

Living with Rheumatoid Arthritis: Unmet Needs and Emerging Research

**Moderator: Debbie Gruver
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Operator: Good day everyone, and welcome to the Arthritis Foundation telebriefing. Just a reminder, today's conference is being recorded. For opening remarks and introductions, I would like to turn the conference over to Debbie Gruver of the Arthritis Foundation. Debbie, please go ahead.

Debbie Gruver: Thank you and good morning. Thank you all for taking the time to join us today. We are going to be presenting some basic information about living with rheumatoid arthritis. The unmet needs and emerging research surrounding. I'd like to present our esteemed colleagues who are going to be presenting today.

John H. Klippel, President and CEO of the Arthritis Foundation; and Dr. Eric Ruderman, who is the Medical Advisor to the Arthritis Foundation, and Assistant Professor of the Feinberg School of Medicine at Northwestern University. Without further ado, Dr. John Klippel.

John Klippel: Debbie, thank you very much. And on behalf of the Arthritis Foundation, I too would like to welcome all of you. Rheumatoid arthritis is one of the most serious and common forms of arthritis. And is certainly a disease for which the Arthritis Foundation has great passion. And the purpose of this morning's call is to talk a little bit more about this disease.

We don't believe that enough attention is paid to it. To call attention to improved – new and improved ways to treat this disease. And most importantly, to present information from patients themselves, who suffer daily from this disease. We at the Arthritis Foundation believe that we need to listen to people who have this disease, that that should guide our activities. So Dr. Ruderman and I are pleased to be part of this call. And we thank you for joining us.

I'd like to begin by talking a little bit about this disease. And what we know about it. I indicated that it was a common disease. It affects 2.1 million Americans. Women are affected three times more often than men with this disease. And the onset of this disease is in young people, typically individuals in their 30s or 40s.

I (think) there's a notion in this country that arthritis is something that only affects elderly individuals. Here is an example of the disease which truly begins in young people. The second fact about rheumatoid arthritis that is often not appreciated is that there is a mortality associated with this disease. Immediately once this disease is made, people can on average lose 10 years of their life.

The mortality is twice that of the general population. This becomes important because we know that if the disease is properly treated, particularly early, that is the disease can be controlled, we can truly impact the mortality so that people do live longer. And it makes treatment all the more important.

And finally, this is a very costly disease. The direct medical cost for caring for someone with this disease, combined with indirect expenses due to lost wages – and again, these are young people who have a chronic life long condition averages \$3 billion a year. So the human pain and suffering in this disease is actually quite large.

What do we know about this disease? Well we know a lot. This is a disease that is caused by the immune system. For reasons we don't understand, the immune system decides to attack and mount an inflammatory response. A chronic inflammatory response against joints. We refer to this as an autoimmune disease. And rheumatoid arthritis is the most common and arguably one of the most severe forms of all types of autoimmunity.

What the immune system chooses to do is to send cells from the immune system, called lymphocytes to the membrane which lines the joint. That membrane is called the (cynovium). And in most people, the (cynovium) is if you will, paper thin. (And) because the immune system is sending cells to attack the joint, that membrane becomes quite thickened. And is really what then attacks the joint. And it attacks both the cartilage and bone in the joint.

And over time, causes damage in the joint that leads to joint deformities. Most commonly, one sees these in the hands. But in any joint affected by rheumatoid arthritis, this degree of damage, deformity, and ultimately disability occurs.

Our understanding of rheumatoid arthritis has really spawned some major advances in treatment. I think the approach is to treat (mode) with rheumatoid arthritis, you'll hear more from Dr. Ruderman. But the goals in treatment have been to reduce inflammation. And ultimately to interfere with this immune attack on the joint, so that over time we can not only suppress inflammation, but we can prevent joint damage.

So for example, we are living in an era in which in the last five years, we've taken the science of rheumatoid arthritis, and the understanding that the immune system attacks joint, and used that science to develop new approaches. And you'll hear from Dr. Ruderman about some of those new approaches.

There's a second key factor for rheumatoid arthritis that we at the Arthritis Foundation are quite invested. And that is trying to understand the role of genetic factors. In many people with this disease, this is an inherited disease. So that it's not at all uncommon to find families in which more than one individual has rheumatoid arthritis.

