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THE UNIVERSITY OF BRITISH COLUMBIA

Pharmacists Clinic

Faculty of Pharmaceutical Sciences

Our Practice

By pharmacists for pharmacists.



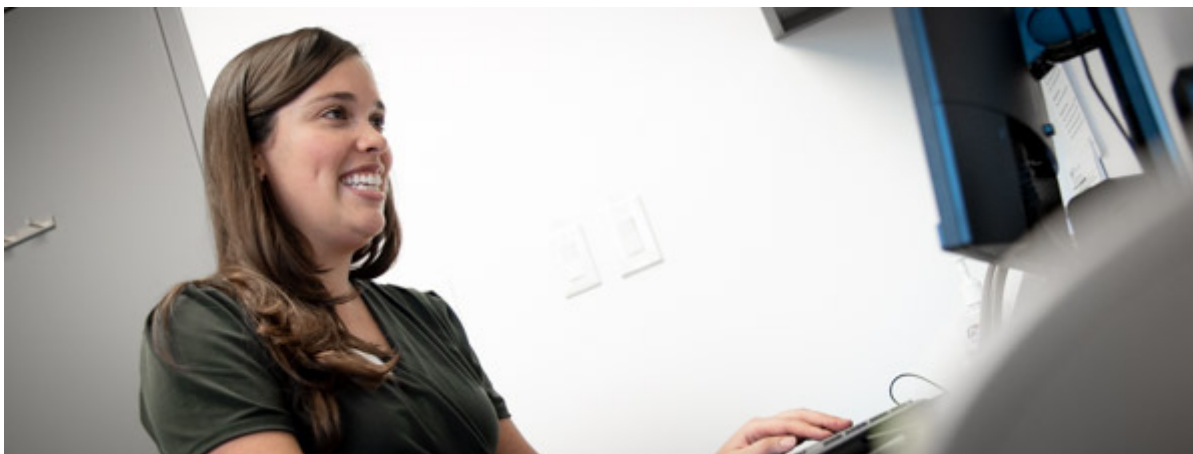
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CORONAVIRUS (COVID-19) and UBC's response: Information and FAQs [here](#).

FEATURE ARTICLE

Leveraging Technology for Learning

BY: JAMIE YUEN, BSC(PHARM), RPH, BCGP



Patient care consultation and communication skills are core educational competencies for pharmacists. (1) Student pharmacists have opportunities to build these skills through simulated activities in the practice lab and also while on practicum. (2) As a patient care practicum site, the UBC Pharmacists Clinic (the clinic) was designed to optimize learning. When it was built, the clinic was equipped with a discrete audio-video (AV) system, including a microphone and camera in each consultation room, with recording equipment and real-time listening/viewing capabilities in a separate room. This AV system is compliant with privacy and security standards and we have established informed consent processes for use.

We use the AV system to enhance learning experiences in three ways: 1) learners observe interactions between a patient and experienced clinician from a separate room, 2) learners interact with patients with a supervisor observing from a separate room, and 3) learners are recorded interacting with patients and then view their recording afterward.

Virtual Observation by Learners

The first step for all learners is observing clinical pharmacists in practice. This enables learners to get a sense of the style of the practice, care processes, and flow of a typical appointment. Learners observe several appointments (via a live stream from the consultation room to a monitor and headphones in a separate room) and then debrief the appointment afterward with the pharmacist.

Virtual Supervision of Learners

As soon as possible, learners become directly involved in patient appointments. This immersion into hands-on patient care helps learners develop their clinical skills through practice and repetition. Once the supervising pharmacist feels a learner is capable of leading an appointment, the learner will complete a consultation 1:1 with a patient under virtual supervision using the AV system. In our experience, virtual supervision provides learners with a combination of independence and support that expedites their skill development.

Recording of Learners

Learners are recorded interacting with a patient once or twice during a practicum, ideally early on and again in the final week. While observing recorded consultations, the supervising pharmacist completes an assessment form to reflect the student's performance. The student also completes an assessment form independently while

watching the recording after the appointment. The supervisor and learner then discuss their assessments and opportunities for growth. This activity is designed to enhance the learner's self-awareness of their communication styles and habits.

Quality Assurance

The AV system is also used for peer observation as part of our orientation for new pharmacists, on-going training of team members, and internal quality assurance initiatives. At least once a year, a pharmacist will observe a colleague's consultation in real-time and provide peer feedback. Using the AV system enables the clinic team to maintain quality clinical standards with minimal intrusion into a patient's care experience.

