

CLINIC

Tips for incorporating new therapies for acne

Novel therapies, and fresh understanding of old therapies

BY KYLIE TAGGART

Canadian experts are currently updating clinical guidelines for the treatment of acne vulgaris. While the basic treatment algorithm will probably stay the same as the 2016 guidelines, the update will need to incorporate new therapies and address the enhanced understanding of the pathophysiology of acne.

The American Academy of Dermatology published new guidelines last year, but some therapies included are not available in Canada (e.g., the antibiotic sarecycline).

We asked two dermatologists how they would advise incorporating new therapies into practice. Dr. Tess Peters practises in Victoria and is a clinical instructor at the University of British Columbia. Dr. Diana Diao practises in Vancouver and is a clinical assistant professor at UBC.

1. Consider topical combination treatments for mild to moderate acne vulgaris

Acne vulgaris is heterogeneous, with a number of different subtypes. Guidelines classify acne differently, Dr. Peters noted. Treatment is generally combination topical therapy for mild to moderate acne and systemic therapy for severe acne.

“The emphasis as we gain new therapies is again on combination therapy so we address acne using different pathophysiologic mechanisms,” Dr. Peters explained. Topical therapies can tackle multiple factors that cause acne, such as ductal occlusion, hormones, sebum accretion or inflammation.

Topical therapies include benzoyl peroxide, retinoids (i.e., adapalene, tretinoin and tazarotene), salicylic acid, azelaic acid and combination therapies that include a retinoid or antibiotic and benzoyl peroxide.

A new triple therapy, marketed as Cabtreo, consists of the antibiotic clindamycin phosphate, adapalene and benzoyl peroxide. All are “tried and true” ingredients, Dr. Diao said, and combining them makes it convenient.

Cabtreo is “proving to be quite effective,” Dr. Peters said. It comes as a gel and patients apply it once a day. It costs approximately \$1,600 a year, according to Canada’s Drug Agency, which recommended in November that the cost of Cabtreo should be reimbursed by public insurers if the price is reduced.

Another new therapy is the androgen blocker clascoterone, sold in a 1% cream. It targets sebum (oil) production. “For all acne, we know the cause of comedones are integrated in androgens, so we must address the hormonal component to get the best results,” Dr. Peters explained. Patients may benefit from topical clascoterone or systemic treatment such as combined oral contraceptive or oral spironolactone.

2. Keep antimicrobial resistance in mind when prescribing

Topical antibiotics shouldn’t be used as monotherapy due to the concerns about antimicrobial resistance. “When we combine topical antibiotics with topical benzyl peroxide, we have shown decreased antibacterial resistance,” Dr. Peters said. Limit the use of oral

antibiotics to prevent antimicrobial resistance, the American guidelines note.

3. Educate patients about proper care of benzoyl peroxide products

The U.S. Food and Drug Administration recently tested benzoyl peroxide products for presence of benzene. While 90% of the 95 products tested contained undetectable or low levels of benzene, six acne products (now recalled) showed some benzene contamination.

While there’s no current clinical evidence linking benzoyl peroxide products and cancer, the issue is evolving, Dr. Diao said. It’s an opportunity for physicians to remind patients to properly store benzoyl peroxide products at room temperature and discard them if old or expired.

4. Remember to follow up

Physicians should remember to follow up with patients to evaluate if and how they’re responding to treatment and if they need escalation, Dr. Diao said. If there’s scarring, initiate isotretinoin.

