approximate 11% increase in demand over that same time period. This is just in North America.

If one takes into account the potential increases we will see in the Middle East, Africa, China, India, and South America, there will be a worldwide increase in demand for medical isotopes. If the Canadian infrastructure is not in place to ensure that Canada still plays a role in development, we will be competing with larger markets to ensure our Canadian population has access to nuclear medicine services. This is vital. This is not just looking at how we will compete in Canada but how we will compete in the world. If we're not positioned, then we may not do well.

What is the reason for this increase? Nuclear medicine is a procedure that is exceedingly cost-effective. It is one of the cheaper diagnostic procedures when compared with CT and MRI interventional procedures. The unique diagnostic capability and the impact on patient care is almost as if it's a beautiful thing coming together. We have a good technology that has impact and that is cost-effective.

Canada has traditionally been a leader in medical isotope production and distribution. In light of world trends, I think we have to continue this. Canada must be positioning itself to take the leadership role in this growth industry. Unfortunately, the message Canada has been sending over the last six months is that it may not be actively involved in this. The cancellation of the MAPLE reactors had an impact that caught us completely off guard. Statements from the Prime Minister's Office stating that by 2016 Canada will no longer be in the medical isotope business are sending the message nationally, provincially, locally, and internationally that Canada is well on its way to becoming a bit player on the world stage rather than being the leaders we have been for the last 50 years. This is a sad reflection.

What is our current status? Right now we are entirely dependent on foreign sources of medical isotopes. As mentioned, the various companies have done a good job.

● (1550)

The Chair: You are over time your now, Dr. O'Brien, so if you don't mind, would you please wrap up?

Dr. Christopher O'Brien: Yes. I think one of the important things we have to look at with the cost increase is that we need a one-time cost transfer to hospitals and clinics to address the surcharges we're facing. We need a nuclear medical equipment fund to allow modernization of our platforms to use less medical isotopes and to reduce the exposure of our patients to procedures. We need a PET scanning program and we need to re-evaluate the abandonment of the MAPLE projects.

The Chair: Thank you, Dr. O'Brien.

We'll now go to Dr. Eshwar Kumar, from the New Brunswick Cancer Network.

Dr. Eshwar Kumar (Co-Chief Executive Officer, Department of Health New Brunswick, New Brunswick Cancer Network): Good afternoon. Thank you for inviting me to appear before your committee.

I am the co-CEO of the New Brunswick Cancer Network, which is a division of the Department of Health in the Government of New Brunswick. I was also the head of the cancer centre in Saint John, New Brunswick, where I am still an active clinical radiation oncologist. Wearing both hats, as a civil servant overseeing the cancer system in New Brunswick, and as a practising clinical oncologist, I have a fairly unique perspective on the impact the radioactive isotope shortage has had.

My patients and their families are understandably very anxious when I first meet them. The cancer journey from diagnosis through investigations to treatment is not an easy one. It carries a huge emotional and physical burden. As their oncologist, my task is to help them through their journey and ease their burden as best I can.

The news of a shortage of radioactive isotopes causing possible delays in completing staging investigations, formulating treatment plans, and commencing treatment has undoubtedly added to this anxiety and emotional stress. However, at least in the New Brunswick situation, thanks to the dedication and efforts of the staff in nuclear medicine departments who have worked many long hours and weekends, the impact on patients has been kept to a minimum.

While there has been inconvenience to patients at times, the staff have done well to manage the shortage and avoid any significant delays in commencing treatment. I know that the uncertainty regarding the supply from week to week adds to the stress in the workplace, but others more involved in managing nuclear medicine departments would be better placed to comment on that.

As a clinician, however, I am pleased that my patients have been able to have their investigations and treatments within a reasonably acceptable timeframe. However, a situation such as this makes one review one's own clinical practice and forces one to become more selective in requesting these investigations, while at the same time ensuring that treatment is not compromised in any way. So while the situation is not ideal, we have coped so far.

From a provincial perspective, the tremendous cooperation and collaboration between the health zones and authorities in the province have been very satisfying. Resources and information have been shared to ensure that patient needs have been met. Again, the dedication of the nuclear medicine staff cannot be overemphasized.

As the New Brunswick representative on the FPT working group on isotopes, I would like to acknowledge the tremendous support we have received from Health Canada. The convening of weekly teleconferences, the regular updates in the supply situation, and their efforts to ensure that suppliers give us forecasts for the immediate future have helped us with planning at the local level. I would also like to acknowledge my colleagues from the other provinces in this group for so freely sharing information on supply and methods to help cope with and manage the shortage. It has been extremely helpful.

In summary, I'm pleased to say that up to now we have coped with the situation well, but I remain anxious about how we are going to face the future as the uncertainty about the supply continues. This perpetual state of crisis is not healthy.

Thank you.

The Chair: Thank you, Dr. Kumar.

Now we'll go to Dr. Bourguet via video conference. Dr. Bourguet will be making a five-minute presentation. Following that, we'll go to questions and answers.

Dr. Bourguet, please begin now.

● (1555)

[*Translation*]

Dr. Patrick Bourguet (President Elect, Professor of Nuclear Medicine, European Association of Nuclear Medicine): Good afternoon and thank you very much for having invited me to appear before the Standing Committee on Health.

I would like to begin by saying that as I am European, I do not want to comment on Canadian domestic policy but speak to you rather about the European situation through testimony or any questions you may wish to ask me.

First, the current technetium crisis is not a problem that is unique to Canada nor is it unique to Europe. This is a global problem but it is especially affects Canada, Holland, Belgium and France, if one excludes South Africa because of its low molybdenum production. It is mainly these four first countries I mentioned that are directly affected because they are the ones up until now who have been producing most of the molybdenum that is used in the manufacture of technetium generators.

The first point I would like to raise, and that has already been raised by colleagues, is the interest in technetium. There has been some debate on the importance of technetium exams as part of a medical strategy. I think that debate is no longer taking place. For reference purposes, I would like to suggest an excellent report that was published by the European community on June 30, 2009. This report provides an update on the importance and relevance of these types of exams.

