



Real-Time Virtual Support

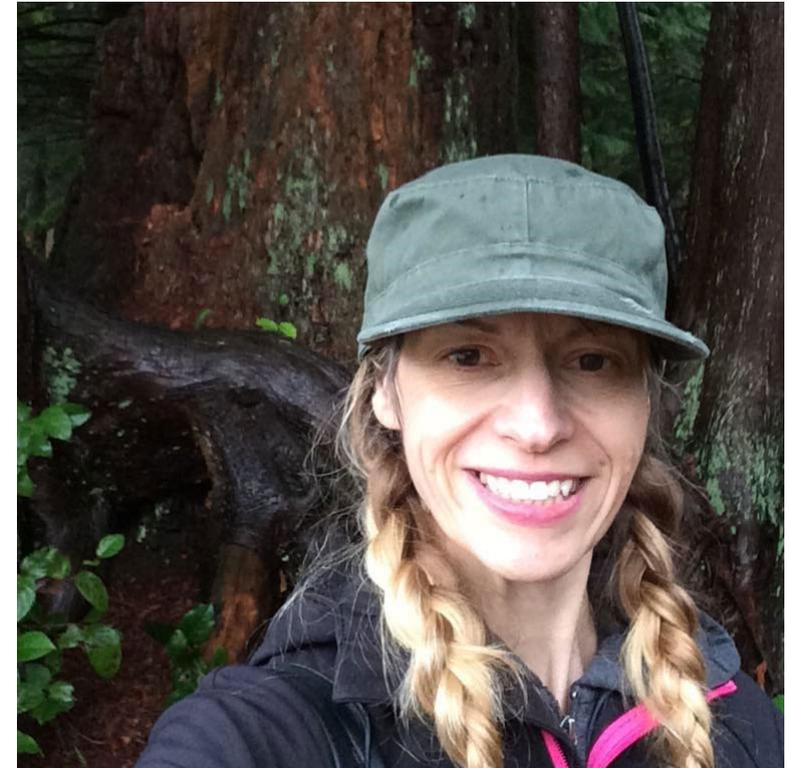
**Virtually Enhanced Care in Rural, Remote and
Indigenous Communities in BC**

**Virtual Health Grand Rounds
October 1, 2021 at 8:00am PDT**



Brydon Blacklaws MD, CCFP(EM)

**Emergency Physician, Powell River
Co-Lead – RTVS and RUDI Program
Medical Director – RTVS SIM / Academic Half Day**



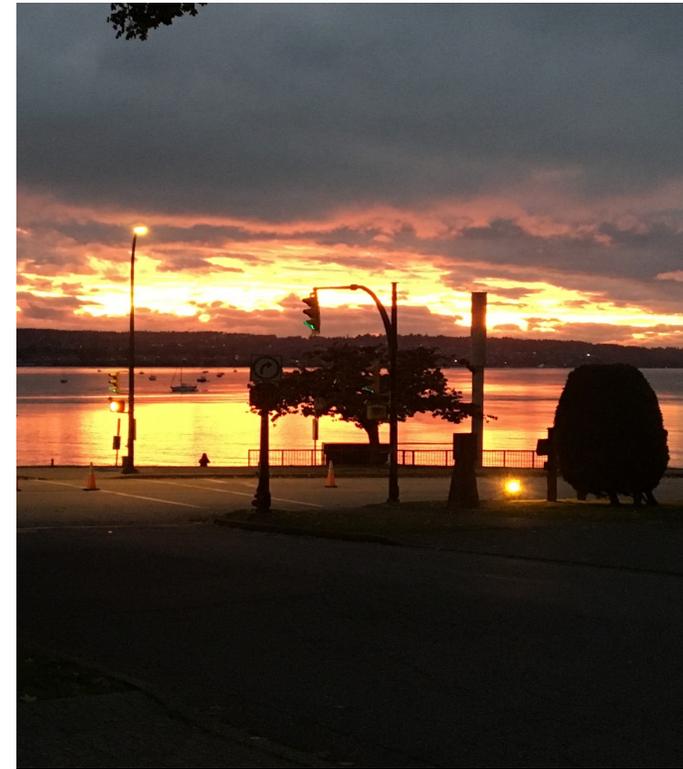
Helen Novak Lauscher, PhD

**Associate Lead, UBC Digital Emergency Medicine
Co-Lead RTVS Evaluation**

Tla'amin Nation Powell River, BC



Musqueam, Squamish, & Tsleil-Waututh Traditional Territory (Vancouver, BC)