5. Tips for prescribing isotretinoin

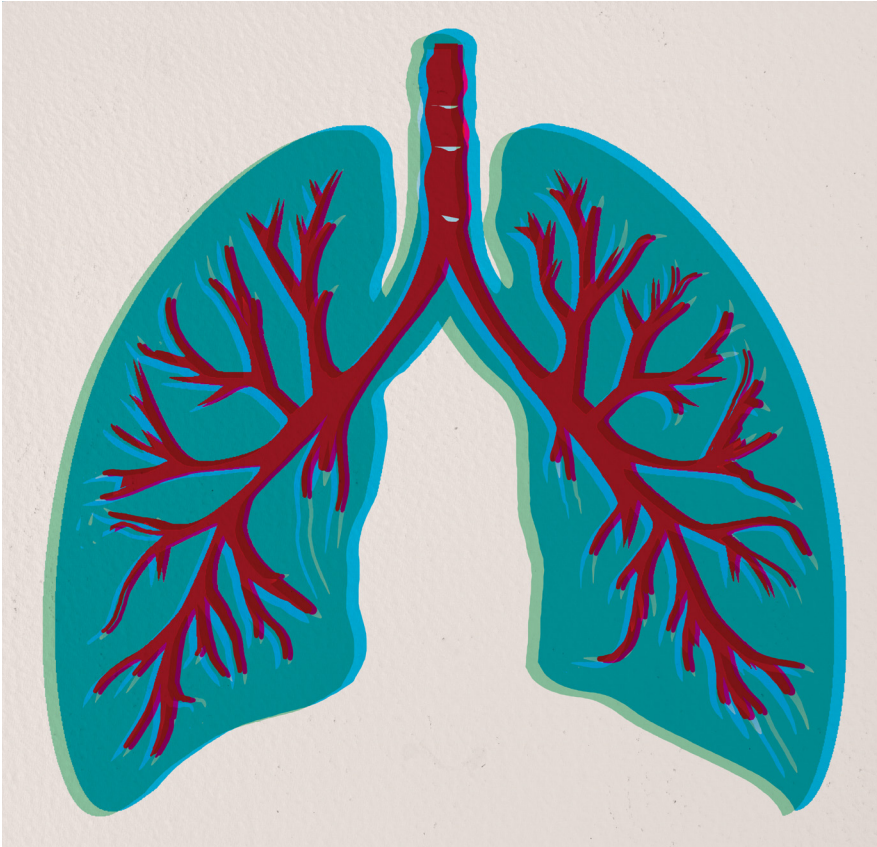
Acne tends to appear earlier and be more severe in young men, Dr. Peters said. It’s best to start isotretinoin earlier at a low dose and bring it up slowly, she said.

“It is not a sprint. Occasionally it can be a bit of a marathon. It’s OK to start with a lower dose,” Dr. Diao said.

Take time to counsel and prepare the patient when prescribing isotretinoin, Dr. Diao said. Patients should be moisturizing, applying emollient to their lips, and even petroleum jelly in their nostrils, particularly in the winter. Some patients may need artificial tears if they’re prone to dry eyes. These symptoms may vary depending on the dose.

There is positive evidence that people on isotretinoin can take over-the-counter antihistamines, which will prevent some of the purging process where patients experience flaring, Dr. Diao noted.

How long to keep patients on isotretinoin is an area of ongoing research. “The average course is about six months but it depends on dose, the severity of acne and the individual,” Dr. Peters said. **MP**



CLINIC

Pharmacological treatment of COPD

There are evidence-based ways to make a difference for patients

BY KYLIE TAGGART

The Canadian Thoracic Society published evidence-based guidelines in 2023 on the pharmacological treatment of chronic obstructive pulmonary disease (COPD). Keeping up to date with the latest advice on the diagnosis and management of COPD is important, experts say.

“The field is changing rapidly and you need trusted sources of information,” said Dr. Darcy Marciniuk, senior author of the guidelines, an associate vice

president of research and a professor of medicine at the University of Saskatchewan in Saskatoon.

“It follows along with raising expectations for management and outcomes,” Dr. Marciniuk explained. “There are so many effective pharmacologic, and also non-pharmacologic and other interventions, that can make a big difference. Expecting more has become our new reality, a realistic reality.”