There is also an audit that was produced by the Dutch government that is now available on the European Association website and that looks into the forecasted increase in the European zone of technetium exams. Of course it does not take into account the situation in emerging countries, as our colleague Professor Urbain said earlier. Today there is very clearly a problem of supply in technetium 99 M and this is truly a public health problem.

What is the current situation in Europe? It is the same as yours, because we depend on the Canadian reactor, and for the most part, on the Dutch reactor. The latter is still operating but it will have to stop operating in order to allow for significant maintenance work next spring. Therefore, there will truly be a supply crisis because both the Canadian reactor and the Dutch reactor will have been shut down.

It is estimated that approximately only 30 per cent of global needs will be met during a three- to four- week period. That is truly a problem. On the European side we are trying to find an industrial solution, but this is an European industrial solution whose purpose, contrary to the initial Canadian MAPLE project, is not to meet global needs—I think it is very important to make this clear. It is important to find transatlantic solutions that will secure technetium 99 M supply on both sides of the ocean.

In Europe you currently have a moderate crisis. It was more severe last year when there were periods during which the supply varied from 20 to 80 per cent depending on the country. Some members of the European community were able to use Russian supply or former Soviet countries' supplies, because at the time there was generator production. However, that is not currently authorized on the European market.

Very clearly, our situation is somewhat different from that of Canada because we have a greater number of suppliers for generators. Furthermore, one of our current advantages is that our industrial stakeholders are members of an association, the AIPS, that is a credible and active player in the crisis management, a player that can sit down with public authorities, representatives from reactors, and think-tanks like our own and attempt to find a plan.

That is what Professor Urbain was saying earlier, that there is a solution...

● (1600)

[*English*]

The Chair: May I interrupt you for just a moment, Dr. Bourguet? Your presentation time is up, so if you wouldn't mind concluding, we'll go to questions and answers.

[*Translation*]

Dr. Patrick Bourguet: No problem. I can answer questions now because I think I have covered the most important points.

[*English*]

The Chair: Now we'll go to Dr. Alexander McEwan .

Dr. Alexander McEwan (Special Advisor on Medical Isotopes to the Minister of Health, As an Individual): Madam Chair and honourable members, thank you for the opportunity of appearing before the committee again. I am grateful for this chance to give you an update of where I perceive we stand in dealing with this issue. I will remind you that I also appeared before the Standing Committee on Natural Resources on October 19. I will repeat the statement that I made there, that the system is coping. That coping is fragile, and the term that I used was “stressed stability”, which I think provides a fairly good summary of how we are managing.

If I can have your indulgence, Madam Chair, I would like to give a brief overview of where we've come from and then look a little bit to the future.

I think we need to recognize in particular two groups of people who we really have impacted by this and who have responded well. The first is our patients. We have been able to offer tests to all those people who need them, but patients have been asked to attend at odd times. They've been asked to change appointments, and I think we need to recognize the stresses we have placed upon them.

Second and most importantly, I think this crisis has been managed through the very hard work and flexibility of the community, in particular of our technologist colleagues. They have changed shifts, they have changed working practices, and they have changed the hours at which they come in, and I think we owe the Canadian Association of Medical Radiation Technologists a vote of thanks for all they have done.

I think we also need to recognize that the generator manufacturers have really gone above and beyond the call of duty in sharing, in accessing alternative sources of molybdenum and of ensuring that there is some cohesion around the way in which generators are supplied.

We also need to recognize the efforts of Health Canada. They have facilitated regulatory approvals. I think of the Australian OPAL reactor molybdenum approval. The guidance document, upon which we have met and discussed on many occasions, has proved very helpful in enabling institutions and departments to change practice in a way that has really helped deal with the crisis. And most importantly, it has been sharing the supply forecasts and sharing the supply actualities with provincial and territorial colleagues and with individual institutions.

I also think we have been fortunate. The supply of molybdenum has been a little better than we had predicted right at the beginning of the shutdown. Lantheus is the Canadian producer. I will remind you that they supply many sites, particularly in Ontario. They have been at about 50% throughout this crisis. Covidien, the other supplier that relies on non-NRU sources of molybdenum, has obviously been able to supply close to 100% of their customers and has been able to share with Lantheus.

I've provided you with some charts on supply. I'll not go into these in detail, but I would be happy to answer questions. This chart provides an overview of national supply from the beginning of the crisis. This is a composite of Lantheus and Covidien supply. Because Lantheus is the primary Canadian supplier, this reflects the real status across the country, although, for example, if we look at the last week on this chart, we have something between 50% and 60% supply. These figures are very dependent upon the sharing arrangements the companies have had.

The second charts that I have provided to you are from Ontario individual institution supplies. They provide the calibration dates. The bold column provides the original generator activity that they got before the NRU shutdown, the amount ordered, the amount delivered, and then the percentage pre-NRU shutdown, and the amount that was delivered as a percentage of that was requested.

I think these data are important. It's a snapshot of one week of supply to individual institutions, and behind that is the second week.

● (1605)

I will reiterate. I think the situation we currently have is one of stressed stability.

There are a number of concerns. The first is reduction in the number of referrals. Last week I made cross-country phone calls to a number of centres looking at their experience in referrals. The message I got is that there has been no year-on-year change in most of the centres. I think the issues in the small urban centres in Ontario, as Dr. O'Brien has mentioned, are a real concern.

The Chair: Thank you, Dr. McEwan. I'm sorry, your time is just over right now. We've gone a little over, but this does give us time for questions and answers.

Hon. Carolyn Bennett (St. Paul's, Lib.): As he's the adviser to the government, I think you would find consensus to let him finish.

The Chair: Would everyone agree?

Some hon. members: Agreed.

The Chair: Okay, go ahead.

Thank you.

Dr. Alexander McEwan: Thank you, Madam Chair.