And so we refer to the genetic basis of rheumatoid arthritis. And are certainly investing a lot of our research dollars and efforts in trying to understand the genetics of this disease. We think in the future that will become pivotal not only to develop new therapies, but to understand this disease better. And serve people with this disease much more effectively. So with that introduction, what I'd like to do at this point is to turn this over to Dr. Ruderman to talk about the approaches that are used to treat this disease. Eric?

Eric Ruderman: Thanks John. My goal just for the next few minutes is to give you a little of background.

We'll get into things in a lot more detail in some of the newer therapies. And certainly Dr. Klippel's main focus is obviously going to be on what we've learned from our recent survey.

Currently in rheumatoid arthritis, there are three or four main avenues that we approach this disease with. And historically, we've looked at what we call ((inaudible)) anti-inflammatory drugs. Most of you are familiar with these. Disease modifying (anti-rheumatic) drugs. And I will talk a bit about what makes something a disease-modifying drug. And more recently, biologic response modifiers.

And in this whole landscape, there is also the use of (corticosteroids) when necessary. Although, increasingly, we tried to limit that because of toxicity as much as possible. ((inaudible)) inflammatories are certainly involved in our care for most of these patients. They help quite a bit to reduce the pain, some of the stiffness and swelling that these folks have.

But what they don't do is really address the fundamental nature of the disease. They are really symptomatic relief. And historically, they have sort of – they've have been the first line of attacking ((inaudible)) rheumatoid arthritis. Although, increasingly in recent years, we have really shifted our focus. And that's been for two reasons.

One is clearly the recognition that rheumatoid arthritis patients begin to develop significant damage early in the course of their disease. And the sooner we intervene, the more we can begin to prevent and modify the changes that occur with this disease, and prevent longer-term disability. And we'll get back into some of that a little bit later in this call.

The other issue is clearly that ((inaudible)) anti-inflammatory is always regarded as kind of the most benign therapy that's been out there. Are unreasonably recognized to have significant side affects. And our focus is obviously not on what happened last week. But that just brings that to mind, the issue of ((inaudible)) that you have to be aware of side affects with any medication. And these drugs, although less complex than some of the disease modifying drugs, in some ways certainly have their limits, and their toxicities that we need to bare in mind.

When we talk about disease modifying drugs, or (demars) if you will, these are the medications that we really believe and have evidence for – that they actually change the nature of the disease, or the course of the progression of the disease. And for example, these days, drugs that are regarded, as disease-modifying drugs are typically drugs that we believe actually slow the joint damage in the joints.

And there is often radiographic data to support this. And typically, a drug is not considered a (demar) at this point, without that radiographic data to show that they are really interfering with the progression of joint damage. Historically, we've had a number of drugs from (Gold) many years ago. And more recently, the mainstay of therapy and disease modifying drugs has been Methotrexate.

Methotrexate, which first came into widespread use in the early 1980s has really been a large portion of our therapy to patients over the last 20 years. And continues to be so. It's a drug that is effective. It has been shown to slow progression of damage. Is well tolerated by most patients. And there are data now that show that patients five years out and are continuing to take the drug, more than half of these patients continue to take Methotrexate after five years. Which, would suggest that the drug is both effective, and well tolerated.

Other medications in this category include Hydroxychloroquine, (Orplaquinell), (Ezolphenine), Sulphasalazine, and more recently, (Lafunimider Ariva). And all of these are if you will, traditional synthetic drugs. They are drugs that are made in a lab, in a test tube. Small molecule drugs that can be taken orally, that interfere with the immune system or the immune forces driving rheumatoid arthritis that Dr. Klippel alluded to.

One of the complications and the problems with these drugs is that they interfere at a number of different levels. And so the toxicities relate to some of those. And so the drugs that interfere with growth of immune cells in the joints, may well interfere with growth of immune cells in other areas. Or growth of other cells.

And this is some of the same issues that we have seen in the past with chemotherapy medications. And in fact, a lot of the things, including Methotrexate that we use, are really sort of lower doses of some of the medications that have been used in chemotherapy for years.

And then finally, in the last few years, really beginning about six years ago, we shifted a lot of our focus. And we really changed our approach in many ways. And this has really added tremendously to our ability to make strides. And then to care for these patients. And to really treat these patients well.

