# Childhood Cancer Awareness Month

September 8, 2023

**Becca Battisfore:**

Welcome to the latest edition of the College of American Pathologist's CAP Cast. I'm Becca Battisfore, Content Specialist with the CAP. In this episode, Dr. Mary Edgerton will be talking with experts about the updated Pediatric Cancer Protocols that will be released in September.

According to the CDC, approximately 15,000 children are diagnosed with cancer annually in the US. One in 285 children will be diagnosed with cancer before their 20th birthday with 20% of patients succumbing to their disease. In 2012, September was designated as Childhood Cancer Awareness Month.

Before we get into the questions, I'll have our guests introduce themselves. Dr. Edgerton, we'll start with you.

**Dr. Mary Edgerton:**

Thank you. I am Dr. Mary Edgerton. I'm the Chair of the PERT Committee for CAP, and I am, by profession, a breast pathologist, now at the University of Nebraska Medical Center.

**Dr. Jessica Davis:**

I am Dr. Jessica Davis. I am, by training, a bone and soft tissue pathologist and a Board Certified pediatric pathologist. I serve CAP as a member of the CAP Cancer Committee, and I am the Pediatric Representative to the CAP Cancer Committee.

**Dr. Gregory Reaman:**

I'm Dr. Gregory Reaman. I'm a pediatric oncologist and I currently serve as the Scientific Director of the Childhood Cancer Data Initiative at the National Cancer Institute.

**Dr. Jaime Guidry Auvil:**

Hello, I'm Dr. Jaime Guidry Auvil and I currently serve as the National Cancer Institute's Director for our Office of Data Sharing. By training, I am a tumor biologist, and for the past 15 years, I have helped to run precision genomics trials in pediatrics.

**Kasey Diebold:**

Hi, I am Kasey Diebold. I'm a health informatician with CDC's National Program of Cancer Registries. I'm currently serving as the project and technical lead for CDC's Childhood STAR Project, which is focused on improving real-time reporting and identification of pediatric cancer cases.

**Becca Battisfore:**

Thank you all for joining us for this really important conversation. Dr. Edgerton, I'll let you take it from here with the questions.

**Dr. Mary Edgerton:**

Dr. Davis, I would like to start with you. So traditionally in pathology and in cancer, it all starts with a diagnosis. Can you give us a brief history of pathology reporting in pediatric cancer in particular?

**Dr. Jessica Davis:**

Sure, thanks, Mary. Historically in pediatric cancer reporting, as with adult cancer reporting, we've reported in prose, so giving a line diagnosis. And then as you know as a pathologist yourself, we all have our own unique styles and reporting methodologies and often write in paragraphs if we're going to write a note.

Adult pathology shifted before pediatric pathology in requiring that part of the cancer pathology report be templated or written in a protocol, and CAP has been at the forefront of helping develop those cancer reporting, such that there's discrete fields and line items that are necessary to help inpatient care management in elements that are optional that may be forthcoming in research, et cetera. Adult cancer reporting has shifted based on partnerships with the WHO, with AJCC, et cetera, into a templated format and is required as a checklist item for CAP.

Pediatric pathology has remained in somewhat of a prose format. You can think about reading operative notes that can be prose format, which can be somewhat challenging to decipher at times. Some pediatric pathologists have adopted templated reporting as those are available through CAP. However, they're not yet required. This can bring about challenges for standardization as some places and institutions have adopted the CAP Pediatric Cancer Protocols and others have not.

You can also think about, as a pathologist, some of the challenges if you're not using checklists. So think Checklist Manifesto where it helps us bring to mind all the items that we need to report to be the best pathologist for our patients and for our clinical colleagues. And so as we've moved through history, we've started to think about requiring these over time. There's been long discussions in the CAP Cancer Committee and some of the history behind not having them be required is that historically, only resection protocols have been required and pediatric tumors are often treated neoadjuvantally. So think neuroblastoma, not a lot comes out of a neuroblastoma resection other than saying, "Treated neuroplastic tumor."

