Forum: What is the Truth About the Cost of Utilization of Medical Technology in Europe vs. the U.S.?: Keynote 2
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JANE SARASOHN-KAHN: Well, it's a great pleasure to be here again a year since last year's weather was much nicer than it was a year ago today. If you were here, you remember that right about now there were icicles falling out of the sky, so it feels like we are in a whole different town like Malibu or something. Anyway, welcome back from that lovely lunch. It is such a pleasure for me to introduce Dr. Jorg Debatin to all you.

Jorg where's so many hats that even someone fairly hyper like me can't keep up with him, but I'm going to try to give you at least five hats that he wears as it will give you some insights into the context with which he is going to talk today about this topic from the provider prospective. Jorg, first, has worn the hat of Radiologist and he is an interesting kind of Radiologist because he studied in the United States in a couple of different guises. He did a residency at Duke and then worked at Stamford on a Fellowship. As a Radiologist, he actually became mentioned in the "Whose Who" of Radiological Society of North America (RSNA). He was mentioned as the G.I. guy for scanning by the Radiological Society of North America. Jorg actually turned that hat in, as he will tell you the story. He is no longer practicing Radiology. He is now wearing the hat of a CEO and Medical Director for one of the largest

academic medical centers in Germany based in Hamburg Eoppendorf and the budget, just to give you, again, the sense of what he is managing there is about $400,000,000 Euros which means its $700,000,000. So, it's the size of University of Michigan Medical Center, my alma mater; the size of Grady Memorial in Atlanta (that's a big place). He is also wearing another hat which is the hat of an MBA. Very hard, as my European friends have told me is to find a "doc" who became an MBA in Germany, but he went to Sven Gelen in Switzerland to do that MBA work. Finally, he is wearing another hat, which is a hard hat, because he is also managing one of the largest new constructions of a medical center that Germany has seen and he will tell you more about that and you actually experience a little about that in Jorg's presentation today. So, he is a man of many hats with the provider prospective on medical technology. Let's welcome Jorg Debatin. [applause)

PROFESSOR JORG DEBATIN: Well, thank you very much, Jane, for that kind introduction. Ladies and gentlemen, it's a pleasure for me to be here today and speak to you a little bit about how we adapt to available technology from a European standpoint. I guess the first question we want to ask ourselves is why bother adapting even though there are a number of reasons, of course; to improve medical diagnosis on therapy, because we're just nice people; to become more efficient – that's probably more critical from the

process re-engineering point of view; to exploit new reimbursements opportunities – we'll talk a little bit about that; to enhance market positioning – that's actually a more and more relevant position for us as you will see; to provide opportunities for clinical research and to satisfy physicians wishes and since I was a Radiologist and I was chairman of the Department of the University Hospital in Essen, I can tell you that there is a lot of pressure we can put up in trying to convince our hospital administration that we do need "toys" and really if you are a Radiologist and you have these "toys", it's just wonderful to sit behind the screen and punch a bunch of buttons and if you do so, you can actually get pretty nice things. High tech can be a lot of fun. My kids always used to say that it's almost like going to movies. I think these are very pretty images and occasionally, they can become useful.

Right now, if you think about after having those wonderful crab cakes, you can probably see them somewhere around here [interposing; laughter]and then this is sort of an image of the future. This is what the small bowel will look like as we digest it [laughter]. Since the bowel is working and you are probably a little tired, the heart is probably a little tired, our heart is probably doing a little more pumping now because our blood volume is so increased. The question is how do we pay for these nice toys.

Well, I borrowed this slide from Ann who actually was kind enough to send the presentation around and you've seen that the

German system is fairly complex. Now, when we start out with a new idea, a new method, a new device, you want file an application. This goes to a sort of big thing and then eventually a Federal joint committee, the [German spoken] – that's how we call it in German – will then decide whether this was a good idea or not. This is a decision in principal. Once that decision has been made, a second question needs to be answered and that is can you charge for this on a fee for services basis in the ambulatory sector. The hospital sector never charges fee for service and the hospital sector is taken out of the ambulatory system as we will see.

Now, there are some differences to the U.S. and that is that we have fairly tough European legislation with regard to radiation protection. There is no such thing as whole body CT in a shopping mall in Europe and quite frankly, as a radiologist, I am very happy about the fact that there's no such thing. The radiation issues are very relevant and we've heard this morning from Ann who pointed out that the radiation report which is issued annually by the Minister of the Environment who happens to belong to the Green Party actually points out that we kill people by radiating them, not so much the old machine as it the technology that has increased the radiation exposure to our population dramatically in the U.S. as well as in Europe. The problem with the data is that it's really not valid data or rather nobody really knows how valid the data really

is. It's extrapolations based on the experiences in Nagasaki and Hiroshima.

