



# PENICILLIN ALLERGY DE-LABELING PROJECT AT UHNBC

Accessibility to Healthcare



# INTRODUCTIONS

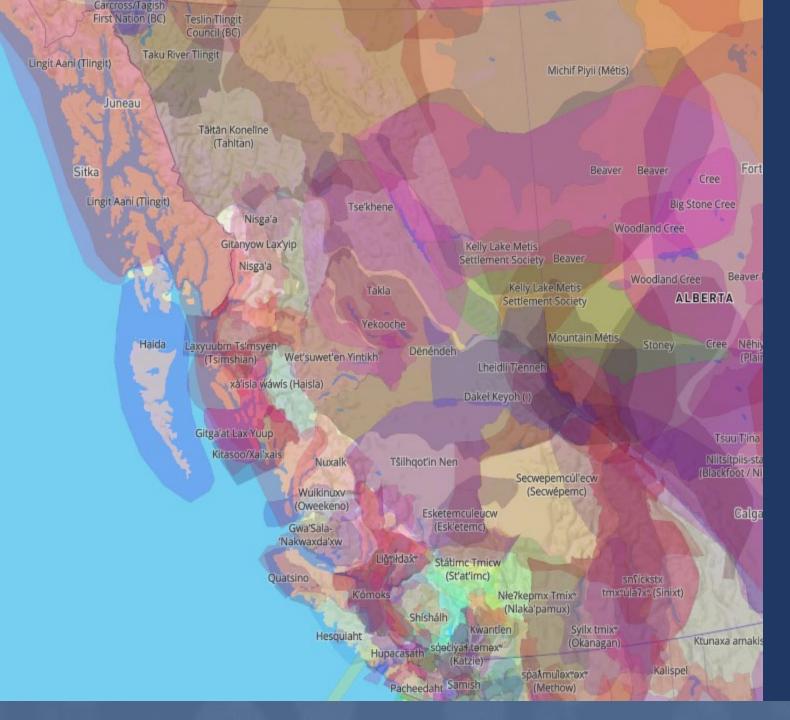
**Heather Gummow** 

Dr. Irina Sainchuk

Sumeet Hayer

# DISCLOSURES

We have no conflicts of interest and nothing to disclose



Prince George is situated on the traditional territory of the Lheidli T'enneh and their traditional lands cover much of the area from present-day Prince George to the Rocky Mountains. We wish to acknowledge respect and honor the keepers of the land in which we conducted our work.

We would like to acknowledge that the land we live and work on is comprised of many traditional, ancestral, and unceded territories of First Nations, Métis, and Inuit.

# ACKNOWLEDGEMENTS

We'd like to acknowledge the physicians, staff, programs, and partners that enabled this project to take place

# Project Overview

Regionally and provincially resources have been allocated to support the Spread of successful QI projects

This project originated as a Physician Quality Improvement project at BC Children's Hospital

Dr. Sharla Olsen and Dr. Irina Sainchuk identified this work as a priority

Engaged a team of individuals to develop a Penicillin Allergy Delabeling Clinic at UHNBC

# Journey

Project team consisted of physicians, operational leadership, pharmacy, nursing unit clerk, health information management staff, spreading QI team, etc.

Operational and financial approval

Engagement with Departments of Emergency, Obstetrics and ICU

Facilitated multiple process mapping sessions to document clinic and patient flow

Development of data analysis spreadsheet

### Penicillin Allergy De-labeling Clinic, UHNBC Referral through to patient arriving at clinic Thursdays @ 1pm Start End Patient See family Arrive at UHNBC Appointment Go to the 5<sup>th</sup> floor physician and Phone at 12:30pm and go scheduled based request referral to consultation with to Admitting/ Northern Medical on clinic and clinic / fax #250-Clinic Pharmacist Patient Program patient availability 645-6070 Registration If eligible, contact Clinic Pharmacist patient via phone to arrange Notify Admitting screening Receive referral Phone via email zz\_prg-Write on referral Send Microsoft and assess consultation with admitting@northe Go to the 5<sup>th</sup> floor form which clinic Teams message to patient – identify —> rnhealth.ca with eligibility criteria stream and fax NMP NUC to Northern Medical of patient Send referral form NH#, Encounter # clinic stream -If ineligible, back to #250-645confirm faxes have Program to NMP clinic NUC and date/time of oral, skin, high risk document on 6070 been sent via fax #250-645phone consult referral form 6070 Admitting/Registration Within 3 business days, pre - reg Create recurring Estimated arrival Create recurring eceive scheduled create with Dr. follow up date of 30 days initial off pre-reg slate and file Sainchuk as encounter attending Receive referral physician and 'Other Clinic' for medical service Cancel preregistration For eligible NMP Nursing Unit Gerk Refer to script patients, call Receive referral Receive referral patient and Fax scheduled form back from schedule in groups send to slate to Clinic Pharmacist by identified clinic Admitting / fax Admitting / fax stream Only schedule 1 #250-565-2234 #250-565-2234 Greet patient Clinic Pharmacist / Clinic Pharmacist, pregnant Add copy to fax #250-645-7926 patient per fax #250-645-7926 file For ineligible clinic patients, provide o clinic physician for written Notify Admitting / response to fax #250-565-2234 referring physician