And so a lot of the conversation, which we'll talk about later I think, is having a discussion of requiring biopsy templates in the pediatric pathology space and that's now what's coming to fruition.

**Dr. Mary Edgerton:**

That's great. Now, you've talked about the upcoming requirement and I think that will be in 2024?

**Dr. Jessica Davis:**

That's correct.

**Dr. Mary Edgerton:**

Can you tell us if there are any changes to the current protocols that are in the pipeline?

**Dr. Jessica Davis:**

Yeah, so there's some changes coming out the September. So Q3 of 2023 is where we are rolling out the requirement for accreditation, but there's a grace period until 2024 where that would go into effect for the checklist. And with the updated protocols coming out in September, all of the protocols now, there are 12 protocols, paired biopsy and resection, so six different disease processes, which include Wilms tumor, rhabdomyosarcoma and peds, Ewings and round cell sarcomas, extragonadal germ cell tumors, and hepatoblastoma and other pediatric liver tumors, and neuroblastoma. I forgot neuroblastoma. How could I forget neuroblastoma?

So those are rolling out in September, paired biopsy and resection. And all of those now will be updated for the new and first-of-its-kind Pediatric WHO which was just released, so very exciting there, and in alignment with all of the fifth edition WHOs that have come out in general over the last several years, so keeping in alignment with standardization for WHO.

We've also worked really hard in the CAP Cancer Committee to really update a harmonization across other international and national groups such as ICCR, et cetera. And so those are all updated with updated explanatory notes and other checklist items. Those protocols have been updated to have a question that helps pathologists that maybe aren't pediatric experts to say, "I maybe can't fill out this checklist item and therefore there's a note annotating saying it's going to be sent out to a pediatric expert," and then those now will be moving forward for the accreditation checklist as well. So those are the big updates.

**Dr. Mary Edgerton:**

That's actually quite a bit, but the standards are very exciting. I like to think that we all hold hands, the CAP, the WHO, the ICCR, et cetera, and of course all our pathologists who are out there signing out.

So having mentioned that, who are the stakeholders who've actually been involved, say boots on the ground, in developing the protocols? You mentioned a little bit with the WHO.

**Dr. Jessica Davis:**

Yeah, it's really been a fantastic joint effort. So one of the things in moving forward with these new protocols that I've endeavored to do is when we were working with the expert groups for each of these diseases is to include an oncologist. And most of the oncologists on the protocols is actually the lead oncologist through the COG, so the Children's Oncologist Group. So all of the work that's been included in these new updated protocols is in partnership with the Children's Oncology Group.

Other key stakeholders include the SPP, or the Society of Pediatric Pathology, in rolling this out. We've also done some presentations and work with some of the national registrar groups, including NAACCR and SEER. We've done work with data harmonization, as I mentioned, with ICCR. And then of course, working diligently with CAP itself, including the CAP Cancer Committee, PERT, your committee, the House of Delegates, et cetera. So other partners include the CDC, NCI. So really, this is a multipronged approach to make sure that these new protocols roll out successfully.

**Dr. Mary Edgerton:**

Oh, well, thank you. And then fortunately, we have several representatives here from those stakeholders. So I'm going to bring in Dr. Gregory Reaman who is in charge of, I believe it would be the Childhood Cancer Data Initiative. Why don't you tell us about that?

**Dr. Gregory Reaman:**

I was previously at the FDA for a number of years as Associate Director for Pediatric Oncology in the Oncology Center of Excellence. And prior to that, I was actually the founding chair of the Children's Oncology Group, so worked very closely with the pathology committee in the COG.

So the CCDI is a very unique initiative within the NCI, which is really predicated on a philosophy of advancing science by making data shareable, accessible, and interoperable. It is really envisioned to serve as an exemplar for cancer research in general. Pediatric oncology is, by its very nature, a very collaborative enterprise because no single institution really has the number of patients, fortunately, to conduct clinical trials or to do meaningful clinical or even translational research. So we have, for decades, actually only been able to accomplish what we've accomplished in improving outcomes for children by collaborating and working together.

