

Too Much Health Information? Start the Year Smarter

Advice from cancer patients, providers, researchers and others on how to stay informed amid a deluge of data and information.

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Each day, we're surrounded by a tsunami of information, with more pouring in as new research is published, more advances are made, new treatments are developed and new diseases and diagnoses are identified. We also have more ways to dip into — and even drown — in health and scientific information than ever before.

From the nearly half a billion new social posts to the thousands of new scientific papers published each day, that challenge is growing whether you are dealing with a health issue or trying to stay abreast of the latest research in your field.

While it's wonderful that most of this information is available from nearly anywhere that has internet access, getting the right information for your needs is daunting.

From the end of the 17th century to the end of the 20th, the number of scientific journals [grew exponentially](#) from 10 to 100,000. Today, [more than 1.5 million](#) scientific articles on biomedicine and life sciences alone are published and collected in the PubMed database, maintained by the United States National Library of Medicine, every year.

How do we keep up? And what about AI? Fred Hutch Cancer Center scientists, providers and a patient advocate recently shared their pointers on how to stay in the know.

Their strategies mix the old (attending conferences) with the new (social media). Time and attention are critical. Regardless of platform, building a network of trusted sources — whether top journals or key colleagues — can help you keep swimming.

Patients, cover your bases

Patient advocate Marty Chakoian helps people with prostate cancer via the national group [Zero Prostate Cancer](#). He's also chair of the Patient Advocacy Committee for the [Pacific Northwest](#)

[Prostate Cancer Specialized Program of Research Excellence, or SPOR^E](#), of which Fred Hutch is a founding member.

A prostate cancer patient of more than 20 years, Chakoian doesn't just read up on health, medicine and science to keep himself informed; he regularly sends emails to members of his patient and caregiver support group, highlighting new information and promising findings.

Staying current requires multiple sources, he said, especially since every media outlet, scientific journal and newsletter cover things a bit differently.

For basic news every day, Chakoian reads large national newspapers — usually The New York Times and Washington Post — although they're not his top pick when it comes to the latest science.

"They're better at general stuff," he said. "Like 'What exercises are best as you age? What kind of diet might help maintain brain function?'"

For prostate cancer research news, he uses industry sites and science newsfeeds, typically in the form of emails or newsletters sent to him at a regular cadence.

"I get three newsfeeds a day," he said. "One is from [MedPageToday](#). Another is the newsletter [Science X](#), which sends links to about 30 to 40 science, technology and medical stories every day. And I also read a newsletter from [UroToday](#) which is very technical — it's written for urologists — with summaries of data presented at conferences."

For basic information about the disease itself, Chakoian relies on trusted sites such as:

- [ZERO Prostate Cancer](#)
- [Prostate Cancer Foundation](#)
- [Prostate Cancer Research Institute](#)
- [American Cancer Society](#)
- [National Institutes of Health](#)
- Medical center websites like [FredHutch.org](#)

And he never assumes every single news outlet — or scientific journal — is 100% reliable.

"If I read about clinical trial results in a medical journal, then I usually have confidence in that, but if it's just a popular article, I'm a little leery," he said. "I'm also skeptical of early research because 90% of what looks promising in a lab never makes it to the clinic. Just because it works in mice or in a petri dish, doesn't mean it's going to work on people."

Use the latest platforms

Though the platforms may be shifting, social media can be a secret weapon for staying on top of what's up and coming.

"It's the main way I stay current," said [Rahul Banerjee, MD, FACP](#), a hematologist-oncologist who specializes in multiple myeloma.

Staying active on social media — specifically X, formerly known as Twitter — helps Banerjee know what colleagues in his field are working on and talking about, and it helps him get an idea of what's next. Senior physicians in the myeloma field post articles they've read and what they think about them; Banerjee carefully curates the list of accounts he follows so that he can easily find the articles they post.

Banerjee recently took home "top influencer" honors at the [American Society of Hematology](#) (ASH)'s annual meeting for his social media engagement during the meeting.

"There was tougher competition this year, but I am now defending champion — excluding the ASH organization itself — for a third year in a row," he said. "Obviously the quantity of tweets doesn't really matter to anyone. But social media is extremely important to me as a way to stay up to date in real time and jog my memory about presentations I'd seen at previous conferences."

Engaging on X helps Banerjee drink from the firehose of hematology updates that are constantly being announced and discussed at conferences.

"Twitter helps me keep an eye on one session while I'm in another session that's going on at the same time," he said.

It's also a valuable tool to identify the latest and greatest in scientific research, especially because the lag between an abstract's release and the publication of a complete manuscript can take more than a year.

"The road to getting published is hard so it's often easier and faster to start with a conference abstract rather than publish a full paper first," said Banerjee, who is partial to tweetorials, which can take the form of a lengthy series of bite-size tweets about abstracts.

