
This article summarizes the results of a study between Blood alcohol concentration (BAC) in 4 pilots and their smooth pursuit eye movements in them which are required for the performance of a task. Smooth pursuits were elicited by having subjects to track a sinusoidal target and its impairment was quantified with frequency analysis scores. The scores decreased as BAC increased and frequency analysis scores increase towards pre-drink levels as BAC decreased. The relationship between BAC curve and frequency analysis score was not significantly different on ascending and descending limbs of Blood alcohol curve, but varied between the subjects.

Sousen KP, Wallick MT, Slobadnik B, Chemiak JM, Boeseck EA, Stiney ME, Clark JB. The reduced oxygen breathing (ROB) paradigm for Hypoxia Training : Physiological, cognitive and subjective effects. Aviation Space Environ Med 2001; 72: 539-45.

This interesting article explains a cost effective reduced oxygen breathing paradigm that decreases oxygen concentration leading to normobaric hypoxia and it was assessed in terms of cognitive performance, cardiopulmonary and respiratory changes as an alternative to hypobaric chamber. In this study of 12 subjects, ROB caused increase in tracking error, heart rate, systolic BP, ETCO₂ and O₂ saturation and each of them were highly statistically significant. The data obtained are consistent with the data expected from hypoxic states and supports the validity of ROB paradigm in hypoxia training without the risk of DCS.


This original research article is of interest to each Aeromedical Specialist, explaining the effect of decrease in luminance between NVG image and cockpit instruments and the response time. The results indicated that the response time is not significantly altered when the decrease in luminance was only 2 log units. Greater decrease in luminance produced highly significant results. Though decrease in luminance more than 2 log units is not likely to occur under most operational conditions, but the pilot will be under significant risk when the cockpit instrument luminance level is below 0.03 fl.


This interesting article summarizes the drugs available for treating patients with hypertension. The paper is based on a book chapter for which more than 1500 trials and systematic reviews were screened. For initial treatment of hypertension, a single agent is preferable or depending on the patient’s risk factors, a combination of two or more agents may be needed. The treatment decreases fatal and non-fatal stroke, cardiac events, and death and may rather improve quality of life. Thiazide diuretics are best first line agents whereas ACE inhibitors, some beta blockers and long acting calcium channel blockers are effective alternatives. Short acting alpha antagonists and short acting calcium channel blockers should be avoided. The treatment regime improves quality of life, encourages healthy life style and minimizes the adverse effects of drugs.

Michael Pignone, Cynthia D Marlow. Using cardiovascular risk profiles to individualize

Ind J Aerospace Med 45(2), 2001

This article explains how to prioritize hypertensive patients to adopt best mode of hypertensive treatment to achieve best outcome by reducing cardiovascular risk. The various factors used to prioritize patients are type, immediacy and magnitude of expected benefits and harms, availability and cost of treatment, feasibility and likelihood of compliance, competing risks from various conditions, expected interactions with other treatments, patient and provider preferences and values. Various treatment options, which reduce cardiovascular risks and improve outcome in patients with hypertension are given. The prescribing doctors should consider the expected benefit and potential adverse effects of treatment regime before prescribing any regimen. This improves outcome in hypertensive patients.

Contributed by
WG Cdr P Kharbanda, Classified Specialist (Av Med) IAF, IAF, Vimanapura, Bangalore - 560 017.

Sqn Ldr NV Manjunath, PG Trainee IAF, IAF, Vimanapura, Bangalore - 560 017.