And that's the (adamant) biologic response modifiers. And with the initial approval of (tannerseft), and then (inflipsomav), and more recently (annolimermab), we have drugs that interfere with the fundamental biologic connections in rheumatoid arthritis. And so these drugs did not come out of the blue. They came from a significant amount of basic research in the lab, looking at the biologic parameters that drive rheumatoid arthritis. And as an (aside), much of that research actually funded by the Arthritis Foundation historically.

And what these studies have shown us, is we can understand some of the connections between the immune cells in the joint. And I will talk a little bit more as I come back later to talk about some of the future therapies. About some of those details. But essentially, you have immune cells in the joint, including the T cells that Dr. Klippel talked about.

(Macrefay) cells and other immune system cells that need to communicate or talk to one another. And one of the key methods by which they communicate are proteins called (Sidikines), which reflect intracellular communication. They're produced by one cell. Picked up by other cells. And that – and when they are picked up, they actually activate, or turn on, or change the nature of that second cell.

And two of the key (Sidikines) in rheumatoid arthritis that have been found over the last few years have been (tumornikrosis) ((inaudible)) alpha, or (T and F Alpha), an (entry loop in one). And the drugs that have come out, or the biologic response modifiers that have come out recently interfere with those. And they have really changed a lot of what we've done. Because they've been very effective without enormous side effects.

These drugs have potential toxicities, just like all new medications, but not to the extent of their effectiveness. And that's what's been really exciting about these drugs. Is that they've been enormously effective, with reasonable limited toxicities that are certainly manageable in these patients.

And what it's allowed us to do is two things. One is take the patients who did not respond well to Methotrexate in the past, and give us alternates and other ways to approach their therapy. And secondly, it's really raised the bar in therapy increasingly to push us to try to treat these patients so that they really have very little evidence, if any evidence at all of active disease.

And so rather than trying to treat patients until they are doing reasonably well, our goal with these drugs, which are much more effective in many cases than what we've had in the past, is to treat patients until they really have nothing. And ultimately, our goal is remission of disease. And increasingly we are approaching that with some of these newer agents.

That said, clearly we have not reached the end of the road. And we certainly have a lot farther to go to really control disease in most these patients. And that is what sort of led into the survey that we're talking about today. And I think that I'm going to stop there, turning things back to Dr. Klippel, to talk about what we've learned from this survey. To tell us a little bit where we've come, and what we've learned in terms of what we've done with these newer medications. Dr. Klippel?

John Klippel: Eric, thanks very much. One of the things we don't do often enough is to, if we want to keep our finger on the pulse about what are the needs of a person with rheumatoid arthritis, and how are those needs being addressed, is to ask patients themselves. And so that is the simple purpose of this survey.

We want to assess the current state of people who are suffering from rheumatoid arthritis as they relate to how this disease affects their lifestyle. And what are their unmet needs? We're certainly encouraged by the new advances in therapy. But I think we begin to need to probe a little deeper to learn what actually does that mean for people who have this disease?

This is a survey that the Arthritis Foundation has done in collaboration with Harris Interactive.

The survey began in August of 2004. And it involved a 22-minute phone survey with 500 individuals who were self-identified as having this disease. All individuals who participated were told by a physician that they have rheumatoid arthritis. They had visited a physician who specialized in arthritis at least once per year.

And they described their disease as moderate or severe. Three hundred of the 500 people surveyed were taking one of the biologic response modifiers that Dr. Ruderman talked about, (utandercept), (adelimniab), (anderkindera), or (influximad). And 200 of the 500 respondents were taking either (lufliernermyde) or Methotrexate. Those being so-called disease modifying anti-rheumatic drugs. The most commonly used disease modifying anti-rheumatic drugs in this country.

What did the survey reveal? Well it revealed good news and bad news. The good news is that the majority of patients participating in the survey, receiving these drug treatments, were clear that their medication has provided relief from RA symptoms. And the general symptoms that we're talking about are pain, joint stiffness, and fatigue. So their certainly perceiving that the treatment is relieving their symptoms.

However, two thirds of the people in the survey indicated that they are still experiencing on a daily basis pain, stiffness and fatigue. Despite current medications. So in other words, although they believe that the medications that they are taking are helping, more than two thirds of them still on a daily basis are being affected by symptoms.

