Introduction: 25-50% of paediatric patients with chronic endocrine diseases are lost for follow-up in adult care. After reaching the goals of paediatric hormone therapy according to national and/or international treatment guidelines, other objectives became relevant to patients further life. The adolescent patient has to deal with complications of his chronic endocrinopathy. Consequently we established a standardized medical and psychological work-up in order to identify disease specific morbidity and to comprehend quality of life in adolescents with chronic endocrine disease s at time of transition.

Methods: Serum markers of fertility (anti-mullerian hormone (AMH), inhibin B, estradiol and testosterone) and quality of life (DISABKIDS¹ and KIDSSCREEN²) were examined in adolescence after near final height was reached. Scale scores are transformed into transformed raw scores (TRS) ranged from 0-100, with higher scores indicating better quality of life. Patients and parents gave informed consent and approval by local ethic committee was obtained.

Results: 120 patients aged 14 to 30.6 (70 females, 50 males) were recruited between 5/2010 and 12/2014 (figure 1). DISABKIDS TRS was 82.3±14.0 (reference 76.9±18.3)¹ and KIDSSCREEN TRS (10 sub-scales) ranged between 64.7±24.9 and 92.9±11.6 (reference 66.8±19.3 and 90.3±15.5; n=20). Serum-markers of fertility are indicated in table 1.

Table 1: Serum markers of fertility: anti-mullerian hormone (AMH), Inhibin B, estradiol and testosterone are presented as mean ± SD according to diagnosis and gender. Significant different results are indicated as *, •, ˣ, ¤, ˄,⌂, †,˘ (p< 0.05).

Conclusion:
- The quality of life in these patients is normal
- HHH in girls and boys and adolescents with TS and KS are associated with a gonadal dysfunction regardless from localisation in the gonadotrophic axis
- It remains unclear if this gonadal dysfunction is apriori or a sequelae of sex-steroid treatment
- The individual fertility of all patients remains unclear.

Figure 1: Diagnoses of all patients, respective numbers of specific diagnosis are indicated.