



LECTURE

Aerospace Medicine Autumn Lecture

FREE TO ATTEND

Use of New Technologies and Therapies in Aviation Medicine

Monday 28 September 2009

Diabetes: Past, Present and Future

Dr Raymond Johnston, Head of Aviation Health Unit, CAA

The first historical reference that diabetes occurs was in the Ebers Papyrus in the Egyptian dynasty of approximately 1500 BC, but it was Aretaeus of Cappadocia writing in the first century AD who was the first physician to describe the condition formally.

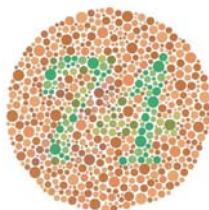
The isolation and use of insulin in 1921 by Banting, Best, Collip and McLeod literally changed the life of diabetic patients. The challenges of diabetes in the aviation environment are two-fold; the risks intrinsic to the disease process, e.g. vascular complications, and iatrogenic issues, primarily hypoglycaemia, which may have a major impact on performance.



It is important that these risks are assessed accurately in order that management may be evidence based. There have been major advances in insulin preparations and a plethora of newer agents acting by a number of different mechanisms in order to control the glycaemic milieu. The impact of these agents in the aviation environment will be outlined and discussed.

Colour Assessment & Diagnosis Test

Dr Robert Hunter, Head of Aeromedical Section, CAA



The Colour Assessment and Diagnosis (CAD) test is a newly developed test for colour vision deficiency in pilots. The CAD test is completely sensitive and specific for the identification of normal colour vision and the test is able to accurately and repeatably quantify the degree of colour vision loss in individuals with colour vision deficiency. The pass/fail criteria are based on the point at which the degree of deficiency degrades performance in critical piloting tasks, the most critical task being the interpretation of the Precision Approach Path Indicator (PAPI) lights. Using the pass/fail criteria that have been established, 35% of colour deficient pilots will be granted unrestricted class 1 medical certification.

The presentation describes the background to the work including current tests for colour vision deficiency, an analysis of colour critical piloting tasks, and the CAD test.

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Dr Raymond Johnston underwent specialist training in internal medicine and diabetes in which he is accredited. He was a physician in the University Department of Medicine in Glasgow where his research included an interest in abnormalities of blood clotting and spent a year's fellowship in MacMaster University in Canada.

In 1990 he joined the medical division of the CAA and completed the Diploma in Aviation Medicine and formal training in Occupational and Aviation Medicine. In 1999 he was awarded the Fellowship of the Faculty of Occupational Medicine and an MBA degree from the University of Surrey.

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Dr Robert Hunter's previous roles have included Non-Executive Director of the Health Protection Agency and First Officer for Flyglobespan, Boeing 767.

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This Lecture has been organised by the Aerospace Medicine Group and will take place at No.4 Hamilton Place, London W1J 7BQ. Commencing at 18:00hrs, refreshments will be served from 17:30hrs.

For further details visit www.aerosociety.com/conference.

FREE TO ATTEND

All Visitors Welcome

RSVP is appreciated:

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