Disclosures

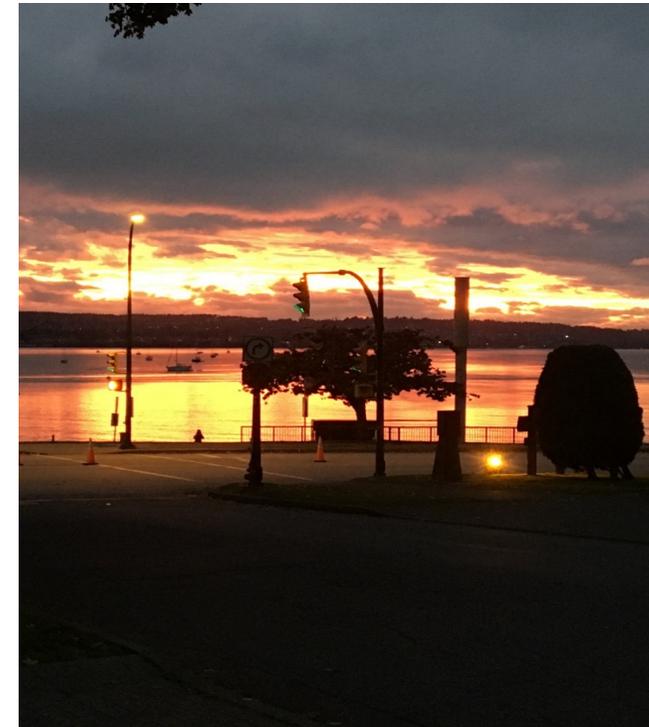
Dr. Brydon Blacklaws

- Nothing to disclose

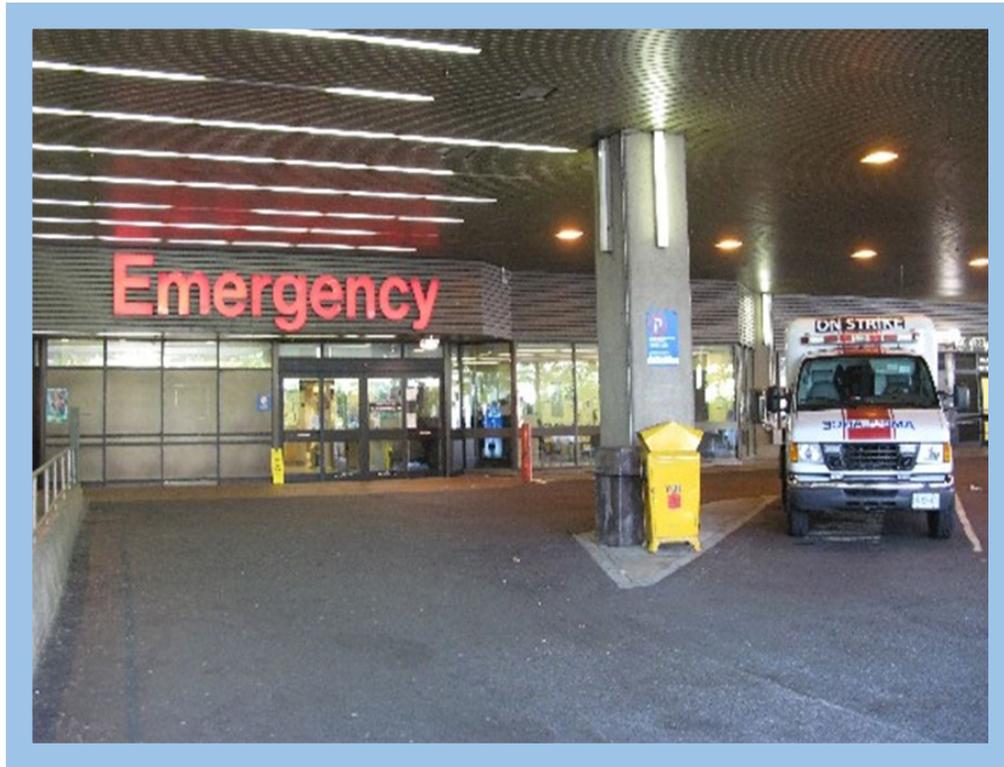


Dr. Helen Novak Lauscher

- Nothing to disclose



Real-Time Virtual Support (RTVS) = Call a Friend



Vancouver General Hospital, Vancouver, BC



Stewart Health Centre, Stewart, BC



Real-Time Virtual Support Pathways

For rural health providers, friendly clinical help is just a click or call away.

Real-Time Virtual Support (RTVS) pathways are here to help for all urgent and non-urgent situations — including case consultations, second opinions and ongoing patient support, patient transport coordination, point-of-care ultrasound, and simulations. All you need is a Zoom licence, or telephone line.

Instant Access Pathways

Available 24/7

 RUDi Emergency Add Zoom contact: rudi1@rccbc.ca Phone: 236-305-9302	 MaBAL Maternity & Newborn Add Zoom contact: mabal1@rccbc.ca Phone: 236-305-7364
 CHARLiE Pediatrics Add Zoom contact: charlie1@rccbc.ca Phone: 236-305-5352	 ROSe Critical Care Add Zoom contact: rose1@rccbc.ca Phone: 1-888-918-0626

Quick Reply Pathways

Available weekdays, from 9am to late afternoon

 Dermatology Add Zoom contact: rrderm@telus.net Phone: 778-771-3376	 RheumVision Rheumatology Add Zoom contact: rheum.vmoa@rccbc.ca Phone: 250-999-3222