For pharmacists looking to implement a virtual observation or recording system in their pharmacy, we offer the following suggestions:

- Have a dedicated, private space for consultations and equipment set-up, as well as a suitable space for the observer.
- Put processes in place that meet privacy and security standards, such as what information is recorded; how recordings are used, retained, and destroyed; and who can view the recordings.
- Use equipment you have available. Although the clinic has a dedicated system, any recording equipment can be used, from a camera to a smart phone.
- If recording is not possible, consider supervising nearby (but not directly inside) the consultation room, in order to hear the interaction while also fostering learner independence.
- Inform patients of the AV processes you want to use and why. Give patients control of their participation, including the ability to end a viewing/recording at any time.
- Ask patients for feedback on what went well with the learner and areas for improvement. Patients are excellent teachers.

Although technology can take learning to a new level, it does not replace the on-going feedback from practice educators. Their skills, knowledge and experience remain essential for learners within the pharmacy profession.

References

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CASE STUDY

Trigeminal Neuralgia: Patient management when evidence is painfully lacking

BY: TIMOTHY LIM, BSC(PHARM), ACPR, RPH



A 64-year-old female with no drug allergies was referred to the clinic for trigeminal neuralgia (TN) management secondary to a shingles infection in 2018. Additional past medical history includes type 2 diabetes, chronic neuropathic pain, rheumatoid arthritis and osteoporosis.

In most cases, TN is caused by compression of the trigeminal nerve root, resulting in brief but recurrent episodes of facial electric-shock pain.¹ Herpes zoster can affect the trigeminal ganglion in 10-15% of cases, therefore “painful trigeminal neuropathy attributed to herpes zoster” is a distinctive diagnosis.² The presentation is similar to other neuralgias and neuropathies, characterized by burning, stabbing/shooting, tingling, aching and cutaneous allodynia.²

Our patient presented with left-sided pain around her eye, mouth and nose, described as itching, burning and sharp. On a visual analogue scale (VAS) she rated her morning pain as 5/10, progressing throughout the day and typically reaching 10/10 before bed. Her triggers include nose-blowing, cold weather, brushing teeth, and chewing. Her treatment was topiramate 50mg at bedtime, gabapentin four times daily (300mg – 300mg – 600mg – 600mg), capsaicin cream 0.025% applied daily (avoiding the eyes) and ice. She reported moderate relief from this regimen after one year of treatment, explaining that it decreased her morning and afternoon pain by 2-3 points on a VAS. She denied side effects but suspected gabapentin caused an 8 lb weight-gain.

First-line therapy for TN is anticonvulsants including carbamazepine and oxcarbazepine, neither of which our patient had tried. Second- and third-line therapies include muscle relaxants and neuroleptics drugs. Our patient reported previous trials with lamotrigine, amitriptyline, baclofen and lidocaine cream but these were stopped due to ineffectiveness or side effects. Botox was not an option due to financial barriers. Surgical interventions are reserved for patients unresponsive to medical therapy and her TN had not yet reached this point.

The patient specifically inquired about adding duloxetine to her current topiramate and gabapentin treatment after reading about its benefit in neuropathic pain. The patient had a strong preference to avoid antiepileptic medications.

Literature assessing the use of duloxetine for TN is limited to a review article, case reports and small unblinded trials.¹⁻³ Stronger evidence exists to support the use of tricyclic antidepressants (TCAs) in patients with post-herpetic neuralgia.⁴ Since the patient's trigeminal pain stems from a previous shingles infection, starting nortriptyline or a re-trial of amitriptyline were considered, however she declined these options, recalling stomach upset with amitriptyline. The patient wanted duloxetine and was started on duloxetine 30mg po daily with Special Authority coverage. Due to financial barriers, the patient did not want to get the Shingrix vaccine.

Follow-up was conducted at two weeks to check for initial tolerance and at eight weeks to check efficacy. The patient reported a decreased level of burning and sharp pain, but no change in itching pain. Given no reported side effects, the dose was increased to 60mg daily. Thereafter, the itching pain subsided and the episodes of 10/10 pain before bed reduced by 1-3 points. The plan moving forward included possibly increasing duloxetine to 90mg daily, reassessing the need for topiramate and optimizing her gabapentin doses.

Applying an evidence-based approach to the management of chronic pain can be difficult due to limited data and the overall subjectivity of pain. Therefore, employing shared decision-making with the patient is vital. Optimal patient care occurs when evidence is considered within the patient context and medications are initiated with appropriate follow-up and monitoring.

References

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Note

Each case study has been peer reviewed and qualifies as a non-accredited learning activity (CE-Plus) within the annual professional development requirement for licensure by the College of Pharmacists of British Columbia.

Your Responsibility

The recommendations in this case are based on the views of our clinicians after careful consideration of the best available evidence and needs of a specific patient. As a health care professional, you will assess each of your cases based on the patient's unique circumstances and in consultation with the patient and their care team.

If you would like to discuss one of your patients with us please [contact](#) the Clinic team.

Images: Justin Lee Ohata, UBC Pharm Sci



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