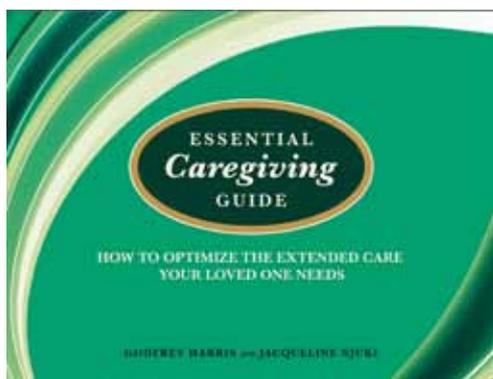


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Book review: *Essential Caregiving Guide: How to optimize the extended care your loved one needs*



By Godfrey Harris and Jacqueline Njuki. Los Angeles: The Americas Group, 2019. ISBN-13: 978-0935047905. Paperback, 68 pages. US\$15.95

The concerned and loving daughter notices her 72-year-old mother is showing early signs of dementia. She approaches her family physician for advice on how best to bring a caregiver into her mother's life, how to help the caregiver set appropriate goals, and how to supervise the caregiver's work. The family physician may suggest that the daughter read this recently published booklet: *Essential Caregiving Guide*.

The booklet is short on text; it is filled with various forms to be used to record pertinent information or to take inventory. The family completes forms about the patient's personal

and health data, medication lists, current daily routines, grooming, bathroom needs, and very importantly, likes and dislikes. The caregiver's forms include a list of caregiving goals and, as the caregiver begins to assist the patient, they report accomplishments, changes, and anomalies along with periodic summaries. There is a separate form for the caregiver's evaluation.

No individual forms can provide a complete picture of a patient's or a family's situation; a continuum to care is needed. For example, part-time or a short period of assistance may be needed postsurgery; 24-hour care may be required in advanced cases of dementia or other major disorders. Some of the forms in this booklet could be filled out by a patient with adequate ability to communicate; others may be too simplistic for complex situations.

The family doctor may wish to emphasize that caregiving may extend to many issues—safety, administration of medications, companionship, food and feeding, locomotion and muscle-strength maintenance when appropriate, skin care, general cleanliness, and bowel and urinary care. The kinds of forms needed

BC's top family physician of 2019

The College of Family Physicians of Canada (CFPC) and the Foundation for Advancing Family Medicine (FAFM) have selected the 2019 Family Physicians of the Year as the recipients of the Reg L. Perkin Awards. Each year 10 recipients (one from each province) are nominated by their peers, colleagues, and the CFPC's chapters for their leadership, contributions to patient care, and commitment to family medicine teaching and research. The 2019 Family Physician of the Year from British Columbia is Dr Catherine Textor, MD, CCFP (EM), from Prince George.

Dr Textor has worked as a full-service family doctor in Prince George for the past 16 years. She is one of four partners who own a group family practice providing comprehensive care that includes obstetrical, palliative, and long-term care; home visits; surgical assists; and in-hospital care for their patients. Obstetrical care is a special area of interest for the practice, and they take referrals from colleagues in Prince George and outlying rural communities in the region. They also teach medical students and residents in their practice and in the hospital. For 11 years Dr Textor also did part-time work in the emergency department at the University Hospital of Northern British Columbia (UHNBC).

As the physician lead at the Prince George Division of Family Practice, Dr Textor is currently spearheading two large initiatives. The first involves preserving longitudinal family medicine in the community, including a new approach to the care of unattached patients and opening a new primary care medical unit at UHNBC in partnership with Northern Health. The second is developing a model for the delivery of mental health and substance use services in Northern British Columbia.

Growing up in a small town on Vancouver Island, the only exposure Dr Textor had to the medical system was her family doctor. As she went through rotations in medical school, she found it difficult to pick just one specialty. She loves her job for the variety it brings and the privilege it offers of sharing in the most intimate moments of her patients' lives.

The complete list of recipients and each recipient's biography is available at <https://fafm.cfpc.ca/fpoy-2019>.



Dr Catherine Textor

to record details such as these are not included in the booklet and may have to be devised separately.

Further, managerial or supervisory requirements from the family depend on the caregiver's compassion and experience, and on the circumstances under which the caregiving takes place.

The booklet's text is not inspiring, but the forms do serve as introductory guides for the family and the caregiver. I think it is a good start as a way to get organized.

Caveat: The book is written with the United States' public health services in mind, but virtually all comments about caregiving are just as relevant in Canada.

