Taking Rapid Action: Diverse Engagement to Support a Community

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Disclosures and Financial Support

- British Columbia's Ministry of Health's Pharmaceutical, Laboratory and Blood Services Division provides Island Health funding for the purpose of delivering the BC Provincial Academic Detailing Service.

- I have no other conflict of interests.

Background

- Health Canada approved Paxlovid™ (nirmatrelvir/ritonavir) on January 17 2022, to **reduce hospitalizations due to COVID-19** in high-risk populations and just prior to the publication of the EPIC-HR trial on February 16, 2022.

- British Columbia quickly received **Paxlovid** doses and required **urgent educational sessions** for clinicians to ensure safe and appropriate use.

- It was determined that the Provincial Academic Detailing (PAD) team had the **expertise on delivering pharmacotherapy information** and the outreach to the clinicians in the province for quick community engagement.

Where Jen lives!

Intervention and Implementation

- The PAD team met frequently through multiple virtual meetings with the BC Ministry of Health (MOH) and the BC COVID Therapeutics Committee (CTC) to develop a 30-minute PowerPoint presentation including **eligibility criteria**, **dosing**, **drug interactions management**, and **resources** available to clinicians.

- The target audience was **physicians**, **nurse practitioners** and **pharmacists** working in both hospital and primary care practice.

- Education sessions could be booked **individually** or as a **group** and were initially booked through a centralized service.

Results

- Materials were developed and Upskilling attended **within a week**!
- From February 8 to October 2022, 7 out of 12 members of the B.C. academic detailing team conducted **190 education sessions** to approximately **2240 participants**.
- Sessions were conducted either **virtually or in-person**
- A formal evaluation process showed that **98%** of participants strongly agreed and agreed that the sessions **met their learning needs** and **95%** strongly agreed and agreed that they **felt more confident prescribing** and making recommendations to **support the safe use of Paxlovid**.

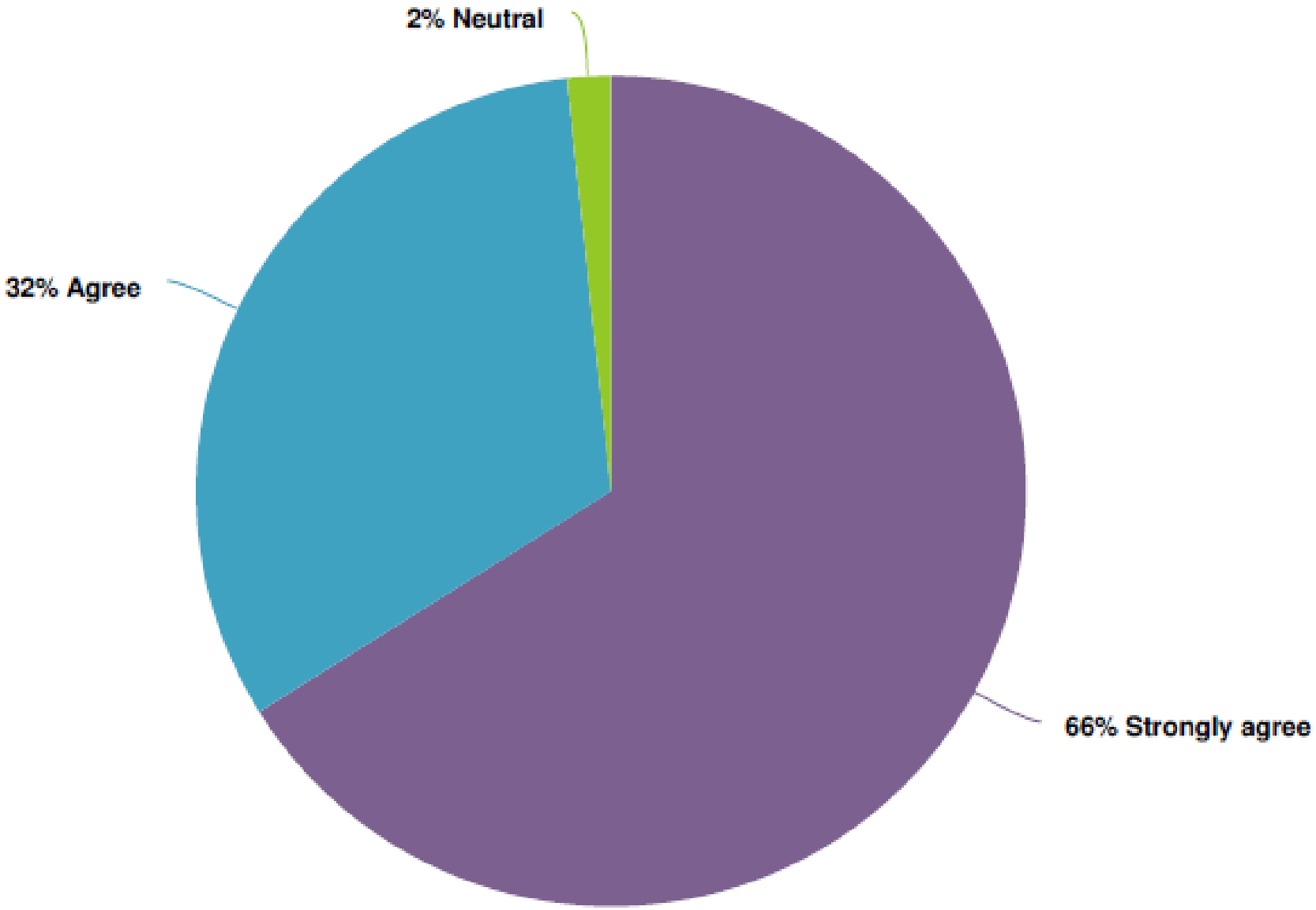
Do you think you could train on the clinical content and develop materials for a detailing topic in a week?