They were asked on a scale of one to 10 to rate their quality of life in which 10 is the highest, and one is the lowest. Fifty-six percent of those taking a biologic response modifier, and 57 percent taking a (demar) rated their overall quality of life at six or less. So again, that's a sign that despite

treatment, people still believe that their quality of life really is in no way approaching what they want from therapy at this point.

What are they mostly concerned about? Well the predominant worries of patients who participated in this series – in this survey were actually (four). One, they are concerned about becoming disabled. More than 50 percent of people surveyed indicated that their concern was over becoming disabled. They're concerned about deformity. Again, roughly 50 percent of the people in the survey were concerned that over time, their disease would lead to deformity.

They're concerned about not being able to take care of themselves. That is, loss of their independence. And finally, as a sign that their quality of life is being impacted, more than half of the patients surveyed said that their simply not able to do activities and hobbies in life for which they get great enjoyment.

Now they were asked about concerns of the drugs themselves that they're currently taking. And over 40 percent of the patients expressed some concern about the long-term health consequences of the drugs they are taking. Roughly 40 percent were worried about the drugs increasing their risk for infection. And finally again, many of them emphasize the importance of fatigue as a key symptom. Roughly a third indicated that fatigue was interfering with their lives, and wasn't being satisfactorily addressed.

One hundred percent of respondents, virtually every person in the survey expressed an interest in learning more about newer treatments for this disease. And in particular, what they were hunting for in new treatments was greater relief of pain. And similarly longer periods of pain relief from the new medication.

Nearly three quarters of the people surveyed were very or extremely interested in having their treating physician tell them about new rheumatoid arthritis therapies. Two thirds of the patients

were very or extremely interested in having the treating physician tell them about new RA clinical trials for which they might qualify.

I think people are beginning to recognize that there is an important role in this country for clinical trials in which new therapies are being tested. And we're certainly seeing that in this study, in which people are expressing a strong interest in trying to learn about clinical trials. And interestingly, 60 percent or more of patients actually wanted more time spent with their physician learning about RA medications. There's a great need for education. And we're certainly seeing that in this survey.

Who do people turn to when they want information? And so we asked about specifically who were regarded as trustworthy sources of information. And not surprisingly, the treating physician is the person they're going to turn to first. And in particular, we would emphasize the importance of the rheumatologist in terms of providing accurate up to date information for people who are affected by this disease.

The pharmacist ranks right below the treating physician. I think many people rely on the pharmacist to provide information. Not only about the drugs they're taking, but about potentially new drugs that might be on the horizon. And finally, we were gratified to see that the Arthritis Foundation was identified in more than 70 percent of the individuals as people – as a source of information that people turn to.

So let me try to summarize our sense of what we believe this survey is telling us. First, despite what we would regard as major advances in the treatment of rheumatoid arthritis, and we shouldn't underestimate the importance of this. This is very encouraging that we have new treatments. The startling fact is that the majority of people with rheumatoid arthritis express great concern about the current therapy. And routinely experience symptoms that impair their quality of life.

Number two, physicians and healthcare providers need to be aware of these concerns. Current treatments are not addressing all of the patients needs. Even those taking the most advanced drugs still have debilitating symptoms. Findings underscore the need for certainly aggressive research to understand this disease better. And we believe that an investment in research is the only way that we are going to eventually learn what actually causes this disease. And truly find improvements in therapy. And we believe ultimately, cure.

And finally, people with rheumatoid arthritis want more information. And they want increased dialogue with their treating physician. Not only about current treatments. But also to learn more about RA clinical trials. And they're very interested in learning about emerging research investments and findings from research.

So that is the survey. And what I'd like to do at this point is to turn this back to Dr. Ruderman to talk about unmet needs. And what might be on the horizon in terms of what can be used when we begin to have a dialogue with these patients. Eric?

Eric Ruderman: Thanks Dr. Klippel. You know, I must say as a practicing rheumatologist, I was a bit surprised by the results of this survey. And I think that what we found was a little bit different than I might have expected.

Rheumatologists on the whole and our specialty often pride ourselves on our ability to communicate with our patients. And that's the reason many rheumatologists actually went into this field. Because it is a field where we work very closely with patients for long periods of time. And we enjoy that rapport. And feel that we do a pretty decent job communicating with patients. And I think that while I am sure that we do, this survey raises a question as to whether we in fact do it as well as we think we do.