**Dr. Mary Edgerton:**

These words are music to my ears, sharing standards, interoperability. I really love hearing that.

**Dr. Gregory Reaman:**

Well, they are the buzzwords and they are the buzzwords that we think are really going to drive the future because as much as we collaborate, we still do things within silos, within specific disease committees, within institutions, within clinical trial networks. So our being siloed, I don't think is intentional necessarily, and it's not that we don't want to share, but we really don't have the systems, the processes, the platforms that enable us to share. So that really is what the CCDI is all about, creating an ecosystem that makes data available and usable, usable that will translate into improving outcomes. So it's a very exciting time. It's an initiative that I think has enormous potential in fostering and advancing cancer research.

**Dr. Mary Edgerton:**

And how do you see the CAP Cancer Protocols as feeding into the CCDI?

**Dr. Gregory Reaman:**

I think what we have begun within CCDI as far as capturing pathology information, I think will be made much easier and much more complete if the information that is in the patient's electronic health record is in a more standardized format with a requirement for specific elements to be included. We all know reading radiology reports are like in a prose free text fashion. It's great reading, but it's very, very difficult to use in a research setting, and particularly when you're trying to use electronic platforms to extract that information from electronic health records.

Hopefully, this will make things much easier for everybody and patients will ultimately benefit.

**Dr. Mary Edgerton:**

That is a great summary, a great charge to us, and I'm so glad that you are now one of our stakeholders. Just really quickly before we transition to Kasey Diebold, how did you get interested in childhood cancers?

**Dr. Gregory Reaman:**

It goes way, way back. I was a young kid, probably five or six years old, and a new family moved into our neighborhood. There was a little boy that was like five years old who shortly thereafter got sick and was hospitalized. Everyone in the neighborhood was sort of talking in secret and he never came home from the hospital and no one talked about it. And a few months later, the family moved away, and I thought, what kind of illness could someone have that you don't come home from the hospital and the family has to move away?

I found out that what he had was acute lymphoblastic leukemia, or acute leukemia at that time. We're talking many, many years ago here. That sort of spurred my interest in medicine. I knew in medical school that I wanted to focus in pediatrics. I had a real respect and interest in cancer biology and immunology. The rest was kind of history after that. And 42 years later, I couldn't imagine doing anything other than pediatric oncology.

**Dr. Mary Edgerton:**

Well, thank you for your dedication. So let's bring in Kasey Diebold now from the Center for Disease Control because I know that with the CDC running the National Program for Cancer Registries, that y'all must be involved with this Childhood Cancer Data Initiative.

Kasey, tell us what STAR is. I see that. What does STAR... I mean, I know what those things shining in the sky are, but what does STAR stand for in this context?

**Kasey Diebold:**

Sure. So this is an acronym because you know we love acronyms, especially at CDC, but across all organizations. So STAR stands for the Childhood Cancer Survivorship Treatment Access and Research Act. And so this is an act and the focus of STAR is really designed to advance our understanding and care of cancer diagnosed in children and young adults.

**Dr. Mary Edgerton:**

So this law passed in 2018, that was five years ago. What's happened since then? I know we had a little break with the pandemic, I'm guessing.

**Kasey Diebold:**

So the STAR Act, like you said, was signed in 2018 and this law, just to highlight again that it specifically is to help address the burden of childhood cancer. And within one of CDC's earlier projects called the Early Case Capture Project, we worked with a few of our awardees and showed that reporting new cases of childhood cancer to central cancer registries within 30 days, now keep in mind that 30 days is a fast time, it was possible, this project showed that it was possible, but that we needed a scalable infrastructure to be able to expand to this electronic reporting to all of our registries.

