

## Aim

To provide insight into the prescribing of hormonal contraception in general practice based on responses to a hypothetical case scenario.

## Methods

A case scenario for health professionals in October 2007 discussed a female patient presenting with migraine without aura associated with oral contraceptive (OC) use (Box 1). Questions focused on the impact of migraine on contraceptive choice, suitability of long-term contraception and consequence of family history of venous thromboembolism on contraceptive choice. Responses from a convenience sample of 200 GPs were analysed.

## Results

### Oral contraceptive use in presence of migraine

Nearly all GP respondents (n=198) recognised that the migraines were linked to hormonal fluctuations during the pill-free week: 99% changed the existing combined oral contraceptive (COC) regimen. However, although a relative contraindication (see Table 1), 66% (n=131) of GPs continued recommending the COC in various forms (Figure 1).

Figure 1. Changes to oral contraceptive (OC) following presentation of migraine (n=198)

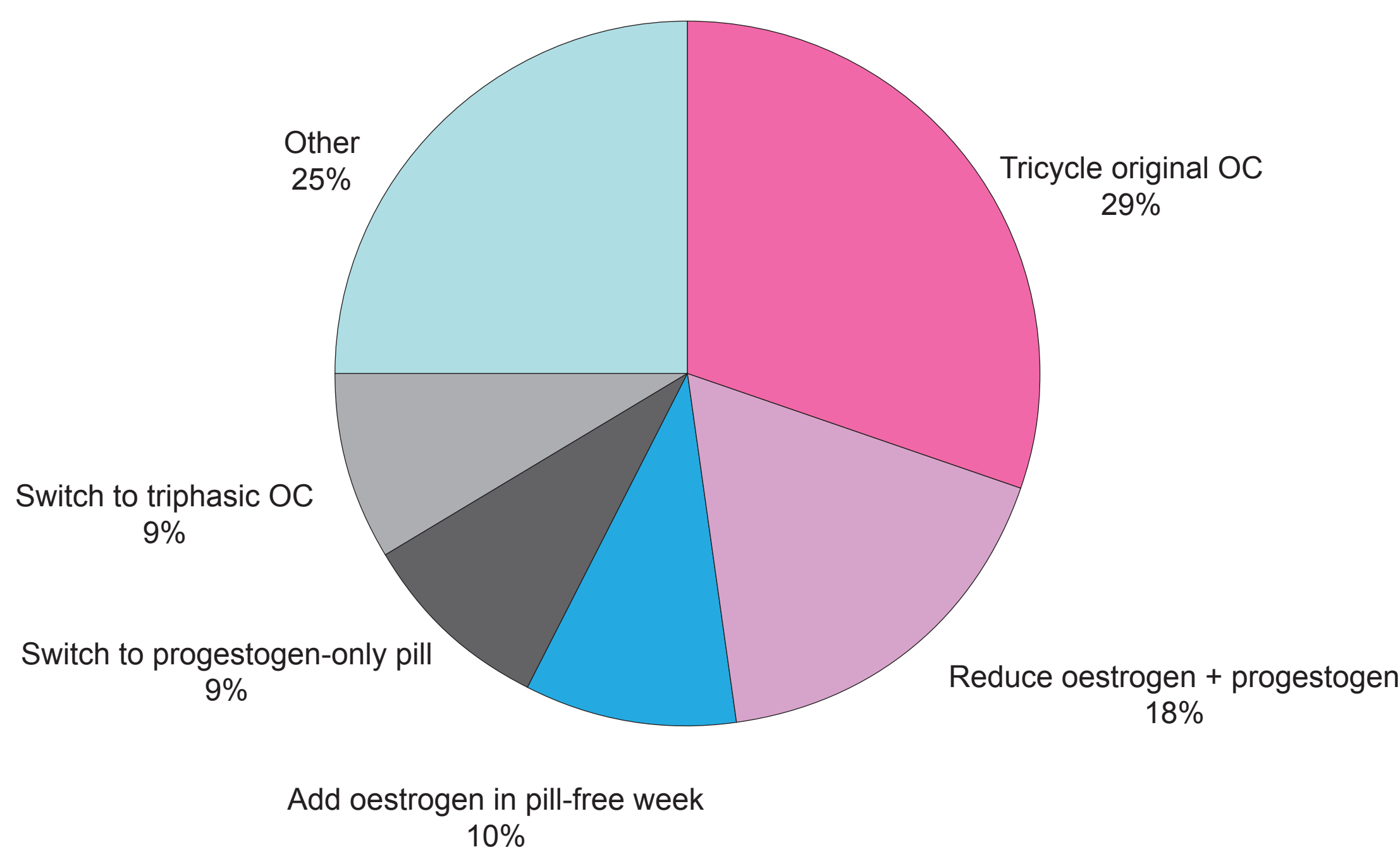


Table 1. Guideline recommendations for migraine, headache and hormonal contraception

Diagnosis	Recommendation <sup>1,2</sup>
Migraine with aura before starting COC Migraine with aura during use of COC	Stop COC. Consider progestogen-only (PO) contraceptive or non-hormonal methods
No history of migraine before starting COC AND migraine without aura develops during use of COC (i.e. Sandra's case)	In women > 35 years, stop the COC. Consider PO or non-hormonal methods  In women < 35 years, the risks generally outweigh the advantages.  Exercise clinical judgement if other risk factors for cardiovascular disease are present (i.e. smoking, diabetes)