And I think that one of the things we've learned is that patients really want to get more information. And we need to begin to figure out ways within our offices, within our practices to bring them more information on a regular basis. The other thing we learned from this survey is that patients are really interested in new treatments. And what does that tell us?

It tells us number one, that despite the advances we have made in the last five or six years with biologic response modifiers, understanding what these drugs do, and understanding that the tremendous benefit a lot of patients get from these drugs, it's clear that patients do not do as well as we would have hoped. And that we really have not achieved our goals of really controlling this disease in all patients.

And achieving the goal of remission, and ultimately cure. And so that as far as we've come, it's clear from the survey, that at least in terms – in the patients eyes, we have further to go. And that sparks the idea of looking for new treatments. And I think one of the other highlights from the survey is the patients are interested in learning about new treatments. And participating in trials that will bring new treatments to the table and to general practice in the coming years.

There are new therapies in development. And as far as we've come, we have a lot of hope in terms of the new therapies coming in the near future that may really add to our armamentarium. We are not there yet in terms of a cure. And certainly nothing that we're looking at now is really going to accomplish that goal. But they will add to our ability to take care of these patients, and to address their needs more completely in the future.

What's on the horizon? Well, we started this whole teleconference with a little bit of talk about the background of rheumatoid arthritis. And part of the problem here is that we still to this day do not entirely understand the ideology of this disease. We don't understand what sets it off in the first place. And we don't entirely understand all the driving forces that continue after the disease has gotten started.

On the other hand, we know a lot more about the interaction between the immune cells in the joint. And it provides us with more targets for controlling the abnormalities in the immune system, and within immune cells within the joint than we have had before.

What sets off disease? We know in fact that in terms of immune response to foreign agents, one of the things that happens is that (inogine) presenting cells, specialized cells within the immune system will take specific pieces of foreign agents, bacteria, proteins, et cetera, and present them, or display them on their surface so that other cells within the immune system can see them, and start a cascade of response.

And those specialized (inogine) presenting cells in particular initially connect with certain (T lymphocytes) or T cells in the joint that have specialized receptors on their surface. And the link between those initial (inogine) presenting cells and the receptors on that T cell surface is the initial (infodes) that starts the specific immune response to whatever that foreign agent may be.

In rheumatoid arthritis, we don't know what sets this off. But there is a lot of evidence that there is some specific (inogine), some specific protein that sets the process off. And once that happens, the cascade of events continues that leads eventually to clinical rheumatoid arthritis.

Interestingly, we've learned that that initial interaction between the (anogine) presenting cell and the T cell through that T cell's receptor is not enough. That's the first signal. That's the first connection. But there needs to be a second connection between those two cells to activate that T cell and start the process.

And one of the approaches to therapy has been to address that second signal. Because it turns out that if you can interrupt the way in which that (anogine) presenting cell talks to that T cell, you can stop it from turning the T cell on. And stop the activation of that specific immune process.

And in fact, one of the agents that has been looked at recently is a biologic called (Abatacept) that picks up that second signal between the T cell and the (anogine) presenting cell. And by blocking it, you block T cell activation. And ultimately signs and symptoms of rheumatoid arthritis. And this has actually been shown in a large study of patients already on Methotrexate that was published last year in the "New England Journal of Medicine."

The idea is that if you can stop the activation of T cells, you can stop all of the downstream events that trigger the inflammation – the antibody production – the activation of other cells within the joints. And ultimately, the destruction of the joints. Another approach has been to look at further downstream methods. And that's where we've been for a few years with specific (T&F antagonis).

And what happens there is that the active T cells in turn activate (macrofajus) and other cells (withered in) in those joints. And a lot of that activation is both by direct interaction, and ultimately through (cydeky) networks. And one of the products of those (macrofajus) are (cydeky) such as (TNF alpha) and (interloop) one.

And again, if we block those downstream, we block that process. And within that process, there is a lot of feedback. And so by blocking it, we don't just block what goes on down below, but we may in fact block upstream a little bit because of the feedback that (loops) that have been shut down. And then finally, recently, there have been interesting data on another alternate approach to this disease that really takes a very different tact. For many years, we've recognized that rheumatoid arthritis is associated with rheumatoid factor.

Rheumatoid factor is a specific antibody that's found in many patients. Although not all patients with rheumatoid arthritis. And there is and has been evidence that if you have high levels of this

rheumatoid factor, these antibodies, you are more likely to get more severe disease. What hasn't been clear is how this rheumatoid factor actually drives this disease, if it does at all.