So through the enactment of the STAR Act in 2018, CDC was charged to improve reporting of new cancer cases diagnosed in children as well as adolescents and young adults. And it really requires us to expand capacity within the National Program of Cancer Registries to help the central cancer registries collect and make the data on childhood cancers available within weeks of diagnosis. So that's really been our focus since 2018 is expanding that capacity and building the infrastructure that is needed in order to be able to support this rapid identification and reporting of pediatric cancers.

**Dr. Mary Edgerton:**

That brings me back to the Pediatric Cancer Protocols, and actually, there are electronic versions for immediate transmission of these. Is that playing into the STAR efforts?

**Kasey Diebold:**

Absolutely. STAR uses as its reporting source, it follows our normal reporting pipeline where we're starting with pathology reports coming from laboratories. And so the discrete data that is available from these reporting sources as they utilize the CAP Cancer Protocols, this is what's really actually allowing the initial capture of the discreet structure data that we can then pass through the infrastructure being created with STAR to, again, help support from a data perspective with CAP, and an infrastructure perspective with CDC STAR Project to the rapid reporting and early identification of pediatric cancers.

**Dr. Mary Edgerton:**

So that must mean that the biopsies are really important and the fact that they're required for accreditation.

**Kasey Diebold:**

Yes, the biopsies, as well as, again, the Pediatric Protocols being required for accreditation as well. This is going to significantly improve the quality, completeness, and timeliness of case reporting for these pediatric cases.

**Dr. Mary Edgerton:**

So that big word sharing came up. Dr. Reaman brought up sharing. So how will you share this data with the CCDI and with the National Central Cancer Registry?

**Kasey Diebold:**

Sure. So CDC and NCI, we have a long history of working together in the data sharing space. In addition to the joint efforts that we have specifically around pediatric cancer in NCI's NCCR, as well as CDC's STAR Project, we also routinely share our cancer surveillance data. So CDC's National Program of Cancer Registries, and the National Cancer Institute's Surveillance Epidemiology and Research Program, as well as the mortality data that we bring in through CDC's National Center for Health Statistics, we combine this to form the US Cancer Statistics, and these are the statistics that are actually the official source of federal cancer data.

So that entire data sharing process is already in place, and we do this on a routine basis with all cancer data, and that includes our pediatric cancer data.

**Dr. Mary Edgerton:**

Wow. This is going to be a wonderful model for the adult data also to bring it to a more timely registration.

Now, we talked about data sharing, so I want to bring in Dr. Jaime Guidry Auvil, who is the Director of Data Sharing at the NCI. Welcome. Can you tell us a little bit about your role in all of this?

**Dr. Jaime Guidry Auvil:**

Thank you. Yes, I'd be happy to. It is very exciting to listen to this panel this morning.

So our Office of Data Sharing really sets NCI's approach to the management, sharing, and accessing of the scientific and clinical care data that NCI is funding for research. So our overall goal is to really optimize the broad utility of that scientific and biomedical research data that are funded by public dollars. That's really to make sure that it's maximally impactful to the wider cancer community. And our office helps to ensure that there's alignment of NCI-supported research with the appropriate policies and regulations, in data sharing and public access, specifically for secondary use of that data for research purposes.

So we work across the various divisions, offices, and centers within NCI, but also across the wider government agencies, and even in the wider cancer community to help bring together how we're approaching the generation or collection of very different data types to answer a broad range of scientific and biomedical questions. And that can range from basic discovery to clinical therapeutics to population studies, which we've talked about here this morning. And the data types that we cover really include genomic data, other types of omics like proteomics and metabolomics, imaging, clinical trials or clinical care for both individuals and specific populations, as well as social and behavioral research that goes on across the Institute.

So bringing that together, as you can imagine, for a comprehensive picture of a patient is certainly a goal, but it's a difficult undertaking. But we're very excited to be using the pediatric population and studies like the Childhood Cancer Data Initiative. NCI also has a number of initiatives funded to support the STAR Act that Kasey was just talking about. So it's really important that we're working with that population, which frankly collaborates better than the adults, to show how this can be done and how we can work through some of these issues and silos in this collaborative space, and as you were mentioning, really with a goal of expanding that into more of the adult cancer space.