—George Szasz, MD

Hear from patients: New GPSC Patient Experience Tool

Family doctors and teams can now hear from their patients about their experiences and interactions with a practice using a new tool developed by the General Practice Services Committee (GPSC). The Patient Experience Tool is a tablet-based survey that asks patients about topics such as wait times, office hours, and coordination of care. More than 6000 patients have completed the survey, initially piloted by 39 clinics throughout BC since 2016.

The Patient Experience Tool data can inform quality improvement activities in a practice, and practices can opt to share aggregated data with their local division. Practice team

members can access responses in real time using an easy-to-use, web-based dashboard. The secure platform automatically anonymizes and randomizes the responses upon receipt before the data are reported in the dashboard. For more information, visit www.gpsc.bc.ca.

Mushroom poisonings on the rise in BC

The BC Centre for Disease Control's Drug and Poison Information Centre is urging British Columbians to use extreme caution when foraging or consuming wild mushrooms. Poison Control received 201 mushroom poisoning calls as of 30 September 2019, well on track to being one of the most active years in recent history.

Amanita phalloides, also known as the death cap mushroom, has been increasingly popping up throughout BC, including in Victoria and South Vancouver Island, the Gulf Islands, Metro Vancouver, and the Fraser Valley region. The death cap is the most poisonous mushroom in the world, most often found in urban areas here. There have been no reported human deaths from BC death cap mushrooms since 2016 when a child passed away; however, two dogs have died due to possible death cap poisoning in 2019.

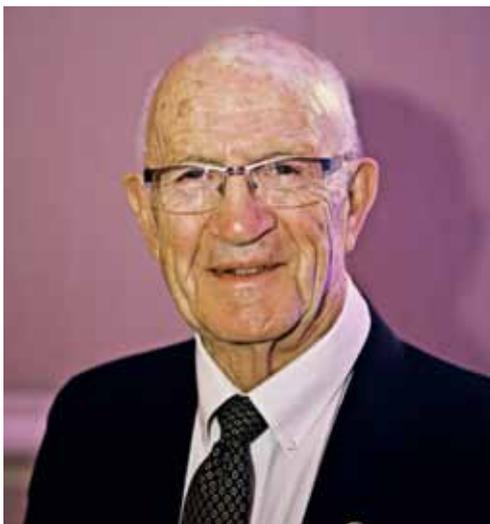
Facts about the *Amanita phalloides* (death cap):

- Death cap mushrooms are believed to kill more people worldwide than any other mushroom.

- Death caps are particularly dangerous because of their resemblance to edible varieties of mushrooms. They can be mistaken for edible puffballs when young or the Asian Straw mushroom when older.
- Toxins found in death caps include amatoxins, phallotoxins, and virotoxins.
- Symptoms of poisoning include nausea, vomiting, watery diarrhea, low blood pressure, liver failure, and kidney failure.
- Illness begins 8 to 12 hours after ingestion, beginning with gastrointestinal symptoms like vomiting and diarrhea, followed by apparent recovery.
- Gastrointestinal symptoms recur and damage to the kidney and liver progresses over the next 3 to 6 days.

Tips to stay safe while mushroom hunting:

- If you are unsure, don't eat it!
- Only pick and eat mushrooms that are well known to be edible and easy to distinguish from poisonous varieties.
- If you suspect you've consumed a poisonous mushroom, call the Drug and Poison Information Centre 24-hour phone line at 1 800 567-8911 and seek medical attention immediately.
- Only hunt for mushrooms in safe terrain and exercise extreme caution if in remote areas.
- Save one of each kind of mushroom so their identities can be confirmed should symptoms develop.



Dr Gerald Stewart, past president of Doctors of BC, was one of the first recipients of the CCFP designation.

Celebrating a family medicine milestone and 1969 trailblazers

Fifty years ago a pioneering group of 12 family physicians successfully completed the first ever Certification Examination in Family Medicine and earned the Certification in the College of Family Physicians of Canada (CCFP) special designation. They were introduced to recognize the rigorous assessment required for two key priorities: to support the broad scope of skills and knowledge required of family physicians in their central role caring for patients, and to help advance family medicine in Canada.

Among the class members is Gerald Stewart, MD, CCFP, FCFP, LM, from Kelowna, BC. Dr Stewart graduated from the UBC Medical School and cared for the people of Kelowna and mentored new generations of family physicians for nearly 60 years. He retired from medicine in 2018. Dr Stewart is also a past president of Doctors of BC, having served in 1984/1985.

For the complete list of the class of 1969, visit www.cfpc.ca/meet-some-of-the-members-of-the-class-of-1969.