If in fact it's just there as an epiphenomenon, if it's just there as an antibody that shows up alongside the course of disease, or if in fact it's really an important ideology factor in the disease itself. And much of the feeling for the past 10 or 20 years has been that it isn't that critical in driving disease, because not every patient with rheumatoid arthritis has a rheumatoid factor. Lower levels don't seem to abrogate the disease completely. And in fact, the levels don't seem to fluctuate with the course of disease.

As a (cooler) to that, the presumption has been that B lymphocytes, or B cells, which make these types of antibodies, have not been a critical cell in driving rheumatoid arthritis. All the focus has been on T cells, and on (macrofajus). On the other hand, some researchers have really held on to the possibility that B cells may in fact be an important factor in the ideology of rheumatoid arthritis.

And that has led to a number of studies within the last couple of years, looking at ways in which B cells can be targeted, and perhaps depleted or lowered within the rheumatoid (coenobium), and to look at what type of response that will drive in the disease itself.

And in fact, there is an agent out there known as (retuximab). A (retuxin) that's used for certain B cell (inphomas) to reduce B cell numbers. And that has been tested in rheumatoid arthritis with some success in some preliminary studies again with Methotrexate as a background therapy. And I am going to highlight that. But the selective depletion of those B cells has in fact improved the signs and symptoms of rheumatoid arthritis.

We don't yet know where that's going to play out in terms of the destruction and the damage in the disease. And there is certainly more to be learned. And there are more studies ongoing. But

it's clear that T cells are important, (macrofajus) cells (may) be important, and now there is evidence that B cells may be important to this disease.

And they may play a number of roles. It looks like the B cells may in turn actually activate the T cells. And so there is an interaction between two different types of lymphocytes that activates them – the T cells that then drive some of the disease process. It may be that the antibodies such as rheumatoid factor antibodies may play a role. And we are learning more about specific types of rheumatoid factor antibodies. It may be that B cells reduce production of other substances that activate other immune cells. So that the B cells may reduce (cydeky) production. It may activate other immune cells.

And it may be that we're intervening even earlier. One of our goals in treating rheumatoid arthritis is to get as far up the immune pathway as we can. The earlier we intervene, the more downstream affects we're going to have on the disease process. And we hope the stronger affect we're going to have on reducing the disease process.

And so we learned from this survey that patients are interested in new approaches. They don't think what we have now has completely met their needs. We know from the clinical trials of what we have now that that has not completely met needs. Because not every patient is completely treated by these drugs. Not every patient has gone into remission with current therapies.

And so we've begun to look at new therapies. And we're learning more about a number of different approaches that I think we will begin to see coming first into clinical trials, and then into the clinic in the next two, or three, or four years.

I would finally highlight that one of the things we've learned is that there is no single magic bullet for rheumatoid arthritis. We've learned that all of these biologic agents work much better in

concert with Methotrexate currently. And perhaps we may learn as time goes on that they may work better in concert with each other.

Initial looks at trying to combine different biological response modifiers were not very successful, because they did not improve response. But they did seem to add to toxicity. But I think there are other approaches looking at different targets within the immune pathway that may ultimately give us combinations of treatments that really control the disease far better than any single agent that we have now, or may have in the future. And I think that pretty much wraps up my comments. But I am sure that there are questions. And I think I will turn it back over to Dr. Klippel to wrap things up. And then turn it out to the audience. John?

John Klippel: Well I think – first of all I would just like to thank Eric, and thank Debbie Gruver for organizing this. I think we're now at the phase of a question-and-answer period. And I think – I don't know whether I'm moderating this or Debbie is. But we're turning it over to all of you.

Debbie Gruver: Sure. I'll jump right in Dr. Klippel, Dr. Ruderman. Thank you so much for your excellent presentations. We're going to give you a couple of instructions from the folks putting on this event today to let you know how you can ((inaudible)), ask a question to Dr. Ruderman or Dr. Klippel.

I wanted to remind you that we are on a very limited timeframe. So please do submit as many questions as necessary. But if you have any questions that are not related to the content of today's presentation, I wanted to let you know that my contact information, Debbie Gruver is going to appear on all of the follow up materials you'll receive after this event. So with that, I'm going to turn it over to (Lori) to give you your instructions on dialing in for questions.

