Referral Algorithm: Short Stature Criteria for Patients 2 Years and Older

Less than 3 percentile for height?
  OR
Decrease in growth velocity less than
4 cm growth for greater than 1 year?
  OR
Greater than or equal to 3 standard
deviations below expected height
based on mid-parental height?*

NO

No Endocrinology referral indicated;
if significant concern for organic
etiology, consider ordering short
stature diagnostics**

YES

1. Obtain short stature
diagnostics**
2. Refer to Endocrinology
3. Send results to Endocrinology

NO

Boy aged greater than 14 years OR
Girls aged greater than 12 years

YES

Bone age required
(completed within the past 6 months)

Boy bone age result is 16
years or more

NO

Girl bone age result is 14
years or more

YES

Please inform the family that there is nothing we will be
able to do to affect the child’s final adult height. If the
family is interested in meeting to discuss why the child
is of short stature, our endocrinologists will do that as a
next available appointment. It is, though, very
important that the family understand in advance that
medical treatment impacting height is not possible
once the bone age is advanced and will not be offered.

* Find the mid-parental height
  1. Mid-parental height calculator:
     http://medcalc3000.com/HeightPotential.htm
  2. Plot the mid-parental height at the 18 years of age mark
  3. See what percentile that is
  4. Is the child growing at that current percentile?
  5. If the child is 3 or more standard deviations (or channels) below the expected height, an endocrinology appointment is appropriate. I.e. If the mid-parental height at 18 years of age falls on the 75% and child is currently growing at the 10%, an endocrinology assessment is appropriate.

** Short stature diagnostics
  • Bone age (if not already done)
  • CBC
  • Electrolytes, glucose, BUN, creatinine
  • Urinalysis
  • TSH, free T4
  • IGF-1, IGFBP3
  • Tissue transglutaminase IgA, total IgA

Please note: May also consider obtaining if significant parental concern for organic etiology