

GPED Newsletter

Global Pediatric Endocrinology and Diabetes

*Keeping you up to date on Global Health
in Pediatric Endocrinology and Diabetes around the world*



Dr J von Oettingen

Welcome to our 10th Newsletter!

The UN High Level Meeting on non-communicable diseases is coming up in September, and experts, professionals, and advocates across the globe are gearing up—including in the pediatric and pediatric endocrine world! In addition to GPED's ongoing efforts to lobby for **essential medicines** (for NCDs and endocrine disorders!) we are adding **essential diagnostics** our their advocacy efforts. Our Annual General Meeting and Symposium at the European Society for Pediatric Endocrinology meeting at the end of September in Athens, Greece, will focus on this topic, and this newsletter includes a commentary on the recently published **World Health Organization Essential Diagnostics List**, its positive message in light of calls for Universal Health Coverage, its shortcomings on NCDs, including endocrine diagnostics, but most of all the importance of advocating for its implementation.

Enjoy the read!

...and when're you're done reading: check out our new GPED website at www.globalpedendo.org. Going live on September 15!

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GPED Symposium and Annual General Meeting @ESPE

Join us on September 27th from 7AM to 10AM at the European Society for Pediatric Endocrinology Annual Meeting in Athens, Greece:

7h00 - 8h00: GPED Annual General Meeting

8h00 - 10h00: GPED Symposium

“The art of pediatric endocrine testing: Assessing the needs of low-resource settings”

8h00-8h05: Introduction

Dr Jean-Pierre Chanoine, Pediatric Endocrinologist

Secretary General, GPED. University of British Columbia, Vancouver, Canada

805-825: The 2018 World Health Organization Model List of Essential In Vitro Diagnostics

Dr Julia von Oettingen, Pediatric Endocrinologist

McGill University, Montreal, Canada

825-905: Diagnostic Endocrine Tests in Egypt and Indonesia: Opportunities and Obstacles

Dr Rasha T Hamza, Pediatric Endocrinologist

Ain Shams University, Cairo, Egypt

Dr Aman Pulungan, Pediatric Endocrinologist

University of Indonesia, Jakarta, Indonesia

905-925: The WHO Model Lists of Essential Medicines and of In Vitro Diagnostics: Two Sides of the Same Coin?

Dr Jean-Pierre Chanoine, Pediatric Endocrinologist

University of British Columbia, Vancouver, Canada

925-1000: Round Table

Drs Jean-Pierre Chanoine, Rasha Tarif, Julia von Oettingen, Aman Pulungan and Joel Dipesalema

ESPE Yearbook 2018: Preview of the Chapter on Global Pediatric Endocrinology and Diabetes

We are proud to present the new **global pediatric endocrinology and diabetes chapter in the ESPE Yearbook 2018** - and are excited to give you a **sneak peek** before the chapter is presented & published at the ESPE meeting!

We selected a total of **24 papers** reflecting current research areas in global pediatric endocrinology and diabetes, and how they align with global health initiatives. In light of the WHO's new essential diagnostics list, we are highlighting a series of papers on essential diagnostics and essential medicines. Growth faltering *and* obesity are addressed in a number of papers as opposite ends of the same spectrum, with obesity, type 2 diabetes and other associated conditions such as cancers largely contributing to an increasing burden of non-communicable diseases in low-income countries. An increasing body of literature is addressing unique phenotype and care delivery aspects of type 1 and type 2 diabetes in low-resource settings, highlighted in several selected yearbook papers. Lastly, an increasing interest by resource-limited countries to develop newborn screening programs for congenital hypothyroidism and considerations for emerging programs in such countries are addressed in a handful of papers from Thailand, India, Pakistan, China and Iran.

We are looking forward to seeing the chapter published and would love to hear your feedback!

This year, the Yearbook will only have an online version. After the ESPE meeting, the Chapter will be available on the GPED website as a pdf.

More Canadian Pediatric Endocrine Group Smart APPS!