Operator: Thank you. The question-and-answer session will be conducted electronically today. If you would like to ask a question, please press star one on your touch-tone telephone. For those of

you joining us on a speakerphone today, I'd like to remind you to please release your mute function to allow the signal to reach our equipment.

Once again, that is star one for your questions. And we'll pause for just a moment. And once again, I would like to remind our audience, if you do have a question at this time, to please press star one. And we will take our first question from Janis Kelly with Joint & Bone.

Janis Kelly: I'm from Joint and Bone in New York. I was interested in the points that were reported as points of concern in the survey. And I am curious about whether – about the methodology. Were these things that were presented, and patients were asked to sort of rank them? Or were these things that were sort of drawn out of structured interviews? And part of my curiosity is the fact that issues like cost and reimbursement did not – apparently didn't show up.

Debbie Gruver: This is Debbie Gruver with the Arthritis Foundation. It's a great question Janis. Thank you. I wanted to let you know that your first assumption was correct. This was a ranked set of answers. And ...

Janis Kelly: Can you just spin out for us the list of things – you know. What the choices were?

Debbie Gruver: Actually, rather than take everyone's time, what I am going to do is forward you the complete set of information so that you can view it for yourself.

Janis Kelly: That's great.

Debbie Gruver: And that will be available to everyone after the call. As well as an explanation of the methodology for each question, so you've got the statistics in front of you.

Janis Kelly: Thank you.

Debbie Gruver: Thank you.

Janis Kelly: And so – but just to follow up. So cost was not on that list?

Debbie Gruver: It was on that in fact.

Janis Kelly: But it just not – just did not rank very high compared to these others things.

Debbie Gruver: That's correct.

Janis Kelly: Thank you.

Operator: And I would like to remind our audience today, if you do have a question or a comment at this time, to please press star one. And we'll go next to Kevin Foley with "Reed Elsevier Rheumatology News."

Kevin Foley: Hi. This is Kevin Foley with "Rheumatology News." My question is what sort of concrete things can a physician do in the office to educate their patients about this?

John Klippel: Kevin, let me try that. I suspect Eric may also want to comment. One of the things that we encourage here that came across loud and clear in the survey is the opportunity to have more dialogue with the physician who is caring for the person. That's particularly rheumatologist.

And I think that the survey is revealing areas of concern that perhaps not enough time is being spent. So concerns about loss of independence, disability, pain, fatigue. I think that what this survey will hopefully do would be to be a call to action on the part of both the physician

community as well as the patient community to begin to structure a dialogue, which is terribly important for the patients to focus on these.

And particularly to learn about new therapies. I think that for many people with this disease, there is some hesitancy to even begin to ask about new approaches to treatment. Because they recognize that they are benefiting from the current treatment. So perhaps they don't want to wander away from that too much.

This survey is sending quite a different message. There's an unmet need on the part of patients to increase the dialogue. To begin to learn about new advances in treatment so that they can make an intelligent decision about drug choices.

Eric Ruderman: Yes, I would add to that if I might. That you know, as I said, I was a bit surprised to see what we saw in the survey. And I think that first off, as rheumatologists learn about you know, what patients are seeing when they're asked outside the offices, it is going to wake us up a little bit to what we need to be doing better within our offices.

So (I mean) part of the problem has been that everybody is under a time crunch. And with reimbursement issues as it is, we don't have endless time to spend with individual patients, as we might like. And there are two ways of dealing with that.

One is that we've all begun to add (extenders) in our office. Nurses, physician assistants, et cetera. And they have focused a lot on some of the hard issues in terms of giving medications, injections, infusions. So perhaps they can be helpful with some of these other support issues in terms of the time they may have available to talk to patients.

And then in terms of physicians as well, I think what happens is – at least in my experience is as you are pressed for time, you tend to focus on specific issues in a visit. How many joints hurt

you? What hurts today? What can I do? What kind of initial side affects, or do you have on the medications you are taking now?

And maybe the survey is telling us that we're not entirely focusing on the right things. And what the patients really want to hear a little bit more about, and even perhaps in the same time, is we take some of the focus off of specific parts of their exam to the extent that we can. Obviously some of this is medically important. But really try to get at their disability, and their function that we are not getting at as much as we have been in the past. Or as much as we would like to in the past.

