



## Resolving the largest problem in the field of pediatrics through “Medication-free medical care”

[ Dialogue between: ] Dr.Tatsuo Nishimura, Nishimura Pediatric Clinic(right) and Yoko Sugiyama, HORIBA(left)

People talking about how isolated parents can feel and how much anxiety they experience as they take care of their children is nothing new in the midst of the current trend towards nuclear families and the decline in the population of children.

Actually, this is also affecting the field of pediatrics. Yoko Sugiyama, who does marketing for HORIBA's Medical Electronic Systems Division, asked Tatsuo Nishimura, Director of “the Nishimura Pediatric Clinic,” about problems presently facing pediatrics.

“Diagnosis is more important than treatment.” “Explanations are more important than medication.”

**Sugiyama:** It has been 11 years since “the Nishimura Pediatric Clinic” began operations. Have you noticed any changes in the needs of patients and their families over these years?

**Nishimura:** Today, parents have more medical knowledge than in the past, presumably due to the spread of Internet use. Some parents ask many questions about treatment policies.

**Sugiyama:** In fact, I also search online when my child becomes ill. As my job is related to medicine, I watch TV programs about medication or diseases whenever possible.

**Nishimura:** Oh, do you? One thing you should remember is that TV programs tend to focus only on lethal or very serious conditions. Limited information sources can make parents worry more. We now strive to show them reasons “why these conditions are present” in an easy-to-understand manner.

**Sugiyama:** I tend to panic when my child suddenly develops a fever. However, if someone gives me detailed information about the condition, I feel much better. That is why you have been saying that “explanation is more important than medication,” isn't it?

**Nishimura:** Yes. For example, in conventional pediatric medicine, it is a typical medical judgment that patients with a fever should be given antibiotics. It is also true that many parents are relieved when

their children are given medicine. Although it is a fact that antibiotics are effective in treating bacterial infections, they are ineffective against viral infections, which are a common cause of fever. I strongly want to prevent unnecessary antibiotic administrations. Ms. Sugiyama, did you see a doctor every time you caught a cold as a child?

**Sugiyama:** I remember my grandmother, who was living with us, saying, “Get a lot of sleep, and you will be fine,” when I caught a cold (laugh). By contrast, my mother often worries about her grandchild more than me now. It may be because she takes her responsibility for her grandchild too seriously, thinking “My precious grandchild is now under my care. I have to take good care of this child.” As a full-time worker, I do not just have many opportunities to share information with fellow mothers either.

**Nishimura:** To tell you the truth, I sense that parents are becoming less and less confident about taking care of their children. There may be many reasons for this, including the trend towards nuclear families and fewer children, as well as increasing exposure to sensational medical information. There is nothing wrong with sending out a wide range of information;

however, the problem is that special cases are sometimes communicated as common cases. At the same time, doctors are also likely to give unnecessarily large amounts of medicine to these extremely anxious patients and parents. However, giving children medicine on a continued basis can result in their parents becoming “addicted” to their child receiving medication. Actually,

there are many people who do not like to leave clinics without being prescribed medicine. Many patients ask doctors to prescribe them antibiotics in particular. In my opinion, this is the largest problem in pediatric medicine at the moment.

**Sugiyama:** My mother often says, “Go to the hospital now and at least get some medicine,” or “Prescription medicine is the better than over-the-counter drugs.” I suppose that she wants to be on the cautious side to protect her precious grandchild. Frankly, I also want medicine if that leads to an early recovery.

**Nishimura:** Such parental behaviors are the result of them having been educated that medication is a necessity. In my opinion, pediatricians must now

make a shift “from treatment to diagnosis” and “from medication to explanation.” I believe that by reducing people's dependence on medicine we can help parents increase their “ability to raise children.”

### Data allows well-grounded diagnoses

**Sugiyama:** “It is an eye-opener and a surprise to hear you say” that “diagnosis is more important than treatment” and “explanations are more important than medication.”