Both Dr. O'Brien and Dr. Urbain identified the issue of cost. This is clearly multifactorial. Cost increases had been announced before the NRU shutdown. We are waiting to hear from our provincial colleagues on what the provincial differences in costs are, and we will report back as and when we get those data.

The Canadian Association of Medical Radiation Technologists have identified issues of human resources, and I am grateful for the information they provided in the report they issued earlier this fall. There is no doubt that the impact is greatest at the technologist level, where we have asked for really significant changes in work practices to help us deal with this, and they have responded magnificently. We are all concerned that we see a continuing flow of technologist students coming into the system and that we see continuing enthusiasm for this as a discipline.

My concern, obviously, now is moving forward into 2010. Our position is one of stressed stability. The international reactor community, as Dr. Bourguet has said, is working through AIPES to develop a plan for increasing supply from producers other than Petten over the course of the year. There is a meeting in Paris later this month of the producers, and after that they will be delivering a plan that will maximize utilization of reactors. AECL have indicated they anticipate being up and running in the first quarter of 2010. Clearly, we all hope this happens, but we have to plan for the situation should it not happen. That is the focus of my activities at the moment, and this coordination of reactor schedules and reactor activities is clearly going to help this.

Finally, we are continuing within the community to improve the way in which we use our resources. This involves the use of different isotopes—for instance, thallium imaging for the heart—for ensuring that we maximize the use of our generators.

There are three initiatives that are important going into the future. The Canadian Institute for Health Information, CIHI, will be looking at a detailed study of the impact on referrals, utilization, volumes, and technologist levels. We anticipate they will be reporting on this toward the end of the first quarter of 2010, so we will have a snapshot of what is happening at that time.

Second, I believe that the results of the Canadian Institutes of Health Research competition specifically looking at alternatives to current clinically used medical isotopes are a valuable and important tool for replacing, possibly urgently, some of our technetium products. I am currently discussing with the minister ways in which we can facilitate, as Dr. Doig said, the very rapid translation of this research into clinical practice. Seven proposals were approved for funding, of which at least four have the potential to have a major impact early on the practice of nuclear medicine.

Finally, we've heard that the expert review panel will be reporting at the end of this month. I believe this is a very important initiative and a very important report for the way in which we will practice our discipline.

Madam Chair, I am grateful for your indulgence in allowing me to talk a little longer. I'm grateful for the committee's indulgence.

● (1610)

The Chair: Unexpectedly, the bells are ringing to call the members to a vote. There is a 30-minute bell, with the vote around 4:45, so I'm thinking that with your indulgence, perhaps we could continue for 15 more minutes, because we are very close to the House.

Can I have unanimous consent to continue? We can get one round in if we're very diligent about doing it in five minutes each, but you will have to listen when I stop you.

Dr. Bennett, do you want to start, with for five minutes for questions and answers, please?

Hon. Carolyn Bennett: Thank you for coming.

This is quite worrying to all of us. I am concerned that there's quite a discrepancy between the testimonies that we've heard. I had hoped that there would be a process by which the government would be tracking things like referrals. In the testimony of the Canadian Association of Nuclear Medicine, we heard that if referrals go down 10% to 25%, diseases will be found much later.

I am also concerned about the evidence we had from the association of technologists. They are worried that the applications to their courses are diminishing. There is also a concern that if there is not sufficient research capacity at the NRU we will permanently lose international and Canadian researchers to somewhere else. There's a lack of leadership on this.

We've also heard internationally that there is no substitute for reactor-derived isotopes. We will always need isotopes coming from reactors. We don't have a plan B. With only 50-year-old reactors, we have to have a plan.

Rarely do we see physicians all agreeing. Usually there are more positions than physicians in a room. The coherence of the recommendations of the Canadian Association of Nuclear Medicine and the CMA is telling.

Dr. McEwan, the CMA, the CANM, and Ontario are all saying that an independent expert panel needs to revisit the decision on the MAPLEs. They are all saying that they need some of these other isotopes approved much more quickly. Mainly, they're saying that the money issue is serious. Money is needed for medical infrastructure and also to mobilize PET scanning across the country. There doesn't seem to be the kind of relationship that we hoped for between the government and these professional organizations.

There are four clear recommendations from the Canadian Association of Nuclear Medicine. Will you be recommending those four recommendations and the recommendations of the CMA to the minister?

Dr. Alexander McEwan: We need to recognize that the system is coping with this situation. It is doing no more than coping. I believe that the CIHR competition has addressed some of the requests of the CMA. In particular, I believe that the opportunities in at least two of the grants providing for alternative tests are significant and will supply us with data to facilitate the way in which these tests can be brought into clinical practice.

The issue of referrals is reflective of the geography of this country. In the centres that I polled last week, there is no year-to-year change in referral patterns.

● (1615)

Hon. Carolyn Bennett: Did you call all of them? How did you decide which ones to call?

Dr. Alexander McEwan: Those centres were in Vancouver, Alberta, Manitoba, and the Atlantic provinces. Dr. Lamoureux from Quebec is on record in the press as saying that there has been no significant change in referral patterns in Quebec. In my conversations with Dr. Tracey, he indicated that he is seeing some recovery of referral patterns in the hospitals that were concerning him in southern Ontario.

Before this committee and the NRCan committee, I have stated my belief that we are seeing a real difference geographically, and that the centres suffering most in this crisis are those in the smaller urban and rural areas of Ontario.

The Chair: Thank you, Dr. McEwan.

Mr. Malo.

[*Translation*]

Mr. Luc Malo (Verchères—Les Patriotes, BQ): Dr. McEwan, I would like to ask you two questions. I hope that your answer will be brief so that I can ask you my second question.

First, Dr. Urbain said in his comments that in the long run the situation was untenable and that occupations linked to nuclear medicine face a long-term problem because not enough individuals are being trained. Furthermore, Dr. Bourguet told us that in Europe a continental solution is being developed and they'd like to develop a transatlantic solution. As well, the NRU reactor is old and even if it becomes operational in the first trimester of 2010, that will be a short-term solution precisely because it is an old reactor.