Last year we featured a variety of **free clinical tools available to help researchers, clinicians and trainees with automating some of the calculations and graphics needed for our subspecialty**, including:

- [igrowup](#): a *Shiny* app for ages 0–5 years according to the [WHO growth standards](#)
- [who2007](#): a *Shiny* app for ages 5–19 years according to the [WHO growth reference](#)
- [quickZ_WHO](#): a *Shiny* app which combines the data from [igrowup](#) and [who2007](#) for calculating Z-scores for height, weight and BMI for children from 0–19 years of age using a single application
- [quickZ_CDC](#): a *Shiny* app for calculating Z-scores for height, weight and BMI for children from 0–20 years of age according to the [US CDC growth reference](#)
- [preterm](#): a *Shiny* app for preterm infants 22–49 weeks, based on data from [Fenton, 2013](#)
- [WCz](#): a *Shiny* app for ages 5–19 years based on NHANES III [waist circumference reference data](#)

Powered by



id	sex	agemons	height	sbp	dbp
1	1	168	116.50	NA	83.00
2	2	192	112.30	NA	74.00
3	2	204	113.90	122.00	NA

All these tools are still available on the CPEG website (<https://cpeg-gcep.net/content/shiny-apps>). In addition, the website now has the following **blood pressure apps** as well as **growth curve apps for children with trisomy 21 and Prader-Willi syndrome**. We've listed these apps below, useful for both clinical practice and research purposes:

- *Shiny* apps for ages 1–18 years, based on [blood pressure reference data](#) from the American Academy of Pediatrics, 2017:
 - [BPz](#): for batch calculations & [BPz_DDE](#): for direct data entry (mobile version)
 - [DownZ](#): a *Shiny* app for children with Down syndrome aged 0–20 years, based on data from [Zemel et al. 2015](#)
 - [PWSZ](#): a *Shiny* app for children with Prader-Willi syndrome (non-GH-treated) aged 0–18 years, based on data from Butler et al, [2011](#) and [2015](#)

The vast majority of the work in creating and refining these resources was done by **Dr. Atul Sharma** from the University of Manitoba, to whom the members of CPEG would like to express their extreme gratitude.

If you have any questions about the apps, or suggestions for improvements or new apps, please don't hesitate to contact GPED. We know that there is interest in an app for iPhones, and we are looking into this.

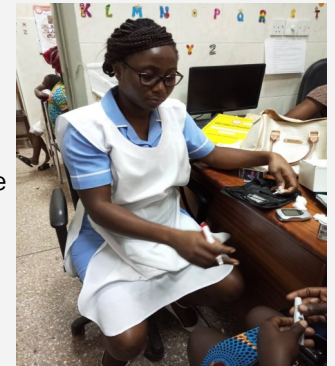
WHO Essential Diagnostics List—what's in it for Endo?

As a pediatric resident, I spent a month in Monrovia, Liberia - to immerse myself in global health, and to assist with establishing pediatric diabetes clinics at 3 sites across the country. From the weeks I spent in the pediatric emergency room at JFK Hospital in the capital, one child in particular will forever be memorable. He may be driving my passion to advocate for Essential Diagnostics.

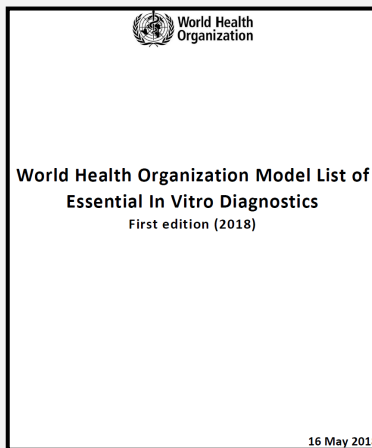
This 3 year-old boy was brought to the emergency room by his family with fever and a decreased level of consciousness. He came in overnight and was critically ill. Without much diagnostic equipment available (at the time, reliably available testing at JFK hospital included a malaria “spot test”, and a few other rapid tests for infectious diseases), he was empirically diagnosed with and treated for malaria. By the morning, he was doing worse. Thinking the child may be experiencing hypoglycemia from the malaria treatment, the local nurse called me, the visiting resident and the only person in the hospital with a glucometer, to the bedside. I assessed the child, and checked his blood sugar. The meter showed “HI”. I was stunned. I obtained a urine dip stick using a strip I had brought as this, too, was not available at the hospital: 4+ glucosuria and large ketones.

Not our clinical assessment, but two simple point-of-care diagnostic tests had allowed us to make a diagnosis. This little boy was lucky to get a correct diagnosis on time. In many resource-limited countries, blood glucose monitors are rarely available. On a daily basis, confirmatory diagnostic tests for sick patients are unavailable. As a result, many patients are misdiagnosed, receive unnecessary or harmful treatments, or die.