The problems that we have with the system is that it is rather slow. The complexity is being blamed for the fact, and this data, of course, is kindly provided to me by Siemens, that in Germany we have more older systems than you would find in the U.S., also, as you will see the list goes as well for CT as well as MR. Then if we look at the quantity, you will see that Germany, the number of MR systems and scanners per million population, we really don't compare to the U.S. Now, do we need as many as you have in the U.S., quite frankly, probably not. Definitely not. Probably the answer is somewhere in between, but clearly we also have to recognize there are a lot of good things that you can do with an MRI which we weren't able to do with any other technology before. We have the same issue incidentally, which was mentioned this morning, we see that in our hospital cascade of diagnostic tools where we just add on to this cascade itself instead of eliminating other diagnostic measures. Let me tell you, we have attacked this issue simply because we now are forced to run our operation process base and we have done away with preoperative chest X-rays just a number of weeks ago as a first step in this direction.

The German hospital system – we have over 2,000 hospitals, only 33 of them are medical centers, but as you can see, we actually have 9 percent of in-house beds or in-patient treatments and we are

responsible for 17.5 percent of an ICU base and that is really the major focus on most university medical centers, so that even though the number is small, we control a fair amount of the market. We train a lot of physicians. We have 20 percent of physicians and all hospital physicians are employed by University Medical Centers and 16.5 percent of all employee healthcare and healthcare hospital system.

Let me try to explain to you how our revenue situation actually works. There is the SHI Sickness Funds and they actually are responsible for 88 percent of patients who come to us and seek medical attention. Twelve percent are privately insured. These people are generally better off and the nice thing about these private insurance companies from a provider point of view is that they pay better. They pay about 1.5 to 1.8 times the amount that the SHI would pay for the same service. There are other sort of benefits.

Now, we have a growing number of self payers. What was said this morning was that this number is increasing dramatically from 10 percent and I think the quoted number was a couple years, is now 23 percent. We certainly feel that is true.

Now, for in-patients, we actually can serve all of these. We will see that the SHI and the THI patients are sort of in a common budget in a common pot. The self payers – we can grown them as much

as we want as they are outside the normal budgetary process so we try to focus on that. This is for hospital, in-patients.

For out-patients, things are a little bit different. We can only serve out-patients to fit along either to the privately insured group or to the self paying group. In other words, if I have five MR scanners or 10 MR scanners and I want to offer the service to ambulatory care patients, who are not in-patients to our hospital, I can only do that if they are not part of the SHI system or if they are part of the SHI system, I need to make them into self-payers.

So, when we look at how we get our money, there is a base that we get from the social health insurance system. These are negotiations that I first experienced this summer. Let me tell you, it was an experience that I would rather have done without. Basically, we have a budget and for this budget, we used to produce a number of overnight stays and now the system is changing to a DRG system so now we actually get paid for a number of treated diagnosis.

The privately insured patients are actually a part of the quantity is concerned from the legislation point of view, they really don’t care whether the patient is SHI or PHI insured and the total number of treated diagnosis is the same.

We then have self paying patients and they are growing in umber and then we have privately insured and self paying out-patients and that is also growing and then we have state subsidies for building and technology infrastructure. Really, our capital costs

are supposed to come from outside that system. Unfortunately, our governments are not really doing well managing their money so it is getting less and less.

Since this is kind of difficult for an American to understand, let me try to walk you through the difference systems of the hospital and the ambulatory physician. Now, ownership of the hospital is either public or 70 percent churches, the municipalities, state governments – its really, really mixed. Then there are corporations covering about 35 or 40 percent and now there are chains that are actually buying up hospitals. The ambulatory physician is generally a free entrepreneur. Generally, the practice that he works in belongs to that person. When we look at capital costs, capital costs are supposed to be covered by state subsidies for the hospitals and they are supposed to be covered by reimbursements for out-patient services for the physician and the ambulatory care sector and that is a very definitive difference. Then with regard to operational costs, they are supposed to be covered by the in-patient services, by the budgets that we get from the insurance companies whereas for the outpatients for ambulatory care sector – these again are for out-patient care rendered by that physician.

So let's say we want to buy a CT scanner and we have gone through the federal joint committee and many years ago and they say the CT is good, so we say, we can buy a CT scanner, no seal end needed. We now want to buy a CT scanner. We send an application to

the German Research Foundation. There the application goes for peer review where they look at if there is a need or what and is the technology appropriate. If it is, then we get the money.

For the general hospital, things are a little bit different. They send in an application and now it really depends on who you know in state government, because the principle decision that this okay has been made many years ago, but now the appropriation of the funds to buy the CT scanner is really made by some politician and now it really depends on how many friends you've got. I would say only about 30 to 40 percent of new technology is financed through this manner, now even though the system would call for a 100 percent penetration. Then there is the ambulatory care physician who says I wan to buy my CT scanner and he can do that, but he does that with his own money. Assuming that the reimbursements will be sufficient so that it will be able to pay up the capital cost for that acquisition.

So, what are the German healthcare trends and how do these trends fit into the system. Well, first of all, there's a reimbursement conversion from the number of nights spent in the hospitals and I mentioned that. This results in shortening of in-hospital stays in our hospital by 30 percent, which means that we have closed down about 30 percent of our beds – about 35 percent. There is the definitive move towards the one step diagnosis using high tech at the outset, its no longer interesting for us to prolong

the process of diagnosis but rather we want to get it done quickly. So, all of the sudden we are very imaginative and we are very motivated to do away with the initial steps.

