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**TO: Pree Tyre, Registrar & CEO, Canadian Medical Radiation & Imaging Technologists Organization (CMRITO);**

**Susan Clarke, CEO, Sonography Canada; and**

**Mark Given, Director, Professional Practice & Research, Canadian Association of Medical Radiation Technologists (CAMRT)**

**RE: THE URGENT NEED FOR REFORM IN TECHNOLOGIST EDUCATION AND TRAINING**

The Independent Surgical & Diagnostic Clinics of Ontario (ISDCO) is a committed partner in advancing medical imaging in Ontario. Our sector provides more than 50% of the province’s diagnostic imaging and often in the most distant and healthcare-disadvantaged communities. Therefore, we feel compelled to address a critical issue facing our field that was on display at the recent ISDCO conference: the dire shortage of technologists across the imaging sector. This is not merely a looming problem, it is an immediate crisis that risks impacting the accessibility and quality of healthcare across Canada.

At the recent ISDCO conference, the collective voice of the attendees—articulate, sincere, and urgent—described a healthcare field heading towards a cliff, with the healthcare system in tow. While recent annual reports from the regulators in this sector emphasize public safety, professional standards, and transparency, they all provide little assurance that there are active or planned initiatives to expand the workforce pipeline or incorporate modern training solutions or bold ideas. If we have overlooked something in our review, we welcome being contradicted. However, as it stands, we believe CMRITO and CAMRT’s current focus is misaligned with the pressing needs of the industry and public interest.

**A Call for Bold, Immediate Action**

The current educational and certification pathways for ultrasound, X-Ray, MRI and nuclear technologists do not meet the rapid demands of our evolving landscape. Nuclear technologists are a great microcosm here; with only 20 graduates per year and over 54% of existing technologists considering leaving the profession, we face an impending workforce shortage that will severely impact patient care and access.

Despite billions of dollars invested in isotope development in Ontario, hospital infrastructure, medical research, and dramatic advances in cancer therapy – all this depends on a workforce disappearing before our eyes. This example extends to ultrasound and X-ray technologists, who are also experiencing significant workforce challenges. Combine that with the sobering data from TD Bank and the Bank of Canada that underscores a national emergency in declining productivity, with healthcare being the worst offender. **We cannot simply be stewards of education pathways that have not changed since the 1980s and expect change.** This doesn’t have to be our reality—we can change course if we organize now and act decisively together.

**We Must Break The Emergency Glass**

To address this, we are not writing to criticize, as the speakers genuinely offered concern and alignment to wanting to fix this. Therefore, we would like to propose actionable solutions supported by industry partners like ISDCO members, and industry partners like GE and Colleges like Mohawk, who are willing to enable bold changes and help them with a regulatory framework that enables the use of layers of technology. ISDCO members are leaders in creating and funding programs at Mohawk College and are deeply involved in being training sites for multiple institutions. We are prepared to walk-the-walk alongside CMRITO and CAMRT. But we must consider bold new strategies that challenge the status quo. Here are some ideas.

1. **Accelerated Training Pathways**

Collaborate with the academic institutions to develop fast-tracked programs for international medical trainees who possess substantial foundational medical knowledge. Create an “entry” class of examination that focuses on safety, asking for assistance, requiring guidance and limiting practice to small, lower risk, but highly demanded areas of clinical work. In the curriculum, actively assist using AI-translations tools as well as the AI-assisted decision support to bridge language barriers that are often connected with inabilities to pass examinations. By adapting examination levels, and training to meet Canadian standards swiftly, we can significantly bolster the workforce without compromising quality.

1. **Integration of AI-Powered Learning**

Adopt AI-driven educational tools and platforms that provide technologists with real-time guidance and knowledge reinforcement. Language models provide real-time training, verified by credible groups like the Canadian Nuclear Medicine Association for information to guide decision-making. Health Canada-approved technologies, such as smart ultrasound probes offered by multiple manufacturers today, already include algorithms to guide technologists and enhance diagnostic accuracy. These resources can be used to supplement education and improve efficiency.

**3. Modular Curriculum Development**
Partner with institutions like Mohawk College to pilot a modular, competency-based curriculum that maintains rigorous standards while reducing the time required for certification. For a highly specified area like Mammo, after a truncated safety and training program, certain entry-tier technologists could perform technology assisted accredited activities – especially when not requiring injections and biopsy.

Combined with the right technology, right facility, and right onsite supervision, we can start to create an introductory workforce in a step-wise approach that continues towards full certification. We would disclose to patients the training status of personnel, get consent and ensure radiologist’s reports have additional QA. Plus, facilities could take the additional insurance burden to cover liability. This approach would allow “entry tier” technologists to specialize in specific modalities earlier in their training, bridging gaps faster and unlocking more skilled technologists for emerging technologies and higher-paying jobs, as well as unlocking new skills along the way.

