



## TRANSCRIPT

Guideline- Based Alerts in the Electronic Health Record for ASCVD - Transcript

00:00- 01:08

Narrator: The 2018 American Heart Association/American College of Cardiology

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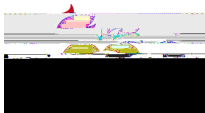
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Clinical and Translational Research Accelerator (CTRA) where he is an investigator on many innovative and practice -changing clinical trials in cardiovascular, renal, and metabolic disease.

Hi Ralph, thank you for joining me today. We are really excited to have this conversation going, as many healthcare systems are always looking for ways to streamline their processes. The topic of alerts piqued our interest because there are so many other alerts that compete for provider attention. And there's a phenomena of alert fatigue, as well. So , Ralph, I will let you open the floor and introduce yourself to listeners.

02:28-02:59

Ralph Riello : Thanks so much for extending the invitation to join you in the podcast today, Natasha. Briefly, as you mentioned, I am a clinical pharmacy specialist, and lately, I have been working on a lot of implementation projects through Yale School of Medicine with my research team at CTRA, the Clinical Translational Research Accelerator, really focused on using the EHR as a tool rather than a barrier to help facilitate clinical workflow and close gaps in care for patients with atherosclerotic cardiovascular disease.

03:00-03:22

Natasha Chiofolo: That sounds amazing Ralph, especially since EHRs are so widely used now in healthcare. This is such a timely topic. For those tuning in who may not have seen the featured presentation at the 2022 American Heart Association Conference, can you please explain the objective of the PROMPT -Lipid Trial and summarize the key findings?

03:23-04:43

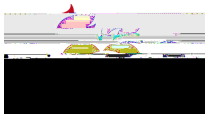
Ralph Riello: I certainly can . So, the PROMPT- Lipid Trial was designed to evaluate whether automated electronic alerts that focused on providing recommendations for guideline- based lipid lowering therapy can help improve the management of patients



with established, very high risk atherosclerotic cardiovascular disease. The best practice alert intervention that we studied was actually associated with about a 40% increased probability of providers who saw the alert to follow those guideline recommendations and intensify lipid -lowerin g therapy consistent with those latest guidelines. You know, compared to usual care or no alert. And this was an entirely decentralized EHR-embedded , randomized controlled trial. Among our providers who meaningfully engaged with the alert, so in other wor ds, didn't dismiss it immediately , we actually saw an even greater benefit out to six months with their patients being twice as likely to receive a high intensity statin, five times as likely to be prescribed a PCSK9 inhibitor , and importantly, about half of those providers who saw the alert made some sort of positive, consistent with guideline lipid -lowering therapy change, right at that very moment— at the point of care , with the patient.

04:44 -04:59

Ralph Riello: So,



history of heart attack, a history of stroke. And furthermore, fewer than a quarter of these patients who should be recommended to be treated with the highest intensity statin are actually prescribed that therapy in real world practice.

05:56-06:35

Ralph Riello: So , as it currently stands as a clinician on the front lines, I think it's clear that passive diffusion of these guideline recommendations, you know, hoping that that trickles down to the providers when they're, you know, in the office setting with their patients is not enough to overcome clinical inertia. And that really gets at the crux of why we conducted the PROMPT-Lipid Trial in the first place. You know, to test it to see if we can disrupt that usual practice of, you know, clinical inertia , barriers in the EHR, to actually flip that on its head and use the EHR as sort of an innovative tool to help coach providers to make more evidence -based treatment decisions around lipid-lowering therapy for the highest risk patient population.

06:36-07:01

Natasha Chiofolo: Absolutely, Ralph. And I will say that health care providers are no stranger to alerts in the EHR. In fact, alerts , there seems to be alerts for almost anything and everything. So, would you say that alerts are overused to the point that teams experience alert fatigue? And can you speak about how you saw, observed this, and overcame this challenge? And if there are any differences in alerts for inpatient versus outpatient settings?

07:02- 07:32

Ralph Riello: Yeah , all great questions that I think really address one of the fundamental challenges of you know, doing these sorts of EHR -embedded studies in

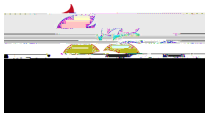




lowering therapy. So, it really only fires at the point of care while the provider is already adjusting medications so that sort of psychology of “I want to make a change” is already there , and it only will trigger when an actionable change is indicated and necessary. And remember that this is life-



would help enhance rather than hinder their clinical workflow. So , we actually gathered about ten to 15 of those providers across a couple different focus groups where we all brainstormed together and really gave them a voice. Gave them a seat at the table to contribute, you know, down to every last detail of in what circumstance will the alert fire ? What laboratory values will it display ? In what order will the medications be listed? Some of that fine-tuned detail and some of the providers are really excited that you know, we've asked them here to contribute to something like that.



we pulled the highest volume PCSK9 inhibitor prescribers, and that was intentional because we know they're immersed in care.

12:54- 13:22

Ralph Riello: They spend the most time with those patients, and they should be involved in that development process. On the technical side, you also need IT specialists who are capable of sort of taking that feedback in and actually building the alert around all of those comments and suggestions and making sure that, you know, you test the alert too, before you deploy it. So, our recommendation is usually to run the alert in silent mode to ensure, you know, quality assurance. It only fires when it's supposed to and does not deploy when it's not supposed to.

13:23- 14:28

Ralph Riello: And that will help also limit the alert fatigue. You know, the alert actually does what you wanted it to do, when it's supposed to do so. You know, it's also critical, really, to have hospital administrators and leadership buy-in. And they need to sort of endorse this practice of EHR optimization and see the value there. Because it is a fairly, low cost of implementation, but this sort of technology can be rapidly scaled across, you know, any integrated health system or learning healthcare system that's up and running on the same EHR platform. So, as long as you have some providers who, you know, are "believers" in the EHR as a tool, rather than a barrier, and you are willing to let it help guide quality care and clinical decision making to evidence-based treatments when we know there are huge gaps—and not necessarily the alerts infringing on their autonomy—





14:29- 15:12

Ralph Riello: You know, you're tracking it in real time, and that's a continuous quality feedback loop to make sure that, hey, your provider stakeholders are still happy with it. If there are subsequent suggestions for how to optimize it further that you take those into consideration. And of course, that you track that the alert was effective. So you know, are patients being prescribed more guideline-recommended lipid therapy? Are their LDLs, you know, approaching goal as time goes on? All of those things sort of come together to create, you know, it sounds like a huge team, but a host of experts really working together to use the EHR as a tool to close this practice gap in ASCVD. And it certainly worked across our health system. But we're excited to help share this technology with other systems and expand our findings to see if they work elsewhere.

15:13- 15:44

Natasha Chiofalo: Well, Ralph, this is certainly so helpful as I'm sure a lot of systems

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Natasha Chiofolo: Well, for our listeners out there who would like to learn more about Ralph's work on PROMP T-Lipid, you can learn more about all this research being done on his page at [www.theprompttrials.org](http://www.theprompttrials.org).

16:36- 16:57

Narrator: Thank you for joining us . This podcast is supported by Novartis, a proud sponsor of the American Heart Association's Integrated ASCVD Management Initiative. Learn more about ASCVD at [www.heart.org/ascvd](http://www.heart.org/ascvd).