**Nishimura:** We should take our time to explain that people will naturally recover from most fevers and colds caused by viruses. We should encourage patient's families by telling them that “They will recover naturally. Let's just do what we can,” rather than saying “I will give you some cold medicine.” Repetition of this allows them to learn by experience “what to do when their children develop a fever and the course of their recovery” which different conditions heal. I want them to become able to do what they can at home before coming to the hospital the next time their children develop the same condition.



“The Nishimura Pediatric Clinic” is situated in a quiet residential area in Kashiwara City, Osaka. Being a local center for medical care, it supports the health of children and reassures parents (above photo). On the interior walls are many posters raising awareness among parents and patients, including those saying “Common sense about colds” and “Unnecessary antibiotics will do you harm” (photo on the left).

**Sugiyama:** You are saying that families can do something at home to help their children before going to see a doctor to get some medicine for them while knowing that there are always medical professionals out there to help them, right?

**Nishimura:** Certainly. I make it a rule not to prescribe unnecessary medicines whenever possible. This applies not only to antibiotics, but to all medicines. However, “diagnosis” and “explanations” must always be able to be backed up.

**Sugiyama:** I sense that doctors like you are increasing

in number. At present, young practitioners and emergency medical facilities are making use of an increasing number of testing equipment, as they conduct more quick and simple medical tests.

**Nishimura:** That's right. While observations are still a principal basis for diagnoses, test data collected using such testing equipment is another important evidence for our judgments. Compact testing devices are very effective tools for practitioners like us.

**Sugiyama:** What made you decide to equip your clinic with testing tools so that you can conduct quick tests at your facility?

**Nishimura:** When I was working for a hospital, I would always give antibiotics to patients with a fever. I knew that fevers were mostly caused by viruses, but it never occurred to me to question what I was doing, since fellow pediatricians, including more experienced ones, also prescribed antibiotics just as I did. However, later I began to treat growing numbers of cases of infections with MRSA\*, PRSP\*\*2 and “other bacteria resistant to antibiotics.” Seeing with my own eyes the fact that these resistant bacteria were rampant in our and other facilities, I felt that this was a crisis. Resistant bacteria are the result of excessive administration of antibiotics. This is how I began to become more aware of the importance of quick tests and test-based data.



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## Medical equipment-based test data provides reasons for feeling safe.

**Sugiyama:** You are using a testing device that can complete blood cell count and measure a inflammation marker\*3 at the same time in your clinic.

**Nishimura:** Basically, I use it to provide parents and patients with evidence for feeling safe. However, there are also cases in which patients that seem to just have a cold turn out to be in a much more serious condition. For example, one day a one-year-old child was taken to our clinic with a fever. First, I assumed that this child had just developed exanthema subitum or had a viral cold. However, the results of a blood test showed that this child had as many as 35,000  $\mu$ l white blood cells (the normal number is less than 10,000  $\mu$ l). Obviously something was wrong. So, I performed a blood culture and confirmed that this child had bacteremia. Bacteremia is a bacterial infection that requires administration of antibiotics. If left unattended, it can cause meningitis, threatening the life of the patient.

**Sugiyama:** So performing tests on the spot enabled you to detect the problem immediately.

**Nishimura:** That's right. Bacteremia usually occurs in young children. They are often too young to describe how they feel in words. The case I just mentioned may be a special case, but it is a fact that tests and test data can help us make diagnose in lethal cases like this.

### Test data is a map for fever treatment

**Sugiyama:** I am a mother of three children. You never can tell when children may develop a fever. In addition, it is usually difficult for me to take time off from work. As a result, I often have to resort to medicine. In addition, having a doctor prescribe some medicine for children can relieve (or it satisfy) their grandmother and grandfather. However, I am now beginning to feel that this way of thinking is wrong.