Yes

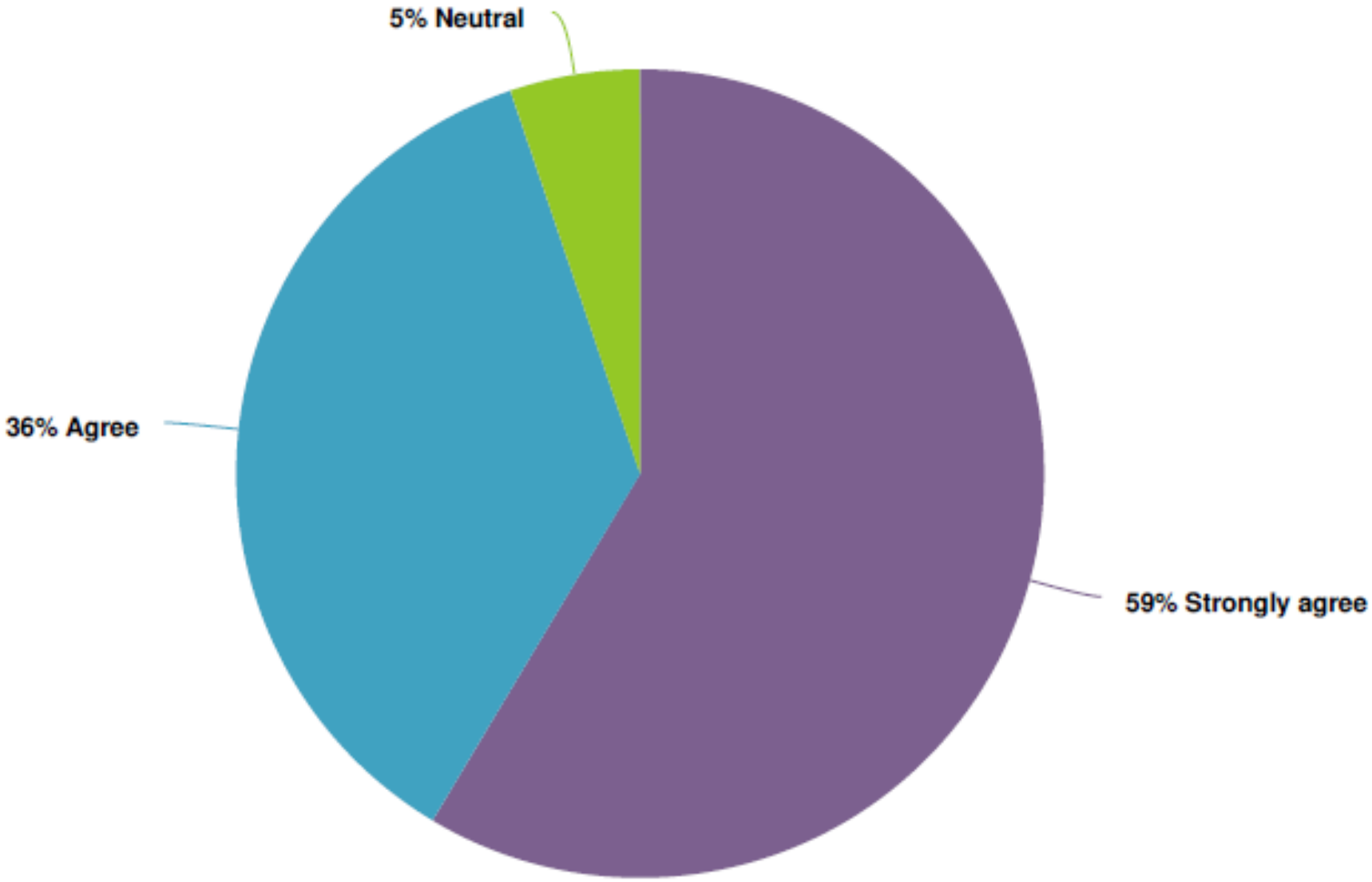
Not likely

No chance!

The session met my learning needs.



I will feel more confident prescribing and/or making recommendations to support the sale and appropriate use of nirmatrelvir/ritonavir for the treatment of mild to moderate COVID-19 in high risk patients.



This learning experience could have been improved by:

administrative

Materials available for distribution
Local resources
Weekend support

evidence

Clinical trial review
Comparison to other therapies

Style and content

Patient scenario and eligibility
Med interaction demo
Discussion

Case Studies

positive

great

Nothing

Good experience

Results

- Participants found the following the **most useful**:
  - Links
  - Drug interaction checkers
  - Special prescription
  - Comprehensive format and presentation
  - Study details and step-by-step guide on decision making

What did you find most useful?

administrative

Resources

Special prescription
Handout
Central documentation of resources

evidence

Critical appraisal of trial
Study details
Guide to decision making
Extra clinical info

Style and content

Comprehensive format

Drug interaction examples

Drug interaction checker

Dosing
Eligibility criteria
Relevant information
Easy to read charts

positive

easy to comprehend
Opportunity to ask questions
Two-way dialogue

Great presenter

I just think Jennifer is great!
Good experience
Timely
Everything

Drug-Drug Interactions

DRUG-DRUG INTERACTIONS and MANAGEMENT