**Dr. Mary Edgerton:**

So your challenges aren't just the data and the standards and the whole problem of the disease, but also the social challenge of breaking down the silos. Do you want to say something about that?

**Dr. Jaime Guidry Auvil:**

Sure, sure. As you were mentioning, there are many, many challenges to sharing all of those different types of data in ways that again, are going to beneficially impact the innovation that can come across multiple areas of scientific focus. And again, with stakeholders at all levels of understanding, we really do want to facilitate getting not only clinicians and research investigators what they want, but also students and families need to be able to look at data and come up with answers that they each respectively have to various questions in this space. And again, everything from the omics to the clinical to the population data sources.

And as you were mentioning, there's so many aspects to this. It's certainly not technical. I think actually the technical infrastructure may be the part that we can come up with a bit easiest. There's a lot of layers of also policy and process that I heard mentioned that need to be addressed to be able to really do this well.

But again, I think we have a real opportunity here to figure this out in childhood cancers as well as other rare diseases where the overall numbers are lower. But again, these groups are much more motivated to work well collaboratively and are used to sharing more of their data and resources. And to be able to learn from that collectively is an exciting piece for us, but we really do need to develop that consistency in approach to managing and sharing data, including agreed upon standards, as you mentioned, but alignment of the data formats and systems.

And I am excited to hear about these protocols. Again, music to all of our ears to bring that together. But we really do also need the flexibility in our processes and policies that can evolve to bring that data that's disparate now so we can get those outcomes more aligned with something that's widely usable across each of our areas of focus.

**Dr. Mary Edgerton:**

So Dr. Reaman pointed to interoperability being a buzzword and it is a buzzword, but it could be a reality also. Do you see the electronic exchange of the Cancer Protocols as playing a role in achieving interoperability?

**Dr. Jaime Guidry Auvil:**

Absolutely. I think we often talk about interoperability in terms of a repository or data system, but I honestly think that it starts with consistency and how the data are structured upfront. If we have that consistent use of standards and formatting, then it is easy to interoperate as we go employ anything downstream and we can put that data into different spaces, we can pull it using different tools, and then consistently be able to look across it.

So again, I think the technology is the easiest piece to figure out if you have determined some of the necessary touchpoints upfront, and if like-data can be accessed and queried the same way in multiple systems, then it will be usable together. So we do need these various lines of authority and those who are determining the rules for our institutional systems to buy into this idea of consistency, to help jointly develop best practices, as CAP is doing here with the protocols, and then really enforce that for any of the data that's being collected, managed, or shared with other groups or systems for clinical care and research.

**Dr. Mary Edgerton:**

Well, thank you. So I'm going to call out each of your names and I want you to answer this question. What do you see your personal work in this field achieving in the next year, and where do you see your part in this project in five years from now? So let's start with you, Dr. Davis.

**Dr. Jessica Davis:**

Thanks, Mary, and for everybody for this wonderful conversation first and foremost. This is so exciting to hear everybody so committed to the standardization and interoperability and be able to participate in that and helping develop these CAP Cancer Protocols.

So my continued work, whether it's on these protocols or in other efforts, really has been in rolling out standardizations and systemness and data harmonization. I want to thank Dr. Joe Khoury, who's the CAP Cancer Committee Chair, in supporting me and working on this project and empowering me to push forward this change. Joe and I have joked a little bit, but there's always truth in jokes that this is our most significant accomplishment over the course of our careers as being the most impactful thing that we will do for patients and for future patients. And so I see my work to continue in this space.

I also am a participant in the Childhood Cancer Data Initiative and other NCI projects such as Cancer Path Chart in similar endeavors to work towards data harmonization. So I really think that we need to have a common language that we share across cancer reporting and so that we're speaking the same language so that we can do research, so we can do patient care together.