The integrated medical care is being produced so that the separation between ambulatory and hospital stay is change as the legislature wishes to do. There is enhanced patient awareness. We see patients that self payers and there's a lot more people who pay attention to quality of medical services and then there's more patient co-payment starting in the beginning of 2004. This has resulted in the dramatic change of the underlying problem for hospitals. We used to write with our insurer carrier for more budget. More budget meant more performance. More services rendered. We have the "covered pot" problem. Well, all of the sudden, with the introduction of and the increase of co-payments in January, 2004, the problem has shifted. We now are concerned about filling the pot. No longer do these spaces materialize out of nowhere, we have the problem of actually filing the pot because there are 10 percent less inpatient services this year and 15 percent fewer outpatient services this year in the metropolitan region of Hamburg.

So what do we need from the provider point of view. More patient benefit, better quality of medical services, more efficient processing, of course, of the networking to basically get the patients coming to our hospital and what do we do? Well, we are investing in infrastructure and what you see here [interposing] just

some images which show you our big construction site and you can see how it's being excavated. This is where the parking garage goes and then we are building 850 new beds, again, with Federal money. Admittedly, this is not my idea. The hospital environment is so old and it was built 100 years ago and some has never been renovated so we thought it was time to rebuild it and as you can see, its going fast.

So, we are investing in new buildings, new products, new markets and new technology. Let me give you an example of the new technology and I'd like to chose PET CT. PET – Positron Emission Technology being a scanner and a method to look at metabolism and the usage of glucose and then CT to actually look at the anatomy. You can see the kidneys and you can see the spine, which you don't see here, but you see the bright spot over here and the question is: "what is this?" and if you mask these two images you can sort of see there is a process here, being a tumor, that actually needs a blood of glucose. This actually works very well if see this bronchial carcinoma, you can see the bright enhancing stuff and this is where the glucose is metabolize. Let me tell you this actually a very useful method and anybody who has worked with it, would probably go along with it. If we look at the cascade of various stagings of the scan with PET CT, we can really comprise these four steps into one. There's more patient comfort with PET CT. Its more efficient, its has less cost and there certainly is a lot more quality and there's

more diagnostic certainty associated with it. Just one more example – if you are wondering if this is a patient with lymphoma and is it a recurring disease or what – something that can be very difficult with conventional scanning, but with PET CT the answer is very simple. We can see the masses here. These are not reactive nodes because they do take up glucose, so this is recurrent lymphoma. So, we see that the biopsy saves us additional steps.

Let's look at how we've adapted to this technology. Technology became available some time in the year 2000. Then the first system was cited by a manufacturer in Zurich, by the way, in January 2001. Six months later it was first started in Germany. Then the German Research Foundation decides to fund five additional systems to actually assess this new technology. A good idea. First installation in a general hospital and nobody really knows how this got there, but the Federal Joint Commission somehow said its not bad, so somebody bought it. Then we had a first installation that was in a physician's office. Mind you, there is no reimbursement for PET let along PET CT. So, this installation is paying for itself only by servicing self payers and patients who are privately insured. So, 88 percent of the market is out. This person does not care about 88 percent of the market. So, this is the beginning of two level or three level medical system which is probably not a good idea. Then we have an additional 8 systems in university hospitals that were just put in because the manufacturers thought it was a good idea.

Finally, in January of next year, the German Research Foundation is going to quit their technology program and assessment program and is going to say that basically the market has absorbed it and there's no further need to look at the data because it seems to be, actually, quite good. The Federal Joint Commission is going to approved the device. However, still, at this point, PET CT will not be reimbursable on an ambulatory care level. So, what is going to happen? Everyone is going to find an excuse to become an inpatient and those who have no excuse will either have to self pay or be privately insured. So, here you have a patient process that, even though it works, its rather slow. To give you another example, virtual MR CT Colonography, I prefer MR because there is no radiation concern, so here, I wanted to leave this slide out, but Jane said I should test how awake you are – you tell me where the polyp is. Does anyone see the polyp? Alright, everybody saw it. Excellent, you all get credit for one year of radiology residency [laughter] – there it is.

Well, let's look at MR CT Colonography. You can see that the technology was there, somewhere around 1999 to 2000. Then it was evaluated, but no really knew how and somehow it still is only available to self paying and publicly insured patients, but the evaluation process really has not been concluded. So, here we have a total failure to adapt and lack of structured technology assessment altogether.

