

Aeromedical Decision Making in Episodic Headaches

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Episodic headache disorders

- Migraine headache
- Tension type headache
- Cluster headache

Migraine



- Episodic headache lasting 4-72 hours with 2 of the following symptoms:
 - Unilateral pain
 - Throbbing character
 - Aggravation with movement
- and 1 of the following symptoms
 - Nausea or vomiting
 - Photophobia or phonophobia

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Aeromedical challenge



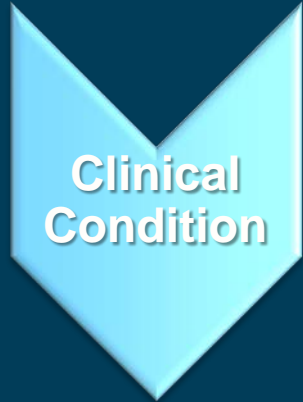
Clinical
Condition

- No objective markers or diagnostic tests
- Common
- Under-diagnosed
- Inadequately treated
- Incapacitation variable
- Future events unpredictable

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Co-morbidities



	Relative Risk
■ Ischaemic stroke	4.3 – 13.9
■ Panic Disorder	12.8
■ Major Depression	4.2
■ Ischaemic heart disease	4.0
■ Epilepsy	2.4
■ Asthma	

(Merikangas KR and Fenton BT *Comorbidity of migraine with somatic disorders* 1994:301-314)

Precipitating factors



Likelihood
of Clinical
Event

- Stress
- Hormonal changes
- Missed meals
- Deep sleep
- Fatigue
- Strong light
- Weather changes
- High Altitude
- Exertion

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Mitigation



- Clinical course not predictable
- Definitive intervention not possible
- Reliable prophylaxis not available
- Aviation environment provocative

Question:

- Is risk stratification possible?

Migraine in Australian Pilots

- Review 1990 – June 2012
- Total 257 applications
- 103 applicants declared medication
- 79 conditional licences issued

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Migraine Questionnaire



Clinical
Condition

Likelihood

- Sensory incapacity
- Rapidity of onset
- Frequency of occurrence
- Prodrome
- Precipitating factors
- Aura and speed of onset
- Frequency
- Severity
- Therapy and therapeutic efficacy

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Sensory Incapacitation?

Likelihood
of Aviation
Event

Episodic Headache

ANY ONE OF
Photophobia
Phonophobia
Visual symptoms
Sensory symptoms
Dysphasia
Vomiting

NO

ISSUE Class 1
ISSUE Class 2
ISSUE Class 3

YES

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Rapid evolution?

Likelihood
of Aviation
Event

Severe
Episodic headache
With disturbance of
sensory modulation

Onset <30 minutes
of warning/triggers

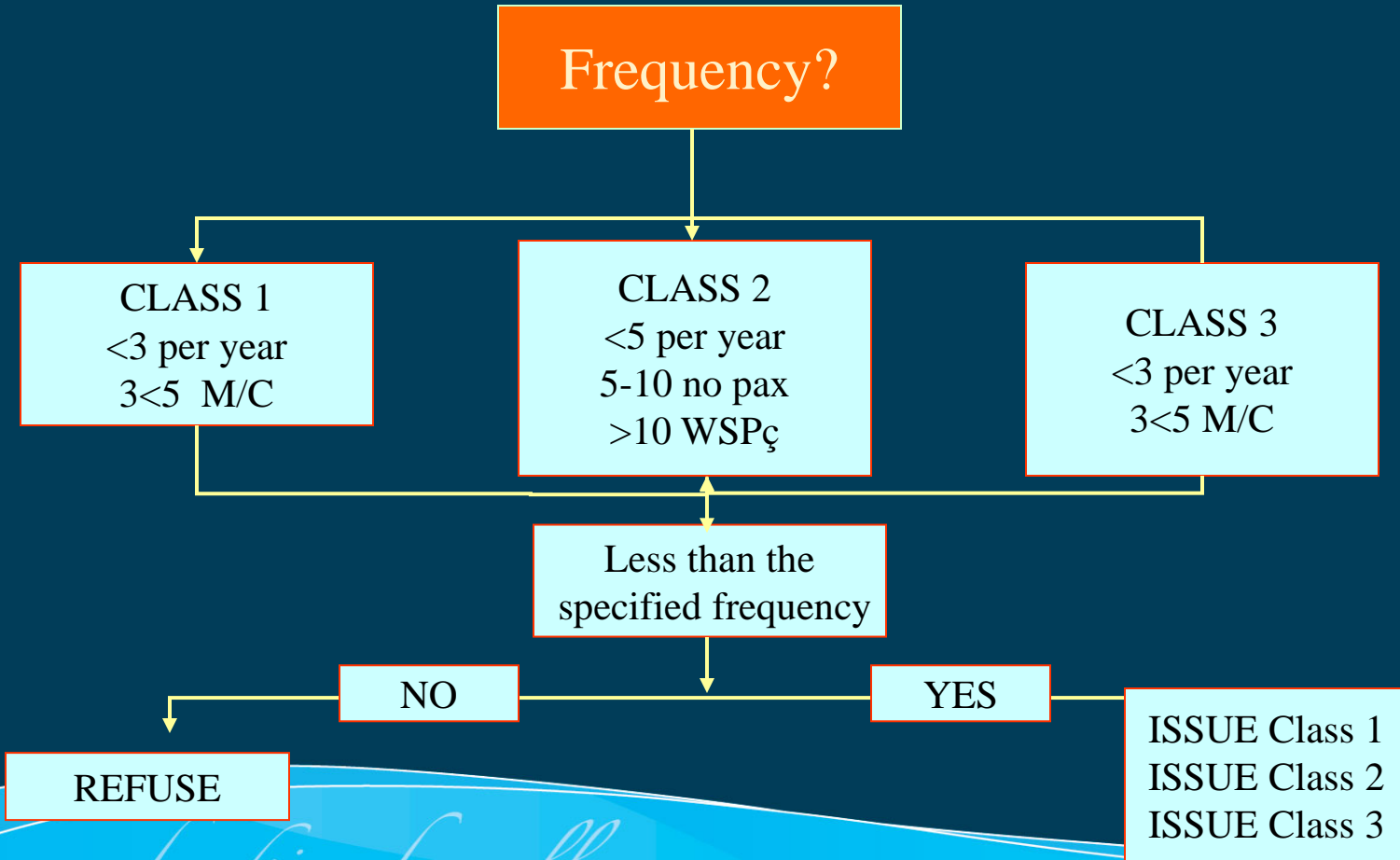
NO

ISSUE Class 1
ISSUE Class 2
ISSUE Class 3

YES

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Summary

- Migraine is a common disorder
- Good information gathering essential
- A targeted questionnaire assists ADM
- An algorithm can be used to identify aviators and controllers with low risk profiles
- Advances in neurobiology and pharmacology will demand continuous reappraisal

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International Headache Society

- International Classification of Headache Disorders revised 2nd edition (ICHD-2R)

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