Thankfully, blood glucose testing just made it onto the first edition of the [WHO Essential Diagnostics List](#) (EDL). Published on May 16th 2018, the EDL is a first step towards addressing the “diagnostics desert” that health care providers and patients alike still face in many resource-limited settings (http://www.who.int/medical_devices/diagnostics/WHO_EDL_2018.pdf). WHO and its expert committee carefully put together a priority list of essential in vitro diagnostics to guide governments and health care stakeholders on what diagnostic tests to make available. The aim was to cover the highest priority health care needs.



Nurse Deborah Amakye-Ansah is teaching BG monitoring in Kumasi, Ghana



There is promise that the EDL may have a significant impact on the availability of in vitro diagnostics globally, with meaningful downstream effects on quality of health care delivery and on population health—similar to impacts seen after the 40-year-old WHO EML ([Essential Medicines List](#)) was first published. The list still has an obvious focus on infectious diseases, albeit with some consideration of essential non-communicable diseases (NCD) diagnostics. **As might be expected, however, endocrine diagnostics have not made it onto the list with the exception of blood glucose, hemoglobin A1c, and a lipid panel.**

Nevertheless, the list establishes an important starting point. As future iterations of the EDL are developed, additional essential diagnostics vital for other NCDs are likely to be added, including for endocrine conditions. Further, an eventual expansion of the family of “essentials” to include essential medical equipment and devices such as [growth charts](#) and blood pressure cuffs at a primary care level; electrocardiogram, X-ray and ultrasound at a secondary care level; and CT and MRI scanners at a tertiary care level, will be fundamental.

Possibly more important than the list content is its implementation. The five “As” of access will need to be advocated and lobbied for: With the political guidance, willpower and necessary pressure, public and private entities will need to work towards **affordability** of essential diagnostics. National, regional and local health systems will need strengthening to work out supply chains as well as laboratory networks to ensure **availability** and **accessibility** to a wide public. Innovative testing strategies that **accommodate** the needs of remote and vulnerable populations, such as point-of-care tests that can be used by community health workers, will need to be developed to so that test approaches are **acceptable** and reach patients where they are.

The WHO EDL is a promising start to broadened access to essential diagnostics globally, and to deliver on WHO’s goal of [Universal Health Coverage](#). A call to action must now follow to ensure that the list becomes an actionable tool that addresses an ever broadening spectrum of diseases, allowing *any* individual to have a chance at a proper diagnosis, treatment and survival - including for conditions like Type 1 Diabetes.

Julia von Oettingen, MD

This article appeared as a modified blog on “The Conversation” (<https://theconversation.com/the-desperate-global-need-for-medical-diagnostics-97531>)

Insights from the Outside on Global Health Equity



Marcela Campuzano

“As citizens of the world, we have a responsibility towards Global Health equity”

AKARI Project joins the GPED cause

Recently I had the chance to attend a lecture at McGill University. Dr. Paul Farmer, global health physician, anthropologist, and founder of “Partners in Health” (www.pih.org) was invited to discuss “*The Future of Global Health*”. During the Q&A part, I asked Dr. Farmer if he thought Global Health was one of those subjects in the world that needed more support from ordinary citizens and professionals and not necessarily doctors to make it more current in our reality. His answer was “*I wouldn't want to miss the chance to underline the importance of the engaged citizens raised participation [in global health]*”. I was thrilled — someone like Dr. Farmer was validating one of the reasons why AKARI Project was founded.

We want to open and facilitate new ways of participation between Global Health initiatives and humans with high standards of social responsibility.

GPED recently engaged in a collaboration with AKARI. Our initial project consists of facilitating the participatory creation of the new GPED website. This project will be the result of the work and input from different socially responsible citizens around the world—from adults, children, patients, doctors and nurses to designers, journalist, artists and photographers. Participants share the desire to take action using some of their spare time to contribute to a meaningful global health project.

AKARI is excited about the opportunity to engage in GPED's mission to improve the care of children with endocrine disorders in resource-constrained countries. Stay tuned to <http://>

www.globalpedendo.org at any time soon the new webpage will be live!



Marcela (Akariproject.org)



Keeping you up to date on Global Health in Pediatric Endocrinology and Diabetes around the world

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