

About 3% of human fetuses are born small for gestational age (SGA). More than 90% of those SGA infants catch-up growth and normalise their body size by the age of 2 yr.

Longitudinal studies have disclosed that SGA-catch-up children tend to become hyperinsulinemic, viscerally adipose and to show an abnormal adipokine profile by 4–6 years of age, even if not obese. Between 6 and 8 years, their circulating levels of sex hormone binding globulin (SHBG) start to be low, and those of dehydroepiandrosterone-sulphate (DHEAS) start to be high; in girls, precocious pubarche (pubic hair < 8 yr) may emerge as clinical marker. A mismatch between early adipogenesis and later lipogenesis, accounting for lipotoxicity, dys-adipokinemia and insulin resistance, seems to encompass this sequence; postnatal overweight amplify these risks. Beyond the age of 8 years, such SGA children tend to experience an early onset of puberty with rapid progression, that may lead to a lower adult stature; low birthweight girls with precocious pubarche are also at increased risk for developing hyperinsulinemic androgen excess in adolescence. In these girls, insulin sensitisation with metformin started in prepuberty and maintained throughout puberty appears to decrease visceral and hepatic adiposity, and to have normalising effects on serum insulin, lipids, leptin and adipokines, on the tempo of puberty, on final stature, and on the prevalence of androgen excess in adolescence.

## Paediatric Emergency Medicine I

### IS-063 SELF-REFERRALS AND TRIAGE, A THREAT TO THE PRACTICE OF PAEDIATRIC EMERGENCY CARE

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More than 25 million children visit annually the emergency department (ED) in Europe. The number of ED attendance, short stay-hospital admittances and children with minor problems is increasing. Are the current models for emergency care failing to meet the community needs? The challenge remains to prioritise and identify the potential severely ill child from the majority of children with self-limiting diseases. Delayed recognition and treatment of potential life threatening diseases may have disastrous implications.

Triage aims to manage patient flow safely at the emergency department and to ensure that patients, who need direct medical attention, are correctly identified and treated. The Manchester triage is an algorithm based on 52 flowcharts for specific presenting problems and discriminators indicate one of the five urgency categories. The system was first validated and modified for children at the emergency department in the Sophia Children's Hospital. The modified MTS improved correct triage in different European emergency departments.

The next step is the clinical evaluation; the febrile child is the most common presentation. The predictive value of alarming signs of the NICE traffic light system and vital signs only had moderate predictive value for serious illnesses. The combination of alarming signs and CRP had good predictive value and this "feverkidstool" ([www.erasmusmc.nl/feverkidstool](http://www.erasmusmc.nl/feverkidstool)) can be easily applied in practice.

Signs and symptoms could change in time and therefore safety netting is needed if the patient does not have a final diagnosis or a risk for complications. Risk factors for revisits and safety netting strategies are discussed.

## Paediatrician Online

### IS-064 DO APPS MAKE PAEDIATRICIAN'S LIFE EASIER AND HOW?

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In January 2007, Apple launched the first smartphone. Subsequently, smartphones that run the Android operating system were introduced in October 2008. Moreover in 2008 users of smartphones have the opportunity to run downloadable applications (apps) on their devices. Apps are software programs that have been developed to run on a computer or mobile device to accomplish a specific purpose.

Mobile health, or 'mHealth', is the use of portable devices, such as smartphones and tablets, for medical purposes, including diagnosis, treatment, or support of general health and well-being. Close to 100 000 apps are now available to assist health care professionals. It is estimated that by 2015 smartphone users worldwide will be more than 500 million and by 2018 there could be 1.7 billion mHealth apps worldwide.

The Manhattan Research/Google Physician Channel Adoption Study in June 2012 showed that 87% of physicians use a smartphone or a tablet device in the workplace. Physicians spend the majority (64%) of their online time looking for information to make or support clinical decisions, double the time spent reviewing print resources. Among physicians aged 55 and over, 80% own a smartphone.

Apps provide many benefits for paediatricians, allowing them to make more rapid decisions with a lower error rate, increasing the quality of data management, and improving practice efficiency and knowledge.

The aim of this article is to present the most popular apps which can be used to facilitate patient management. Some of these apps are Medscape, Epocrates, Bilicalc, Palmpedi, Derm101, Uptodate and Kidsdoc.

## Primary Paediatrics

### IS-065 HEMANGIOMAS: ORAL PROPRANOLOL AND BEYOND

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Hemangiomas are benign vascular tumours that slowly involute over many years. Therefore most hemangiomas do not require treatment. However approximately 38% of hemangiomas can be complicated depending on their subtype, location, and size. Straightforward indications for treatment include ulceration, interference with vital functions, or large size. Risk of disfigurement can be a more controversial indication. Since 2008, propranolol has dramatically changed the treatment of hemangiomas and is considered first-line treatment in complicated infantile hemangiomas (IH). In these years of clinical use, together with the results of a multicenter randomised clinical trial we have gained insight on efficacy and safety. Propranolol is highly effective and is usually given in a dose range of 2–3 mg/kg in BID for 6 to 9 months. Rebound after stopping treatment is possible in 15–19% of patients. Type of monitoring before initiating therapy has been modified over these past years and after the results of the clinical trial it is recommended a good physical