Change and challenge is in the wind as 2008 comes to an end. The same is true when examining this month’s ReachMD XM160 special series focus on global medicine. We take a look at both the changes and the challenges impacting global medicine. Since the mid 1970s, all 50 states have afforded physicians an opportunity to donate their organs for transplantation after death either by signing the back their driver’s license or issue an organ donation card. Yet, our supply of organs remains willfully short of demand for transplantation. What if we took steps, as many countries around the world have to make organ donations near mandatory. You are listening to ReachMD, The Channel For Medical Professionals. Welcome to a special segment focussed on global medicine. I am your host, Dr. Mark Nolan Hills, Professor Of Surgery and Practicing General Surgeon. Our guest is Dr. Arthur Matas, Professor of Surgery and Director of the Renal Transplant Service at the University of Minnesota Medical School.

DR. MARK NOLAN HILLS:
Welcome Dr. Matas.

DR. ARTHUR MATAS:
Hi. Thanks for having me.

DR. MARK NOLAN HILLS:
Dr. Matas, I have read that as of earlier this year we were approaching nearly 100,000 people on the United Network for Organ Sharing waiting list, is that the case?

DR. ARTHUR MATAS:
That's correct. We actually crossed that threshold in October of this year. There are now over 100,000 people waiting for organs and about 77,000 of those are waiting for kidneys.

DR. MARK NOLAN HILLS:
And what does that mean?

DR. ARTHUR MATAS:
That means they have renal failure and they are on a wait list waiting for deceased donor transplant.

DR. MARK NOLAN HILLS:
Are there enough donors around to supply that many people?

DR. ARTHUR MATAS:
No, not for deceased donor kidneys. It is estimated that if every potential deceased donor in this country became an actual donor, we would never solve the problem.

DR. MARK NOLAN HILLS:
Well, what exactly is presumed consent?

DR. ARTHUR MATAS:
Right now, we have a system that says that if you sign a donor card or if your family gives permission, you can become a donor.
Under this system, in order to become a donor, you will have to be active. Presumed consent means unless you say you don't want to be a donor that you would be a donor if you died under the appropriate circumstances. So, if you don't do anything, it is presumed that you will go ahead and be a donor.

**DR. MARK NOLAN HILLS:**
Do a lot of countries have presumed consent?

**DR. ARTHUR MATAS:**
There are few countries in Europe that do have presumed consent but in practice, even with presumed consent the organ donor coordinators usually approach the family any way and make sure that it's okay.

**DR. MARK NOLAN HILLS:**
In other words, can a family veto the presumed consent if they wish?

**DR. ARTHUR MATAS:**
If the law is presumed consent, the family cannot by law veto it but transplantation relies so much on public relations and public opinion that even though their family may not be legally able to veto it in terms of public relations, I think most transplant centers would go along with the family's wishes. We don't have presumed consent here. We have a situation with the donor cards at the office that can happen here and that is if somebody signs a donor card, the family could then refuse to donate under those circumstances and there is a conflict because with the donor card, it has legal authority and there certainly been those situations that have arisen in the United States and they have gone either way, sometimes the family's wishes are ignored and the legal status of the donor card is given priority, sometimes the family's wishes are given priority but it does lead to a public relations issue if the family's wishes are ignored.

**DR. MARK NOLAN HILLS:**
Now, what troubles would you foresee as running in to if we try to implement presumed consent here in the United States?

**DR. ARTHUR MATAS:**
I think the main concern with this is that people who don't read newspapers or aren't informed of this don't have the option of opting
out just because they don't know that's the real concern. I think all of these issues would be resolved by more education and attempt to try and let people know more about the organ shortage stating that there is still a segment of the population that these needy appeals would not reach. Another option is to instead of doing something like presumed consent is simply to do something like conscription where you would simply try and change the culture so that everybody expected to be an organ donor if they died in a certain way.

**DR. MARK NOLAN HILLS:**

So, in another words, you might say changing the name of presumed consent to conscription?

**DR. ARTHUR MATAS:**

Well, you know a conscription really isn't just changing the name. That's really saying that it doesn't really give people the option to opt out. Presumed consent does give people the option to opt out, but just as there is a draft in the time of military need, one could argue that the organ shortage has reached such a crisis and that organ donation is such a good thing that we should consider a real change like this but you would really require a change in our culture.

**DR. MARK NOLAN HILLS:**

How do you think the American people would respond to that?

**DR. ARTHUR MATAS:**

I think there would be an uproar and an outrage at the beginning, but again, I think this requires a major culture shift. We talked about allocation of organs every time we have a deceased donor kidney or organ to try and give to someone on the list. I think we should change our terminology to rationing of organs because that is what we are doing every time we have an organ available, a kidney, or a liver to transplant somebody gets it but a lot of other people don't get it. I really think we need a culture shift if we realize that we are rationing these life-saving transplants, people might sort of edge more towards agreeing to be donors or undertaking a policy such as presumed consent or conscription.

**DR. MARK NOLAN HILLS:**

Now, it has been said that Spain has the best cadaveric procurement rates in the world. Your comments on that?
DR. ARTHUR MATAS:
I think that’s true and they do have a presumed consent law. It's difficult to know how much of their organ donation rate is because of the presumed consent law or how much of it is because they have invested a lot of money in the infrastructure. They have physicians in all the major hospitals who are actually transplant coordinators who really try and tuck up organ donation and who are in the hospital and available if any one wants to consult about organ donation and it may be that investment in the infrastructure that is as important as the presumed consent law.

