

# Status besi, prevalens, dan faktor risiko anemia defisiensi besi pada remaja perempuan usia 12-15 tahun di Sekolah Menengah Pertama di Jakarta Pusat = Iron status, prevalence, and risk factors of iron deficiency anemia in 12 to 15-year old adolescents girls in Junior High School in Central Jakarta

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## Abstrak

Latar Belakang: Anemia defisiensi besi (ADB) merupakan jenis anemia yang tersering pada remaja.

Dampak defisiensi besi mulai dari berkurangnya kemampuan kerja fisis hingga gangguan fungsi kognitif.

Pada saat memasuki kehamilan, ADB dapat meningkatkan mortalitas dan morbiditas pada ibu maupun pada bayi. Faktor risiko ADB pada remaja multifaktorial.

Tujuan: Mengetahui status besi, prevalens dan faktor risiko ADB pada remaja perempuan usia 12-15 tahun di Jakarta Pusat.

Metode: Studi potong lintang pada remaja perempuan usia 12-15 tahun di Sekolah Menengah Pertama (SMP). Subjek dibagi menjadi kelompok status sosial ekonomi (SSE) menengah-keatas dan menengah-kebawah. Pada subjek dinilai status gizi, status dan karakteristik menstruasi, pekerjaan, pendidikan, dan penghasilan orangtua, serta asupan besi. Pada subjek juga dilakukan pemeriksaan laboratorium hematologis, biokimia besi, dan (C-reactive protein) CRP. Uji tuberkulin dilakukan untuk menyingkirkan APK akibat tuberkulosis, penyakit kronik tersering di Indonesia.

Hasil: Diantara 163 subjek, prevalens status besi normal sebesar 69,3%. Prevalens defisiensi besi non anemia lebih tinggi (17,2%, berupa depleksi (3,1%) dan defisiensi besi (14,1%) dibandingkan prevalens ADB (13,5%). Prevalens ADB pada kelompok status sosial ekonomi (SSE) menengah-keatas lebih rendah daripada SSE menengah-kebawah (11,5% dan 15,8%). Tidak didapatkan hubungan yang bermakna antara prevalens ADB dengan status gizi, status dan karakteristik menstruasi, SSE, dan pendidikan maupun penghasilan orangtua. Asupan besi bioavailable pada seluruh subjek kurang dari angka kecukupan gizi (AKG), namun tidak didapatkan hubungan yang bermakna dengan prevalens ADB.

Simpulan: Prevalens depleksi dan defisiensi besi yang lebih tinggi dari prevalens ADB berpotensi meningkatkan prevalens ADB pada masa mendatang. Meskipun tidak didapatkan hubungan yang bermakna antara prevalens ADB dengan faktor risikonya, namun asupan besi yang kurang dari AKG pada seluruh subjek perlu diperhatikan. Suplementasi besi sesuai rekomendasi Ikatan Dokter Anak Indonesia perlu dilaksanakan dalam upaya pencegahan dan penanggulangan defisiensi besi pada remaja.

*Background:* Iron deficiency anemia (IDA) is the most common anemia in adolescents. Iron deficiency cause decreased physical performance as well as cognitive impairment. In pregnancy, IDA increases maternal and fetal mortality and morbidity. Risk factors of IDA in adolescents are multifactorials. *Objectives:* To identify iron status, prevalence dan risk factors of IDA in 12 to 15-year old adolescents girls in Central Jakarta.

*Methods:* Cross-sectional study in 12 to 15-year old adolescent girls who study in Junior High School. Subjects were classified into higher and lower social economy status (SES). Assessment of nutritional status, menstruation status and characteristics, occupation, parents education level and income, as well as

iron intake. Subjects were undergo supporting examinations, such as hematological, iron parameters and C-reactive protein (CRP). Tuberculin test was done to rule out anemia of chronic disease due to tuberculosis, the most common chronic disease in Indonesia.

Results: Out of 163 subjects, prevalence of normal iron status was 69,3%. Non anemia iron deficiency prevalence was higher (17,2%, consists of 3,1% iron depletion and 14,1% iron deficiency) than IDA prevalence (13,5%). Prevalence of IDA in higher SES was lower than that in lower SES (11,5% and 15,8%). There was no significant association between prevalence of IDA and nutritional status, menstruation status and characteristics, SES, as well as parents' education level and income. Bioavailable iron intake in all subjects was less than RDA, no significant association between bioavailable iron intake and IDA prevalence. Conclusions: Non anemic iron deficiency prevalence that was higher than prevalence of IDA is potential to increase prevalence of IDA in the future. Although there is no significant association between IDA and its risk factors, iron intake that is less than RDA in all subjects requires more attention. Iron supplementation based on Indonesian Pediatric Society need to be reinforced to prevent and overcome iron deficiency in adolescent.</i>