

Hypertension in childhood

(January 2017)

Rationale

Hypertension, although uncommon in children, is usually due to an identifiable secondary cause. Essential hypertension is more common in adolescence.

Causal Conditions

(list not exhaustive)

- Neonates and young infants
 - a. Renal artery thrombosis after umbilical artery (UA) catheter
 - b. Coarctation of the aorta
 - c. Congenital renal disease
 - d. Renal artery stenosis
- Children aged 1-10 year
 - a. Renal disease
 - b. Coarctation of the aorta
- Over 10 years of age
 - a. Essential hypertension
 - b. Renal disease
 - c. As with 1-10 years (less common)

Key Objectives

Given a child with hypertension, the candidate will diagnose the cause, severity and associated complications, and will initiate an appropriate management plan. Particular attention should be

paid to distinguishing primary from secondary hypertension.

Enabling Objectives

Given a child with hypertension, the candidate will

- list and interpret critical clinical findings, including
 - a. accurate measurement of hypertension, and classification using blood pressure tables for children;
 - b. signs of secondary hypertension (e.g., coarctation of the aorta, renal disease)
 - c. obtain height, weight, body mass index, and relevant family history;
 - d. diagnose renal parenchymal disease;
- list and interpret critical investigations, including
 - a. primary diagnostic screen for renal disease;
 - b. diagnostic imaging to rule out renovascular disease and coarctation, if indicated;
 - c. endocrinological studies (e.g., thyroid function), if indicated;
- construct an effective initial management plan, including
 - a. lifestyle approaches for an obese patient (weight loss, exercise, salt restrictions, dietary counseling);
 - b. selection of appropriate anti-hypertensive medication;
 - c. determination as to whether the patient needs specialized care.