To Banerjee, tweetorials are the "best of all worlds: a systematic way for scientists to explain their research in their own words with lots of images: why we did our study, what we found, and what this means to you. Sometimes the thoughtful replies I get to my own tweetorials have helped steer how I present findings in the subsequent written publication."

"Social media is always evolving," said Banerjee. "Obviously, I am a doctor first, tweeter second. But as long as other physicians and patient advocates in the myeloma space are on Twitter, I will stay there."

Biostatistician [Elizabeth Halloran, MD, MPH, DSc](#), a pioneer in the design and analysis of vaccine studies, doesn't eschew social media, but admits she joined under peer pressure. But she keeps it as simple as possible, only following a select group of trusted colleagues.

This helped her keep up-to-date on high-quality new findings (even some outside her areas of specialization) when pandemic travel restrictions hobbled her usual networking activities at scientific conferences.

But patient advocates like Chakoian worry about cancer patients who strictly use social media for their health and medical news.

"One of the biggest challenges for cancer patients is learning what not to pay attention to and what not to believe," he said. "There's so much misinformation on social media sites; there's just nonsense out there.

"People should only believe things that come from a trusted, vetted source and that's particularly true for science and health information," Chakoian said. "I believe in shared decision-making about medical treatment, but for patients to make good decisions, they have to have good information."

Review the literature

Most scientists look to a handful of key journals in their field as sources of most-trusted information.

[Mara Roth, MD](#), an endocrinologist who specializes in thyroid cancer, subscribes to the paper version of two top journals in her field, the American Thyroid Association and The Endocrine Society, and also accesses them via email so she can see the table of contents before the paper journal arrives. She also gets emailed tables of content for several other journals she finds helpful.

"I pick and choose what to click on," she said.

Clinical providers like medical oncologist [Keith Eaton, MD, PhD](#), and infectious disease specialist [Josh Hill, MD](#), also look at journals' tables of contents for the latest information. Hill, who treats patients with weakened immune systems and studies viral infections in transplant recipients, also keeps tabs on what's happening in his field by using ResearchGate to follow investigators who cite his papers.

Sometimes, though, there's no way around putting in the time.

Biostatistician [Holly Janes, PhD](#), the associate head of the Biostatistics, Bioinformatics and Epidemiology Program in Fred Hutch's Vaccine and Infectious Disease Division, makes literature review a regular priority.

"My tip is to simply carve out time each week to review the literature — although it's hard and not

always possible!” Janes said.

That’s in part because there is so much to read.

“Certainly, the volume [today] is harder,” said [Nina Salama, PhD](#), senior vice president of education. “It’s tough because there’s just so much coming out and often the things that are most important for us to look at are not necessarily immediately in our field.”

Salama, who holds the Dr. Penny E. Petersen Memorial Chair for Lymphoma Research, oversees a wide range of education programs at Fred Hutch, from elementary school students to high school and college interns to [postbaccalaureate](#) and postdoctoral researchers.

She studies the bacterium *Helicobacter pylori*, a stomach bacterium that infects half the world’s population and is associated with ulcers and gastric cancer.

Earlier in Salama’s career, it was possible to keep up just by skimming the table of contents of a few major journals. That won’t cut it anymore, although search engines do help sort the chaff from the wheat. (Halloran also encouraged trainees to get comfortable with search engines.)

Medical oncologist Eaton occasionally turns to AI, which he finds especially helpful when he can’t track down a reference he’s looking for.

“I don’t use it blindly,” he said, “but sometimes I will input a question into Perplexity, an AI engine that provides external references for journals or abstracts and be amazed at how it can find the answer.”

One way Salama keeps track of new studies in her field is an alert system she has set up with [PubMed](#), which is a free online database of biomedical and life sciences.

“I have a citation alert through PubMed and I actually do look at that every week,” Salama said. “I also try to charge my students with keeping tracks of things and we have done a lab-specific journal club where we try to collectively peruse the literature.”

Review the work

Serving as a journal editor or as a reviewer for grant applications is also a great way for scientists to keep an eye on where their field is headed.

Roth serves as the editor on two journals, which allows her to both contribute to her field and stay in the know regarding the latest research.

“I get the manuscripts to review, so I keep tabs on what’s happening even if it’s not being published yet,” she said. “That’s a huge amount of unpaid labor, but it’s an expectation of our jobs and it’s really useful in terms of staying current.”

At conferences she attends, Roth volunteers to judge posters and abstracts in order to see what research is being done before it gets to the point of publication.

“There are so many hundreds of journals and only so many you can read,” she said.

One way Salama has kept herself smarter is by reviewing grant applications for a [study section](#) of the National Institutes of Health, a strategy recommended by others as well. She serves on the [Prokaryotic Cell and Molecular Biology Study Section](#), which reviews applications for research related to single-celled organisms, like bacteria, that lack a nucleus to house their DNA.