Are you going to recommend to the government and to the Department of Health that they develop a long-term plan for a supply of locally-produced technetium 99?

[*English*]

Dr. Alexander McEwan: Madam Chair, thank you for the question. I will be brief.

I believe that I indicated in my submission, my initial presentation, that we are now looking at medium- to long-term solutions. I believe we do provide an environment that is attractive for medical radiation technologist trainees. My concern is that they are being frightened off by a perception, if you will, that the sky is falling. Certainly our own training program continues to have an excess of applicants. My concern is that if we do not provide some continuity and confidence—I agree with Dr. Urbain—we are at risk of losing some outstanding young people to the field.

[*Translation*]

Mr. Luc Malo: Second, you told us that you will be assessing the costs to provincial governments brought about by the crisis. Is it your intention to recommend to the minister to compensate provinces for the extra costs caused by the isotope crisis?

[*English*]

Dr. Alexander McEwan: I think that's a very important question. I know it is a matter that was discussed at the last federal-provincial-territorial ministers meeting, I know it is on the agenda for future federal-provincial-territorial meetings, and as I indicated in my submission, we are waiting for data from the provinces to understand those real cost impacts.

[*Translation*]

Mr. Luc Malo: Will there be compensation?

● (1620)

[*English*]

Dr. Alexander McEwan: I am afraid I do not belong to the government. I cannot answer for those questions. All I can say is that I do intend to understand what the cost implications are. Once I understand those, I can have an appropriate conversation.

[*Translation*]

Mr. Luc Malo: Dr. Bourguet, could you tell us what are the long-term solutions being considered by the experts and European governments? Perhaps you could give us some interesting examples that our government could consider because they do not seem to have a solution.

Dr. Patrick Bourguet: Are you talking about technetium?

Mr. Luc Malo: Yes.

Dr. Patrick Bourguet: Just to clarify, the goal of the study that was conducted in Europe, and that I think also applies to Canada, was to figure out where the expertise is. Currently the expertise is clearly in reactors but also in processing. If you look at where the processing areas are, you can see that they are mainly in Canada, Holland and in Belgium. So it is true that there is expertise potential that we can use.

In Europe there's currently a mid-term project—I'm referring to 2016, which is in five or six years—and that is the Dutch project, Pallas. There's also a project in the south of France, the Jules-Horowitz project, whose purpose is not to manufacture molybdenum but rather to serve as an alternative producer, a backup to the Dutch reactor, and the third absolutely worthwhile project is the one involving the university reactor in Munich, Germany, which along with the Jules-Horowitz's project will provide backup to the Dutch initiative.

This is all clearly being designed with a view to providing lasting production that will be able to cover European needs—that is very clear. In other words, this will serve as an alternative to the Dutch HFR, but will not have the capacity to meet global needs. The idea is to double production capacity in order to fill any gaps or replace reactors if and when they are undergoing maintenance.

I'd like to say clearly what I said earlier: we need to conceive a transatlantic initiative with at least one North American equivalent because that is the greatest area of global consumption. I think it is important that there be an equivalent project on the other side as well.

[*English*]

The Chair: Thank you, Dr. Bourguet.

Now we'll go to Ms. Wasylycia-Leis.

Ms. Judy Wasylycia-Leis (Winnipeg North, NDP): Thank you, Madam Chairperson, and thanks to all of you for being here today.

Mr. McEwan, can you give us confirmation that the expert panel report to be tabled on November 30 will be made available to all of us in Parliament and publicly?

Dr. Alexander McEwan: Madam Chair, I know that it is being received on November 30. I do not understand or know enough about parliamentary procedure to know whether I can answer that question. I assume that it will be released when it can be.

Ms. Judy Wasylycia-Leis: I think we'll all be looking forward to having a look at it immediately after that.

Can you tell us, Mr. McEwan, in which way the federal government can ensure some coordination at the provincial level on these issues? It seems to me, at least with the pandemic and the H1N1 vaccine, that there was some accountability to the Public Health Agency of Canada. But I don't sense that there's any accountability through your office, or from the federal government as a whole, in terms of avoiding having the provinces or medical institutions having to deal directly with suppliers.

Dr. Alexander McEwan: There are two routes of communication that happen regularly. There is the federal-provincial-territorial meeting, which occurs weekly, at which data is shared. We have the meeting of the experts working group, which involves both the Canadian Association of Nuclear Medicine and the Canadian Society of Nuclear Medicine.

Ms. Judy Wasylycia-Leis: Do you, as the federal government, take responsibility for ensuring a reliable supply for all supply contracts?

Dr. Alexander McEwan: Madam Chair, I would like to remind you that I am not the federal government. I'm an adviser to the minister, and therefore I cannot answer a question like that.

● (1625)

Ms. Judy Wasylycia-Leis: Okay. Would you be able to tell us the costs to the provincial governments because of the medical isotope shortage?

Dr. Alexander McEwan: Those data have been requested from the provincial governments. They have not yet been given to us.

Ms. Judy Wasylycia-Leis: You can't confirm or deny that at the last conference of health ministers there was an indication of at least a minimum cost of a quarter of a million dollars.

Dr. Alexander McEwan: I can tell you anecdotally that I have discussed it with colleagues on the ground in individual institutions. There is quite a range in the increasing costs noted. One centre, for example, has said that they are seeing an increase of between $8 to $12 per dose.

Ms. Judy Wasylycia-Leis: All the additional costs are borne by either the provincial governments or the health care institutions, as opposed to the federal government. Correct?

Dr. Alexander McEwan: My understanding is that health care delivery is a provincial role. I will remind you that this issue was raised at a recent federal-provincial-territorial ministers meeting. The data have been requested. Once the data have been received, we can understand what those real costs are.

Ms. Judy Wasylycia-Leis: I'd like the rest of the panel to comment on Mr. McEwan's use of the term “stressed stability”, because I haven't found too much by way of stability in the system and I think it would be useful to hear about the impact on patients, the impact on professionals, and the impact on our colleges and our nuclear medicine facilities.