Diagnose and evaluate

COPD is being unrecognized, said Dr. Jean Bourbeau, lead author of the guidelines, director of the COPD clinic and pulmonary rehabilitation program at the McGill University Health Centre and professor of medicine at McGill University in Montreal. “Case finding starts with the proper evaluation of groups of patients at risk,” he said. For example, watch for COPD in patients who smoke, patients who report a change in their breathing or a change in physical activity and those with a long-term productive cough.

Order a spirometry test to diagnose COPD. In 2022, the Canadian Thoracic Society and Choosing Wisely Canada ran a campaign promoting the need for lung function testing when diagnosing COPD. Results from an observational study in the U.S. suggests physicians who diagnose COPD without spirometry are likely to underestimate the disease severity. This could lead to inappropriate or inadequate treatment.

While spirometry is important, there’s variation in how COPD presents and airflow obstruction can only partially assess the disease’s severity in each patient. Physicians must assess symptom burden and risk of exacerbations to determine the best pharmacotherapy. The most significant symptom is dyspnea, but it can be difficult to evaluate because people adapt their behaviours to accommodate the breathlessness. Dr. Bourbeau suggested using tools such as dyspnea scales, including the modified Medical Research Council (mMRC) dyspnea score. Symptom burden can also include any limitation on physical activity and an impaired health status. The guidelines also use the COPD assessment test, or CAT, as a measure of symptom burden.

Determine the patient’s history, risk and severity of acute exacerbations. For example, an acute episode that requires a steroid like prednisone is moderate, but one that prompts an emergency department visit or hospitalization is considered severe, Dr. Bourbeau said. “This is going to be important, because this is going to be the base on which the physician will decide, ‘What is the treatment for my patient?’”

Treatment for patients with no acute exacerbations, low burden of symptoms

This group includes patients with low symptom burden, for example, with an mMRC score of one or a CAT of less than 10 and no risk or history of exacerbations. These patients can be prescribed monotherapy using a long-acting muscarinic antagonist (LAMA) or a long-acting beta agonist (LABA).

All patients can also benefit from non-pharmacological interventions, including a smoke-free environment, vaccinations, exercise and, in some patients, pulmonary rehabilitation.

Low risk of acute exacerbations but moderate burden of symptoms

Consider LABA/LAMA dual therapy for a patient with an increased burden of symptoms but a low risk of exacerbations, “meaning that in the previous year, the patient has not had more than one moderate exacerbation,” Dr. Bourbeau clarified.

If patients aren’t responding to medication, consider referring them to a respirologist.

High risk of acute exacerbations and high burden of symptoms

Patients who have a high risk of exacerbations are at the highest risk of death. For example, these patients may have experienced one severe or two moderate exacerbations in the past year. The Canadian Thoracic Society recommends triple therapy, with LABA/LAMA and an inhaled corticosteroid in one device for these patients. Dr. Marciniuk noted that the Canadian Thoracic Society conducted a meta-analysis of multiple randomized clinical trials and results suggested that triple therapy, “improved lung function, enhances quality of life, reduces the risk of moderate and severe exacerbation and then reduces the risk of death.” The meta-analysis is published as a supplementary document to the guidelines.

“We’re going to a place now where we want our patients on this therapy regardless of symptoms; no different from how we treat hypertension,” Dr. Marciniuk said.

Physicians may consider adding oral agents in select patients taking triple therapy if exacerbations continue. The guidelines note physicians may consider prophylactic macrolides in patients with continued exacerbations or PDE-4 inhibitors (e.g., roflumilast) or mucolytic agents (e.g., N-Acetylcysteine) in patients with chronic bronchitis.

“(Triple therapy) improves lung function, enhances quality of life, reduces exacerbations, and then reduces the risk of death.”

It may be a tough grind trying to help patients with this level of disease, with the patient’s medical history of other conditions and affordability of medications adding to the complexity, Dr. Marciniuk said. Opt for team-based care and work alongside respirologists and allied healthcare professionals to help patients. While there may be tricky cases, “with all of us working together we can make a difference,” he said.

Choosing the right device

Dual and triple therapy should be given in a single device.