**Nishimura:** I am glad to hear that you find what I have to say helpful. Let me add one more thing. In my opinion, what is really needed in child rearing is “preventative medicine.” Today, most serious diseases are, in fact, vaccine-preventable. While serious conditions require adequate treatments, ordinary colds do not need antibiotics. The important thing is to eliminate the fears of families who rush to the hospital to get antibiotics every time their children develop a fever.

**Sugiyama:** To tell you the truth, our children's doctor does not use blood testing equipment. I hope more and more pediatricians begin to focus on what is in the best interests of young children and medical care as a whole as you do.

**Nishimura:** Perhaps it is necessary to further advertise the idea that by performing blood tests you can

judge whether individual conditions are serious or can be healed naturally. I believe that “fever risk management” is very important. In other words, it is better to make well-grounded diagnoses based on appropriate test results than to simply give antibiotics for colds. Basically, it is doctors themselves who have made it the norm for doctors to casually prescribe antibiotics. I want to bring about a change to this situation.

**Sugiyama:** I do marketing for HORIBA's Medical Electronic Systems Division as a product planner. If you have any requests for HORBA, please feel free to let us know.

**Nishimura:** Today's medical testing technologies are much more advanced than they used to be. Actually, I desperately wanted such advanced testing devices. Medical care without test data can be compared to heading for your destination without a map. I find HORIBA's testing equipment very helpful. However, the compact device which I am using at the moment cannot differentiate white blood cells into more than three parts\*4. As I also want to count neutrophils\*5, I would really appreciate it if you released a device that can differentiate white blood cells into five parts\*4.

**Sugiyama:** Thank you very much. It was an eye-opening experience for me to talk with you today, as I have long been dependant on medicine. I am also happy to hear you say that our testing equipment is of help in promoting medical practices that are not dependant on medicine, as that has given me renewed respect for the significance of medical tests. Recognizing how vital testing equipment is to medicine not only increases our motivation for this work, but allows us to work on specific issues. Above all, hearing that our products are required in the front lines of medical field is a big encouragement to us. We will continue to work even harder to support the “medicine-free medicine” which you advocate.

### Report CSR initiative by a group company handling medical equipment

HORIBA ABX S.A.S.\*, based in Montpellier in southern France, is a manufacturer specializing in medical equipment and actively participates in events related to medical care or health. For example, the company has taken part in “Les Virades de l' espoir,” a fundraising event for research on cystic fibrosis, a genetic

### Supporting improvement of the quality of medical care and healthy lifestyles through participating in events

disease since 2003. It has also been continuously participating in “Les 20 km de Montpellier,” a charity half marathon for donating sport wheelchairs to disabled people who desire to practice sports.

\* A manufacturer specializing in clinical testing equipment and reagents, which became a member of the HORIBA Group in 1996



**Tatsuo Nishimura**  
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Born in Osaka Prefecture. Opened the Nishimura  
Pediatric Clinic in 1998 after working for the Nara  
Prefectural Hospital. Advocates the importance  
of “medicine-free pediatric medicine,” by  
publishing these, including “Changes in  
Standards for and Numbers of Antibiotic  
Administrations” and through other means.

## Test data is like a map for medical care.

\*1: Methicillin (antibiotic)-resistant *Staphylococcus aureus*.

\*2: Penicillin (antibiotic)-resistant *Streptococcus pneumonia*

\*3: Blood test items used for diagnosis of inflammation associated with infections, injuries, etc.

\*4: White blood cells can be differentiated into three parts, namely lymphocytes, monocytes and granulocytes (collective name for neutrophils, eosinophils and basophils), the ratios of which are calculated. White blood cells can also be differentiated into five parts, namely lymphocytes, monocytes, neutrophils, eosinophils and basophils, the ratios of which are calculated.

\*5: A type of granulocyte, which is a kind of white blood cell. They are characterized by their active migration (amoeboid locomotion) and fight invading bacteria or true fungi.



HORIBA ABX S.A.S. staff members participating in “Les Virades de l' espoir”