Learn more

Visit the BCCDC's information page on the death cap mushroom to familiarize yourself with what it looks like and what to do if sighted or ingested: www.bccdc.ca/health-info/prevention-public-health/death-cap-mushrooms.

There are many other varieties of wild mushrooms that are less toxic than death caps but can also cause severe illness. Search for "wild mushrooms" on www.bccdc.ca for additional resources.

For information on which mushrooms in BC are edible and which are poisonous, visit UBC's Mushrooms Up! database: www.zoology.ubc.ca/~biodiv/mushroom.

For more information on the Vancouver Mycological Society and their resources on poisonous mushrooms, visit www.vanmyco.org/about-mushrooms/poisonous.

Naloxone kits encouraged for those who smoke or snort

The BC Centre for Disease Control (BCCDC) is advising people who use drugs to get trained in overdose response and pick up a Take Home Naloxone kit, regardless of how they choose to consume, after new research revealed that people who smoke or snort drugs are half as likely to carry lifesaving naloxone medication. The warning stems from results of a 2018 survey of people who use drugs in BC and research published recently in the journal *Drug and Alcohol Dependence*. The survey, conducted by the harm reduction team at the BCCDC, found that people who reported smoking or snorting drugs as their preferred method of drug use were half as likely to carry naloxone as those who preferred injecting. This was true even after taking several factors into account, including gender, age, and type of drug used.

The unpredictability of the street drug supply puts people at risk. Data in BC show that people who smoke or snort opioids are experiencing overdoses and dying. While uncommon, there have also been reports of fentanyl-related deaths among people using stimulants, such as cocaine and methamphetamine.

The BCCDC is also advising anyone who is around people who use drugs and who may

witness an overdose to get trained and get a kit so they can respond. Take Home Naloxone kits are available free of charge at hundreds of locations across the province and can be found using the site finder on <https://towardtheheart.com>.

Learn more about the 2018 Harm Reduction Client Survey findings at www.bccdc.ca/health-professionals/data-reports/harm-reduction-and-substance-use.

New international exercise guidelines for cancer survivors

For the rising number of cancer survivors worldwide, there's growing evidence that exercise is an important part of recovery. But how much and what type of exercise is needed?

A recent review of research, conducted by an international group of experts led by the University of British Columbia, has resulted in the development of new exercise guidelines for cancer survivors. The updated recommendations, published in *Medicine and Science in Sports and Exercise*, outline specific "exercise prescriptions" to address common side effects, such as anxiety and fatigue, associated with cancer diagnoses and treatment.

In general, the new guidelines recommend survivors perform aerobic and resistance training for approximately 30 minutes per session, 3 times a week. This is a departure from earlier guidelines, published nearly a decade ago, which advised cancer survivors to meet the general public health guidelines for all Americans (150 minutes of exercise a week).

The new recommendations are based on a substantive review and analysis of the growing body of scientific evidence in the field. Since the first guidelines were put forward in 2010, there have been more than 2500 published randomized controlled exercise trials in cancer survivors (an increase of 281%).

The new paper ("Exercise guidelines for cancer survivors") is one of three papers published that summarize the outcomes of an international roundtable that explored the role of exercise in cancer prevention and control. The paper's lead author, Dr Kristin Campbell, associate professor in UBC's Department of Physical Therapy, and director of the Clinical Exercise Physiology Lab, served as the Canadian representative on the roundtable, working

alongside the Canadian Society for Exercise Physiology, one of 17 partner organizations. The roundtable brought together a group of 40 international, multidisciplinary experts from various organizations who conducted a thorough and updated review of the evidence on the positive effects of exercise in preventing, managing, and recovering from cancer. Together, the three papers offer new evidence-backed recommendations for incorporating exercise into prevention and treatment plans and introduce a new Moving Through Cancer initiative (https://www.exerciseismedicine.org/support_page.php/moving-through-cancer/), led by the American College of Sports Medicine, to help clinicians worldwide implement these recommendations.

The new recommendations include:

- For all adults, exercise is important for cancer prevention and specifically lowers risk of seven common types of cancer: colon, breast, endometrial, kidney, bladder, esophagus, and stomach.
- For cancer survivors, incorporate exercise to help improve survival after a diagnosis of breast, colon, and prostate cancer.
- Exercising during and after cancer treatment improves fatigue, anxiety, depression, physical function, quality of life, and does not exacerbate lymphedema.
- Continue research that will drive the integration of exercise into the standard of care for cancer.
- Translate into practice the increasingly robust evidence base about the positive effects of exercise for cancer patients.