Dr. Anne Doig: Thank you for that question.

I think perhaps the best way to answer your question is simply to underline the language that Dr. McEwan has used, which is exactly that: it is stressed stability at the moment.

If you reflect on the language I used when I spoke to you about the H1N1 situation, we talked about surge capacity and the lack thereof, and that is the situation with the nuclear isotope crisis. We are, at the moment, coping. We have very little, if any, room for further coping. As your international guest alluded to, if the overseas reactor goes down at the same time as we still have no capacity in Canada, that will be a negative surge capacity that will undoubtedly adversely affect all these people here who actually deal with this on a daily basis.

Ms. Judy Wasylycia-Leis: Dr. O'Brien.

Dr. Christopher O'Brien: I think the best way to describe this is as an example of what goes on in my department on a day-to-day basis. Because we're told there's only 20%, or 50%, or 80% supply, on a day-by-day basis it's like we're horse-trading: If I can reduce so much activity to do a certain test, can I move a few millicuries over to another test to try to get that test done for that patient? This is day in, day out, day in, day out for our technologists.

Our patients are still getting the tests done. There are days when there are no isotopes, and if I have to do a study called a lung scan to look at blood clots in the lung and that patient cannot have the CT scan, that patient may or may not get the full study done on that day because I will not have the amount of isotope needed to do it. So a study that would have taken an hour now takes two days because I have to wait until the next day to do the second part. This is very stressful on our clerical staff and on our technologists. They come to me on a day-to-day basis and say, we need leadership; we need supplies; we need to get this fixed; we cannot continue on as is.

I think everybody here is right: we are coping. We are coping in an unsustainable, fragile system that is beginning to fray at the edges more and more.

The Chair: I'm sorry, Ms. Wasylycia-Leis, your time is up. Thank you for those good questions.

We're going to suspend the committee, and I would ask the committee to resume here in this room after votes.

Thank you for your indulgence. We have to go into the House, and then we will be back with more questions.

● (1625)

(Pause)

● (1655)

The Chair: Order, please. Could I ask the witnesses to please take their seats? Thank you.

We are going to begin. We are continuing our five-minute question and answer round, and we start with Dr. Carrie to finish off the round.

Mr. Colin Carrie (Oshawa, CPC): Thank you very much, Madam Chair.

I just wanted to say that I did have the opportunity, with my colleague Pat Davidson, to meet with the Canadian Association of Medical Radiation Technologists, and I think we should all commend them. With the amount of hours they put in and how they change their own personal schedules, they really make a big commitment, even with the difficulties, to get the job done for Canadians.

I wanted to ask Dr. McEwan about the research announced. The Canadian Institutes of Health Research recently announced $5.3 million in funding for seven research projects that look into the alternatives for key priority diagnostic needs. I think it is a good example of our trying to find alternatives. Now, you did mention earlier on that there were four proposals as well, that you were aware of, that might help in the medium and long term. Would you expand on that a little bit and let the committee know about that?

Dr. Alexander McEwan: Certainly, Madam Chair. It would be a pleasure to address that. I think the CIHR initiative is an extremely important initiative in looking at ways of ensuring that this crisis does not continue longer than it has to, if we continue to have disruptions of technetium supply.

Of the seven projects, I believe four have the potential to have a very early impact on clinical practice. If you look at the projects that have been funded, one is a study of rubidium-82 in cardiac imaging. I believe this will provide the evidence that will enable the regulator to approve this as a new way of imaging the heart. Certainly the literature data suggests that this is an effective way of managing patients. If that research pans out, then it relieves a lot of stress on the technetium system, because cardiology is such a major part of nuclear medicine practice.

I believe there are two projects, one related to imaging the kidney and one related to imaging lymph nodes in patients who have breast cancer, that could translate very rapidly into clinical practice and that could again reduce the amount of technetium that was needed.

There is one slightly more ambitious project looking at red cell imaging. This is where we take a radioactive label, put it on red cells, and use that to measure two things: one, whether bleeding is occurring, and where bleeding is occurring from the gut; and the other, to look at cardiac function in patients who are receiving chemotherapy. Both of these are very important tests that use a lot of technetium. Again, if this test can be substituted, it provides a lot more flexibility to the system.

Finally, I believe this is not a short-term solution but a solution that I believe the scientific community must look at. Can new target design and new technology enable technetium to be produced on cyclotrons? Whether or not that is possible I do not know. I am not a physicist. I do not know. But if the new technology enables us to do that, then it enables us to redefine the business model, so I think this is not short term, but it is very exciting long-term research.

Mr. Colin Carrie: Thank you very much.

Dr. O'Brien, you stated something along the line of some doctors wondering if we would even need technetium in the future. Is that what you stated? Is that in line with what Dr. McEwan was saying? We're seeing this research into alternatives. Could you elaborate a little bit on what you were saying there, what you meant?

Dr. Christopher O'Brien: It is in the sense that there has always been the debate as to whether nuclear medicine will be around and whether we have to make the investment to ensure that there is a medical isotope supply for the Canadian population or whether the specialty will be replaced by something else. Data would tend to show that medical imaging with nuclear medicine techniques... functional imaging is here to stay and will actually become more and more important. A part of the CIHR grants is looking at positron emission tomography rubidium-81, as Dr. McEwan mentioned. Two others are associated with positron emission tomography as well.

So the importance that nuclear medicine brings to physiological functioning imaging surpasses a lot of other techniques. PET imaging, in our specialty, is the next evolutionary process in that ability, and so I think it is safe to say that we will continue to have a demand for medical isotopes. In Ontario we have 100 nuclear medicine departments and something around 200 gamma cameras. PET imaging is not going to replace all of that. So PET will have a role to play, and that's part of the balanced strategic plan that we look at in Ontario, as PET playing a role and routine medical isotopes playing a role. The important component is to upgrade our gamma camera equipment that's on the ground now so that we use fewer medical isotopes, reduce the exposure, and that could be done today. The technology exists.

