Transcript

Advancing the Education of Rheumatology Fellows and Improving Patient Care

FACULTY

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INTRODUCTION

The following transcript was developed from a webcast featuring Lisa Criscione-Schreiber, MD, MEd, and William Mencia, MD, that was filmed at the 2017 American College of Rheumatology annual meeting.

DR. MENCIA: Welcome to the Duke Clinical Practice Today series. I'm Dr. William Mencia, and I'm here with Dr. Lisa Criscione-Schreiber, who is an associate professor of medicine, as well as the program director of the Department of Rheumatology and Immunology at Duke. Dr. Criscione-Schreiber, you are presenting several abstracts here at the American College of Rheumatology (ACR) annual conference. Can you tell us a little bit more about your research?

DR. CRISCIONE-SCHREIBER: Sure. The majority of my research is done in education, which I started doing several years ago when I was fortunate to get a Clinician Scholar Educator Award to support learning how to perform education research. The majority of my research has been in assessment techniques and methods and results. I've been mentoring several of the fellows, who are interested in becoming educators, in their projects over the last few years.

DR. MENCIA: Wonderful. I know that for many fellows, quality improvement is not typically something that is taught very well at that level; yet, some of your work is introducing some elements of quality improvement in treat-to-target research.

DR. CRISCIONE-SCHREIBER: Right.

DR. MENCIA: Can you tell us a little bit about your findings there?

DR. CRISCIONE-SCHREIBER: Several years ago, we implemented a quality improvement curriculum, and that's partly based on a mandate from the Accreditation Council for Graduate Medical

Education (ACGME) that we should be teaching our residents and fellows quality improvement techniques. It's something that most of us, who are on faculty, didn't really get taught about, so we had to learn it ourselves. But, throughout residency, they move in and out of quality improvement projects. Our goal was to make a longitudinal quality improvement curriculum that the fellows could be involved in from the beginning all the way through the end. My goal through this is two-fold. One is for them to learn quality improvement methodology so that by the time they graduate, they can run quality improvement projects in their future career and in their practice. The other is actually to do quality improvement and to see that they can improve the quality of care that we provide in our own clinic.

This project, in particular, was on treating-to-target, which has been very significant in rheumatology, and we wanted to work on implementing treat-to-target in our clinic. Our project, in 2015 and 2016, was to implement one of the disease activity measures into our routine clinical practice, and that was the Routine Assessment of Patient Index Data 3 (RAPID3). Through that project, the fellows got it to the point where 93% of patient visits had a documented RAPID3 within the patient notes. Then, the next step of the project was to see if we could move the needle and increase the number of patients who were actually in remission or had low disease activity during the course of clinical care.

DR. MENCIA: You mentioned RAPID3. There has been some question about its utility. Why is that?

DR. CRISCIONE-SCHREIBER: Well, we had found in our project the previous year that, when we surveyed our faculty, people felt that they weren't necessarily using the RAPID3. One of the things that we were trying to understand is why that was. We hypothesized that part of that was because of the subjective nature of the assessment, and we thought there would be some confounders that would impact it, such as osteoarthritis, mood disorders, and fibromyalgia syndrome, which are all common in our patients.

DR. MENCIA: Okay, so let's talk a little bit more about the findings from the study.

DR. CRISCIONE-SCHREIBER: Sure. It was a relatively short duration; it was only about 8 months. So we didn't really move the needle on the number of patients who were actually in remission. We went from a little bit lower than 30% to a little bit more than 30%. But what we did find was that there was a separation among patients whether or not they had one of these confounding, other diagnoses that were documented in the medical record. So, in all instances, individuals who did not have any of the three confounding diagnoses included a higher percentage of patients who were in remission or had low disease activity at any time point; or, in other words, their RAPID3 scores, in general, were lower, compared with individuals who had one, two, or three of the comorbidities. As you would expect, when people had all three comorbidities, they generally tended to have higher RAPID3s. Among that population, a smaller percentage of patients were in remission or had low disease activity.

DR. MENCIA: Wonderful. Let's move onto another one of your studies that's being presented here. It deals with transitioning patients who are in pediatric care into adult care.

DR. CRISCIONE-SCHREIBER: Right.

DR. MENCIA: That's certainly a difficult time. So, what did your study show?

DR. CRISCIONE-SCHREIBER: Absolutely. This was a study that was spearheaded by Rebecca Sadun, who is one of our fourth-year Med-Peds fellows currently. She's been interested in transition of care since she was a Med-Peds resident and had done some research on that previously and found that residents really weren't comfortable with their knowledge—both from the pediatric side and the adult side—on how to transition patients. So what she looked at and is interested in is trying to create a curriculum to help rheumatology fellows be able to better transition patients.

The way we designed this study was that we took advantage of a learning lab that we have already. We have something called the Carolinas Fellows Collaborative, which is a collaboration between four to five institutions: Duke, UNC, Wake Forest University, and the Medical University of South Carolina, as well as Massachusetts General Hospital. We have conferences twice a year. During the winter conference, we have an OSCE, which is an objective structured clinical examination. That's basically a series of simulated patient and other encounters in which we assess the fellows. We decided that that would be a great opportunity to be the first to develop a curriculum and an assessment in fellows' transition skills. So we created an OSCE station and a rubric for assessment to use in observation.

