

CAEP Disaster Committee Annual Report

PREAMBLE

As in previous years the report of the Disaster Committee is also the report of the Centre for Excellence in Emergency Preparedness (CEEP). This latter organization includes the membership of the Disaster Committee as well as other healthcare professions, all dedicated to disaster preparedness in the healthcare sector.

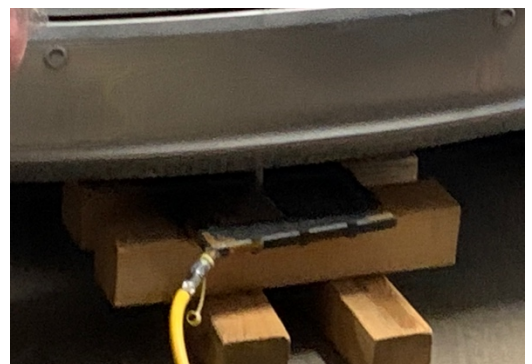
This report will span the past two years because no report was submitted in 2020.

EDUCATION

Two large events since the last report and the next conference as well as an on-line course are in planning.

The annual two day disaster conference was not held in December 2019 because in January 2020 CEEP held its **first international conference**. This took place in Israel and approximately 40 Canadian healthcare professionals, primarily physicians, attended. The themes of the conference included:

- A geopolitical review from the Obama era American Ambassador to Israel to provide context.
- Community resilience both at the hospital level and at the community level. This included a trip to communities adjacent to the Gaza Strip and visit to a hospital to see the set up for function under fire. It also included discussion of promoting mental health / emotional resilience for communities under fire (top right a rocket shelter at a bus stop in an area with less than 10 second launch to impact warning time, middle right sheltered underground ward to be activated in emergencies). Recent events have shown how vital this infrastructure is.
- Light urban search and rescue. This included lectures and hands-on training. Because of foul weather limitations the hands-on was scaled down to lifting a car in a sheltered setting (bottom right showing blocks and compressed air device). If the conference is repeated the full training will include rescue from under building debris etc.
- A visit to the national blood bank.
- A visit to an Emergency Department to learn their protocols for decontamination, CBRN lockdown, mass casualty etc.
- A review of pediatric mass casualty response
- A visit to the national health care emergency operations centre to learn about resource management, patient distribution etc.



- Lectures on application of new technologies such as remote sensing and AI in disaster settings.
- Treatment of contaminated patients including a full-scale exercise in PPE in a simulation center (picture right).
- A review of EMS function in disasters including a visit to the national dispatch/command and control centre (picture below).



An **on line conference** was offered over two days in October 2020 (one English and one French) focusing on preparing for the second wave of the pandemic. Topics included:

- Preparing and Responding to COVID-19: Innovative Practices that Worked in Hospital Settings
- Pandemic Preparedness in Rural Hospitals
- Effective Communications During Pandemics
- Maintaining Staff Wellness During High Impact Pandemics
- How Hospitals in Israel and France Prepared and Responded to COVID-19

The **next conference** scheduled for 2022 will be in Japan with a focus on:

- Earthquake and tsunami preparedness and response from early warning systems to recovery after the event. Possible experiences include a hospital designed to withstand earthquakes.
- Nuclear disaster preparedness and response, including detection, decontamination and dealing with possible mass exposure. Possible experiences include visiting the Fukushima Daiichi Nuclear Power Plant and the surrounding region to get an idea of the extent of the tsunami impact and the challenges of recovery.
- Populations at risk in disasters such as geriatric, pediatric, mental health and the homeless as well as the overall culture and health care system. Japan has a rapidly aging population, a problem soon to face Canada.
- General population preparedness and the high degree of volunteerism, how this is organised and supported. Possible experiences include to visit The Tokyo Rinkai Disaster Prevention Park.
- COVID In Japan including specific issues around quarantining a cruise ship, patient tracking, tools to increase hospital surge capacity and the public health response.
- Response To Terror and/or CBRN Events, such as the Tokyo subway Sarin gas attack. Possible experiences include meeting with staff of St. Luke's hospital, reviewing current protocols (including deployment of "disaster hospitals") and, if possible, attending an exercise.

- Technology (specifically IT applications) & logistics, specifically how technology is used to communicate risks to the public (such as earthquake warning applications), to gather information about events and update the command center.

Both the timing and the content of the Japan conference are tentative. We are currently in discussion with Japanese faculty to finalise both but planning is on hold due to COVID.

In addition to the conferences above, the content and process of an **on line disaster certificate training course** have been defined. Faculty is being actively recruited and negotiations are currently in progress with possible hosts.

RESEARCH

Two research papers published in the past year:

The EDIT Survey: Identifying Emergency Department Information Technology Knowledge and Training Gaps Disaster Med Public Health Prep. <https://doi.org/10.1017/dmp.2020.474>.

Authors were Daniel Kollek, David Barrera, Elizabeth Stobert and Valérie Homier.

This paper revealed significant computer-human interface dysfunctionality and readiness gaps in the event of an IT failure. These stemmed from poor system design, poor planning and lack of training. The paper also identified areas with technical or training solutions and suggested mitigation strategies.

Drone versus ground delivery of simulated blood products to an urban trauma center: The Montreal Medi-Drone pilot study. J Trauma Acute Care Surg. 2021 Mar 1;90(3):515-521.

Authors were Valerie Homier, Danny Brouard, Michael Nolan, Marie-Andrée Roy, Patricia Pelletier, Melissa McDonald, François de Champlain, Elene Khalil, Frederic Grou-Boileau, Richard Fleet

This paper demonstrated that unmanned aerial vehicle transportation of simulated blood products was significantly faster than ground delivery. Simulated blood product temperatures remained within their respective acceptable ranges throughout transport.

ADVOCACY

The **CAEP position paper on disaster preparedness** was released in March 2020 and published in CJEM in July 2020 (Jul;22(4):471-474)

PANDEMIC RESPONSE

The pandemic was a period of high activity for anyone involved in disaster preparedness.

Through the **Disaster Community of Practice** (www.firstreceivers.ca) COVID resources were shared nationally and internationally. These were also posted on the CEEP website (see "Social media" below).

In the past 14 months 71 updates went out to the community's mailing list of 416 members.

In addition to activity within CAEP and CEEP individual members of the committee had **leadership roles** across the country. Some of these included

John Armstrong: Medical Director for Nova Scotia Health Emergency Preparedness.

Valerie Charbonneau: Clinical lead for the long term care home support teams in Champlain (19 hospitals).

Valerie Homier: Responsible for developing Surge Capacity Plan during wave one for the McGill University Health Centre. This included planning all the COVID and non COVID patient trajectories throughout the hospital, identifying surge areas and setting up outdoor screening centres at each site.

Trevor Jain; Disaster Medicine/Management Consultant to the Minister of Health, PEI. Appointed by the Province as the Disaster medicine/management lead for health, tasked to lead, develop the system, plan to maintain essential services while providing a COVID response.

Andrew Willmore: Medical Director of Emergency Management for The Ottawa Hospital, coordinated deployment of testing and vaccination centers. Incident commander for the Champlain region for the initial 6 months of response to COVID (19 hospitals).

SOCIAL MEDIA

The **social media footprint** of CEEP has been expanded significantly with a new and improved website (www.ceep.ca) including a disaster resource library that is being currently updated, an active Facebook account and an active Twitter feed. Thanks are due to Valerie Charbonneau for the website and Aimee Kendrick and Val Rzepka for the Twitter & Facebook updates.

Respectfully submitted to the CAEP board,



Daniel Kollek, Committee Chair
May 31 2021