“Between the grants that we’re reviewing and things that other people bring up at those meetings, which is a lot of leaders pretty close to my field, I feel like I’m keeping up,” Salama said.

Halloran also touted the value of serving on study section, and noted that letters of recommendation or support are more opportunities to expand understanding of a field, its contributors and its latest advances.

“You come away with a much deeper understanding of someone’s career and their area,” she said.

Read with a hefty helping of salt

The proliferation of journals has impacted patients, as well.

It’s not uncommon for patients to send Roth journal articles through MyChart; sometimes she’s already read them and sometimes they send articles from not-reputable journals, which requires conversations with patients about evaluating the evidence and who funds the research.

“How do I combat Dr. Google? I have a few websites I send patients to — the [Thyroid Head and Neck Cancer Foundation](#) is one — and I talk to patients a lot about problems with getting their medical information online. It turns into a discussion about health literacy,” Roth said.

Chakoian said he’s seen enough study results overhyped or taken out of context to not fall for every “cancer breakthrough” headline.

“Right now, there’s a lot of hype about liquid biopsies for prostate cancer,” he said. “Some company will come up with a new thing and they’ll get a reporter from CNN or other major outlet to do a story. Or a biotech firm will get a local reporter to write about their research. That doesn’t mean it’s scientifically valid; it just means they’ve done a good job of marketing what they’ve come up with.”

If and when he shares study results, “it has to be from a trusted source and I’ll try to provide context,” he said, making sure people know whether the research is preliminary or if it’s something that’s going to be in the clinic within weeks.

“One of my favorite medical oncologists at Fred Hutch says that it takes nearly 17 years for a prostate cancer treatment to go from the lab to the clinic,” he said. “Even when there’s early evidence that it’s valid, you have to go through all three clinical trial phases and get FDA approval.”

Does he worry about misinformation harming patients with cancer?

“I definitely worry that patients in my group or their caregivers will latch onto something that may not be appropriate for them,” he said. “The write-ups often just focus on what sounds promising. We all want the magic bullet — the thing that’s going to cure us. I worry people will get too optimistic or excited about something that’s not right for them or may not even be reported correctly. Or they’re only reading what they want to read.”

Scientists need to read with a critical eye, as well.

Salama cautions less-experienced scientists against assuming that a study is sound or relevant just because it’s been published.

“Sometimes the trainees think, well, if it’s published, then it’s been thoroughly vetted, and that isn’t necessarily the case. Even if it’s vetted, it still doesn’t mean it’s significant,” Salama said.

Clinical care: keep learning

For medical oncologists who treat all types of cancer, staying apprised of the latest in the sprawling field of oncology is an almost incomprehensible task. For Eaton, who has several specialties including lung cancer and head and neck cancers, staying current only in those areas is challenging.

“We used to look at books, but no one does that anymore,” said Eaton. “The cadence of yearly conferences isn’t frequent enough to keep up with rapidly developing fields, so they are mostly for shmoozing nowadays. Not that you don’t learn something, but conferences can’t keep up with the pace of innovation.”

He relies on UpToDate, a physician-authored clinical knowledge website that helps providers make care decisions.

“It’s by far the most-used resource in medicine — probably over 100,000 pages, and it’s searchable,” said Eaton.

“For a rapidly changing topic, UpToDate is updated several times a year,” he said. “That’s helpful because there are many scenarios that occur in 1% of lung cancer cases. I’m constantly verifying my knowledge against literature sources.”

Eaton also gave a shoutout to the Longitudinal Knowledge Assessment required for physicians to

maintain their board certifications. Every three months, he has to tackle 30 questions per medical board. An “open book” exam with four minutes per question, it builds his search skills. To tap into more recent developments, Eaton reviews a daily update from the American Society of Clinical Oncology about what’s new in cancer.

When it comes to practical questions, Eaton references the [National Comprehensive Cancer Network guidelines](#), which cover everything from risk reduction to care for special populations.

Keep connected with community

Attending conferences is a common way for researchers to stay current in their fields. Most researchers use this opportunity to stay current in their field and up-to-date with their colleagues. Conferences often have training sessions that investigators can take advantage of, Halloran said.

But there’s nothing like the kismet of an off-the-cuff conversation to keep scientists engaged and investigations fresh. Regular collaboration and sharing of expertise is deeply embedded in the culture of Fred Hutch.

Researchers in the Basic Sciences and Human Biology divisions meet weekly to hear presentations from their colleagues about what is happening in their labs. Presenters field questions and often pose questions to the group seeking ideas about how to solve particularly thorny problems.

“That is one thing that that I do try to tell students: that science has always been better when it’s social,” Salama said. “Now it’s essential. Science is meant to be self-correcting, but that really only happens if you have this dialogue.”

Fred Hutch staff writers Diane Mapes, Bonnie Rochman, John Higgins and Sabrina Richards contributed to the reporting and writing of the piece.

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