“There’s even evidence showing that patients that take a single device have a better outcome than people who take multiple devices,” Dr. Bourbeau said. “If it happens that you have a patient who takes multiple devices, you should make

the effort to switch to a single device.”

Having choice is both a benefit and a curse and selecting the best one for the patient can get overwhelming, Dr. Marciniuk said. There are options to consider with respect to the number of doses a day and whether it is a metered device. There are currently four dual therapy devices and two triple therapy devices available in Canada. “Many of them have not had head-to-head comparisons, unfortunately,” Dr. Bourbeau said.

Basically, choose a device where the patient will be able to use the device properly. Patients may prefer a device that aligns with what they have successfully used in the past, “because convenience and familiarity always helps,” Dr. Marciniuk said.

“It’s not to say that one is superior to the other, but it is to say that the right device should be selected based on the patient’s ability to take it and something the patient will prefer,” Dr. Bourbeau said.

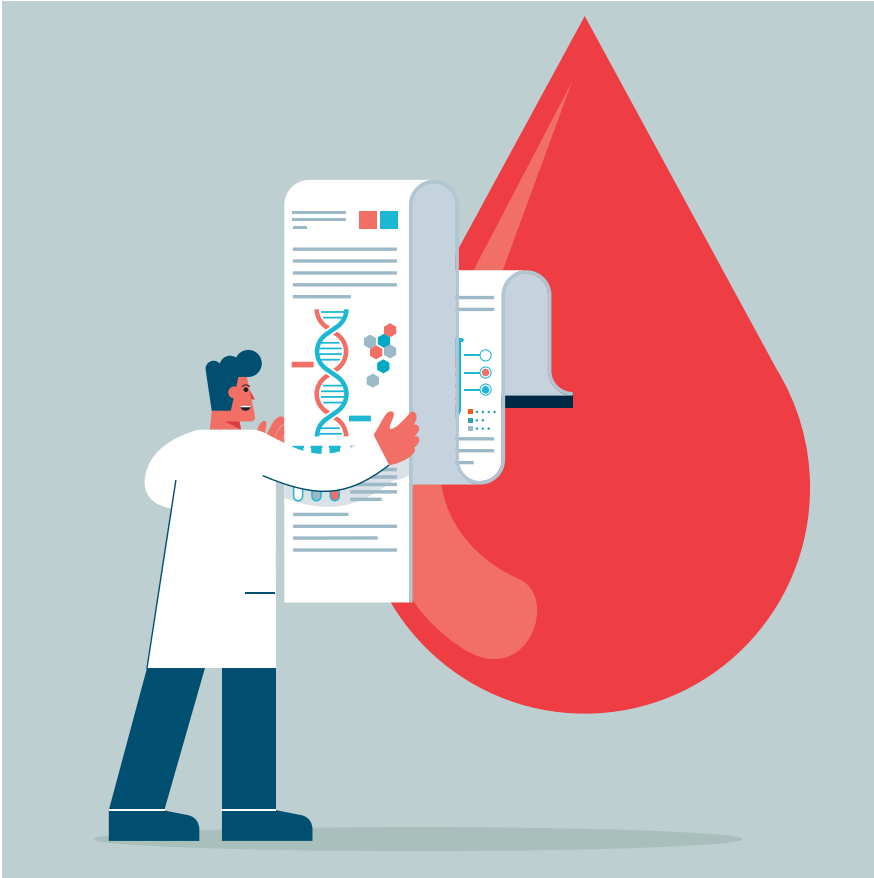
If the treatment isn’t working, or the patient is having trouble taking the medication, consider switching devices. There may be some trial and error to get the right one, Dr. Bourbeau said.

In conversations about the device, ensure that you validate appropriate use and inhaler technique. Dr. Marciniuk said he connects patients with certified respiratory educators.

He said that provincial health insurance programs are aligning more with the medical evidence when it comes to coverage for these devices.