The OSCE station involved a patient who was transitioning for her care for lupus, as well as her mother, and these were standardized patients who had been trained in how to be a pretend 18 year old with lupus and her mother. It was the job of the adult fellow to welcome them to adult care and to look at a series of their transition skills. It was a small study, but we did somewhat randomize our groups. We had half of the group that did the assessment before they had had a workshop on transition skills, and half of the group did the OSCE after they had the transition skills workshop. So we were able to compare the two groups and see their performance.

When they come into the OSCE, they get a certain amount of information about all of the patients. And so what they had was basically a clipboard that had a prefilled track, which is the transition readiness assessment questionnaire that's been developed through the ACR, and it had different items circled so that they would be able to think about what they could focus on with this 18 year old.

DR. MENCIA: Did you find that the fellows felt more confident after going through these workshops?

DR. CRISCIONE-SCHREIBER: Yes. We assessed a couple of different things. In education, you often look at the

actual education outcomes. But we know pretty well through education research that, if you teach people things, they will learn. So we also wanted to assess people's confidence in being able to use these skills. We definitely found that individuals' confidence in using the skills increased, and their understanding of the transition skills increased after the workshop. But their performance in assessing the transition skills also increased.

DR. MENCIA: Let's move beyond your work in research with the fellowship program into some of your clinical research. Specifically, you're presenting an abstract looking at myositis autoantibody panels. What can you tell us about that?

DR. CRISCIONE-SCHREIBER: I'm very interested in myositis clinically. We know that there are many autoantibodies that are associated with myositis, and we've known that for decades. It's only been recently—over the last several years—that commercial panels to evaluate for myositis-associated and myositis-specific antibodies have been commercially available. So what we set out to do with some of our colleagues who are in the lab department at Duke was to look at how these antibody panels are used in the real world and try to figure out if there are algorithms or anything else that we can use to improve the yield of the autoantibody panels. We looked at about a year-and-a-half worth of data of all the autoantibody panels that were ordered at Duke and wanted to characterize the autoantibodies that we found, who was ordering them, and why they were ordering them. Then we tried to move into creating an algorithm that would be able to predict positives so that the test would be utilized appropriately.

What we discovered is that about 65% of the tests were actually ordered by pulmonologists, and then others were ordered by rheumatologists, neurologists, and pediatric rheumatologists. Overall, about 20% of the tests returned positive (we do have a breakdown of which autoantibodies were positive among that group). But what we moved onto this year was trying to look at the other factors that could be predictive. We looked at elements of the patient histories, elements of physical examination, and other laboratory findings and such. We found, overall, that a lot of these history and review of systems elements that should be relatively simple to gather were actually not recorded in the medical record. So it was a little bit difficult to make conclusions. But we found, overall, that photosensitivity was something that seemed to predict autoantibody positivity, as well as having another autoimmune disease documented in the medical record. One other thing that we found population-wise was that, among African Americans and individuals of Hispanic descent, the percentage of autoantibody testing that came back positive was higher than among Caucasians.

DR. MENCIA: Did you also notice any similarities or any correlation between physical examination findings and the results of the panels?

DR. CRISCIONE-SCHREIBER: As you would expect, we found a correlation with muscle weakness, as well as sclerodermoid skin changes, which can be associated with myositis, and the presence of arthritis documented on physical examination.

DR. MENCIA: Fascinating research. So, any final thoughts for our learners?

DR. CRISCIONE-SCHREIBER: Sure. Regarding quality improvement—the first is that, for educators, it is very fun and rewarding to implement a quality improvement curriculum among the fellows. What we've learned through our treat-to-target, I think, is going to help with treat-to-target efforts nationally because it looks like we could potentially come up with a correction factor for the RAPID3 depending on what comorbidities patients have. Interestingly, some other groups have published since we did this project and have found that they similarly had a low percentage of patients who were in remission or had low disease activity. So there is starting to be some talk about how we best assess disease activity moving forward because we all want to improve the quality of care that we give to our patients.

Regarding the second abstract on transition care, I think this is a very exciting time. There is a lot of interest in transition care among young adult patients. Our take-home on that is really that we can teach people the skills to be able to improve transitions. Our hope globally is that if we can make the transition process smoother for these adolescents and young adults moving into adult care, then their overall disease-associated outcomes should improve.

Regarding the myositis antibody panel, that one is still in progress, and we're doing more research and collecting another year's worth of data on that. But, basically, we are just happy to be able to define a little better, now that there are so many autoantibody panels available, what the breakdown demographically of patients is. We're also glad to be able to create perhaps forms that can be used in clinics—in pulmonary, rheumatology, and other fields—to be able to hone down and identify physical examination and review of systems and historical features that may predict positivity and help to treat patients more appropriately earlier.

DR. MENCIA: That's great. Dr. Criscione-Schreiber, thank you.

DR. CRISCIONE-SCHREIBER: Thank you very much.

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