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forecast

BRITISH COLUMBIA CENTRE *for* EXCELLENCE *in* HIV/AIDS

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Dr. Julio Montaner, director of BC-CfE, and B.C. Minister of Health Terry Lake.

Longest supporter of Treatment as Prevention hails strategy for health outcomes and cost-effectiveness

'We know by increasing community capacity, we can improve patient care and efficiency for our investments,' says health minister

The government is the longest adopter of the Treatment as Prevention (TasP) strategy and has recognized Dr. Julio Montaner for the success of significantly improving health outcomes and providing a sustainable model for health-care delivery.

The B.C. government recognized Dr. Julio Montaner for his pioneering work in developing the TasP strategy at the BC Centre for Excellence in HIV/AIDS. TasP has dramatically reduced rates of new HIV transmission, significantly improved the quality of life for HIV-positive individuals and provided a model that is cost averting.

BC-CfE Director, Dr. Julio Montaner accepted his Certificate of Appreciation from provincial Minister of Health, Terry Lake at a special event at the Legislature in Victoria, B.C. Lake commended Dr. Montaner for his lifelong commitment to providing care and treatment to HIV positive individuals, including pioneering Highly Active Antiretroviral Therapy (HAART) and TasP. Minister Lake made the address to sitting members of the Legislative Assembly.

In 2009, the B.C. government announced the launching of a four-year pilot project of the made-in-B.C. TasP strategy, called STOP HIV/AIDS. Before the pilot had wrapped up, based on its early success, the government announced in 2013 a province-wide expansion of the STOP HIV/AIDS program. Largely due to universal access to HIV antiretroviral medications as part of TasP, B.C. has seen HIV-related morbidity and mortality decline by over 95% since 1995, and a decrease of greater than 66% of new HIV infections.

In a speech, Lake highlighted emerging new data shows TasP will help "to improve the sustainability of our health care system."

"Each year, we spend over $100 million to ensure HIV medications are free to all people who wish to be on treatment. We know by increasing community capacity, we can improve patient care and efficiency for our investments," said Lake. "Furthermore, the additional investment aimed to enhance testing, treatment and support will become cost-adverting by 2017 and it is estimated to accrue $48 million in savings by 2035.

"It is perhaps not surprising then, that B.C.'s strategy is influencing the international community."

The TasP strategy has been adopted by China, France, Brazil, Spain, Panama, Argentina, Swaziland, the Australian state of Queensland, and parts of the United States – to name a few. In September 2014, the United Nations endorsed the TasP model in its launch of the 90-90-90 strategy, a plan for reducing the global AIDS pandemic by at least 90% of its 2010 rate by 2030. By 2020, UNAIDS' goals are that 90% of all people living with HIV will know their status, 90% of all people diagnosed with HIV infection will receive sustained antiretroviral therapy, and 90% of all people receiving antiretroviral therapy will have viral suppression. Dr. Montaner, as UNAIDS Special Advisor on HIV Therapeutics, is the architect of the 90-90-90 strategy.

"It is an honour to be recognized by our B.C. government but much work remains," said Dr. Montaner. "In particular, B.C. is the only province in Canada consistently seeing a decline in new HIV infections while HIV infections continue to increase nationally."

"It is important to recognize the distance we still have to go in order to reach the end of HIV and AIDS. We must continue to build and strengthen accessible pathways to treatment, prevention, care and support for all. While other nations are striding forward based on the strategy pioneered by B.C., Canada is without a national strategy. Further, we need to reflect on the lessons learned in the fight against HIV/AIDS and expand the strategy to other contagious diseases as a means to promote targeted disease elimination and thus contribute to the sustainability of our health care."


PUBLIC HEALTH

Brazil launches ambitious treatment-as-prevention plan to target HIV

Brazil: Country aims to get all infected people into treatment, even if they're not sick

CENTRO DE REFERÊNCIA MARTHA RIQUE REIS

» Our strategies have been failing and it's clear we need a new one."

- HIV/AIDS advocate quoted in *Globe & Mail* feature, Brazil launches ambitious treatment-as-prevention plan to target HIV: " Brazil wants to stop the spread of HIV by putting every single person who has the virus on treatment, whether they are sick or not. The concept – known as "treatment as prevention" – has Canadian roots as it was pioneered by Dr. Julio Montaner.