The Canadian Thoracic Society released a statement in 2023 about the environmental impact of certain inhalers. It includes the Choosing Wisely Canada recommendation that physicians prescribe an inhaler with a lower carbon footprint when there’s comparable efficiency between inhalers and when the physician has considered patient preference.

Dr. Marciniuk encouraged physicians to keep up to date on COPD treatment. Seek out materials or resources from the Canadian Thoracic Society or American College of Chest Physicians (CHEST) or provincial lung associations, he said. **MP**



CLINIC

Tech for people with diabetes

Who benefits most from glucose monitors and insulin pumps, and how do you troubleshoot problems? **BY KYLIE TAGGART**

More and more patients with diabetes are taking advantage of technology that helps maintain appropriate blood glucose levels and lessens the burden of calculations and finger pricks needed to achieve them. What is the role of the non-endocrinologist physician in helping these patients?

Two experts provided advice: Dr. Ilana Halperin, a staff endocrinologist

at Sunnybrook Health Sciences Centre in Toronto and associate professor at the University of Toronto, and Dr. Bikrampal Sidhu, an endocrinologist at Kingston Health Sciences Centre and assistant professor at Queen's University in Kingston, Ont.

The right tech

Type 1 and type 2 diabetes are very different diseases when it comes to what

technology is appropriate, Dr. Sidhu said. Knowing who should be on what type of technology is key.

For people with type 1 diabetes who take insulin, glucose monitoring can help reach blood glucose targets with a lower risk of hypoglycemic events. This can be as simple as a wearable sensor sending information to a reader or cell phone about blood glucose measures. There's the choice of flash (or intermittent) monitoring or real-time, continuous monitoring.

People with type 2 diabetes can benefit from continuous glucose monitoring (CGM), particularly if they're on insulin. While not necessary or helpful for most patients not on insulin, getting the data from a device might help some who are struggling to maintain their blood sugar levels. Dr. Halperin recently offered a patient a sample of a CGM sensor and it made him realize what foods were spiking his blood sugar levels. While he might not qualify for funding for CGM, he may pay for one every couple of months to make sure he's on track with diet and exercise.

Traditional insulin pumps provide a steady infusion of insulin and require the user to input information about meals or exercise. Now, people with type 1 diabetes can use closed-loop systems, where continuous glucose monitors interact with insulin pumps to provide automated insulin delivery (AID) when needed. "It's totally changed the experience for people with diabetes, not only in terms of better glucose management, but also improving quality of life," Dr. Halperin said. Patients sleep better and have less diabetes-related stress, among other positive outcomes.

An AID system is the preferred treatment option for patients with type 1 diabetes, states the 2025 Diabetes Canada clinical practice guideline on glycemic management in people with type 1 diabetes. If AID is not possible or not the patient's choice, the next best choice is CGM in combination with an insulin pump or basal bolus injection, the guidelines note.

Most people with type 2 diabetes will not need AID systems, although there have been studies on AID systems in

people with type 2 diabetes who take insulin. One was published in the *New England Journal of Medicine* in March 2025. Patients using the AID system had a significantly greater reduction in glucose blood levels than those using CGM alone.

“Unsurprisingly, they work really well,” Dr. Halperin said. People with type 2 diabetes who use them, “are still encouraged to announce their meals but a lot of the heavy lifting is done by the algorithm.”

The main trend remains that all patients with diabetes treated with insulin can benefit from CGM, but it’s patients with type 1 diabetes who really benefit from AID systems.

Costs and coverage

The biggest barrier to using diabetes technology is the cost. All jurisdictions in Canada have coverage for glucose monitoring and AID systems for people with type 1 diabetes, provided certain conditions are met. Coverage for people with type 2 diabetes who take insulin varies depending on jurisdiction. An overview of public insurance coverage is available on the website of Breakthrough T1D Canada, formerly the Juvenile Diabetes Research Foundation (JDRF).