History of migraine without aura before starting COC	In women < 35 years, if no other risk factors for stroke, the advantages of COC generally outweigh the disadvantages  Risk factors for stroke include age > 35 years, smoking, hypertension, diabetes mellitus, hyperlipidaemia, BMI >30 kg/m <sup>2</sup> , and family history of arterial disease before age 45  If more than 1 additional risk factor for stroke, stop the COC. Consider PO contraceptive or non-hormonal methods
Headache in the pill-free week (no migraine)	Add oestrogen daily during pill-free week (e.g. 100 microgram oestrogen patch or equivalent)  Tricycle pills to avoid the pill-free week

### Box 1. Case synopsis (hypothetical)

Sandra, a 34-year-old non-smoker presented with migraine without aura associated with oral contraceptive use (migraine occurs during the pill-free week).

- Started on ethinyloestradiol 35 microgram/norethisterone 1 mg (Brevinor-1 or Norimin-1) six months ago.
- Not using any other medicines.
- Blood pressure is 118/75 mmHg and body mass index 26 kg/m<sup>2</sup>.
- No weight gain or any other oestrogenic or progestogenic effect.
- No family or personal history of diabetes, hepatic disease, migraine, cardiovascular disease or cancer.

### Suitability of long-term contraception

Many respondents (77%, n=153) considered long-term progestogen-only contraception suitable (Figure 2) because pregnancies were not planned in the next few years, no risk of oestrogenic adverse effects and reduced potential for migraine/headaches; 60% selected etonogestrel implant and 32% opted to use a levonorgestrel-releasing intrauterine device.

### Family history of venous thromboembolism and contraceptive choice

If there was a family history of venous thromboembolism, 72% (n=144) would change to a different hormonal contraceptive (e.g. progestogen-only pill, etonogestrel implant, low-dose COC) (Figure 3).

Figure 2. Suitability of long-term contraception (n=198)