The following drugs interact with nirmatrelvir/ritonavir. Some and are CONTRAINDICATED (management strategies may be possible. Consult https://www.covid19-druginteractions.org/checker before attempting. Drugs that are listed to interact in the monograph but have limited clinical impact are also included.

Legend:
CI-X: Contraindicated due to serious toxicity. Stopping the drug does not mitigate the interaction due to prolonged half-life, duration of enzyme induction or is not clinically appropriate due to risk or severity of condition
CI-M: Co-administration is contraindicated but management strategies possible (e.g., holding drug or switch)
DDI-M: Significant interaction but management strategies possible by prescriber or with expert consultation, or monitor
OK: Interaction listed in the monograph, but the interaction has low clinical relevance
TI: Therapeutic Index; **T1/2:** Half-life; **AUC:** Area Under Curve (cumulative drug exposure); ↑**:** Increase; ↓**:** Decrease

Drug	Drug Interaction Type, Information and Management Strategy	
Amitriptyline	**OK**	Small ↑ in amitriptyline levels. Likely sub-clinical. Caution those sensitive to ADRs
Amlodipine	**DDI-M**	↑'ed AUC by 2X. If BP <130, ↓ dose by 50% during treatment and restart 3 days after finishing
Apalutamide	**CI-X**	Oral cancer agent. ↑'ed levels leading to seizures. Also an enzyme inducer
Apixaban	**CI-M**	↑'ed levels of apixaban leading to ↑ bleeding. Can consider switch to dabigatran. ***See notes**