For AID systems, the pump can cost up to \$7,000, with a cost of supplies (\$300 to \$400 a month) and cost of glucose monitor sensors (\$300 to \$400 a month). “I think it will be a while before we see widespread adoption of these systems for type 2,” Dr. Halperin said. If a patient with type 2 diabetes can shoulder the cost and is struggling to manage their blood sugar, it may be appropriate to refer them.

Troubleshooting

Luckily, all commercially available technologies have phone numbers to call for tech support and websites with resources on how to use the technologies.

Physicians should remind patients using CGM that, “If the number doesn’t match their symptoms, they should do an old-fashioned capillary blood glucose or finger poke check,” Dr. Halperin said. There are times when the sensor is not accurate, especially on the first or last

day of the 10-to-14-day long wear of the sensor, she said. If the patient is going to make a dosing decision to treat a high- or low-blood sugar reading at this time, it’s a good idea to do a finger poke test first.

Some patients with type 1 diabetes may choose a do-it-yourself AID system, where they update the system using open-source code. Patients first adopted these systems when fewer commercial AID systems were available and when coverage was not as comprehensive. Dr. Halperin co-authored a 2023 paper published in the *Canadian Journal of Diabetes* on how physicians can support patients who use these systems. “Any system that helps patients feel better should be supported by their clinicians,” Dr. Halperin said. Uptake for DIY systems was only 30% in her clinic. It’s a lot of work to build the app, update it, manage the technology as well as the disease, with no easy telephone number to call for help. Still, physicians should understand the basics, she said. “Whatever system my patient chooses, I should be educated enough to know how to adjust insulin settings to optimize glycemic control.”

Adhesion and irritation

Skin irritation can occur with wearable sensors. For some people the sensor doesn’t stick properly, or the glue comes off. Patients can buy skin glue and/or products like Skin Tac to make sure their skin is tackier and stickier in the area where they’ll wear the sensor. Patients can also put on bandages or patches to hold the sensor in place, Dr. Sidhu said.

If a patient has itchy skin around the sensor area, Dr. Sidhu recommended using an asthma inhaler or a nasal spray like Flonase or Flovent. Spray a bit directly on the skin where the sensor will go before putting the sensor on. “It acts as a little anti-inflammatory right under the sensor. That can actually prevent those reactions,” he said. It works better than a cream.

Technology in pregnancy

Not all glucose monitoring technology is approved for use in pregnancy by Health Canada, “But we offer it to almost everybody in my pregnancy

clinic,” Dr. Sidhu said. “It’s a lot easier to measure your sugars on a sensor than off.” Thousands of Canadian patients have gone through pregnancy using glucose monitoring technology without concern and there’s evidence of benefit of real-time CGM in patients with type 1 diabetes who are pregnant.

With AID systems, “Targets are higher than what we would consider acceptable in pregnancy. For that reason, they’re not approved,” Dr. Sidhu said. “Most endocrinologists would say it’s still better than we could do without those pumps.” There’s mounting evidence showing the benefits of patients using AID systems in pregnancy, and patients should not be taken off AID systems if they’re pregnant.

“Pregnancy is not a reason to not be on technology,” Dr. Sidhu said.

Other specialists

AID systems should be supported by an endocrinology or diabetes management team. If a patient with type 1 diabetes isn’t connected to a team, make a referral, Dr. Sidhu said. Even the most well-informed primary care physician or other specialist might not know about some of the recent developments in the area.

Once a patient has decided on a system, learn about it from the company’s website. There’s information on how to access the data and how to assess the device. Physicians can also access resources on technology at type1better.com, a program run out of McGill University and through clinical resources offered by Diabetes Canada.

“I would encourage all family doctors to get comfortable with putting in continuous glucose monitors themselves. Do it once or twice. They’re very simple things to do,” Dr. Sidhu advised. “When you can show your patient, they’re much more likely to use it and get the benefit out of it.”

Finally, recognize that patients are the experts. They’re often active on various online forums about diabetes technology. Dr. Sidhu recently learned from a patient about the best waterproof bag to protect an AID system when scuba diving or surfing in salt water, a fact he can now share with other patients. **MP**