# DID YOU KNOW?

10% of the population report they have an allergy to penicillin, however; after careful evaluation, 90% of these individuals are found not to be allergic

In patients who are allergic to penicillin, 50% outgrow their allergy after 5 years and 80% outgrow after 10 years of avoidance

# HARMS ASSOCIATED WITH USING ALTERNATIVE ANTIBIOTICS

Increased risk of "superbugs"

More side effects

Needing to use several antibiotics in combination to treat the same infection

If you are pregnant there is an increased risk of infection post delivery

Not being able to treat syphilis effectively

More expensive

# **BENEFITS**

Removing a penicillin allergy label ensures patients have the best antibiotic options available for treatment of infections for the future.

Supports our Institute for Healthcare Improvement (IHI) Quadruple Aim framework by supporting better outcomes, improving patient experiences, as well as lowering costs.

# PATIENT PARTNER PERSPECTIVE

- KE, 40 y/o with interstitial lung disease (ILD) with frequent respiratory infections requiring antibiotic therapy
- Penicillin allergy label has greatly limited the available treatment options
- De-labeled successfully in summer 2023 which has opened the possibilities of antibiotic choices
- Potentially resulting in more targeted treatment, less side effects, reduced healthcare costs and less antimicrobial resistance

# ACCESSIBILITY TO EQUITABLE CARE

"The development of the Penicillin Allergy De-Labeling Clinic at UHNBC provides a unique opportunity for patients with a penicillin allergy label to be safely assessed and ensures the population of the North has access to equitable care"

Alicia Rahier, AMS Lead Pharmacist

# TO DATE

Clinic is running one group visit per month

Patients are pre-assessed and categorized into three streams of clinic – Oral Challenge, Skin Testing, Allergist Referral

Safely de-labeled 33 patients with no adverse outcomes

Of the 33 patients, 60% female without child, 21% female with child and 19% male

Average cost savings per patient \$2,650 / total cost savings for project \$87,450

## PENICILLIN ALLERGY DE-LABELING PROJECT AT UHNBC

### AIM:

By January 2023, develop and implement a clear and safe process to assess and de-label patients with a penicillin allergy label at the University Hospital of Northern BC





TOTAL PATIENT REFERRALS

98



PRE-ASSESSMENT COMPLETE, AWAITING APPOINTMENT

46



WAITING TO HEAR FROM PATIENT

16



TOTAL PATIENTS
DE-LABELED

77

### **OF THE 33 DE-LABELED PATIENTS:**

26 PATIENTS WERE FROM PRINCE GEORGE, 3 FROM VANDERHOOF, 1 FROM SMITHERS, 1 FROM FORT ST. JOHN, 1 FROM HOUSTON, AND 1 FROM BURNS LAKE



60% female without child, 21% female with child, 19% male

THE AVERAGE PATIENT
ACCESSING THIS TESTING IN
PRINCE GEORGE VERSUS HAVING
TO TRAVEL TO VANCOUVER
SAVED A TOTAL OF
\$2,650

INCLUDING KM/FLIGHTS, HOTEL, MEALS TIME LOST AT WORK, CHILDCARE, ETC.

TOTAL PATIENT COST SAVINGS TO DATE:

\$87,450



OF PATIENTS HAD NO REACTION DURING THE TESTING PROCESS AND WERE SUCCESSFULLY DE-LABELLED!

# WHY IS THIS BENEFICIAL?

"Inappropriate penicillin allergy labels result in suboptimal antimicrobial treatment, increased risk of surgical site and resistant organism infections, adverse drug events, and higher healthcare costs." (1)





References: 1. https://aacijournal.biomedcentral.com/articles/10.1186/s13223-023-00777-4#:--text=inappropriate%20peniciliin%20allergy%20labels%20resuit.higher%20healthcare%20 costs%20%585%50

# KEY ENABLERS FOR SUCCESSFUL SPREAD



**Leadership & Prioritization** 



Scale & Scope



**Training & Education** 



Culture

# Next Steps

Collaboration opportunities with the local pediatricians will continue to be explored and further Spread will be considered with communities across the North.

The SQI team will continue to monitor the success of this project and review and analyze data with the broader team.

# CONNECT WITH THE TEAM



SQI@NORTHERNHEALTH.CA



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# Questions