 Hematology Add Zoom contact: hematology@rtvs-bc.ca Phone: 250-857-5342	 Thrombosis Add Zoom contact: thrombosis-clinic@rccbc.ca Phone: 604-655-1758
 myoLIVE Myofascial Pain Add Zoom contact: info@anatomicmedicine.org Phone: 250-744-6334	 Post COVID-19 Recovery Clinic Referral Add Zoom contact: postcovidclinic@rtvs-bc.ca Phone: 604-806-8037

Visit rccbc.ca/rtvs to get started!

Please do not email the RTVS Pathway Zoom contact email addresses, provided above. Messages sent to these addresses will not be received. Please contact RTVS Technical Support if you need assistance at virtual@rccbc.ca.

Normal RUDI Day

The image is a screenshot of a Zoom meeting. The main video feed shows a woman in a clinical setting, wearing a green scrub top, a white lab coat, and a blue lanyard with a stethoscope. She is smiling. The background includes a red medical cart and a doorway. The top of the Zoom window has controls for 'Remove Pin' and 'Turn Off Original Sound'. The bottom of the window has a toolbar with icons for 'Mute', 'Stop Video', 'Security', 'Participants' (showing 2 people), 'Chat', 'Share Screen', 'Record', 'Breakout Rooms', 'Reactions', and a red 'End' button. A smaller video window in the top right corner shows a man with dark hair, identified as 'Brydon Blacklaws', in a home office setting.