PracticeTool3_DrugInteractionsContraindications.pdf (bccdc.ca)

Drug-Drug Interactions – Examples

Example	Strategy	Specifics
Zopiclone	*Monitor for adverse effects*	May increase zopiclone levels. Patient may experience enhanced sedative effects for up to 3 days after nirmatrelvir/ritonavir is stopped. Dosage reduction could be considered.
Methadone	*Monitor for loss of effect*	Potential decreases in methadone concentration. Monitor closely for withdrawal effects. Dose adjustment may be necessary. Consult with OUD expert.
Amlodipine	*Decrease the dose*	Expected 2 fold increase in amlodipine concentrations. Reduce dose by 50%. Effect last up to 3 days after nirmatrelvir/ritonavir is stopped.
Atorvastatin	*Stopping or holding*	Co-administration may increase atorvastatin levels. Given short duration of nirmatrelvir/ritonavir therapy, hold statin temporarily. Restart 3 days after last dose of nirmatrelvir/ritonavir.
Apixaban, rivaroxaban	*Switching to a non-interacting drug*	Expected increase in DOAC concentrations and increased risk of bleeding. Need to consider indication for anticoagulation. Switching to dabigatran for the duration of treatment may be an option. Liverpool COVID-19 Interactions (covid19-druginteractions.org)

pad Prescription

Fillable PDF (on Special Authority website):

Nirmatrelvir/ritonavir (Paxlovid) 5-day Treatment Pack Prescription

PHSA eForms :

BC eHealth Apps (phsaehealth.ca)

Prescription – fillable PDF

BRITISH COLUMBIA | Ministry of Health

HIGH PRIORITY

nirmatrelvir/ritonavir (Paxlovid®)
5-day Treatment Pack Prescription

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PATIENT INFORMATION

Patient Name	Personal Health Number (PHN)	Date of Birth (YYYY / MM / DD)
Address	City	Postal Code
Phone Number	Allergies	
Date of Symptom Onset (YYYY / MM / DD)		

ELIGIBILITY CRITERIA

- ☐ Confirmed COVID-19 **AND**
- ☐ Symptomatic for five days or less (symptom onset day is considered day zero) **AND**
- ☐ Are at increased risk for disease progression (see Table below – check ONE box)

Age	Number of Vaccine Doses/Previous Infection		
	0, AND No previous infection	1 to 2, OR Previous infection alone	3 OR Previous infection + any vaccination
Any adult	☐ Individuals identified as clinically extremely vulnerable (CEV) Group 1, Group 2 and Group 3 (See Toolkit #2 – CEV Definitions)		
18-49	☐ ≥ 3 chronic conditions/co-morbidities, OR ☐ Indigenous *Not at increased risk otherwise*	Not at increased risk	Not at increased risk
50-69	☐ Any individual	☐ ≥ 3 chronic conditions/co-morbidities, OR ☐ Indigenous *Not at increased risk otherwise*	Not at increased risk
70+	☐ Any individual	☐ ≥ 1 chronic conditions/co-morbidities, OR ☐ Indigenous *Not at increased risk otherwise*	☐ ≥ 3 chronic conditions/co-morbidities, OR ☐ Indigenous *Not at increased risk otherwise*

- ☐ No exclusion criteria (refer to back of prescription for details)

Drug-drug interactions assessed using best possible medication history (select one below):

- ○ **No serious drug-drug interactions identified**
- ○ Interactions identified and **management plan implemented** (please describe below):

☐ Assessment completed by pharmacist (if applicable) **Pharmacist Name:**

PRESCRIPTION

- ○ eGFR greater than or equal to 60 mL/min nirmatrelvir/ritonavir 300/100 mg (Paxlovid) PO BID x 5 days
- ○ eGFR 30-59 mL/min nirmatrelvir/ritonavir 150/100 mg (Paxlovid) PO BID x 5 days (pharmacist to remove 10 tablets of nirmatrelvir for Paxlovid pack)