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Dr. Kerr receives Peter Wall Solutions Initiative Project Award

Dr. Thomas Kerr, co-director of the Urban Health Research Initiative at BC-CfE and Associate Professor in the Department of Medicine (Division of AIDS) at the University of British Columbia, has been awarded a Peter Wall Solutions Initiative Project Award.

Dr. Kerr is the principal investigator of a one-year project titled Translating community-based HIV research into culturally appropriate action with Aboriginal people who use illicit drugs and/or illicit alcohol in Vancouver, BC, which received a one-year grant in the amount of $50,000. The project is being undertaken in partnership with the Western Aboriginal Harm Reduction Society (WAHRS).

The Peter Wall Solutions Initiative Awards support innovative research projects aimed at finding practical solutions to societal problems. These awards allow UBC faculty members to address issues of societal importance through innovative, interdisciplinary and academically rigorous research projects. Projects are funded on a one-year basis but may include up to three-year plans. Renewal is based on funding availability.

Tracey Morrison, a member of the Vancouver Area Network of Drug Users (VANDU) and the President of WAHRS, said, "The Wall Solutions grant comes at a vital time for the WAHRS Board and our members as we want to get the knowledge gained from our traditional talking circles out to the community and service providers. Our intention is for this initiative to make a big difference towards enhancing access to health care, access to detox and treatment programs (including to those for people with HIV/AIDS) for all Aboriginal peoples and, specifically, users of illicit drugs and illicit alcohol. We look forward to beginning and sustaining an ongoing dialogue and appreciate the opportunity to generate our work to the next level."

Dr. Thomas Kerr

To read more about the Peter Wall Solutions Initiative Award guidelines and other winning projects, please visit http://bit.ly/ProjectAward. To read Dr. Kerr's project abstract, please visit http://bit.ly/ProjectAward, click on the "Projects" Tab and scroll down to the appropriate title.

New screening for Hep C virus improves patient outcomes

BC-CfE has led the development of a screening process for a hepatitis C drug that improves patient outcomes and strengthens health care sustainability.

This development work reflects the BC-CfE's focus on exporting successful HIV therapeutic tools and model to other infectious diseases as part of our disease elimination strategy.

Earlier this year, Health Canada approved simeprevir, a direct-acting antiviral agent, for the treatment of chronic hepatitis C virus (HCV) in combination with two other drugs, peginterferon-alfa and ribavirin.

However, a challenge to successful treatment of HCV – much like HIV – is the natural variability of the virus. An HCV variant known as "Q80K" has been shown to reduce the efficacy of simeprevir used in this drug combination. With a price tag of $650 per pill, and more than $55,000 for a three-month course of treatment, developing a screening process to identify patients who are unlikely to respond to therapy was critical in terms of avoiding high costs for low health outcomes.

"The screening process is an example of a therapeutic tool that optimizes both patient outcomes and resource utilization," said Dr. Richard Harrigan, Director of the BC-CfE's Laboratory Program.

"There is important value for this type of screening process, not only from a cost-effectiveness perspective but from a treatment perspective," said Dr. Harrigan. "Knowing beforehand which patients will respond best to the treatment allows physicians to tailor treatment to the needs of the patient."

Dr. Harrigan led the development of the Q80K mutation screening process in partnership with Janssen, Inc. (manufacturer of simeprevir), the BC Centre for Disease Control and funder Genome BC.

Researchers investigated how the mutation evolved and was spread throughout the world. They discovered about half of the patients with hepatitis C genotype 1a who live in North America have the Q80K variant. Given the high frequency of the Q80K polymorphism in the North American population, the US Food and Drug Administration and Health Canada have recommended all patients with HCV genotype 1a be screened for the Q80K polymorphism before beginning treatment with simeprevir.

Simeprevir is indicated for treating chronic HCV infection as a part of a triple antiviral treatment regimen consisting of two other drugs, peginterferon-alfa and ribavirin. Alternative treatment options should be considered for patients found to be infected with the Q80K variant.

Oak Tree Clinic celebrates 20 years

Oak Tree Clinic is celebrating its 20th anniversary of addressing the unique needs of HIV-positive women and their children in a family friendly setting.