Normal RUDI Day

The image shows a Zoom meeting window with a grid of seven video feeds. At the top, the window title is "Zoom Meeting". Below the title bar, there are controls for "Original Sound: On" and "Recording". A "View" button is in the top right corner. The video feeds are arranged as follows:

- Top-left: Wesley Jang - Facilitator (man with glasses, hand to face)
- Top-middle: Brydon Blacklaws - RUDI (man in blue scrubs)
- Top-right: Valemount Emergency Room - iPad (hospital room with a patient on a gurney)
- Middle-left: Valemount Emergency Room - Glasses (close-up of hands in blue gloves)
- Middle-middle: ROSe Intensivist - 888-918-0626 (man in a car)
- Middle-right: Jeanne Macleod - Facilitator (woman in a red top)
- Bottom-middle: Kate Meffen (woman with long hair, smiling)

At the bottom of the window is a control bar with the following buttons from left to right: Unmute, Stop Video, Participants (7), Chat, Share Screen, Record, Reactions, and Leave.

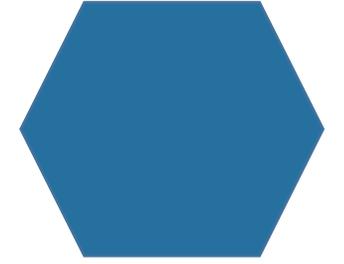
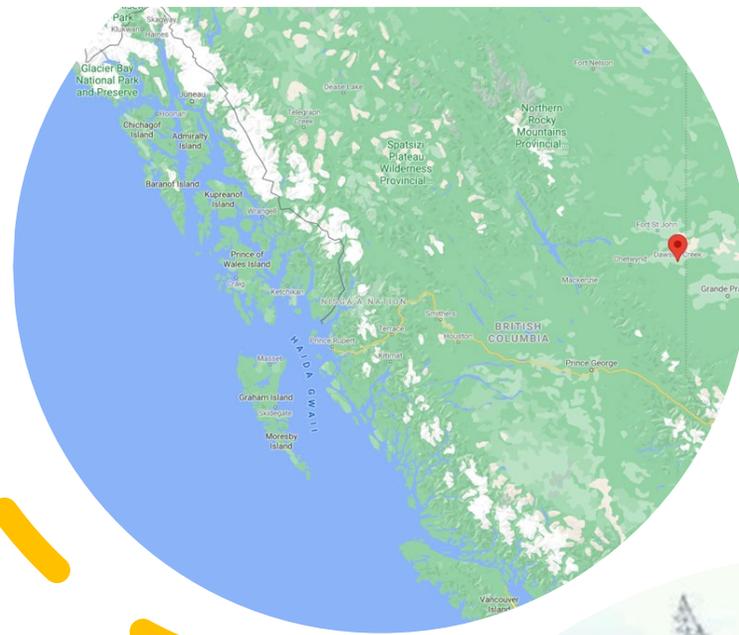
Normal RUDI Day



What's Next? The Virtual Emergency Department

Collaboration between Northern Health Authority and RUDi Pathway to create a Virtual Emergency Department to support overnight care in communities that would otherwise go into diversion.

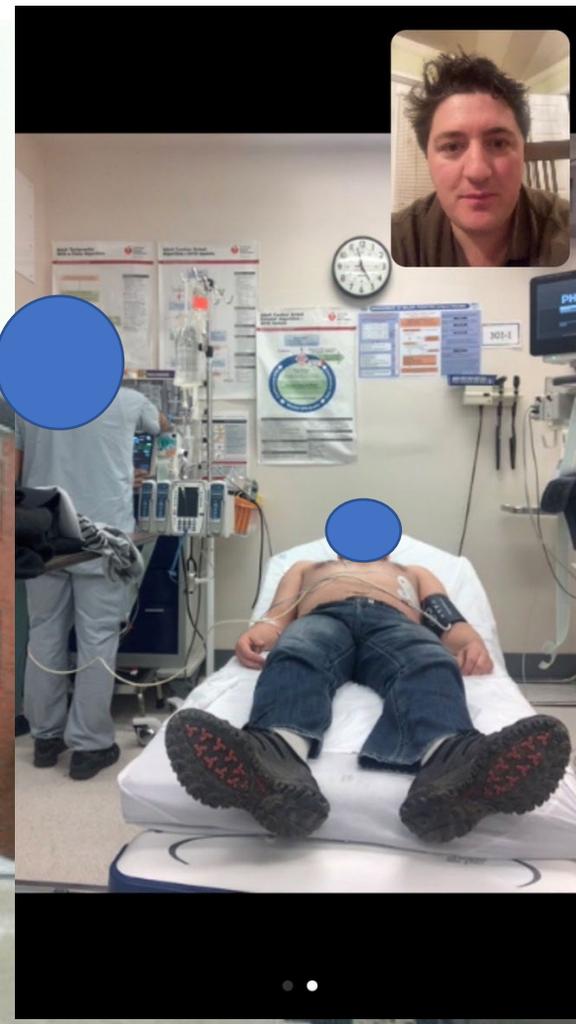
RUDi pathway has supported Dawson Creek ED overnight intermittently as first call throughout the summer.