Physician Signature	Physician Name (Print)	Date Signed
	CPSID	

FAX INFORMATION

Pharmacy Name	Pharmacy Fax Number	If this fax is received in error, or you have questions for the prescriber, please call:

Save | Print | Clear Form

Nirmatrelvir/Ritonavir (Paxlovid®) 5-day Treatment Pack Prescription

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Nirmatrelvir/ritonavir (Paxlovid®) is indicated for use in patients **18 years** and older with **mild/moderate COVID-19 infection** who are **at risk for disease progression**:

- **Individuals** identified as Clinically Extremely Vulnerable Group 1[1], Group 2[2], and Group 3[3] **(CEV 1, CEV 2, and CEV 3), regardless of vaccine status** or previous infection. (See Practice Tool 2 – CEV Definitions).
- **Unvaccinated individuals** without previous infection **who are EITHER:**
  - o **≥50 years OR**
  - o have **three or more chronic conditions/co-morbidities**[4] (e.g., obesity, diabetes, heart failure, stroke, neurological conditions)
- **Individuals ≥ 50 years with 1-2 vaccine doses** or previous infection alone, with three or more chronic conditions/co-morbidities[4] (e.g., obesity, diabetes, heart failure, stroke, neurological conditions)
- **Individuals aged ≥70 years with 1-2 vaccine doses** or previous infection alone, **with one or more chronic condition/co-morbidity**[4] (e.g., obesity, diabetes, heart failure, stroke, neurological conditions)
- **Individuals ≥ 70 years with three or more chronic conditions/co-morbidities**[4] (e.g., obesity, diabetes, heart failure, stroke, neurological conditions), regardless of vaccine status or previous infection
- **Indigenous individuals** (if not captured above) **who are EITHER**:
  - o **unvaccinated** without previous infection OR
  - o **≥ 50 years with 1-2 vaccine doses** or with previous infection alone OR
  - o **≥ 70 years regardless of vaccine status** or previous infection

1. CEV Group 1 includes severe immunocompromise e.g., solid organ transplant, stem-cell transplant or CAR-T cell therapy, active treatment for hematological malignancies, B-cell depleting and anti-CD 40 therapy
2. CEV Group 2 includes moderate immunocompromise e.g., solid tumor cancer treatment, active hematological malignancy, immunosuppressive therapy, primary immunodeficiencies and advanced/untreated HIV
3. CEV Group 3 includes high-risk conditions e.g., cystic fibrosis, severe asthma or severe COPD, diabetes requiring insulin, developmental or intellectual disabilities, rare metabolic or blood disorders and others
4. Many additional chronic conditions can be considered. Consult Practice Tool #1 – Step by Step Assessment

To be eligible, patient has none of the exclusion criteria listed below:

- History of significant liver disease – cirrhosis, active hepatitis (ALT 5x ULN), or severe liver dysfunction (Child-Pugh C)
- Moderate-severe renal impairment requiring renal replacement therapy or known eGFR less than 30 mL/min
- History of hypersensitivity or other contraindication to any of the components of medication

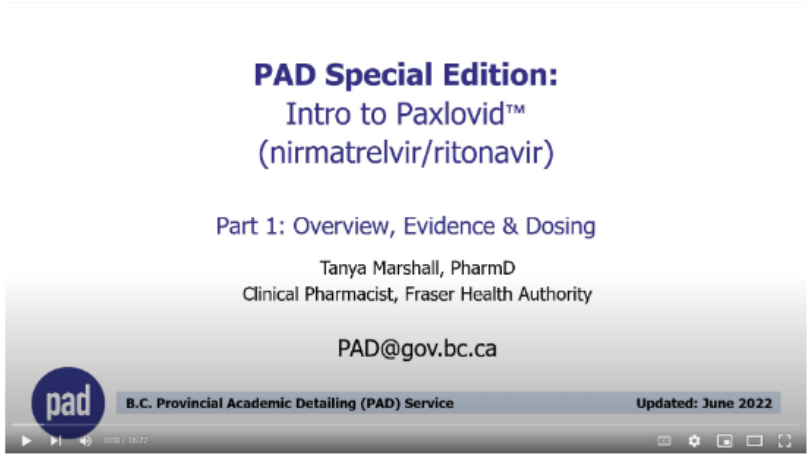
***Covid Clinical Practice Tools:**
http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/clinical-care/treatments

