Hubungan jam terbang total dan beberapa faktor lainnya terhadap gangguan pendengaran sensorineural pada pilot sipil di Indonesia = Correlation of total flight hours and other risk factors of sensorineural hearing loss among civil pilots Indonesia

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Abstrak

Latar belakang: Gangguan pendengaran sensorineural pada pilot merupakan masalah kesehatan yang dapat menyebabkan inkapasitasi pada saat pilot menjalankan tugas terbangnya dan berdampak terhadap keselamatan penerbangan. Tujuan penelitian ini mengidentifikasi jam terbang total dan faktor dominan lainnya terhadap risiko gangguan pendengaran sensorineural di antara pilot sipil di Indonesia.
Metode: Desain penelitian potong lintang dengan purposive sampling pada tanggal 4-20 Mei 2015 terhadap pilot laki-laki berusia 20-60 tahun dan pilot memiliki lisensi Commercial Pilot License (CPL) atau Air Transport Pilot License (ATPL) yang sedang melakukan pemeriksaan kesehatan berkala (medex) di Balai Kesehatan Penerbangan, Jakarta. Gangguan pendengaran yaitu subyek memiliki ambang dengar 25 dB atau lebih. Pengumpulan data dilakukan dengan wawancara memakai kuesioner. kemudian data diambil dari rekam medis pada hari pemeriksaan. Risiko gangguan pendengaran sensorineural dianalisis menggunakan risiko relatif (RR) dengan regresi Cox.
Hasil: Selama 3 minggu masa pengumpulan data terdapat 681 pilot yang melakukan medex di Balai Kesehatan Penerbangan, didapatkan 314 pilot yang memenuhi kriteria penelitian. Sebanyak 15,9% mempunyai gangguan pendengaran sensorineural. Pilot dengan jam terbang total lebih 5000 jam dibandingkan kurang 5000 jam berisiko gangguan pendengaran sensorineural 4,7 kali lipat [risiko relatif suaian (RRa)=4,73; p=0,137]. Pilot dengan usia 45-60 tahun dibandingkan usia 20-44 tahun berisiko gangguan pendengaran sensorineural 6,8 lipat (RRa=6,87; p=0,000).
Simpulan: Jam terbang total 5000 jam atau lebih serta usia 45-60 tahun meningkatkan risiko gangguan pendengaran sensorineural pada pilot sipil di Indonesia.
<hr><i>Background: Sensorineural hearing loss in civil pilots could interfere pilots? performance to safely operate an aircraft thus could cause incapacitation on board. This study aimed to identify risk factors of sensorineural hearing loss among civil pilots in Indonesia.
Methods: A cross-sectional study design with purposive sampling on 4-20 May 2015 was conducted on pilots of the male civilian. The inclusion criteria civilian pilots male 20-60 years old and had Commercial Pilot License (CPL) or Air Transport Pilot License (ATPL) who were taking medical examinations (medex) in Civil Aviation Medical Centre, Jakarta. Hearing impairment defined by hearing threshold of 25 dB or more. Demographic data were collected by interviewed pilots using questionnaires while audiometry and laboratory data were collected from medical records. Risk factors of sensorineural hearing loss were analyzed by Cox regression.
Results: Three weeks collecting data had 681 pilot conducted medex in Civil Aviation Medical Centre, among 314 commercial pilots were fulfilled the criteria?s. Percentage of sensorineural hearing loss from audiometry data were 15.9%. Subjects with 5000 flight hours or more had almost five times increased risk of sensorineural hearing loss compared to subjects with less than 5000 flight hours [adjusted relative risk

(RRa) = 4.73; p = 0.137]. Subjects aged 45-60 year-old had almost seven times increased risk of sensorineural hearing loss compared to subjects aged 20-44 year-old (RRa= 6.87; p = 0.000).
Conclusion: Total flight hours 5000 hours or more and age of 45-60 years increased the risk of sensorineural hearing loss among civilian pilots in Indonesia.</i>