Hepatitis C immunity study launched byresearcher in Pei Correctional Centre

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Dr. Lisa Barrett (left) and Pam Routledge-McKinnon, a registered nurse, in the Division of Infectious Diseases. Credit: Nick Pearce photo

It's the beginning of the end for hepatitis C, according to Dr. Lisa Barrett, a clinician scientist in the Division of Infectious Diseases at Dalhousie Medical School and the Nova Scotia Health Authority, and lead investigator of a hepatitis C immunity study in Prince Edward

Island's provincial correctional centre.

"We have newly approved oral medications for hepatitis C with proven cure rates of 90 to 97 per cent and minimal side effects," explains Dr. Barrett. "The challenge is to get those medications to everyone who's infected, to wipe out the virus in the population as a whole."

That means providing the new drugs, known as direct-acting antiviral agents, to people in correctional settings.

"Less than one per cent of the general population is infected with hepatitis C, but the infection rate soars to 23 per cent in corrections facilities in Canada," Dr. Barrett says. "To eliminate hepatitis C, we must treat the offender population."

Previous generations of hepatitis C medications were given intravenously over long periods of time, with side effects including pain, fatigue and low blood counts. This made them impractical to give in correctional settings. The new oral drugs are, however, a different story. When Prince Edward Island became the first province in Canada to fund them, Dr. Barrett saw an opportunity to collaborate.

"With the province treating hepatitis C aggressively in the community, we knew could make a real impact on the virus if we could treat offenders as well," she notes. "Beyond providing effective treatment, this study will help us assess the feasibility of treating hepatitis C in corrections settings, while shedding light on the new drugs' potential to protect against re-infection."

Understanding the immunity of re-infection

Given there is no vaccine against hepatitis C, understanding the immunity of re-infection is especially important for populations at high

risk of re-exposure.

Dr. Barrett and her study team are providing the approved course of oral drugs over the next year to roughly 60 offenders at the PEI provincial correctional centre who test positive for genotype 1 hepatitis C and agree to participate. They will follow participants for a year after treatment, in the correctional centre or back in the community, to monitor for re-infection and any potential side effects of treatment.

The Nova Scotia Health Authority is leading the PEI study, with a view to launching a multi-site study in corrections facilities across the region once the new drug is approved in all four Atlantic Provinces.

"We are grateful to the PEI Department of Justice and Public Safety for making it possible for us to launch a pilot study on the Island," says Dr. Patrick McGrath, integrated vice-president of research, innovation & knowledge Translation for the Nova Scotia Health Authority and IWK Health Centre. "This is an important first step in addressing hepatitis C not only in corrections settings but in the broader community."

AbbVie Corporation, manufacturer of the medication being used in the study, Holkira Pak, is providing funds for this groundbreaking research—one of the first drug intervention studies in a Canadian corrections facility for 40 years.

Provided by Dalhousie University