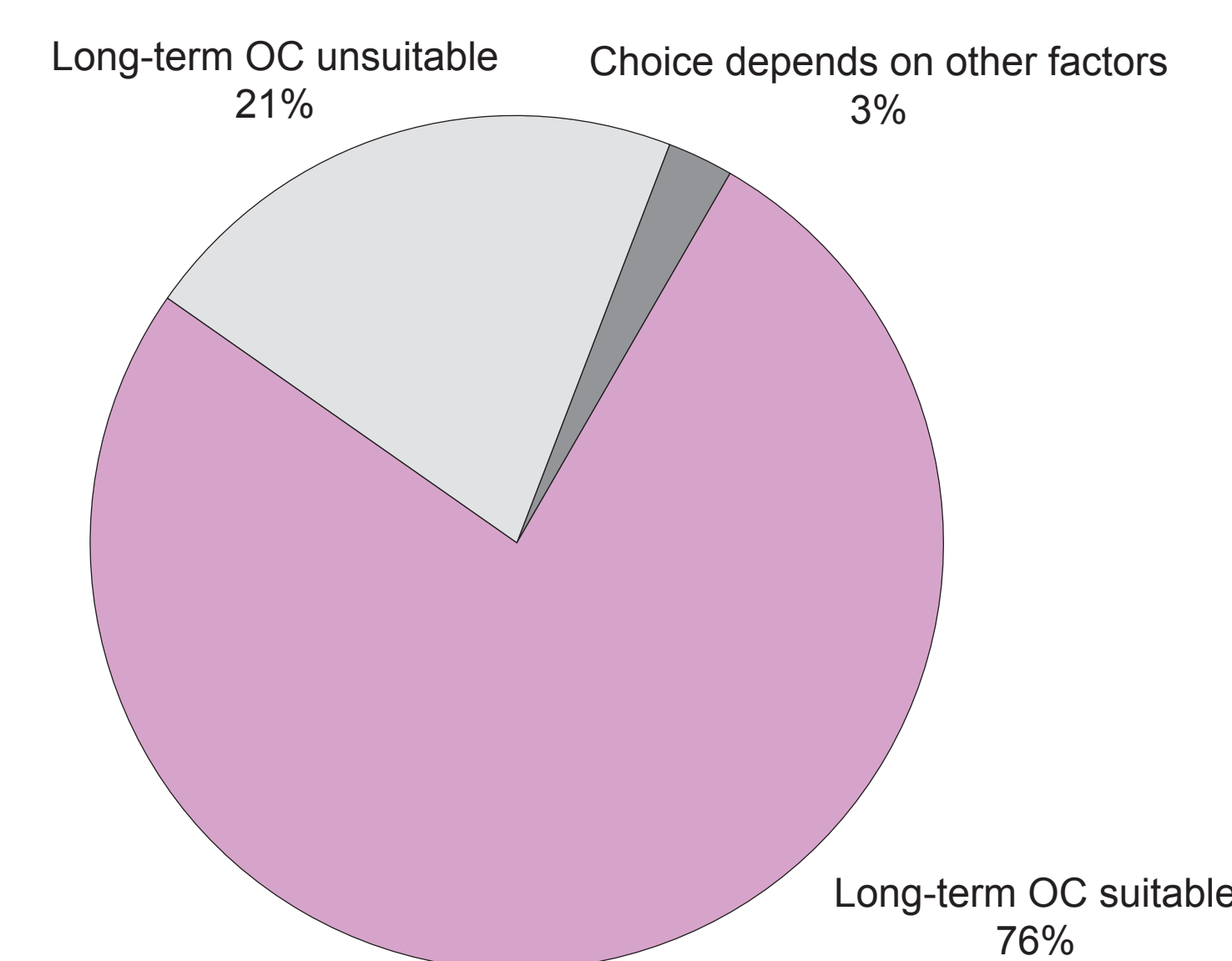
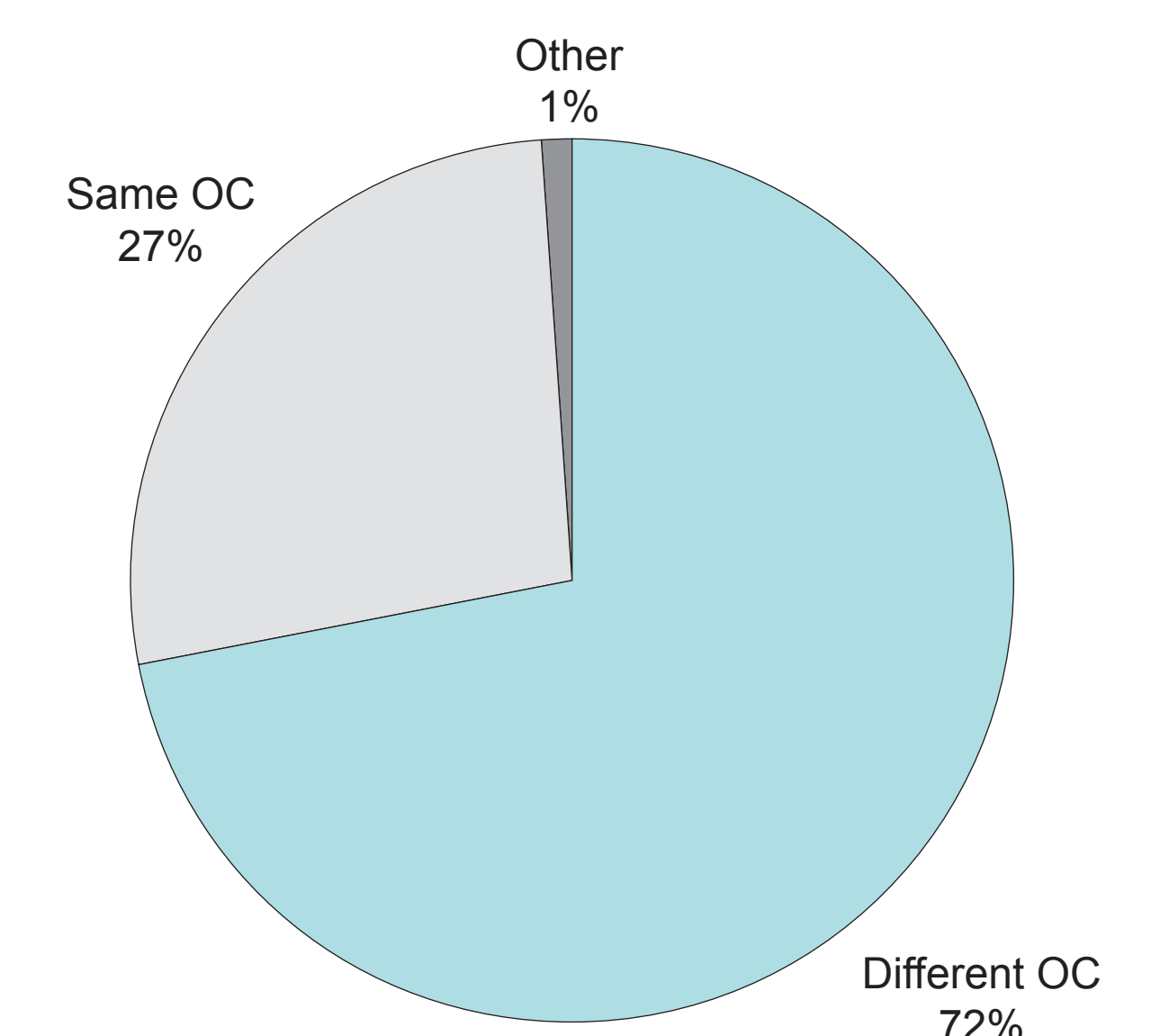


Figure 3. Contraceptive choice with history of venous thromboembolism (n=198)



## Conclusions

- Results suggest some lack of awareness of clinical practice guidance from Sexual Health & Family Planning Australia.
- NPS case scenarios provide insight into current clinical practice and allow some measurement against guidance.
- Being evidence-based and supported by expert commentators, NPS case scenarios and results can be a valuable learning tool for the quality use of medicines

## References

1. Read C, McNamee K, Harvey C. Contraception: an Australian clinical practice handbook. Sydney: Sexual health and Family Planning Australia, 2006.
2. WHO. WHO Medical Eligibility Criteria for contraception use. 2004. <http://www.who.int/reproductive-health/publications/mec/mec.pdf> (accessed 8 August 2007).

## Acknowledgement

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