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**6. Paid Apprenticeships**
Initiate paid apprenticeship programs akin to those in skilled trades like welding. These programs would provide hands-on, practical training under the supervision of certified professionals and encourage Integrated Clinical Health Science Centres (ICHSC) to participate. Immediate paid apprenticeship opportunities would attract new entrants and facilitate learning through real-world experience, ensuring technologists are workforce-ready upon certification and effectively create cost-free barriers to the labor force willing to participate. But those willing to participate and invest must be allowed to keep their developed talent, within reason.

**7. Direct Supervision and Expertise Pairing**
Create stratified programs that pair partially qualified technologists with direct supervision from imaging experts, such as radiologists and nuclear medicine physicians. This ensures on-the-job learning, supports quality control, and maximizes the capacity of available expertise.

**8. Pilot Nuclear Medicine as a Test Case**
Given that general nuclear technologist programs in most modern, developed education systems are completed in approximately two years, nuclear medicine provides a fertile ground for experimenting with these reforms. By focusing initial efforts on nuclear medicine, we can refine strategies, learn from outcomes, and scale successful approaches across other imaging modalities, like ultrasound.

Mohawk College already has an 18-month program but we need to broaden the tent on who can apply and what they can do earlier and faster. There is also ample opportunity for clinical supervision and the most advanced regulations, including CNSC. By starting with general community in Nuclear, you will unlock dozens of our highest skilled technologists to be engaged and retained by gravitating towards the latest trends in the field, which are fast approaching.

**9. Collaboration with Industry Partners**
Industry leaders are willing to provide not only funding but also advanced training tools and infrastructure. We do not need tax dollars, we just need ideas. Members of the ISDCO Board are among them, but we need regulators to meet us with bold ideas. This support can enhance the educational experience and reduce financial barriers, paving the way for sustainable program development.

**10. Standards Aligned through New Regulators**
Work with our new regulators, such as Accreditation Canada, to align and establish clear, achievable standards for CMRITO and CAMRT-sanctioned training sites. It is important to emphasize that there is limited need for additional regulatory frameworks -- ample tools already exist today to determine and enforce the necessary criteria.

**Why This Matters to the Broader Economy**

We are copying the Ministers of Education and Health to stress that these changes are critical for healthcare and the economic landscape of Canada. Implementing these strategies could generate **thousands of high-paying jobs**, with ultrasound and nuclear technologists earning average annual salaries between $80,000 and $110,000. These positions contribute significantly to local economies and improve the quality of life for those who pursue them. Ensuring a robust workforce pipeline helps maintain Canada’s competitive edge in medical innovation and healthcare delivery.

**The Urgency of Action**

Reports from sources like www.morePETs.ca highlight that Ontario is trailing behind other regions in adopting forward-thinking nuclear and ultrasound medicine developments. Without immediate intervention, the province risks falling years behind, jeopardizing the quality of healthcare services.

**Anticipated Benefits**

* **Immediate Enhanced Workforce Supply**: By streamlining and stratifying the education pipeline, we can rapidly meet staffing needs.
* **Retention of Skilled Professionals**: Flexible and supportive training programs could increase job satisfaction and retention.
* **Technological Proficiency**: Integrating AI tools into training prepares new technologists for modern diagnostic challenges.
* **Diversity and Inclusion**: Fast-tracking diversifies the talent pool, enriching the field with varied expertise.

**Call to Action**

We urge CMRITO, CAMRT, the Ministry of Education, and the Ministry of Health to prioritize these proposed strategies. **We need** **an emergency committee assembled with the ISDCO members at the table. We need to meet intensely, and with your support to change the status quo. We should commit to starting the new Ontario fiscal year (April 1, 2025) with new solutions to most, if not all, parts of this problem together, and we must invite industry to join us with how technology can unlock the next productive wave in Ontario health.**

We can then swiftly move to the necessary amendments and collaboration from educational institutions to be ready by the fall, as well as industry partners to create an agile model that meets today’s healthcare demands without compromising patient care.

The cliff we are driving towards does not have to be our reality—we can veer off this trajectory with collective organization and decisive action. But we are running out of time. This was the same talk we got in 2023 and will be again in 2025 if we do not get your support.

We welcome discussions to further develop these proposals and work collectively toward a sustainable ultrasound and nuclear medicine solution in Ontario.

**Respectfully,**

**The Board of Directors of the Independent Surgical & Diagnostic Clinics of Ontario by its representative:**

**Jason Hartman, President**

CC: The Honourable Doug Ford, Premier of Ontario;

 The Honourable Jill Dunlop, Minister of Education;

The Honourable Sylvia Jones, Minister of Health;

 Laura Pinkney, Director of the Health Insurance Branch, Ontario Ministry of Health