Final example, where a new product is being featured. This is an MR body screen. 50 minutes of your time and we will tell you what your body looks like on the inside. The abdomen and the colon, the heart, the brain, to see if anything is in there; the lungs and looking for lung nodules, MR CT is just as good for that and then to top it off, just a 3-D rendition of the entire arterial vascular system. This actually finds relevant findings in 70 percent of outpatients above 50; a new product, called Body MRIs, is part of a comprehensive screening program. Cost effectiveness never assessed, never evaluated and never an attempt being made. In keeping with all laws and regulations, because we don't use radiation, it targets self paying patients only; private insurances may give it as a special benefit; we see that actually; larger companies offer that as medical benefits; you know that from the U.S.; follow-up costs are borne by the SIH and PHI systems and nobody knows how high they are and it is commercially available today in five sites and believe me, we will try to be one of them – number 6 – because additional revenue for us from a marketing prospective. So this is Germany goes California.

So how do we adapt to available technology. The spread of technology in Germany is determined by the rationing of investment budgets which become less and less relevant because the money is gone anyway and it seems like people find otherwise of financing it in the hospital system. Reimbursement rules for the social healthcare insurance for the patients and then individual providers make the

decision to target new markets, particularly self payers with new products.

HGA lacks implementation and acceptance. I guess that similar to the U.S., even though I feel in Germany where we are still behind even that. There's an exception and that I think is a nice practice: the peer review that the German Research Foundation has implemented and that's a system that actually works relatively well, considering it covers about 10 percent of the German medical hospital market. It seems to be working even for larger scales. In a patient of investments and reimbursement, rules are often uncoordinated and much to slow, so in all, we adapt to innovations in to slow a manner. What do we need to do? We need to overcome the somewhat bizarre and historically growing separation of in and our patients sectors. We need to basically combine financing systems. We need to have more structured TA programs. That's usually very difficult to do with medical technology because we are trying hit a moving target – very, very difficult – when we look at the renewal cycles in that technology.

We need and have started the Federal Institute for Quality Assurance in order to enhance EVM[ph]awareness, not only among physicians, but also among the general population and that is my last point. We need more transparency information for the general population. I think we need to become more of a regular market and

becoming a regular market means transparency information and more information.

So, I hope you probably were looking at the German Health Care System and it is what we are working on [interposing] – aren't they nice [laughter]. Before you know it, somebody is actually tripping you and it can be rather cold waiting. [more laughter]. Thank you very much for your attention. [applause]

JANE SARASOHN-KAHN: Thank you Jorg. I just love those penguins, don't you. So much we could say. You all have met Dr. Patrick Ryce this morning and Chip Doordan from Anne Arundel. Dr. Ryce from Blue Cross Blue Shield of Alabama. So, I'm going to let them react for a couple of minutes each to what Jorg just talked about and then we are going to flip it right to the audience because it sounds like everybody really had a lot of questions this morning that they couldn't address. So, we will have a much more interactive session this time, but first let's hear from Dr. Ryce and his reaction to what Jorg talked about.

DR. PATRICK RYCE: Thank you dear. There are a couple of reasons to shorten my comment. Once is primarily to let the audience have more say and the other is to say I said everything I knew this morning. [laughter]. I would tell you that in looking at some of the images you presented just now and hearing the stories, the concerns we always have with these sorts of things or sensitivity and specificity, if you take a total body scan, for example, you notice

lesions which produce additional procedures, biopsies and so forth and so there is always an issue of additional cost involved in that, but also side effects for all kinds of invasive procedures and so forth. It's a very difficult surgery.

With regard to having surgeries in malls, what they do in my part of the country, here, is bring them around the church parking lots on Sunday and offer free scans to people of certain age groups and, again, we have the problem with false positives producing additional procedures and costs and side effects.

The area that I work in at our Blue Cross plan, just to tell you some of the things we've been looking at with imaging, in fact, we have appointments set with some imaging management companies to assist us in trying to get a handle on, more so, utilization than technology assessment right now. The American College of Radiology said that there were about 500,000,000 imaged down in the U.S. in 2003. That's about 1.7 scans per American. Boos[misspelled?], Allen and Hamilton said that in 2002, in the U.S., we spent $75,000,000,000 on diagnostic imaging and its projected to reach $110,000,000,000 by 2007. I will tell you that GE – we have a little bit of GE business that we administer and we went and visited with GE at their corporate headquarters several months ago and it was an interesting balancing act to talk about what we can do to help contain their healthcare costs while at the same time they are anxious to see their technology

promoted and expanded in our area where their GE employees are and they recognize that conundrum.

Looking at some of our own utilization data in our own health plan or our 3.4 million people or so; payments for MRI of the brain increased 31 percent in the last three year; MRI of the spine increased 36 percent in three years; MRI of the chest, abdomen and pelvis, the number of those combine, payment increased by 80 percent in three years; musculoskeletal system MRIs commonly driven by orthopedic surgeons with equipment in offices increased by 48 percent in three years. So, you can imagine the effect it has on healthcare costs trends in our state.

Annual exams per thousand members increasing at a compound annual growth rate of at least 17 percent between 2002 and 2003.

I'd like to go back again to the GOA study. Now, this has some age on it. It's a 1994 study, but we believe that it still applies in principle. If the doctors own their own equipment, which is a substantial number of clinics in our state, 54 percent more MRIs are ordered than if its referred to a radiologist, for example. Twenty-seven percent more CAT scans and 22 percent more ultrasounds.