Dawson Creek Night



Dawson Creek Night



Dawson Creek Night

- Busy Hospital – 14,000 ppl
- Staffing Crisis, threat of Diversion to Fort St John (80km away)
- 48 hours notice – Can RUDI Help?

Dawson Creek Night

- Busy Hospital – 14,000 ppl
- Staffing Crisis, threat of Diversion to Fort St John (80km away)
- 48 hours notice – Can RUDI Help?
- Privileged 25 docs
- Logistics / IT push with Northern Health, RUDI, and Dawson Creek
- Made it happen

How Did It Go?

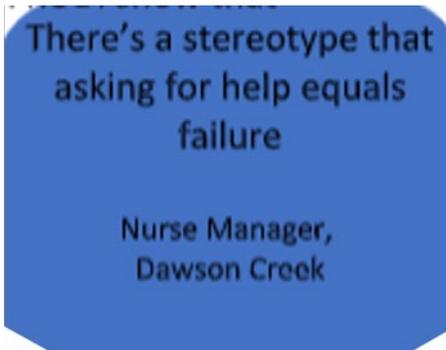
- 43 Night shifts, from May – Sept, 2021
- 3-4 nurses
- RUDI on a Rolling iPad, 10pm - 0800
- Back-up
 - GP-A
 - GP-Surgeon
 - Extra Emergency Physician, when available.

Shifts

- Some very busy
- All the normal presentations
 - Substance use
 - Mental health
 - Weak and dizzy
 - Abdo pain / chest pain
- Some very sick patients
 - Multiple roll-overs
 - Quad accidents
 - Angioedema with intubation
 - MVA Polytrauma

All the normal presentations

- Lab / Xray could be called in
- Most patients held overnight, or returned in the morning
- Certifications were performed
- Procedures were held until morning
 - Lacerations - cleaned, dressed, approximated
 - Casting – splints applied overnight



Some Very Sick Patients

- GP-A was called in for airway emergencies
- Emergency Physician was called in for trauma
- Fixed wing to VGH
- Ambulance to UHNBC for Peds
- Ambulance to Fort St John for Internal Medicine.

Challenges

- Lots of learning
 - Nurses practicing virtual health
 - RUDI Docs learning to be better Virtual Physicians
 - Tech takes practice
- Morning shifts were busier
 - Difficult to disposition patients virtually, at night
 - More patients held over night and returning in the am
 - FFS though, so few complaints
- Handover
 - Always a risky area for information loss
 - RUDI faxed notes to the ER and they were printed and added to paper chart.