That's what I was getting at, sir.

● (1700)

The Chair: I think Dr. McEwan also wants to make a comment on that.

Dr. Alexander McEwan: Thank you, Madam Chair.

I'd like to agree with Chris wholeheartedly. I think this issue around technetium supply in many ways has shown the value of nuclear medicine to our patients now, but more importantly, it is enabling us to redefine how we will practise in the future. I think, amidst dealing with the crisis, we have to recognize that this is an opportunity to redefine our practice.

The Chair: I'm sorry, our time is up, Dr. Carrie.

We did have committee business at 5:15. Due to the fact that we have votes, I will ask the committee if we can take the first 15 minutes of Wednesday's meeting to clean up our committee business.

Is everybody in agreement with that?

Some hon. members: Agreed.

The Chair: We will continue with the questions and answers today while we have these people here. It's very important.

We'll now go into the second round, with five minutes for questions and answers.

We'll start with Dr. Duncan.

Ms. Kirsty Duncan (Etobicoke North, Lib.): Thank you, Madam Chair.

Thank you, witnesses, for your testimony.

I think the job of this committee is to ensure that patients' health is protected in the short, medium, and long term.

There appeared to be a dichotomy of positions here. We heard “not optimal”, “serious public health concern”, “nuclear isotope crisis”, “suboptimal imaging”, and “stressed stability”. I think we need to address some of those.

I'd like to begin with you, Dr. Urbain. Did the Canadian Association of Nuclear Medicine ask for meetings with the Minister of Health or the Minister of Natural Resources?

Dr. Jean-Luc Urbain: We've basically been active at the level of Health Canada. In January of this year, our association was sent to Paris. There was a delegation from Canada led by Serge Dupont from NRCan.

I'm not totally sure there is a direct line of communication between the CANM, NRCan, and the Minister of Health. My understanding is that we have to go through Health Canada and some various processes.

Ms. Kirsty Duncan: Did the ministers ask for any meetings with you?

Dr. Jean-Luc Urbain: Not that I'm aware of.

Ms. Kirsty Duncan: Thank you.

Dr. McEwan, I'd like to ask again about this November 30 report. Will it be made public in its entirety, or will only parts be shared? Maybe you can't answer that, sorry. When will the government be responding to that report?

● (1705)

Dr. Alexander McEwan: Madam Chair, again, I'd like to remind the committee that this is a report from NRCan. It is not from Health Canada. I would love to be able to answer that question, because I suspect that, of everybody in this room, I would like to see it the most. I'm sorry I can't give you any more information than that.

Ms. Kirsty Duncan: That's fine. Thank you.

Dr. Urbain, I don't know if you're able to answer this, but I'd like to have your ideas. How you feel the government has handled this crisis? What do you think could be done to help patients at this point?

Dr. Jean-Luc Urbain: It's a very complex crisis. You heard from Dr. Patrick Bourguet that it's affecting the entire world. I think the crux of the question is really the supply of isotopes across the world. Canada was producing 40% for the rest of the world and suddenly it went down to zero. As you know, the announcement was made that Canada will get out of the business. Where will that leave the rest of the world and Canada?

I wish there had been a plan in place before making this type of announcement. We have said multiple times that, unfortunately, Canada was already 20 years behind in terms of isotopes available and in terms of the technology. We keep repeating this, and it's very true. You can verify this with our colleagues south of the border and also in Europe. Today we have to practise medicine and manage patients with 20th century tools. In terms of being at the cutting edge, as Canada was 20 years ago, I don't feel Canada is using its resources appropriately.

Ms. Kirsty Duncan: Thank you.

Dr. McEwan, I don't know if anyone here can answer this, but do we have an idea when the NRU will be coming back online?

Dr. Alexander McEwan: My understanding is that they have some confidence that they will meet the quarter-one expectations.

Ms. Kirsty Duncan: When will that be in the first quarter? As Dr. Urbain has said—and it has been said today—there needs to be a contingency plan, and it's hard for doctors and hospitals to plan. We really need a date so they can do proper planning.

Dr. Alexander McEwan: AECL will let us know as soon as they have some confidence that their repair methodologies are working. My immediate action now is to look at the medium term and plan for the worst-case scenario. So that is what I am doing with my colleagues at the moment.

The Chair: Thank you, Dr. McEwan.

We'll now go to Mr. Trost.

Mr. Brad Trost (Saskatoon—Humboldt, CPC): Thank you, Madam Chair.

I would like to finish, for my own clarity, what Mr. Carrie was asking about.

Do I understand correctly that the future of nuclear medicine looks bright, but it's likely that we'll be using different or a more diverse pool of isotopes? So the usage of technetium-99 may not necessarily be going up, and instead we may be using a more diverse pool of isotopes. Am I understanding that correctly?

I see one head nodding. It'll take two people to answer this one.

The Chair: Who would like to answer that?

Dr. Jean-Luc Urbain: I think you are absolutely correct. The issue is that technetium will not disappear any time soon. Technology exists. You don't go from 80% technetium usage to 0%, even in five years.

The problem is a lack of foresight by Canada over the past 20 years, and I mean Canada in the largest possible meaning. It could be the government, Health Canada, physicians, or whatever. We did not put in place enough alternatives to technetium, so today we are paying a big price. Europe has done it differently. They have evolved a positron emission tomography program across all the countries, and that basically enables them to navigate the crisis better.

The Chair: Dr. Bourguet, do you want to comment on this as well?

Go ahead.

● (1710)

[*Translation*]

Dr. Patrick Bourguet: I do not entirely agree with my colleagues on the subject of substitution. We, in Europe, are absolutely convinced that technetium has a life expectancy of several decades, if only because developing countries will need it and because the ratio of PET scanners that my colleague Urbain was just referring to is 1 to 10 compared with regular scanners. Tests using technetium are perfectly achievable.

