Levels of exhaled nitric oxide in healthy African children aged 6-16 years

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Bakgrunn

- Fractional exhaled Nitric Oxide (FeNO)
- Diagnostisk bruk
  - Eosinofil astma
- Cut Off : kaukasiske individ
- Finne baseline nivå hos friske afrikanske barn for senere å teste FeNO som prediktor for kronisk lungesykdom hos HIV positive barn.
Problemstilling/metode

• Study the levels of FeNO in children and adolescents aged 6-16 years living in Harare, Zimbabwe.
• Investigate the association between FeNO and demographic, clinical and laboratory parameters.

Metode
• 104 → 87 friske barn i Harare, Zimbabwe
• FeNO, spirometri, blodprøver, antropometri, spørreskjema
• Statistisk analyse, SPSS
Resultat

- Median FeNO level was 16.5 ppb.
- Adolescents (12-16 years) had a significantly higher median FeNO level than children (6-11 years) (26.0 ppb vs 14.3 ppb, p<0.001)
- FeNO levels above the cut-off values proposed by American Thoracic Society (ATS), were measured in 24.6% of children and 57.7% of adolescents.
- Linear regression showed significant association between age and FeNO ($\beta=1.1$, p<0.001).
Konklusjon

• Many children in our study have higher FeNO levels compared with the ATS established values, despite having no apparent lung disease
• The population in this study had significantly higher FeNO levels when compared to Caucasian children.
• FeNO increases with age in children and adolescents.