Oak Tree Clinic is one of BC-CfE's many partners and collaborators sharing the goal of improving care for those living with HIV/AIDS and significantly reducing the transmission of HIV/AIDS in the province.

Located at the BC Women's Hospital in Vancouver, the Oak Tree Clinic opened in 1994 to provide specialized HIV care to women and families living throughout B.C. Since that time, the Oak Tree Clinic has served over 5,500 patients; enabled over 500 HIV-positive women to have healthy, HIV-uninfected babies; cared for over 80 HIV-positive children; and conducted more than 2,500 patient visits annually.

"Over these last 20 years, Oak Tree Clinic has been a pioneer in women- and family-centered HIV care, and is one of the few clinics in North America addressing women's health care needs at all stages of life - from childhood through reproductive years, menopause to elder care," said Neora Pick, medical director of the program. "This model of care recognizes the multiple complex barriers influencing health outcomes for HIV-positive women and their families, improving access to care by providing a safe, supportive environment for women, including provision of healthy snacks and some childcare."

The clinic has grown to include an interdisciplinary team to best serve HIV-positive women's health needs: physicians (Adult and Pediatric Infectious Disease, Obstetrics / Gynecology and Psychiatrists), nurse practitioners, social workers, nurses, pharmacists, a dietician, and a trauma counselor to provide seamless, holistic care for over 600 patients. Case management is provided for pregnant women, and those struggling with addictions and/or mental health issue.

Oak Tree excels at engaging vulnerable and hard-to-reach populations through outreach nursing and social work, mHealth strategies, and via Telehealth medicine for distance care. Oak Tree runs monthly women peer support groups in the clinic (for all women), and in Vancouver's Downtown Eastside for HIV-positive Aboriginal women. In addition, since 2009, Oak Tree has provided monthly prison outreach, linking HIV-positive women in corrections to HIV care.

RESEARCH

Hepatitis C alone doesn't drive liver-related mortality

HIV infection, rather than hepatitis C virus (HCV) infection, predicts liver-related mortality among people who inject drugs (PWID), according to the findings of a new study.

Of the 2,279 IDUs recruited into the BC-CfE study and followed for approximately five years on average, 1,921 were HCV positive at baseline and 124 later became HCV infected during follow-up, while 620 were identified as HIV positive at baseline.

Among HCV-positive participants, there were 465 deaths during a 15-year study period. Common causes of death included HIV-related causes (25%), other non-accidental causes (e.g., respiratory and circulatory diseases and cancers, 24%), overdose (24%), and suicide and other accidental causes (12%). Of note, only 6% of deaths were attributed to liver disease.

In further analysis, HIV infection, but not HCV infection, was independently associated with liver-related mortality. Furthermore, individuals with both HIV and HCV had a 2.5 times greater risk of liver-related death compared with those with HCV-infection alone.

The findings highlight the role of HIV with or without HCV rather than HCV alone in contributing to liver-related mortality among IDUs.

Given that disease progression in chronic HCV would take as long as 15 to 20 years, and considering the increasing rates of death from liver cancer observed in our study, increases in liver-related mortality may follow in this setting.

The results highlight the need to expand efforts to promote access to HCV testing and treatment, particularly among HIV-positive IDUs.

The study, "Predictors of liver-related death among people who inject drugs in Vancouver, Canada: a 15-year prospective cohort study," was published in the *Journal of the International AIDS Society*. The principal investigator is Kanna Hayashi, a research scientist with BC-CfE's Urban Health Research Initiative.

LECTURES & EVENTS

Forefront Lecture

Toward safer spaces of health access: spatial and contextual barriers and facilitators of HIV prevention, treatment and care among sex workers
Dr. Kathleen Deering
Wednesday December 17, 2014
12-1:00 PM
Hurlburt Auditorium, St. Paul's Hospital
For more information, please visit education.cfenet.ubc.ca/

BC Centre for Excellence in HIV/AIDS

- Improve the health of British Columbians with HIV through comprehensive research and treatment programs;
- Develop cost-effective research and therapeutic protocols;
- Provide educational support programs to health-care professionals;
- Monitor the impact of HIV/AIDS on B.C. and conduct analyses of the effectiveness of HIV-related programs.

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