On April 7th, 2020, Health Canada's Biologics and Radiopharmaceutical Drugs Directorate (BRDD) met with interested parties to provide an update on ongoing regulatory changes related to COVID-19. Dr. Sowmya Viswanathan attended as Chair of the Cell Therapy Stakeholders Group and prepared the following notes. They may be of interest to those planning or running clinical trials, and those involved in medical device supply.

Attendees – Biologics and Radiopharmaceutical Drugs Directorate (BRDD), Office of Policy and International Collaboration (OPIC), Centre for Biologics Evaluation (CBE), Centre for Evaluation of Radiopharmaceuticals and Biotherapeutics (CERB); CARS Biosimilars Canada, Canadian Association of Nuclear Medicine (CANM), Canadian Biosimilars Forum (CBF), Nuclear Medicine Alliance (NMA), Cell Therapy Stakeholders Group (CTSG).

- In Canada 1/3rd of COVID-19 cases are patients over 60. This group has the highest proportion of hospitalizations – (2/3) and ICU admissions – 60% is over age of 60.
- All Health Canada employees are working from home but set to meet performance targets – shifting our resources to meet performance targets – more our resources as needed. Focusing quite a bit on COVID-19 essential services – prioritizing those – SAP is also a priority for all indications as well as COVID-19 – core review work is considered essential – perform those duties from home
- Impact on submission reviews: HC has cancelled some onsite evaluations but is using other methods. The idea is to not have a negative impact on review – look to receive more information from sponsors to more paper-based review – this shouldn't impact how review is conducted or timelines.
- Pre-submission is now by teleconference. Some staff have been asked to focus on COVID-19 duties. Some policy work has been put on hold to shift staff to focus on COVID-19 responses.
- If staff is impacted by illness, service standards could suffer. That could have an impact on our service standards. HC will have a prioritized way to address highest priority first.
- Overview of COVID-19 work that has been done in Canada as of April 6: there have been 37 specials assessment requests for test kits and medical devices, and over 200 applications for in vitro testing devices. They have authorized 10 applications for test kits and 16 for other medical devices.
- Drugs: 10 clinical trials most on small molecules all of them are listed on the website and kept up to date.
- The health products industry resources, guidance and Q&As.
- Other measures including interim orders as of March 18 for example, expedited review of medical devices. All trials are authorized by an interim order, which is a quick tool we can use to put parameters around device and make product available.
- As of March 25, we have an emergency response act B c-13. This equips Health Canada with more information on risks and benefits, and allows use of tools such as conditional approvals.

- This act also allows for amendments to Patent Act to respond to the public health emergency until Sept 30.
- On the international front: there have been several interactions with FDA, EMA and other regulators – have attended 3 international meetings with this group. Meetings have focused on vaccines, treatments (non-vaccines), and 3rd took place today on how to leverage real world evidence.
- Other international interactions in clusters, in Australia/Canada/Singapore/Switzerland consortium – exchanged information on regulator activities.
- Health Canada has also been participating in virtual calls with the WHO, on the subject of research and development footprint on vaccines.

Drug Shortages side Regulatory Operations and Enforcement Branch – Drug Shortage Units

- Supply chain issues: we are pivoting to be more pro-active by identifying potential supply issues. There has been increased demand as result of increased numbers of patients being treated for materials like inhalants. There is also an increased demand in hospital settings, and questions as to whether companies can access additional supplies.
- Communication strategy with health care professionals advocating conservation measures.
- There are potential shortages in sedatives and muscle relaxants and pain relievers, which are needed for patients using ventilators. HC is working with Canadian Society of Hospital Pharmacists and the Canadian Care Society and industry member in order to increase availability of supplies in Canada.
- A new legislative amendment new interim order allow for expedited importation/sales for products that are not authorized in Canada but meet other Good Manufacturing Practice (GMP) requirements. This sets up notification process.
- We are working with all parts of government. Certain companies are placing restrictions on export adding another layer to supply disruptions. HC is working with Global Affairs Canada to mitigate those conditions and expedite release of supply materials.

Round Table Updates

Biosimilars Canada – Jody Cox

- With international work, we are doing a lot of international work in international biosimilar association very active in terms of monitoring what's happening in different countries around the world. Many countries are experiencing delays in supply chains and working closely as an organization.
- Biosimilars Canada is working with WHO and other agencies as well.
- There have been a lot of good statements coming including G20 statements from Canada. Joint statement of WCO and WTO to allow for free flow of medical supplies are all positive, but need more concrete action.

- We have an opportunity to see what has happened in the European context to avoid some of the problems they had, particularly around border closures. Europe has implemented green lanes (less transportation disruptions).
- Essential worker designation very pleased to see acknowledgement of
 pharmaceutical supply chain to keep things moving forward. Transportation will
 continue to be a major issue. We are particularly seeing ocean freight slow down.
 It now takes twice as long to get here from Europe. Reduction in air freight. It has
 been a struggle to get adequate air freight but cost is becoming more prohibitive
 we are seeing 1500% increase in cost/kg which is very difficult for regulated
 industry to absorb.
- In terms of PSP suppliers, looking at minimizing disruptions in terms of delivery to patients.
- Watching the federal courts as well. Need for subsequent entry products and the value they bring will be more essential.
- How can we help BRDD to ensure that review targets are met? We have put out a few statements around supply chain and challenges.

CANM – Daniel Levin - Radiopharmaceutical manufacturing –

- Community in Canada hasn't seen too many supply problems -
- More delays in shipment.
- The increase in duration of shipment affects radiochemical in particular as they have a limited shelf life.
- Daniel Levin Asked: if changing the starting material for radiochemical manufacturing, are we talking about the same submission timelines or can they be faster?
- Response from BRDD: For clinical trials, being affected for oncology during this amendment might be needed. Those are the issues and fears from the community. BRDD has posted some guidance on clinical trials – some alternative remote approaches that can be used for patient monitoring. On submissions being expedited, are focusing on COVID-19 are being expedited, but continuing to meet performance standards in other areas.
- Following Society of Nuclear Medicine in US and European Association of Nuclear Medicine
 – we could forward issues they are raising – signal us of shortages.

CBF – all 4 biomanufacturers are involved in biosimilars and other 2 are involved with Innovations Medicine Canada – expanding access – a lot of work is happening on the margins and is on the back burner – much of the work is now focused on public health issues rather than biosimilars per say- No comment

NMA – No update at this time Hassan – no comments at this time

Cell Therapy Stakeholders Group (CTSG)

• A lot of movement on cell therapy trials focusing on Mesenchymal Stem/Stromal Cells (MSCS) around the world. There is also interest in immunotherapy

approaches globally. The CTSG provided an update on how we don't have Canadian stock pile and they are a bit concerned about importing cells from Europe for some trials that are looking to be initiated in Ottawa and Toronto. HC will be seeing some submissions from various groups but also looking at potentially consolidating a pan-Canadian approach.

- The CTSG asked about update on Cells, Tissues and Organs (CTO) guidance for raw material and ancillary agent screening. Liz Anne Gillham-Eisen said that CTO guidelines had been updated and sent directly to source establishments that deal with minimally manipulated autologous cells, tissues organs for homologous use, but acknowledged that this should be sent to others who will use it for allogenic purposes. Liz Anne to send to Sowmya to distribute (not received yet).
- Also provided an update on COVID-19 session at the International Society for Cell and Gene Therapy (ISCT) in May from cell and gene therapy perspectives – important science and discussion and latest abstracts