With regard to the issue of defensive scanning, many of the doctors I speak with say, well I have to do this to protect myself, but do they not see that we see that if they own the equipment that they stand to benefit from doing additional scans for "defensive

purposes." So we are in quite a situation with regard to utilization of high tech imagining. We also find "creep" in the type of images being ordered to the more expensive, higher technology types. We don't see a lot of drop offs of some the older imaging you take when he new ones come in. The issues of PET CT fusion are of concern to us. The University Hospital has one and we hope that that remains the only location. Realistically, we don't expect it to.

PROFESSOR JORG DEBATIN: I'm not sure you want it to be the only one, because PET CT as opposed to PET provides you with much better quality, higher through put and even when you do the economics, PET CT will be less expensive than PET. PET CT has the market advantage that for oncology patients, oncology as a follow-up, but also to look at early adaptation to therapy. This is a rather inexpensive tool. Before you spend a ton of money on very expensive chemotherapy, you can see whether this patient individually reacts to that chemotherapy – yes or no. So, there are ways to benefit from this. I think one of the reasons why you see the cost of diagnostics rises because diagnostics is becoming more important than steering therapy and it's like Intel, we are always inside. Really, anything that's done in a hospital or in the medical system.

The interesting issue that you mentioned is that we seem to be doing more scans and still each scan gets more expensive. There is no real reason for this and certainly no economic reason for it, because generally if you sell more of you product, it should get less

expensive. We need to ask the question why is that. You mentioned you erased the issue of self referral. That in the U.S. is not that big of an issue except for the muscoskeletal MRs – they are some of the constructions were orthopedic surgeons own a scanner that is then run by a radiologist that is actually not in the best interest of the system. In Germany its even worse. In Germany, you can run as a cardiologist your own cardiac CT. The separate referral issue is much stronger and we have been lobbying as radiologists, but as anyone good sense, to eliminate sale for referral. You are very right at the data. It's very clear on that.

In addition to that, we need ask who sets the revenue for imaging. I think over the next five years, you are going to see a very interesting development. You are going to see that we are going to separate a lot more between technical performance of a scanner and the actual reading of the images. Currently, you are still protected in the U.S. and maybe that one of the things you want to address. Your state medical licenses – not everyone can read the scan. But these images can be read in India just as good as they can be read in Germany just good as they can read in California. If you happen to be living Paolo Alto and you happen to have radiologists who are very expensive, you may consider sending them to India or to Hamburg for that matter. [laughter]

JANE SARASOHN-KAHN: Even for self referral. [laughter]

PROFESSOR JORG DEBATIN: Right. Thanks for catching me. [laughter] But here I think we are going to see competition. The question is whether the legislators are going to allow the competition to take place and if they will this will be global competition and I think you'll see a decrease in the prices of scans. The technical fees are not the cost driver in my assessment of the field of Radiology.

JANE SARASOHN-KAHN: May I interrupt? Chip from the point of view of a large health system, how do you react to the factors.

MARTIN DOORDAN: Well, I'm struck by a number of things like, I made a few notes, I'd like to refer to them. The issue of what's right for society versus what's right for me and the differences of opinion perhaps that we get into. I give two or three examples, again, relating what Jorg's talked about there. I do take issue with him. We, a couple of years ago, got into the whole body scanning and for $485, I personally did one and discovered that I had the early stages of heart disease. Now, I take Provacal and a three month supply cost me $3. If you play that out, I used to go to my Internist and he would say, "Chip, there's no way we can tell whether you have potential heart disease" and when I went to my cardiologist, he said "Chip, you have absolutely no risks. You don't smoke, you exercise five times a week, etc., etc. So, from a personal standpoint, perhaps whole body scanning is not the thing to do. Perhaps there's a radiation issue. I'll take my chances, I think, at

this point and perhaps in the long run, I not only will have a potentially better quality of life, but may actually reduce the healthcare costs for society potentially. I am struck, Jorg, between the difference between the inpatient process in Germany and sort of the free market or the entrepreneurship of the outpatient. Whether that's good or not, I don't know. The DRG system clearly has reduced length of stay and I think those pressures and the reimbursement systems are terribly important. We in the United States are like you in that we are investing in infrastructure. Every time you turn around, the Hill Burton hospitals that were built in the 50s and 60s are woefully inadequate now. Speaking with a colleague out here coming and we were talking about our system and how people are spoiled. They don't want to be in a semi-private room. Anyone building a hospital today builds all private rooms. Anyone that has extra beds now, takes a semi-private and makes it a private. It's just an expectation, I think, of our society. Rightly or wrong. Again, I'm impressed, not positively, but with the two tier system of we have it here, clearly, those that have can buy and those that don't have. I was struck by the issue earlier about the fact that what's happening with that 42,0000,0000 that don't have insurance, they still get care everyday in our emergency room and they get the finest technology once they get in their for diagnosis. I think the elective things are where it clearly is perhaps a difference. I actually don't see a lot of difference when get down to it between