**Dr. Mary Edgerton:**

I'm going to send everybody to this podcast because these are all wonderful things y'all are saying.

Dr. Reaman, your personal work, what do you think you'll achieve in one year and in five years?

**Dr. Gregory Reaman:**

What I would like to achieve or what I think I will achieve? Well, probably way too much, but I think one of the things that we are very much focused on within CCDI is recognizing the disparate data sets that we have and the fact that those data sets have been contributed to with data in many cases from the same patient. So sort of linking that individual to the various clinical and biological genomic data that we have available I think is essential as we start working on trying to investigate potential associations between certain genomic characteristics and response to therapy, be it either targeted therapy or non-targeted therapy, risk for specific toxicities to therapy, risks of disease recurrence and secondary cancers or late effects. So I think that is one thing that I would very much like to see happen in the near future.

The other thing that we are working on within CCDI and the National Cancer Institute, at the urging of the NCI Director Dr. Bertagnolli, is the development of a standardized health record, a standardized health record that is oncology-specific, and from our perspective, pediatric oncology-specific. So creating something that is truly interoperable and something that is usable by families, patients as they seek clinical care, but that is also utilizable by investigators. And if it's truly standardized, as it sounds like we have a real opportunity here with pathology reporting, we'd like to see the same thing with radiology reporting, we'd like to see the same thing with genomic characterization reporting, and of course, even defining critical data elements from a clinical perspective and standardizing all of that.

So in five years, I'd like to see all of that happen and all those pieces come together and in such a fashion that it really is utilizable by patients and families and by investigators.

**Dr. Mary Edgerton:**

Yes, I can imagine as a family member, I would want, especially as a parent, I would want to look through that data and find the best hospital that could provide the best care for my child for a specific disease. So having a portal for patients and their families, I think, will be very important.

I'm going to go over and ask you, Ms. Diebold, next year, five years, where do you see CDC's efforts and your efforts with the STAR program?

**Kasey Diebold:**

Sure, that's a great question. So much easier to start with the one year, it's a little more tangible, but where we really see the STAR Project in particular going in the next year, we would have the results of our pilot. So again, the STAR Project being focused on building that infrastructure to support the rapid reporting, we developed as part of that project, a cloud-based reporting system called the National Oncology Rapid Ascertain Hub, which we refer to as "NPCR NOAA." And this is what helps laboratories actually analyze and then send their data on reportable pediatric cancers to central cancer registries so that those registries have the data much more quickly, they have higher quality data, and they're able to make use of that data for research and clinical decision support.

So in the next year, we are really looking at completing our pilot and having lessons learned on the operation of this infrastructure and how we can expand that to our additional registries.

And so that actually segues me into where we see ourselves in the next five years. I'm sure you've heard CDC is very focused on our Data Modernization Initiative and the CDC STAR Project is just one piece of our overall agency initiative. And in five years, where we're really hoping to be is that we've been able to take the lessons learned from the STAR Project and the infrastructure for the rapid reporting that we've developed with NPCR NOAA, and that we can expand that to all cancers and to all of our registries through a larger initiative that we also have ongoing called our Cancer Surveillance Cloud-Based Computing Platform.

Really, the point I really want to point out is why we're doing this is that it's not just about getting data more quickly. This data provides really relevant current information about cancer that improves our understanding of the disease. And this goes beyond pediatric cancer, which is why our five-year focus is really looking at how do we implement this type of infrastructure and these types of policies that we've been discussing about pediatric cancers to all of our cancers so that we have better enrollment in clinical trials and we can connect patients and their families to helpful resources more efficiently?

**Dr. Mary Edgerton:**

Oh, that's a beautiful thought, particularly when we think the tragedy of losing a child.

Dr. Guidry Auvil, it's your turn now. Where do you see your personal work going in the next year and in the next five years?

**Dr. Jaime Guidry Auvil:**

This is great that I get to go after others because part of what we do is helping to pull that together.