RUDI doctors were great at being calm, advocating for the patient and listened to what the nurses needed

Nurse, Dawson Creek

Evaluation

- Case study in the context of RTVS evaluation
- Opportunity for PDSA – equity and access to care
- In-depth interviews with DCDH and NHA staff, RUDi physicians, RTVS tech personnel, admin staff, and other stakeholders

Perspectives

Nurses	Physicians	Patients & families
<ul style="list-style-type: none">• Overall supported• Standard of care was met• Slightly more work for them to have a virtual physician	<ul style="list-style-type: none">• Excited to be a part of this• Very thankful to the nurses for taking this on• Happy to have the physician back-up for the sick patients	<ul style="list-style-type: none">• Seemed comfortable with a virtual physician• Thankful that this service allowed the ER to stay open

Working Together

- Co-development of a patient triage workflow
- Training for both RUDi physicians and DCDH nurses
- Collaborative management of acute cases

“This is ground-breaking work, the result of a massive amount of team effort that overcame a lot of unknowns to do something that was really important.” – RTVS Lead

Working it out

- Areas for improvement were identified relating to:
 - IT-related set-up is big
 - Need for specific local knowledge
 - Lingering hesitancies given rapid deployment
 - Additional nursing pressures

“It was just the hiccups of getting things started. Just bridging the uncertainty of people not knowing RTVS, not knowing how to interact with RTVS. But for me, ultimately I think it was a good experience and learning curve to be able to support smaller, rural communities in this way.” – DCDH Staff

Why it Worked

- ***Mutual trust and strong relationships*** between RTVS, DCDH, and NHA leads, allowing for efficient decision-making.
- ***Strong leadership*** from all groups
- Existing professional relationships between the DCDH nursing staff and RUDi physicians enabled the development of a clinical, interprofessional workflow
- DCDCH ED prior experience in virtual support through the implementation of CODi in 2018
- ***Extensive IT set-up and troubleshooting*** was efficiently provided by the NHA and RTVS teams.
- A shared and explicit ***commitment*** from the RUDi team to support rural communities and healthcare providers, especially those in vulnerable situations.

“A lot of the ground work laid out by the RTVS initiative facilitated an easy learning curve for the technology.” – RTVS IT Staff

“DCDH nurses were very comfortable with how things run, offering suggestions, being open with what they can and cannot do.” – RUDi Physician

Perspectives

- Community

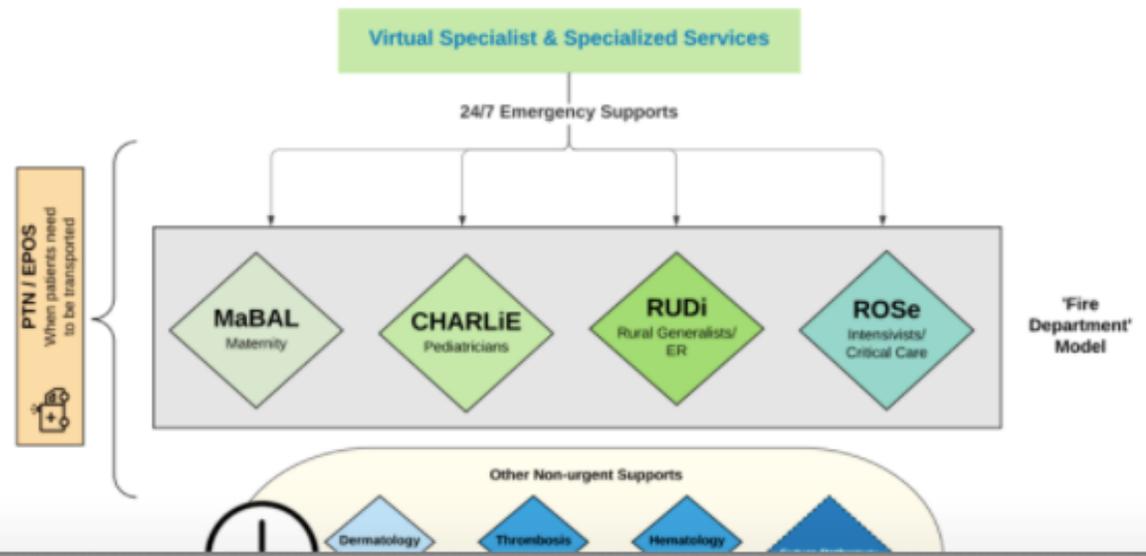
Virtual doctor to replace human one for 10 night shifts in Dawson Creek ER

Robo-doc!

