Spotlight Forum

No one gets awarranty for a healthy child

When he first joined the hospital in the 1980s, paediatrician Jan Lebl had to cope with several patient deaths a week. Today such deaths are rare and many children are able to live high quality lives despite serious health issues.

Paediatrics is the most beautiful field of clinical medicine, according to Jan Lebl. "When I meet with students who come to us in their third year to take a course in clinical propaedutics for the first time, I tell them that children are the nicest patients. What's more, in paediatrics today things almost always turns out well, in contrast with adult medicine, where mortality is by definition 100%", he says, explaining his decision to dedicate himself to children.

When he joined the hospital in 1980 after graduating, the situation was very different. During his first 10 years there, he always got the same question from his parents when he got home: "Did any children die on you again?" The fact that a young patient died during nearly every shift from leukaemia, cystic fibrosis or even "only" asthma, was a sad reality. "Sometimes I think that some parents don't appreciate it and feel like they've got a warranty card that they can redeem for a healthy child. They feel that if their child is not healthy, they bring them into the equivalent of a factory repair shop and the health care system is obliged to repair them. We're glad when it turns out well, but it's not always possible", Lebl says.

We don't treat obesity

Professor Lebl has especially connected his professional life with the field of paediatric endocrinology, which deals with the diagnostics and treatment of the endocrine glands. In the Czech Republic, diabetology is somewhat detached from the field because the largest group of children has diabetes, a disease that requires extremely focused attention and care.

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In addition, paediatric oncology deals with things like disorders of the thyroid, adrenal glands, the parathyroid glands, which control the management of calcium, the gonads and the pancreas, which produces insulin and other hormones. He is also focused on the regulation of growth in children, and at Motol he currently cares for around 700 children with this problem. "Growth hormone is our helper. It doesn't help everyone, but it does help many children," Professor

Lebl says. Through systematic research, experts are recognising mechanisms that govern growth, so that growth hormone is becoming just another stone in the mosaic. It can also induce or inhibit adolescence if it is premature.

Patients battling with excessive weight also come into the endocrinological clinic. "But we avoid obesity a bit. I agree with the opinion of American doctors, who have the greatest experience with the problem, and who say that no health care system is so rich that it can provide individualised care for the obese. The issue of today's obesity epidemic is a question of a certain stage in the development of a society, one that is in the context of individual characteristics. If there is enough food for everyone at all times of the day, then it depends on how every individual is set up to regulate their eating behaviour and metabolism", Lebl says, admitting that he is not an advocate of individualised obesity treatment. "There's nothing wrong with it, but methodically there's essentially not a lot that can be done about it."

Treatment available to all

As a rule, the children who end up at the Motol University Hospital are the ones with the cases that are most difficult to diagnose or the most difficult to treat. In the Czech Republic, therefore, Motol is usually the last facility patients are sent to, as doctors elsewhere don't know what to do with them. The reason is not only the renowned expertise of the faculty, but also the large, well-coordinated teams that Motol has managed to assemble. One of these is the endocrinology team.

It had to fight hard for its prestigious position. "In its first professional phase I tried as much as possible for us to quickly reach same level as the developed world. For children with diabetes, the greatest challenge after 1989 was to ensure that they got access to the same blood glucose meters as in developed European countries, that they regularly checked their blood sugar level on test strips, that they could be treated with repeated injections of insulin, or even that they were able to use insulin pumps. In Czechoslovakia in the 1980s, parents had to boil their children's urine at home and add Benedict's reagent to find out if it had sugar in it, and had to drip urine onto the white powder of Lestradet's reagent to find out if acetone was present. It was a very inaccurate and late examination of their condition, and it was insufficient for determining the right doses of insulin," Lebl recalls. According to Lebl, the first phase was busy vet tremendously fulfilling. Moments such as when 2,000 Czech children were able to receive new glucometers - thanks to Olga Havlová's Committee of Good Will foundation, which he will never forget. Related to this was the need to create a new theory of nutrition: together with accurate insulin dosage, it was necessary to find a balance between food intake and insulin.

Similarly, growth hormone came to the former Czechoslovakia with a delay. "After the General Health Insurance Company (VZP) was founded, we managed to get a budget to purchase growth hormone, which is quite expensive, and to set up a system of treatment that has since then moved to the level of the developed world," he says, describing another crucial success.

In the next phase of the field's development, it was necessary to look for new ways of detecting the roots of diseases. Humans have around 21,000 genes, of which several hundred are related to paediatric endocrinology. "Since the late 1990s, we began to recognise individual genetic disorders in our patients. Along

with Štěpánka Pruhová, my first and most successful postgraduate student, we focussed on various types of genetically conditioned diabetes, as well as some disorders related to paediatric endocrinology. Today, we can build on this phase in many ways with our research," Professor Lebl says.

Nowadays Jan Lebl is aware that Czech endocrinology has crossed European borders and can also make a difference further abroad. "We are fortunate to be part of the rich and developed part of the world, and that our children with diabetes have a chance at a high-quality life. All of us - patients included – should realise this is not a given, that elsewhere in the world doctors fight every day to help children with diabetes survive. Our responsibility now is to help less fortunate parts of the world so that quality treatments can also be made available there."



Professor Jan Lebl graduated from CU's Faculty of Paediatrics in Prague in 1980. For the next 17 years he worked at Motol University Hospital, and in 1997 he took over as the had of the Clinic of Children and Adolescents at CU's Third Faculty of Medicine and at the University Hospital Vinohrady. In 2006, he returned to Motol as the head of the Paediatric Clinic of the Second Medical Faculty of Charles University and Motol University Hospital.