

CONSENSUS STATEMENT: Management of the Child Born Small for Gestational Age through to Adulthood: A Consensus Statement of the International Societies of Pediatric Endocrinology and the Growth Hormone Research Society

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Objective: Low birth weight remains a major cause of morbidity and mortality in early infancy and childhood. It is associated with an increased risk of health problems later in life, particularly coronary heart disease and stroke. A meeting was convened to identify the key health issues facing a child born small for gestational age (SGA) and to propose management strategies.

Participants: There were 42 participants chosen for their expertise in obstetrics, peri- and neonatal medicine, pediatrics, pediatric and adult endocrinology, epidemiology, and pharmacology.

Evidence: Written materials were exchanged, reviewed, revised, and then made available to all. This formed the basis for discussions at the meeting. Where published data were not available or adequate, discussion was based on expert clinical opinions.

Consensus Process: Each set of questions was considered by all and then discussed in plenary sessions with consensus and unresolved issues identified. The consensus statement was prepared in plenary

sessions and then edited by the group chairs and shared with all participants.

Conclusions: The diagnosis of SGA should be based on accurate anthropometry at birth including weight, length, and head circumference. We recommend early surveillance in a growth clinic for those without catch-up. Early neurodevelopment evaluation and interventions are warranted in at-risk children. Endocrine and metabolic disturbances in the SGA child are recognized but infrequent. For the 10% who lack catch-up, GH treatment can increase linear growth. Early intervention with GH for those with severe growth retardation (height SD score, < -2.5 ; age, 2–4 yr) should be considered at a dose of 35–70 $\mu\text{g}/\text{kg}\cdot\text{d}$. Long-term surveillance of treated patients is essential. The associations at a population level between low birth weight, including SGA, and coronary heart disease and stroke in later life are recognized, but there is inadequate evidence to recommend routine health surveillance of all adults born SGA outside of normal clinical practice. (*J Clin Endocrinol Metab* 92: 804–810, 2007)

LOW BIRTH WEIGHT remains a major cause of morbidity and mortality in early infancy and childhood throughout the world (1). In addition, being born small has been associated with increased mortality from a wide range of disorders, in particular coronary heart disease (CHD) and stroke (2). For children born small for gestational age (SGA), it is important to integrate such data into their health-care management. Therefore, a meeting was convened in Manchester, United Kingdom, in February 2006, with representation from pediatric endocrine societies and the Growth Hormone Research Society, to examine current data relevant to the early, mid-, and long-term outcome of children born SGA. This statement presents a summary of key

health issues and proposed management of these children while recognizing topics that require further investigation.

Definition

The definition of SGA is not straightforward. It requires the following: 1) accurate knowledge of gestational age (ideally based on first trimester ultrasound exam), 2) accurate measurements at birth of weight, length, and head circumference, and 3) a cutoff against reference data from a relevant population. This cutoff has been variably set at the 10th centile, 3rd centile, or at less than -2 SD from the mean (~ 2 nd centile) (3). We recommend that SGA should be defined as a weight and/or length less than -2 SD because this will identify the majority of those in whom ongoing growth assessment is required.

Babies can then be subclassified into SGA for weight, SGA for length, or SGA for both weight and length (3). Additionally, those SGA babies who have small head circumference should be recognized. This subclassification may help in understanding the mechanisms and implications of being born SGA.

First Published Online January 2, 2007

Abbreviations: AGA, Appropriate for gestational age; BMI, body mass index; BP, blood pressure; CHD, coronary heart disease; HPA, hypothalamic-pituitary-adrenal; IUGR, intrauterine growth retardation; SDS, SD score; SGA, small for gestational age.

JCEM is published monthly by The Endocrine Society (<http://www.endo-society.org>), the foremost professional society serving the endocrine community.