So to build upon what was said, our office, certainly at NCI, is working very closely with Dr. Reaman and other members of the CCDI leadership team to implement these critical NCI resources into our data ecosystem, which was of course started with the Cancer Moonshot. But CCDI has given the opportunity to bring in some specific tools to try to really create more of a federated environment that will work across different kinds of tools and platforms with different types of data, both that we house within NCI, but as well as data that are housed in other institutions and agencies.

And Dr. Reaman had mentioned the ability to identify patients. Well, within the next year, we will specifically have launched a participant index and a clinical data commons that, at this time, are specific to childhood cancers and will help with some of that connecting to our various resources, including the National Childhood Cancer Registry, for that population-level data as well that aligns with the SEER efforts. And so that's a more immediate, tangible thing that's happening very quickly because of the way CCDI was structured.

So we feel very fortunate to take and see how that will start to work in action in the coming years, and just like Kasey was saying, to be able to take and expand that to other cancers is really the goal that we have in looking at this framework. So hopefully within five years, we will have been able to take what we're doing in the pediatric population and really expand that out so that the original views that now President Biden had with the Moonshot really can start to be coming to fruition in building that national cancer learning health system that includes all of these different types of data from different sources, again, hopefully in more of a standardized way.

So we're very fortunate to be able to learn from what's happening in the pathology space, and of course, everything starts with that diagnosis.

**Dr. Mary Edgerton:**

Everything starts with that.

**Dr. Jaime Guidry Auvil:**

So I think the future looks good.

**Dr. Mary Edgerton:**

So I see all of you as the flagbearers who are leading the charge to bring down the Tower of Babel in pediatric cancers.

But let's come back to you, Dr. Davis. Since you're really the lead subject matter expert for the Pediatric Cancer Protocols, how do you see this data community feeding back into the Cancer Protocols and where they'll go?

**Dr. Jessica Davis:**

Certainly. So with any change, there's always cycles of feedback. So I anticipate over the next year or more, we will get feedback both from our pathologists who are the primary end users of the protocol, as well as from our oncologists who are reading them, as well as our registers who are using them for data extraction, et cetera. And so I look forward to hearing that feedback of how people are utilizing the protocols.

And as folks may or may not know, we quarterly roll out edits as appropriate on the CAP Cancer Committee. And so I'm the primary liaison for the Pediatric Protocol, so as needed, people can email me, call me, contact me if there are necessary edits. The protocols are meant primarily for clinical utility. There are optional items that are listed that are upcoming, so some molecular items that people may want to report but are not necessarily yet required elements.

And so the protocols are kind of living, breathing documents. They will evolve over time as we learn more about the biology of disease, as we learn more about how we want to utilize these templates. So I anticipate over the next year as we get feedback, and as many of you are talking about five years, these documents will continue to grow and develop as we grow and develop in the cancer reporting and as we start learning from each other as we're breaking down those silos that everybody has been talking about. So please don't hesitate to reach out with comments and feedback.

**Dr. Mary Edgerton:**

Oh, thank you for that invitation. And then I want to extend an invitation on October 6th, CAP is sponsoring our inaugural Data Summit, and we see this as our first users group meeting for people using the Cancer Protocols and to learn how they're using the data, the value of the data. And in fact, the title is The Future of Cancer Data: Unlocking Insights with Pathology Reporting. It'll be Friday, October 6th, and you can go to the CAP.org webpage and within the registration for the Annual Meeting, you can register, and you can register for this alone if this is the only piece that you will attend. So I hope I will meet our podcast audience there and you, my podcast guests, thank you so much and back to you, Becca.

**Becca Battisfore:**

Thank you, Dr. Edgerton. And thank you to all of our guests for joining the podcast to talk about your work and the upcoming protocols.

Starting September 20th, you can access the updated Pediatric Protocols under the Protocols and Guidelines section of the CAP's website. Please send comments and questions about the protocols to CancerProtocols@cap.org. And I want to thank you all for listening. For more information about the College of American Pathologists, visit cap.org.