Jul 20, 2021 10:05 AM By: [Rob Brown](#)



First Nations and Rural Real-Time Virtual Support (RTVS) - Providers



Telehealth physician to fill in for emergency room doctor in Dawson Creek during 10-day pilot project



Service aims to decrease patient transfers due to doctor shortage

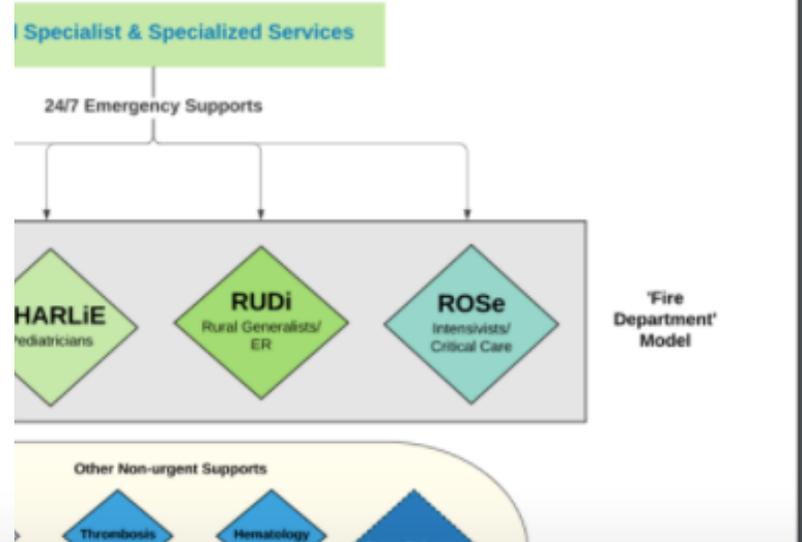
Bailey Martens · CBC News · Posted: Jul 21, 2021 10:03 PM PT | Last Updated: July 21



to replace human nt shifts in Dawson



t Nations and Rural ial Support (RTVS) - Providers



Telehealth physician to fill in for emergency room



doctor in Dawson Creek during 10 day pilot project

Virtual health program offers support to rural health providers

atures | Classifieds | Obituaries |



Nick Brizuela Reporter/Videographer
[Contact](#)

Published Tuesday, July 20, 2021 5:34PM PDT
Last Updated Tuesday, July 20, 2021 6:35PM PDT

Service aims to

[Bailey Martens](#) · CBC



Virtual health program offers support to rural health providers



The emergency room at the Dawson Creek Hospital is getting a hand for the next r

ce human n Dawson



- Providers

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Advertise



'Fire Department' Model

Other Non-urgent Supports



Overall – Total Success

- Dawson Creek ER Stayed Open
- Local staff got a night off and were able to rest
- All high acuity patients were seen by an MD in a standard time for rural hospitals
- No negative patients outcomes I am aware of
- No instances where essential treatment was delayed

We didn't have to go on diversion. That is a huge win.

COO, Northeast Northern Health

Overall – Total Success

- Dawson Creek was able to hire more staff, and don't need RUDI anymore
- A Template was built for Northern Health, Interior Health, etc. to use

The people are what
makes this happen,
not the technology

RUDI technology lead

Thank you!

Rural Coordination
Centre of BC



First Nations Health Authority
Health through wellness



BC EMERGENCY
MEDICINE NETWORK



HealthLinkBC



Provincial Health
Services Authority
Province-wide solutions.
Better health.



THE UNIVERSITY
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CONTINUING PROFESSIONAL DEVELOPMENT
FACULTY OF MEDICINE

doctors
of bc



Joint Standing Committee on Rural Issues (JSC)

Providence
HEALTH CARE

How you want to be treated.

We gratefully acknowledge financial support from the Rural Coordination Centre of BC, the Joint Standing Committee on Rural Issues, BC Academic Health Sciences Network, and UBC Department of Emergency Medicine through the Emergency Medicine Network, and the Ministry of Health.