DR. MARK NOLAN HILLS:
Dr. Matas, one country, Austria even procures organs over a family veto. Now, you mentioned before that this would not even be a consideration in the United States. But, why would a country like Austria have this law?

DR. ARTHUR MATAS:
I think all of us are trying to find a way to increase the number of organs. The fact is that in the absence of these transplants, people are suffering and dying although in general I don't think this would happen in many situations in the United States. There certainly are situations where an individual has signed a donor card and yet the family objects, within the law, the organs can be retrieved and used for transplant. My only concern is that when that happens it does lead to the family being upset and a real public relations issue. Saying that, I know that has happened in the last 2 or 3 months because there is exactly as I described a newspaper article about how the family was upset when the organs were used, again with the donor's permission but with the family's objections.

DR. MARK NOLAN HILLS:
Why do you think that there are so many people who would not want to be organ donors?

DR. ARTHUR MATAS:
I think that is an extremely difficult question. The majority of people on surveys do want to be organ donors and the majority of people in families who are approached for organ donors do agree. In the United States, it is well over 50% and I believe close to 70% who agree but need to realize that the United States is whole group of different cultures some of which may have some religious reasons for wanting to be buried whole, others I think are afraid of physicians and afraid that if they say yes to organ donation, death will be hastened. Obviously, a misconception, but I think a real one that we have to deal with and I think there are variety of other similar issues, each of which adds to at least in a small way to the number of families who say no.

DR. MARK NOLAN HILLS:
What about donation across international boundaries? Any issues here?

**DR. ARTHUR MATAS:**

I think they are all sorted issues with donation across international boundaries, but I guess I need to know specifically what you are worrying about. I mean there are patients from other countries who are on waiting list in the United States because they don't have transplants available to them in their home country. It is a small percent but it certainly is part of many centers waiting list.

**DR. MARK NOLAN HILLS:**

How do they fit on the list here in the United States?

**DR. ARTHUR MATAS:**

They get the exact same priority ranking as anyone who has the same disease. By law in the United States, any transplant center is allowed to have about 5% of their waiting list the people from outside the United States and the argument for that is that if a tourist is someone from outside the United States dies in the appropriate manner for organ donation in the United States those foreigners who give consent, their organs are used for people on the wait list in the United States. So, it is a trade off. But, as I say it is less than 5% at any one center.

**DR. MARK NOLAN HILLS:**

Let's talk about stem cells? How close are we to using this as a way to help our problem?

**DR. ARTHUR MATAS:**

I think stem cells is an answer for a number of situations, but not solid organ transplantation. Certainly, they are coming along as an answer for bone marrow transplantation. The problem with organ transplantation is the organs are composed of different types of cells from different lineages and each of these types needs to interact in a very specific way. So, it will be a long time before we can grow organs from stem cells.

**DR. MARK NOLAN HILLS:**

I know many of us like to be curious about where this list is? Is this a statewide list for receiving organs or is a national list or how is it
exactly set up?

**DR. ARTHUR MATAS:**
The list that we have talked about with the 100,000 people waiting on it is the national list and that is set up in a way that there is a computer registry in Richmond, Virginia, until all listed patients and all donors are managed through the United Network for Organ Sharing, which has a government contract to do that. Within that overarching umbrella, there are number of networks that are locally based, locally can be state-wide or region-wide or in some large states that is more than one of these networks within the same state.

**DR. MARK NOLAN HILLS:**
Once you are in the list and if your medical condition becomes very compromised, does that push you up on the list and give you greater priority?

**DR. ARTHUR MATAS:**
It depends on what organ you are talking about. So, for liver or heart or lung transplantation, your degree of sickness in part determines your priority on the list. For kidney transplantation in which we have dialysis as a backup, your medical condition, unless it is truly an emergent condition like there is no vascular access left, does not change your priority on the list.

**DR. MARK NOLAN HILLS:**
What about living donors for renal transplantation?

**DR. ARTHUR MATAS:**
Living donors to my mind are the right answer for everybody who is on the list for renal transplantation in part because if you have a living donor you can get transplanted much quicker and in part the results are much better. So, my answer to the organ shortage for kidney transplantation is increasing living donation by a trial of incentives for donors.

**DR. MARK NOLAN HILLS:**
Are people generally in favor of living donation?
DR. ARTHUR MATAS:

Again, I think it depends on what part of the country one goes to, because the rates of living donation seem to vary in different areas of the country. The percent of living donors at any one transplant center across the country can vary from, say 20% to 60% and I think that over the years more and people have become in favor of living donation. Again, if the organ shortage has increased and we have recognized that deceased donation will never solve the problem.

I want to thank our guest, Dr. Arthur Matas. We have been discussing a global perspective on organ donation. I am Dr. Mark Nolan Hills and you have been listening to a special segment focussed on global medicine on ReachMD, The Channel For Medical Professionals. Be sure to visit our website at Reachmd.com featuring on-demand podcast of entire library and thank you for listening.

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