We have a tendency to mix the two up. Currently, the main area of use of PET is oncology. This is not as a substitute for technetium tests, but it really is a whole new field. Take France for example, where we developed a new program called “Cancéro” six years ago. We have set up 80 PET machines that are entirely dedicated to cancer treatment and in no way substitute for technetium tests, which are now, in many centres, the first tests that patients will undergo.

Therefore, do not confuse PET and technetium. In my opinion, technetium will still be in use for several decades, which leads us to believe that a project such as the one we are attempting to build around new reactors is credible in terms of the lifespan of a reactor.

[*English*]

The Chair: Mr. Trost.

Mr. Brad Trost: Thank you.

I guess this is leading to conclusions from committee members, because the sorts of isotopes we're looking for also impact what we will design to produce the isotopes.

To you gentlemen and Mrs. Doig, instead of concentrating all our efforts on one particular reactor or production regime, do you think we should diversify our efforts into the broadest scope of projects, without stretching resources too far, so we have more sources because of the variety of isotopes? Would that be a prudent and well-thought-out strategy from your perspective—yes or no, and why?

The Chair: Dr. O'Brien.

Dr. Christopher O'Brien: Very much so.

There isn't going to be a grand-slam, home-run solution to this. There's going to be multiple 25-cent solutions to enable us to have a proper management for medical isotope and health care accessibility in Canada from the nuclear medicine perspective.

It's going to be important, from an Ontario perspective, to put in a plan that is tried and true and relatively accepted. This is a good thing to do for medical isotope production, something along the lines of Europe, where they're moving forward with a reactor-based program.

I do agree that technetium is going to be around for decades, because PET imaging and the other types simply cannot be replaced in a cost-effective way such as we have now, but you also have to have a more balanced approach. We don't want to put all of our eggs in one basket, so I believe we need to have a tried and true technique, possibly reactor-based. We also have to support new and innovative approaches to medical isotope supply as well, but don't put those new and innovative sources as the main crux of what we're doing now. We need that balance. We need to be able to use existing medical isotopes in a more efficient manner as well, because costs will go up. Hence, we need modernized equipment on the ground.

The Chair: Thank you, Dr. O'Brien.

Monsieur Malo.

[*Translation*]

Mr. Luc Malo: In answering my question, Dr. Bourguet was saying that we should have a transatlantic solution in order to ensure a long-term supply of technetium.

In response to Mr. Trost's question, he was saying that technetium still has a lifespan of several decades, because alternative solutions are not quite ready to take over all of the jobs currently being done by technetium.

The only nuclear reactor project that was currently planned, even though it has been abandoned, is the MAPLE project. What several groups seem to have been asking for since the beginning of this is a reassessment by an international group of experts on the shutdown of the MAPLE project.

In light of the discussions we have had, I'm wondering what is preventing the government from moving forward, not to relaunch the project, but simply to have its relevance assessed by a group of independent experts.

Is there anyone around the table who might like to tell me, because of the information they have and through their own experience, why the government does not want to agree to this request being made by more and more groups involved in the area of nuclear medicine. Perhaps the special adviser to the minister or Dr. O'Brien...

● (1715)

[*English*]

The Chair: Who would like to take that?

Dr. O'Brien.

Dr. Christopher O'Brien: It's a very important point that you make. Our perspective is that the decision to abandon the MAPLE reactors may have been premature, without taking into consideration all the collateral damage that has potentially arisen because of this, and there may be regulatory issues from the Canadian Nuclear Safety Commission that may have a problem with licensing the reactor. But this has to be looked at in an open public forum. If there is documentation supporting the abandonment of the MAPLEs, then that should be allowed to come forward. So far we do not know if there has been any real evaluation of the MAPLEs in a thoughtful, fruitful way that evaluates all the implications on research, on jobs for Canadians, on distribution, on access to health care for our patients.

Medical isotope production is a Canadian industry that we are about to lose, and with that goes multiple jobs and research capabilities and avenues for post-doctorate trainees or Ph.D. individuals. Where will they go if we do not have a infrastructure to support them?

So definitely, not only from a health perspective but from a Canadian perspective, this should be re-evaluated.

The Chair: Dr. Urbain.

Dr. Jean-Luc Urbain: I'll make a brief comment.

I beg to differ with Dr. McEwan about the relevancy of the CIHR-funded project. One question we might want to ask ourselves is that.... We spent $6 million on a project that clearly will not yield anything within two years, where we probably should have spent $100,000 to have a panel of experts looking at the MAPLEs.

The Chair: Okay. Dr. McEwan.

Dr. Alexander McEwan: I'll agree to disagree with my colleague. I do think this is a very important initiative, looking to the short to medium term, and I believe we will see benefits from it.

The Chair: Dr. O'Brien.

Dr. Christopher O'Brien: One of the grants from CIHR is looking at ortho-iodohippuran for renal imaging. That's an agent I used 30 years ago. It's not a different agent, using iodine-131 versus iodine-123, but we already have the information.

The lymph node is a very important research project, lymphoscintigraphy. There are hospitals using that today in Ontario. So this is research that I think is important to gather information, but if I go back to ortho-iodohippuran, I was using that in 1978 as a technologist. So there are good things, looking at it, but it's almost as if we're reinventing the wheel a bit on certain aspects of this.

The Chair: Thank you so much.

We'll now go to Ms. Davidson.

Mrs. Patricia Davidson (Sarnia—Lambton, CPC): Thank you, Madam Chair. I'm going to share my time with Mrs. McLeod.

I think we certainly owe a huge debt of gratitude to the whole medical community for stepping up and managing this issue. However precariously we may be managing it, we are managing it because of the medical community. As Dr. Carrie said, he and I both had the opportunity to meet with the CAMRT and discuss the issue with them last week. We know the sacrifices and the changes they have made.

Dr. Doig, you referred to reports of sporadic adverse events, and of course that's to be expected in this situation. You then went on to talk about delays of 48 to 72 hours in suboptimal imaging due to the extensive use of thallium-201 rather than technetium-99m. Do you have a concern that there will be less than optimal results or less testing being done if there are other mediums used rather than technetium?