As of March 1, 2022, prescriptions can be faxed to community pharmacies. For list of pharmacies that dispense Paxlovid, please see https://www.bcpharmacy.ca/paxlovid

[nirmatrelvir/ritonavir (Paxlovid) 5-day Treatment Pack Prescription (gov.bc.ca)]

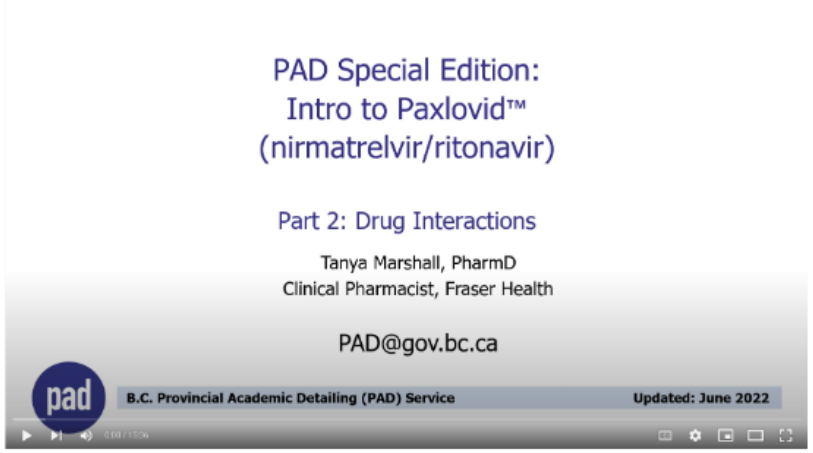
Dispensing Paxlovid and monitoring adverse drug events: A guide for B.C. pharmacists

Part 1: Overview, Evidence and Dosing



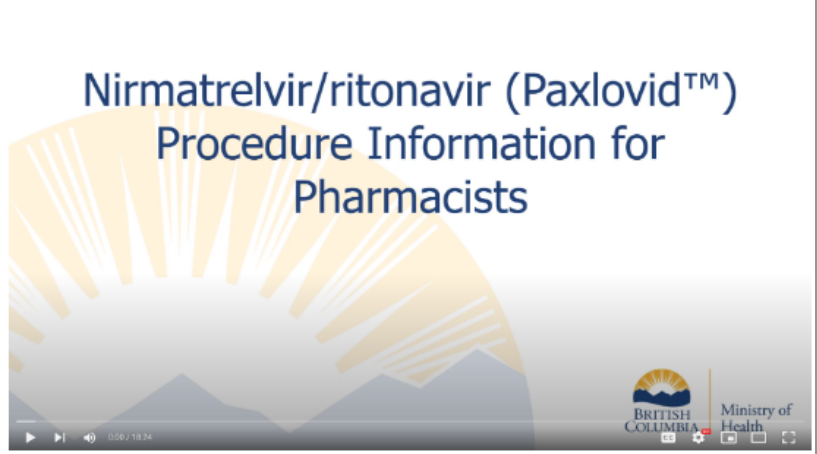
This video provides an overview of nirmatrelvir/ritonavir (Paxlovid) and reviews clinical considerations that support treatment decisions.

Part 2: Drug Interactions



This video reviews drug-drug interactions, drug interaction management strategies and resources for nirmatrelvir/ritonavir (Paxlovid).

Part 3: Procedure Information for Pharmacists



This video reviews procedures regarding dispensing, counselling, follow-up, adverse reaction reporting and resources for nirmatrelvir/ritonavir (Paxlovid).

Conclusions

- Academic detailing teams are well-positioned with the experiences of **effective communicators**, **administration support** and **connections to prescribers** to respond quickly to deliver education for novel agents.

- The PAD program is continuing to **monitor**, **modify** and **present** as new information becomes available for this topic (currently on **version 23** of the PowerPoint presentation!)