systems. Pat was talking bout the GE and I think that's a great analogy. That leap frog of the late 90's in which GE was leading the charge at the same time where they are coming to us where they are seeing [cutoff] and I'm proud to say that we have, as Jorg was talking about, one of those PET CT scans working every day in our cancer center now. We've had it for a year and it is incredible technology and if you have the potential or have cancer, it is just incredible. The issues we have here in this country we know its defensive medicine. Malpractice is a huge issue. Personally, in Maryland right now, its taking folks out of business and we have to get a handle on it and then, finally, this issue of sending the scans to India, that's a very interesting thing to say for Germany, or even that matter for across the street, but with my radiologist or my medical staff of over 600, the minute I suggest our radiologists aren't needed anymore, because we can send the scans to India, I suggest I'll probably be there before the scans would. [laughter] That's what the real world is for us.

JANE SARASOHN-KAHN: I think we should open it now. I think of us have more to say and maybe we could react to questions from the audience. Here we go. Dr. Singer must have a question.

DR. SINGER: I'm surprised with all the comparisons we've heard today, we haven't heard about price competitiveness. Just a couple of days ago, we had a former Kennett CEO speak. He's running an all digital hospital in Thailand called Bumagrand[misspelled?].

You can go on a website today and look up PCTA, about 105,000 hybot for about $25, normal delivery is about $800 and there bills are generated in about ½ hour and 75 percent of their business is all cash business. They are actually Jayco[misspelling?]certified – the first hospital outside the U.S. that is Jayco certified and they are about one-tenth of the cost of the U.S. and a one-fifth the cost of Europe and we are starting to see more and more of this health tourism. I mean, it may not be so long before similar kind of facilities start appearing on Mexico's border and before patients from Alabama are told, yes you can do the full treatment here or one tenth of the cost of the hospital in Mexico that's fully Jayco certified and we'll even give you a $3,000 if you take that option. That may not be too far in the distant future. I'd like the panels' comments on that.

PROFESSOR JORG DEBATIN: It's reality today. We'd like to think about health tourism as patients from the Middle East come to Hamburg and that happens and the numbers are quite big because your Immigration and Naturalization don't let them into the U.S. anymore, so whatever the Mayo Clinic is losing or Boston is losing, we are gaining. We are also, though, at the same time, beginning to lose patients to other countries. For instance, dentists in Poland and the Czech Republic are very popular. A lot less expensive, but these, of course, only relate to services you pay on your own. So since most of the

service is still covered by the general insurance, we still don't see this to its maximum effect, but I know that there are some insurance companies who are actually negotiating in Istanbul with Turkish providers and they are thinking of combining vacation with PTCA and they can probably offer this combination for a lost less money than it would cost them if they did this in Germany. So, yes, these development are real and, believe me, as a provider, we are watching them very closely. So closely that we are talking to partners and recognizing that this is trend that we probably won't be able o halt, so at least we want to make money if that trend takes place and we want to look at what kind of collaborations we can have with providers.

JANE SARASOHN-KAHN: As a healthcare provider, what's your reaction to Richard's question?

MARTIN DOORDAN: Well, I think that in the United States, at least the Maryland system, price is important but it doesn't control where people really go. A quick anecdote, again, three months ago I had a call from a lady in England who wanted for us for $4,000 to take out an advertisement in a paper in England that was going to serve 1,000,000 and guaranteeing us a franchise in her area where we could advertise our total joint programs and cosmetic programs because so many people on holiday from the United Kingdom were leaving there to come to South Africa or the United States to

get joint replacement, for example, where you could have a stay for three days where you could have a hip and then vacation in the area and see things. So, you see that. The other thing that I think is happening is, and what we're going to start to see, is more shopping related to quality and that's a difficult one for medical staffs to handle. But I do believe the more we can get out there about the quality that we provide that that is going to ultimately potentially going to have something to do with controlling price as well because folks are interested in quality if they understand it and it can be put out there effectively.

JANE SARASOHN-KAHN: I have a question on this shopping level quality. Two events that happened this week which point to the fact that we are moving there. One was yesterday my U.S. News and World Report came in my mailbox and on the cover was "How to Be a Smart Patient" – this is a mainstream public, this isn't the New England Journal of Medicine – but the other one is that Consumer Reports announced this week that on December 9, they are launching their website which will have drug information on it. I don't know how much clinical trial information will be on it, I don't know how detailed price information it will have, but that's a major even which shows you that we are moving towards a shopping society and certainly Americans are very value oriented now looking for deals and for quality but also at a price. So, I think we are really moving

there. It will be very interesting to talk to Jorge in five years as people pay more out of pocket in Germany to see if they'll have the equivalent of Consumer Repots Guide to Health Care.

SUSAN HASAR: I'm with Marsh Affinity Group Services. We are insurance brokers for associations who want to offer insurance: health, life to associations and their members and my question has to do with the price shopping. How do you price shop as a consume when you don't know what the prices are nor does your physician know what the prices are. There is no catalog of pricing that I am aware, so if you want people to really be educated consumer, you've got to start divulging your prices are at least showing them some sort of catalog or on the website. I thought the Blues were actually going to do that and I was thrilled as a broker to say, hey finally somebody's going talk about what its going to cost to get these things accomplished and yet nobody has to my knowledge – is it happening in Europe.