● (1720)

Dr. Anne Doig: I think I ought to defer to all my colleagues to my left to give the technical answers to that, but the short answer is yes. Whenever we have to find a workaround to something that is current best practice or current standard procedure, we can often find a workaround, but there is always a risk attached to doing that. That's what I was alluding to in my remarks.

Mrs. Patricia Davidson: Would any of you like to add to that?

Dr. Jean-Luc Urbain: I fully agree with Dr. Doig.

The picture or analogy I can use is this. In 2009 none of us would like to drive a car from 1960. If you have to get from point A to point B and you have nothing else, that's what you use, but all of us would like the 2010 model.

Mrs. Patricia Davidson: I'm referring to new technology and new techniques that may be coming on board, just so we're clear.

Dr. O'Brien, do you have that same concern?

Dr. Christopher O'Brien: The concern from the suboptimal imaging that was being talked about with thallium is based on radiation exposure to the patient, because it is a higher exposure than what we are looking at. It's also very difficult to schedule, and the patients are subjected to different types of procedures. The diagnostic yield is not that bad, but it comes at the price of higher radiation exposure. This is what we used in the 1970s, so this is a 30-year-old technique.

With our sensitivity toward radiation exposure to patients, it's not an optimal product to use at this point. It's good to put your finger in the dike to prevent it from collapsing, but it's not what we want to use. With the future innovative stuff, definitely we would. We are seeing some very interesting radiopharmaceuticals coming down the pipeline, but without having the infrastructure to use those on a regular basis in community hospitals, they won't have a big effect.

The Chair: Ms. McLeod, perhaps you'd like to ask your question now. Thank you.

Mrs. Cathy McLeod (Kamloops—Thompson—Cariboo, CPC): I had hoped to get into—but I guess we'll see how it goes. Thank you everyone for being here.

Dr. Bourguet, we heard about some of the research we're going to be doing in Canada. Could you speak briefly to an international perspective in terms of where research is going on this issue?

The Chair: Dr. Bourguet.

[*Translation*]

Dr. Patrick Bourguet: I'm thinking of research in the area of radioisotopes for medical use.

[*English*]

Mrs. Cathy McLeod: Yes, thank you.

[*Translation*]

Dr. Patrick Bourguet: It is true that this is an area that is booming. Contrary to what some may think, this research does not deal exclusively with positron-emitting isotopes, but of course with simple photon-emitting isotopes as well, including technetium. Moreover, a significant part of this research is translational and consists of converting molecules so that they can be used with a technetium marker.

Currently, it is true that the arrival of PET technology on the international market and for clinical use has resulted in a boom in research in this area. What are the leading-edge countries? From a pharmaceutical perspective, they are clearly the industrialized countries. It is true that North America, the United States and Canada, Europe, Japan and Korea are clearly leading-edge countries in terms of radiopharmaceutical development. However, upstream, as far as research into radioactivity properly speaking is concerned, it is clear that the nations I mentioned earlier on in my comments, North America and Europe, are much further ahead in the forefront.

[*English*]

The Chair: We'll now go to Ms. Murray.

Ms. Joyce Murray (Vancouver Quadra, Lib.): Thanks for your testimony.

Following up on what I just heard, and also an earlier question about the decision that Canada took to get out of the business with the MAPLE reactors, what's the implication for Canada, if any, if research is skyrocketing? What's the implication for the activities associated with the MAPLE reactors, not just the pure production of technetium? And what are the implications on the need to have a backup for Chalk River, which we know is an aging facility that has shown us it's going to let us down from time to time? I'm wondering about some of the other implications of discontinuing our role in this industry.

● (1725)

The Chair: Dr. McEwan.

Dr. Alexander McEwan: I would be happy to answer that, Madam Chair.

I think that Dr. Bourguet, in describing the explosion of research in this area, reflects the importance of what the nuclear medicine community can do in terms of assisting our clinical colleagues as they make important clinical decisions and stratify patients for treatments. And in the future, I think, as Christopher said, we will be moving to the era of personalized medicine.

What is particularly important, and why I think the CIHR round is very important, is that it indicates that we're not only looking at how we deal with technetium products, how we find alternatives to our currents tests, but we're committing to that evolutionary path to the next generation of tests.

I had the privilege of being part of a working group with CIHR on medical imaging as well. So within that context, we're building a framework that is going to enable us to look not only at alternative ways of making technetium but at technetium replacements at the same time as we build a framework to do what Dr. Urbain and Dr. O'Brien have so eloquently pointed out, which is leading to the next generation of tests.

Ms. Joyce Murray: Thank you, I want to make sure I have time to hear from the others about the implications on our research and other agendas of abandoning MAPLEs.

Dr. Christopher O'Brien: Without having research capabilities, if you abandon MAPLE you are losing a Canadian industry; you are losing the opportunity for our post-graduate Ph.D. individuals, our academics, to have a very fruitful career in Canada. We are also abandoning our patients, because without having the ability to have medical isotope research in Canada, our patients' ability to access new and innovative research protocols will no longer be here, because all of that research may be south of the border.

So it is collateral damage and impact, and that's the importance of really ensuring that Canada does have a role to play in medical isotope production and in basic nuclear research as well, because these reactors are research and production units. We are focusing on medical isotopes, but we cannot abandon our research potential, and I'm very concerned about that.

The Chair: Dr. Urbain.

Dr. Jean-Luc Urbain: I have two points. The first is that medical isotopes are produced by research reactors, so the first goal of those reactors is to do research. We should not lose sight of this. If we don't have a reactor to do research, this entire aspect of research technology would disappear. The second one is that there will not be personalized medicine without medical isotopes.

The Chair: Thank you.

This has brought our committee to an end today. We want to thank all our presenters for their insightful commentary, and we wish you well.

Committee, thank you. We will have a subcommittee meeting now on neurological disorders, so I will adjourn this meeting.

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