John Klippel: Well Kevin, let me also just add, I think that there's a message here for the Arthritis Foundation as well. And that is this is an opportunity for us to be more responsive to these needs. For many people, the Arthritis Foundation is a resource for this kind of information they are seeking.

So it's certainly causing us to step back and reexamine our approach to this community. And recognizing that there are unmet needs. I think we too have to begin to ask. Where can we as a voluntary health agency of patients begin to play a more meaningful role in trying to address these needs? So I think there's certainly a call to action to both the healthcare community, and certainly to the Arthritis Foundation.

Kevin Foley: Thank you.

Operator: And I would like to remind our audience today, if you do have a question to please press star one. And we will take a follow up from Janis Kelly with Joint and Bone. And Ms. Kelly, please check your mute function. And I apologize. We have lost Ms. Kelly's line. Once again, that is star one for your questions. And we'll pause for just a moment. And Ms. Gruver, there are no further questions at this time. And we'll turn the program back over to you.

Debbie Gruver: Thank you. We will wait on the call about another minute. See if anyone else has any questions. At this time I want to thank everyone for taking the opportunity to join us this morning. Thank you Dr. Ruderman and Dr. Klippel for your very well-done presentations.

I really appreciate you covering so much information in such a short amount of time. If there are no further questions, I'd like to close with my contact information. Again, this is Debbie Gruver at the Arthritis Foundation. You can reach me at 404-965-7857. And D-G-R-U-V as in victory E-R. dgruver@arthritis.org.

Operator: And Ms. Gruver, we do have Janis Kelly back on.

Debbie Gruver: Great. Thank you Janis. Go ahead.

Janis Kelly: I'm sorry. I'm sorry. I went to take the mute button off, and I hit the wrong darn button, and cut the line off. Yes, my question was about what Dr. Ruderman was just saying about listening and maybe asking the wrong questions. And I am curious about whether – what might be going on. (Might) have to do with timing.

And the reason I am curious is that there – I recall there being some research in oncology some years back that turned up the – a kind of disjunction in that physicians tend – the oncologists tended to ask questions, and then focus the rest of the visit on what they heard in the first 30 seconds or so.

And patients tended to need a little while to work up to finally saying what their real concern was. But by that point, often the oncologist was already on a different track. And I'm curious about whether the Arthritis Foundation is looking at those kinds of patient visit interaction issues. Or

whether the foundation or you know, any of the relevant professional bodies is addressing those issues.

Eric Ruderman: Janis, you may know me. And I am not aware of that. I think that's an – it's an interesting comment. I mean I think – you know, and I am only speaking from my own perspective. And my sense of what may be missing here, and what we could do better.

I think that's a great concept that I hadn't thought of in terms of how things ((inaudible)). I was thinking more in terms of what was discussed in a visit rather than the timing of how it was discussed. But I certainly think there is room to look at that, as well as a lot of other areas.

To say you know, that the time has come where we have 15-minute visits. We don't have time to extend it past that. And what do we need to do within – what can we do to make that the most productive 15 minutes they possibly can be? And I think we need to look at that further. I'm not aware that anybody is looking specifically at timing, but (Jack), you may have some other information that I don't know about.

John Klippel: I mean there is a lot of – I think there's a lot of interest on the part of healthcare communicators about – the Arthritis Foundation has tried to help patients begin to structure questions that they might ask. Because I think everyone recognizes we are talking about a limited amount of interaction with the physician.

That both the physician and the patient want to use wisely. Now, having said that, I don't know that we specifically have done anything, particularly in the way of a survey, or a research study to try to look at the interaction with physicians in and around arthritis communications. It's an interesting point.

Operator: And Ms. Kelly, anything further?

Janis Kelly: No. Thank you very much.

Operator: Great. Thank you. And there are no further questions at this time. Ms. Gruver?

Debbie Gruver: It's 9:45 a.m. on the East Coast. I want to thank everyone for joining us. Dr. Klippel, Dr. Ruderman, we really appreciate your time this morning. If anyone has any further questions, feel free to call this number. Again, contact Debbie Gruver directly at the Arthritis Foundation. I hope everyone has a wonderful day. Thank you.

John Klippel: Thank you.

Eric Ruderman: Thank you.

Operator: That does conclude today's conference. I'd like to thank everyone for joining us today.

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