

# The Webscout

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## Issues in paediatrics

Infants, children, and adolescents have special needs regarding their health and care. They are not 'little adults'. The spectrum of illnesses differs from that known in adults. Just think of teething problems like chicken pox, measles, or scarlet fever. Sure, these infections can also trouble adults, but usually have a peak in childhood. Some very rare illnesses only occur in children or start in early infancy. This especially applies to genetic diseases, so have you ever heard of Gaucher disease or Legg-Calve-Perthes disease? ADHD, the attention deficit hyperactivity disorder, is diagnosed with increasing frequency, which is heavily discussed and questioned. Other illnesses are rather unknown in children like osteoporosis, dementia, or heart attack. Further diseases that once presented in adults only are now on the rise in children and adolescents. Our Western life style boosts obesity and hence type 2 diabetes and arthrosis, for example, are now already affecting the young generations.

Apart from the need for special medications for children's diseases, children need adaption of dosing and suitable application forms. Up to now, most medications have not been licensed for use in children. This is why the Paediatric Investigational Plan emerged. It should help to provide safe drugs with safe dosing for children. Currently, however, paediatricians are often confronted with off-label use of drugs. Doctors feel insecure and medication errors are frequent and suitable application forms are often missing.

Apart from all these issues, the most unsettling thing we are confronted with in paediatrics is chronic and severe illnesses leading to death at a young age. Palliative and psychological end-of-life care has to be tailored to the little patients and the way they see the world.

The following links give you a first impression of the complexity of health care in children and adolescents:  
[http://rarediseases.about.com/od/rarediseasesadult/Pediatric\\_Diseases.htm](http://rarediseases.about.com/od/rarediseasesadult/Pediatric_Diseases.htm)

This webpage gives some explanation on quite a few rare diseases you might have never heard about.

The contents are designed for non-professionals, yet I think, this is a good point to start from in order to broaden your knowledge of rare diseases.

[http://pediatrics.about.com/od/diseasesandconditions/Common\\_Pediatric\\_Diseases\\_and\\_Conditions.htm](http://pediatrics.about.com/od/diseasesandconditions/Common_Pediatric_Diseases_and_Conditions.htm)

This is the pendant to the webpage described above, covering common diseases. The term 'common' is interpreted in a broad way, so you will find illnesses described which you probably would not have expected to be common. It is not only about measles and chicken pox. You will also find information on, for example, childhood cancer or autoimmune diseases.

<http://www.pediatriceducation.org/casesbydisease/>

Here you can find case reports of children of different ages. For some of the cases you will find information on possible differential diagnosis depending on age. The case reports are easy to read and short enough just to have a quick run through it. And they illustrate how complex diagnosing diseases in children really is.

<http://www.help4adhd.org/en/about/myths>

A great controversy exists about ADHD, the attention deficit hyperactivity disorder. A matter of debate is whether ADHD is over-diagnosed and children over-medicated. However, ADHD can be a serious neurological illness enormously affecting the daily life of a family. Read about the myths and misunderstandings around ADHD on this page. Further contents on this website are worth reading as well. By the way, ADHD not only affects children but also presents in adults.

<http://www.editorsweb.org/children/how-drugs-work-in-children.htm>

This is a short summary of the specialities of drug use in children with respect to kinetics, toxicity, and application. As said before, pharmacokinetics in children are very different from those in adults and depend on age. It is crucial to know about this when prescribing off-label for use in children.

<http://www.pediatricsdigest.mobi/content/113/2/381.full.pdf+html>

In end-of-life care in children and adolescents you have to consider certain aspects that usually do not play a role in adult palliative care. From the moral point of view, it seems clear that patient preferences regarding treatment or especially end of treatment should be taken seriously. But legally, the patients lack the authority to decide upon this. Apart from these legal aspects, communication plays a very important role. Medical information needs to be

communicated in a way a child or adolescent can understand and cope with from a psychological point of view. This heavily depends on age and the developmental stage. The linked article gives you a summary of issues in palliative care in young patients.

If you have any further questions or you have any other comments or suggestions, please email me at: [karin.eichele@novartis.com](mailto:karin.eichele@novartis.com).

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