For more information and links to all three papers visit www.acsm.org/read-research/newsroom/news-releases/news-detail/2019/10/16/expert-panel-cancer-treatment-plans-should-include-tailored-exercise-prescriptions.

Patients with mood, anxiety disorders share abnormalities in brain's control circuit

New research published in *JAMA Psychiatry* shows for the first time that patients with mood and anxiety disorders share the same abnormalities in regions of the brain involved in emotional and cognitive control. The findings hold promise for the development of new

treatments targeting these regions of the brain in patients with major depressive disorder, bipolar disorder, posttraumatic stress disorder, and anxiety disorders.

Mood and anxiety disorders account for nearly 65% of psychosocial disability worldwide and represent a major public health challenge. In Canada, one in three people (approximately 9.1 million) will be affected by mental illness during their lifetime, according to Statistics Canada. The defining symptoms of these disorders are persistent or recurring negative feelings, mainly depression and anxiety.

Dr Sophia Frangou is the study's senior author and a psychiatry professor at UBC. Dr Frangou recently joined UBC as the President's Excellence Chair in Brain Health at the Djavad Mowafaghian Centre for Brain Health. She started this research as head of the research team at the Icahn School of Medicine at Mount Sinai, New York.

For the study, Dr Frangou and her research team analyzed more than 9000 brain scans from previously published studies that compared the brain activity of healthy adults to

those diagnosed with a mood or anxiety disorder, ranging from major depression to post-traumatic stress disorder.

They found that patients exhibited abnormally low activity in the inferior prefrontal and parietal cortex, the insula, and the putamen—regions that are key parts of the brain circuit for emotional and cognitive control and are responsible for stopping ongoing mental activities and switching to new ones. They also discovered hyperactivity in the anterior cingulate cortex, the left amygdala, and the thalamus, which work together to process emotional thoughts and feelings.

Following her move to UBC, Dr Frangou plans to pursue further research to leverage these findings toward more targeted interventions, such as noninvasive stimulation of specific regions of the brain, which could improve outcomes for those living with mood and anxiety disorders.

The study is believed to be the largest analysis of brain scans of patients with mood and anxiety disorders to date. It was funded by the National Institute of Mental Health in the US, the German research funding organization Deutsche Forschungsgemeinschaft, and the European Union's Horizon 2020 Research and Innovation Programme.

The study, "Shared neural phenotypes for mood and anxiety disorders" is available at online at <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2753513>.

New DNA "clock" could help measure development in young children

Scientists have developed a molecular "clock" that could reshape how pediatricians measure and monitor childhood growth and potentially allow for an earlier diagnosis of life-altering developmental disorders. The research, published in *Proceedings of the National Academy of Sciences*, describes how the addition of chemical tags to DNA over time can potentially be used to screen for developmental differences and health problems in children.

The study was led by researchers at BC Children's Hospital, the University of British Columbia, and the University of California,

Los Angeles. It is the first study to describe a method specifically designed for children, called the Pediatric-Buccal-Epigenetic (PedBE) clock, which measures chemical changes to determine the biological age of a child's DNA.

Small chemical changes to DNA, known as epigenetic changes, alter how genes are expressed in certain tissues and cells. Some of these changes happen as a person ages and others may be in response to a person's environment or life experiences. In adults, these patterns of epigenetic changes are well established. They can be used to accurately predict a person's age from a DNA sample or, if a person's epigenetic age differs from their actual age, the clock can point to differences in health, including age-related diseases and early mortality.

The PedBE clock was developed using DNA methylation profiles from 1032 healthy children whose ages ranged from a few weeks old to 20 years. The researchers found 94 different sites in the genome that, when tested together, could accurately predict a child's age to within about 4 months. The team also found that children who spent longer in the womb showed an accelerated rate of DNA change by 3 months, demonstrating that this tool could be used to indicate an infant's developmental stage. The analysis can be done cheaply and efficiently on cells collected from a cheek swab.

In a small pilot study, the researchers also found that children with autism spectrum disorder (ASD) showed a higher PedBE "age" than those considered to be developing typically, suggesting that the clock could be used to screen for ASD.

The researchers made the tool freely available along with the publication of this study so other research teams are able to use and experiment with the tool right away.

The study, "The PedBE clock accurately estimates DNA methylation age in pediatric buccal cells," is available online at www.pnas.org/content/early/2019/10/09/1820843116.



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BCMJ Blog: Physicians' income inequality

High volume is obviously good business, but it is probably bad medicine. Can a new way of looking at inequality help us see through the weeds?

Read the post: bcmj.org/blog/physicians-income-inequality



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