Incidence of Erythrocytosis Among People Using Testosterone for Gender Affirming Care

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Introduction

Gender Affirming Hormone Therapy (GAHT)

- Safe, important, easily integrated into primary care

Erythrocytosis

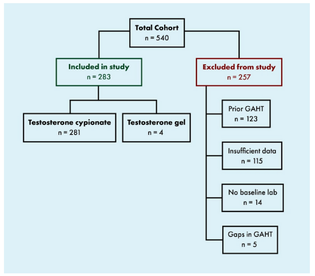
- Theoretical risk of thromboembolic event with exogenous testosterone
- Current guidelines recommend quarterly monitoring for the first year
- Frequent visits, increased cost and medicalization of gender identity

Our Question

What is the incidence of erythrocytosis during the first year of testosterone use for gender affirming therapy?

Methodology

- Descriptive fixed cohort study
- Requirements for Inclusion
  - 16 years and older
  - Prescribed testosterone for GAHT
  - Received routine hematocrit or hemoglobin monitoring at any Virginia League for Planned Parenthood (VLPP) affiliate site between January 1, 2017, and December 31, 2019
- Analysis
  - Cumulative incidence of erythrocytosis (Hgb > 17.5mg/dL, Hct > 50.4%) at each time point



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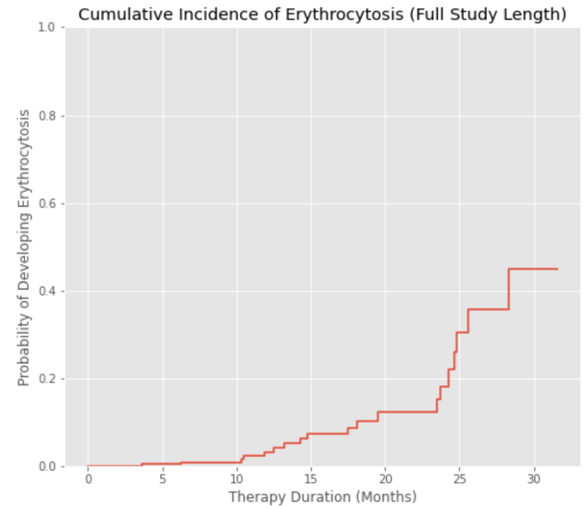
Results

- 283 participants included in the final analysis
- Incidence of erythrocytosis at 1 year: 3.2%
  - Incidence of severe erythrocytosis (Hct > 54%): 0.07%
- Characteristics of patients who developed erythrocytosis
  - Median age 23.7 years (min: 19, max: 29 years)
  - Median duration of testosterone therapy 10.3 months (min: 3.6 months, max: 11.9 months)
  - Median hematocrit was 50.9% (min: 50.8%, max: 56.0%)
  - Median hemoglobin level was 17.1 g/dL (min: 16.7 g/dL, max: 18.4 g/dL)
  - Median testosterone cypionate dose was 80 mg weekly (min: 60 mg, max: 100 mg)
  - Median duration at current testosterone dose was 3 months (min: 3 months, max: 6 months).



Discussion

- Incidence of erythrocytosis in the first is year is low, with severe erythrocytosis extremely rare
- Madsen et al. 2021
  - n=1073, Followed for 20 years
  - Incidence of erythrocytosis (Hct >50%): 11%
  - Incidence of severe erythrocytosis (Hct >54%): 0.5%
  - Thromboembolic event occurred in 0.9% of participants, but none had erythrocytosis
- Evidence supports updating guidelines for erythrocytosis screening in this population
- Historical context of bias and oppression of marginalized groups in medicine
- This is an opportunity to give patients the option to demedicalize their GAHT, reduce barriers to this lifesaving care and redirect focus onto the patient's goals of gender affirmation