PROFESSOR JORG DEBATIN: Yes, we have such a catalog. So for privately insured patients, you come in with private insurance and you give them an MR scan, I would send them a bill for that MR scan which actually looks at numbers off of that catalog. Now you can be rather creative in finding the right numbers, so if you are adding and combining them in

various way, and believe me we spend a lot of effort in maximizing the actual bill total at the end and if you are privately insured and you will really want to go to a physician of your confidence, then that physician may decide that his service is worth not just one time that number, but 1.8 times or 2.3 times and up to 8 times. So, the bill can be rather big, but here is such a catalog and before you have that service, you sign a little piece of paper that you understand that there's going to be a bill and that you understand that there is multiplication factor of 1.8 or 2.3 or what ever it is.

JANE SARASOHN-KAHN: Pat, from the Blues perspective, any news there from posting prices.

DR. PATRICK RYCE: The profiles that we are preparing to post will have a component of pricing without having specific prices. At least the operation I'm involved in, we have per diem arrangements with hospitals, so whatever we pay is taken care of and there's supposed to be no base billing by the facility. What our customers seem to be more interested in right now is outcomes, patient satisfaction, nurse staffing ratios to patients, number of patients, physician satisfaction. We have a separate website we are working on now with physician related information, how many procedures, the average length of stay and so forth with the hopes of moving into complication rates. Right now you can go on to this website to

whether the doctor went to medical school, is he board certified, does he have any special interest, speak other languages besides English and so forth, but we've missed the boat think that our fee schedules control the pricing issue. We've been focused more on the quality type of issues.

MARTIN DOORDAN: The only thing I would say, in Maryland, on inpatient because of the Health Services Cost Review Commission, we internally can find out by individual physician, but by hospital you can find out how many, what procedures are done, what the average length of stay is and how much it costs. Maryland is the one state on an inpatient, not for outpatient, that data will be part of that price type of those that want to do that. Most folks haven't' taken the risk to go out on the Web and start advertising that way. It's all under the guise of Dr. X or quality of something of this nature. I do think as things heat up that that probably will be attractive.

DR. PATRICK RYCE: We give an awful lot of information to the providers of how they look with the competition. We'll give hospitals information on their length of stay and cost, for instance, and that induces competition among the hospitals. We do the same thing with the physician and show if you do this total knee replacement, here's your length of stay and your total cost, here's a network average, here's where you fall and we have driven some substantial changes that way. Thos data have not been made available to the patients as of yet.

JANE SARASOHN-KAHN: I think as more HSA plans are taken up in a couple of years – 2 to 5 years – now that President Bush is president, he has a real objective to move that market. I don't know if the market will move along that fast yet. We will start to see more transparency on there. You already see that with prescription drugs on Internet portals like Suvimo.com where an employed person through their employer can go to this portal that Suvimo supports and this a Chicago based company. They can type in what drug they are prescribe – Suvimo.com – I don't own any shares in this company – so you type in what prescription you are getting and the back office systems knows what you are planning and the consumer employee knows before they go to fill the script what my co-pay is, other generic equivalents, are they other therapeutic brand of equivalent so that they are armed with this information and that for some plans I would now pay a $60 copay for an off brand, that's real money. So, its easier for prescription drug, but soon it will be as easy for MRIs and CT scans as such. I think that's what is going to be what moves that market is the consumer driven thing. Next question.

MALE SPEAKER 1: As far as the pricing is concerned, that's actually available now through Luminos when you are working with them on a consumer driven plan. With you the procedure that you are going to have now, you will have the retail price and then you will get the In-network price. The encouragement is so that you will use the network as opposed

to going out the network. So, that's available today if you are using one of their plans. They also have other Internet tools that support their product, not the least of which is a hospital rating and physician rating. Unfortunately, that database is very immature, its not widespread so it just doesn't have everybody in it, but these things are here today and some of them are being very well developed right now.

MALE SPEAKER 2: Jorge and Chip, are you paying the same price for the technology, and Jennifer jump in on this also in terms of some of the other technology, what's the difference in price between the United States and Germany, for example, in terms of what is paid for this technology.

PROFESSOR JORG DEBATIN: Well, I guess we are paying more dollars than we were about a year and a half simple because the exchange rate has dramatically shifted and so it's relatively inexpensive for us to go shopping in the U.S. whereas two years, really, it was very different. These shifts make up to 30 percent so they are very, very significant. Years ago, it would have been very obvious that you would have been much better off buying you healthcare in Germany rather the U.S. Today, I'm not sure as you still are little more less expensive but the difference has go to be a lot smaller than it was.

MALE SPEAKER: So, before the currency it was a 20 or 30 percent difference.

PROFESSOR JORG DEBATIN: Yes. Absolutely. Even within Europe you see tremendous differences which are slowly being equalized by the fact that the Euro zone is becoming larger, but there are quite large differences and Germany is actually not paying all that much for their equipment.

