A Practice Guide to Migraine and Combined Hormone Contraception (CHC)

What are the typical features of migraine?

- Episodic, often pulsating headache associated with nausea, photophobia and / or phonophobia. This may be aggravated by walking upstairs or similar routine activity.
- Lasts between 4-72 hours.
- Headache usually unilateral but not always.
- **Complete freedom from symptoms between attaches; daily headaches are not migraine.**
- **Physical and neurological examination is normal** and does not suggest headache associated with another disorder such as vascular or metabolic condition or substance abuse.

Be aware that migraine can be confused with compression sickness in divers; they need urgent referral to decompression chamber.

What are the different types of migraine and how common is each type?

Migraine without aura (common migraine)	70%
Migraine with aura (classical migraine)	10%
Both types of migraine	15-20%
Aura alone with no headache	<1%

What symptoms occur during a migraine with aura?

Symptoms of migraine aura are localised to the cerebral cortex or brain stem and gradually develop over 5-20 minutes, last under 1 hour and usually resolve before the onset of headache. They are termed focal neurological symptoms.

Visual symptoms • Loss of sight (bright, not dark), or of part of whole of the field of vision, on the same side in both eyes • A bright twinkling zigzag line (Teichopsia/Fortification spectra) enlarges from a bright centre on one side to form a c-shape surrounding the area of lost vision	99%
Unilateral sensory disturbance • Usually associated with visual symptoms • Typically marked numbness spreading up from fingers of one arm, or one side of the tongue • The leg is rarely affected	31%
Speech disturbance • Impaired ability to articulate speech • Difficulty in expressing or understanding speech • Substitution of inappropriate words • Always associated with visual and/or sensory symptoms	18%
Motor disturbance • E.g. weakness of a limb • Unusual and usually associated with sensory and/or visual symptoms	31%

What symptoms are not classified as an aura with focal signs?

Symptoms	Interpretation and action
• Symmetrical spots, flashes, flickering lights and blurring of vision or photophobia of variable duration before or with headache • Complete loss of vision in one eye	• These occur in common migraine but are not suggestive of focal ischemia • The main feature that the relevant symptoms share is asymmetry, meaning that they are focal or interpretable as due to transient ischemia • This might be due to retinal artery or vein thrombosis • This needs urgent referral and CHC should be stopped immediately • Arrange an acceptable contraceptive method
• Sensory or motor losses affecting the whole or one side of the body or lower limb only • Black area of absent vision • Sudden onset or longer duration of the SAME symptoms as described for focal migraine • Loss of consciousness or epilepsy	• These suggest possible cerebral thromboembolism or transient ischemic attack • The CHC should be stopped immediately and the patient referred urgently to a neurologist • Arrange an acceptable alternative contraceptive method • Refer urgently to a neurologist

Is there a simple screen for migraine with aura?

Ask the patient whether she has visual disturbances:

- Starting before the headache?
- Lasting up to one hour?
- Resolving before the headache?
- Persisting when the eyes are closed.

If the answer to all 4 questions is yes, it is likely the symptoms are aura. Aura can occur without subsequent headache but the nature and duration of the aura is unchanged. Aura carries the same risk of ischemic stroke as migraine with aura.

What are the absolute contra-indications to CHC in a migraine sufferer? (UKMEC 4)

- Migraine with aura during which there are focal neurological symptoms, at any age
- Migraines which are usually frequent or severe, e.g. attacks lasting longer than 72 hours
- Migraines treated with ergot derivatives (because of their vasoconstrictor actions; triptans are safe)

What are the relative contra-indications to CHC in a migraine sufferer? (UKMEC 3)

- In general, the disadvantages of CHC outweigh the advantages in women with a **past history of migraine with aura at any age**, due to the increased risk of ischaemic stroke. However, a clear past history of typical migraine with aura more than 5 years earlier or only during pregnancy, with no reoccurrence; is UKMEC 3. CHC may be given a trail with counselling and regular supervision, along with a specific warning that the onset of definite aura means that the user should stop the CHC immediately, use alternative contraception and seek medical advice ASAP.
- If a woman with migraine without aura has a **significant risk factor for stroke**, e.g. more than 20 cigarettes per day, hyperlipidaemia, or obesity, the disadvantages of CHC outweigh the advantages.

In which migraine sufferers is CHC broadly usable? (UKMEC 2)

- **Migraine without focal aura**, under 35 years and without any additional arterial risk factors. Use of a triptan drug in these women does not alter the risk.
- The occurrence of a woman's **first ever attack of migraine without aura on CHC**. Migraine typically starts in teens and twenties, so any association with CHC use, particularly if it has been taken for several months before migraine is developed is likely to be coincidental rather than casual. There is usually improvement with continued use. Women can be advised that if headache or migraine increases in the first cycle of CHC use, there is only a 1 in 3 chance of experiencing headache in the second cycle and a 1 in 10 in the third cycle. If headaches persist it is worth changing to a progestogen only or non-hormonal method, to asses if they are related to CHC. NB: there is a latent period of 4 weeks before any benefit from stopping CHC is seen.

Is there a preferred brand or regimen of CHC in women with headaches or migraines?

- If headaches occur this is usually in the pill free week. There is an association between migraine without aura and withdrawal of ethynylestradiol (EE). Consider a continuous rather than just an extended regime.
- Anecdotally, the frequency of headaches may depend on the type of progestogen and the dose of oestrogen used (fewer than 2% of women using 20 micrograms of EE and 150 micrograms of desogestrel reported headaches by the sixth cycle).
- There is insufficient data regarding which brands or even about second versus their generation pills, but monophasic are preferred to multiphasic.
- **All women in WHO categories 2 and 3 who take CHC must be given specific instructions on which symptoms or changes to her headache mean she should seek urgent medical advice.**
- Generally an increase in the frequency or severity with CHC should lead to a discontinuation.

Further reading

- https://www.fsrh.org/ukmec/
- https://www.fsrh.org/standards-and-guidance/documents/combined-hormonal-contraception/
- Migraine and use of combined hormonal contraceptives: a clinical review. Anne MacGregor. Journal of Family Planning and Reproductive Health July 2007
- Contraception: Your Questions Answered. Guillebaud and MacGregor 2017
- Diagnosing Migraine MacGregor. Journal of Family Planning and Reproductive Healthcare. October 2016 vol 42