

**Background:** Recombinant human growth hormone has been used for more than 30 years but published data regarding long term mortality are scarce.

**Source:** The Safety and Appropriateness of Growth hormone treatments in Europe (SAGhE) consortium study involving 8 countries (Belgium, France, Germany, Italy, The Netherlands, Sweden, Switzerland, and the UK)

**Aim:** To study the long-term overall and cause-specific mortality in young adult patients treated with recombinant human growth hormone during childhood and its relation to the underlying diagnosis.

**Design:** The cohort comprised 24 232 patients treated with recombinant human growth hormone during childhood, with more than 400 000 patient-years of follow-up classified as 3 risk groups & standardized mortality ratio (SMRs) were calculated for each of the groups.

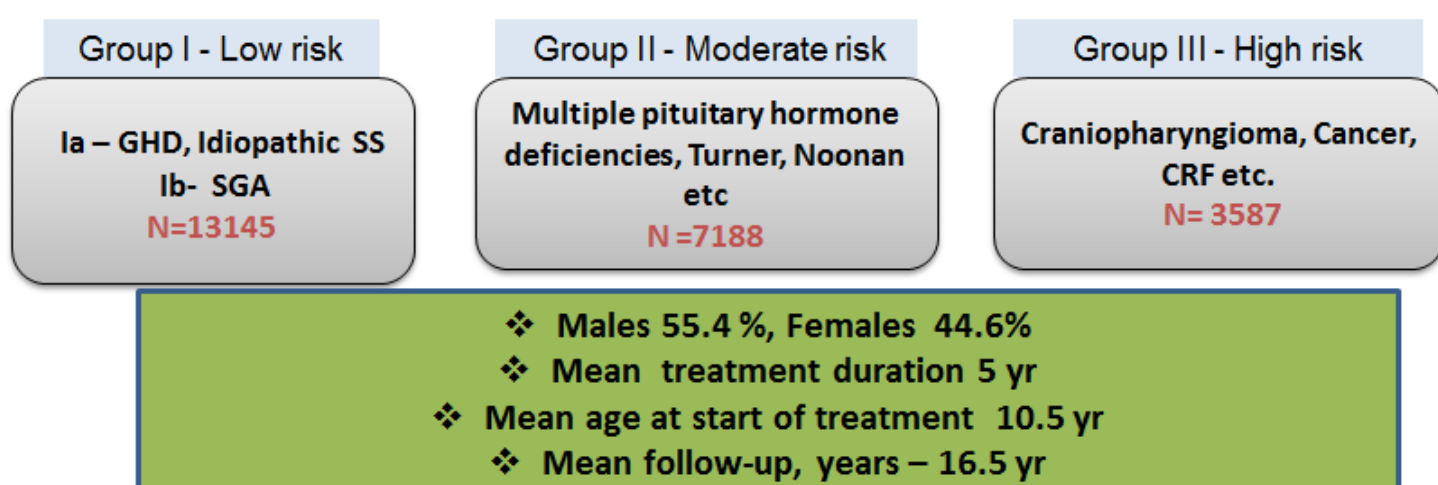
# ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



## Is it Safe? Growth Hormone Treatment in Children

Long-term mortality after childhood growth hormone treatment: the SAGhE cohort study. The Lancet Diabetes and Endocrinology: 2020 Aug



GHD: Growth hormone deficiency. SGA: Small for gestation age. CRF: Chronic Renal Failure. ISS: Idiopathic Short Stature.

### Key Message:

- In this study from Europe, patients with isolated growth hormone deficiency or idiopathic short stature (ISS), recombinant human growth hormone treatment was not associated with increased all-cause mortality on follow up.
- Mortality risk due to Growth hormone was increased in pre existing high risk conditions like tumors, chronic diseases, syndromes etc.
- Mortality from neoplasms was also not increased for low risk groups which was a major concern previously .

### EXPERT COMMENT



“Growth hormone treatment during childhood does not lead to increased mortality as adults in isolated GH deficiency or Idiopathic ISS . However higher risk for treatment remains in other groups like malignancies where the risk-benefit ratio has to be clearly weighed.”

Dr Deepa Anirudhan, Associate Professor of Paediatrics  
In-charge Pediatric Endocrine Clinic  
Govt Medical college, Thrissur , Kerala

**DR MANINDER S DHALIWAL**

Editor – Academic Pearls  
pedpearls@gmail.com

**DR BAKUL JAYANT PAREKH**

National President 2020

**DR G.V. BASAVARAJ**

Hon. Secretary Gen. 2020-21

### Reference

Reference: Lars Säwendahl, Rosie Cooke, Anders Tidblad, Dominique Beckers , Gary Butler , Stefano Cianfarani et al. Long-term mortality after childhood growth hormone treatment: the SAGhE cohort study. The Lancet Diabetes and Endocrinology: 2020 Aug 1;8(8):683-92.  
DOI:https://doi.org/10.1016/S2213-8587(20)30163-7