MALE SPEAKER: Jennifer is that the same with a lot of other small technologies?

JENNIFER: You want to tell them that country at all. But the vast majority of countries there is exactly the dynamic going on in Germany and my guess is there will be some more shakeout with price as Eastern European countries get more integrated into all of Europe.

PROFESSOR JORG DEBATIN: We used to say you needed 1,000,000 Euros if you wanted one cheslo of MR, so a 1.5 cheslo machine is 1.5 less 3,000,000 Euros per year. That used to be a whole lot less dollars two years ago than it is now. If you'll just look at the currency and the way that works, it makes a tremendous difference.

MALE SPEAKER: You have to believe that prices will change with the currency. 20 to 30 percent before....

PROFESSOR JORG DEBATIN: Well, we have manufacturers in the U.S and Europe and Japan, so, yes it will equal out. It seems that they always take the profit in the countries where

they can make it and don't really give it back to the consumer in those markets.

JANE SARASOHN-KAHN: Well, where have we heard that before. About a year ago today. Anymore questions? Are we tapped out?

PROFESSOR JORG DEBATIN: Let me make one comment because your outed yourself as a fan of whole body CT and I just wanted to take issue with it one more time. There's no question that cartilage CT can actually determine the amount of calcium in your coronary arteries. Whether or not that is a valuable information, we simply don't know. There is no real cost effectiveness or technology assessment data, whichever you want, because what we do know is that the calcified plaque that we see are really not so dangerous plaque but we assume that if you good plaque that you also have bad plaque. In addition to that, though you don't need whole body CT to make that determination, so while I'm all for using CT technology to look at coronary arteries and really with the new 65 row scanners, the images you get are pristine and they are phenomenal. They are almost comparable to cardiac catheritization images, so you can get a lot out of these diagnostic exams. I think we need to be careful that we are not overdoing it and going to a church offering radiation based exams is in my view simply overdoing it. You've got to be careful of the data that is

available and just do the math in answer to your question, 2.3 deaths per 10,000 scans. There's not a medication in the world that would get approval today by the FDA with mortality statistic. If that is true and there is no data to basically say that that is not true, when on the other hand I told you that it's difficult data to interpret, then we do need to be careful and that's really what I am particularly, if you think about malpractice, I'm wondering how long it will take before the first American decides to take one of those CT manufacturers to court. They are going to look a lot worse than the cigarette manufacturers in my mind, so I would be careful and I would be quite hesitant about that.

DR. PATRICK RYCE: What is the radiation dose for a full body CT compared to a chest X-ray?

PROFESSOR JORG DEBATIN: It really depends. A whole body CT depends on sex and age group, but it would range somewhere around 15 milliciverts, which is quite a lot compared to 1.5 chest X-ray, so we are talking very new dimensions. If you look at the radiation exposure, we've done very well with mammography. It's gone down. We've done will with chest CTs. It's gone down, but still the overall population radiation exposure has exploded because of the introduction of CTs – solely the construction of CTs – do we want to do without CTs? No. It's a great exam, but we need to use it in a sensible way and we need to be careful that we aren't overdoing it

and quite frankly in this instance, I would wish that people would become a little bit more aware of the malpractice issues that clearly are going to be at hand before too long.

DR. PATRICK RYCE: The American College of Radiology has not really endorsed the use of CT?

PROFESSOR JORG DEBATIN: They are working on it and this is very contentious issue. But much of that work, incidentally is being done in Europe with regard to the visualization of coronary arteries. But it will clearly catch on and I think it will be approved and it's a good idea. But whole body scanning is not. Whole body scanning is not sensitive, its not specific, particularly the specificity issue is a specific problem which is, of course, is much better with MRI. If I have a lesion in the liver and I don't know whether it's a cyst or tumor, I'm not doing that patient a particular favor if I tell him there's a mass, because there's a 95 percent chance that it is a cyst. Here, I just need to be careful in how I use this technology and again, in my mind, the noncontrasting whole body CT has a lot of risks and very limited benefit, with the exception of the coronary calcium.

MARTIN DOORDAN: And I certainly honor the technical and the medical side of this. I think the issue, quite frankly, is that I am one of those who can afford to do this and that is not a great part of the population that elects to do that. The one point I would make, though that was talked about here, Jorg, is that issue about CT

scanning. We've had CTs for a long time and probably do 100 plus CTs in our emergency servicing every day. If you talk to our doctors, they probably need to do 25 percent of those. Okay. So 75 percent of the population is getting huge radiation for one reason: malpractice.

JANE SARASOHN-KAHN: I remember through Altman at Kaiser Family Foundation once said medical technology is like a religion in America. I think we are entering an interesting period now as consumers pay more out of pocket here and in Germany. How religious are we going to be about medical technology once we start have to individually start paying for it. It is interesting to watch this German experiment with consumers paying more, both self pay and privately. So, I'd really like to thank Jorg and Patrick and Chip for a great panel. I certainly learned a lot. [applause]

[END RECORDING]