CPD Aug 2023 isotretinoin

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Day 1: A synthetic vitamin A derivative, [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) was discovered in the 1950s & originally used for skin cancer. Its effect on the cell cycle led to the discovery of efficacy for severe acne management, which is now the only licensed use in UK; Also known as brand names e.g [#Roaccutane](https://twitter.com/hashtag/Roaccutane?src=hashtag_click)

Day 2: If severe acne is resistance to 1st line treatment, [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) is licensed for those over 12 yrs & is initiated by specialist. Typical range 0.5-1mg/kg/day for up to 24 weeks. The course can be repeated after 8 weeks; interval to allow time for further improvement post-cessation. [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) can produce long-term remission from severe acne

Day 3: [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) is an oral systemic retinoid with low bioavailability & high lipophilicity & Vd. Metabolism is by isomerisation, CYP450 & enterohepatic recycling. There are active metabolites. Renal/faecal elimination, t½ 25hrs. Avoid in hepatic impairment & severe renal impairment. Monitor lipids & LFTs before/during

Day 4: Exact mechanism of action for [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) is unclear, but known to reduce sebaceous gland size & inhibit sebum release & reduce clogged pores. Also inhibits cell proliferation & reduces inflammation

Day 5: Common ADEs: eye/nasal dryness,headache, skin reactions, arthralagia. Rare include diabetes, photosensitivity, neuropsychiatric reactions (avoid if history of mental health condition). Skin quality can be affected leading to fragility/impaired wound healing. Avoid waxing, piercings etc for 6 months after last dose

Day 5 (cont): Vitamin A & derivates such as [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) can be powerful teratogens, increasing birth defect frequency. Avoided in pregnancy & women are required to join pregnancy prevention program for 1 month before, during the treatment & for 1 month after cessation

Day 6: [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) has only a few drug-drug interactions: Vitamin A should be avoided because there is a predicted increased risk of toxicity. Tetracyclines are avoided as can increase risk of benign intercranial hypertension (NOT exhaustive)

Day 7: Blood donation is not allowed while on [#isotretinoin](https://twitter.com/hashtag/isotretinoin?src=hashtag_click) & for 1 month after the last dose, in case the donated blood is given to someone who is pregnant

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In addition to the tweets, read the BNF treatment summary on Acne, as well as the BNF monograph on isotretinoin and the SPC for isotretinoin

<https://bnf.nice.org.uk/treatment-summaries/acne/#management-of-acne>

<https://bnf.nice.org.uk/drugs/isotretinoin/>

<https://www.medicines.org.uk/emc/product/10555/smpc>

1. Isotretinoin is a derivative of vitamin B  
     
   True or false?
2. Isotretinoin is licensed for use in all age groups

True or false?

1. Which of the following is true?

A. Isotretinoin is mainly used to treat cancer in the UK

B. The duration of treatment is usually 6 to 8 weeks  
C. Isotretinoin is available as an oral formulation only  
D. Isotretinoin is first line for most types of acne

1. Isotretinoin is initiated by specialists only  
     
   True or false?
2. Only one course of isotretinoin is allowed to avoid toxicity  
     
   True or false?
3. Which of the following is true?  
     
   A. Isotretinoin works by increasing systemic vitamin A levels which improves skin turnover  
     
   B. The drug works by inhibiting sweat gland function, drying the skin up
4. The drug has powerful antioxidant and anti-inflammatory properties
5. The drug shrinks sebaceous gland and reduces sebum release

7. Isotretinoin is safe for use in which of the following?  
  
A. Hepatic disease  
B. Renal disease  
C. Pregnancy  
D. Hyperlipidaemia

8. Isotretinoin is fat loving and can remain in adipose tissue for weeks after stopping  
  
True or false?

9. Which of the following is a common adverse drug affect?  
  
A. Arthralgia

B. Neuropsychiatric reaction  
C. Photosensitivity  
D. Diabetes mellitus

10.Isotretinoin has a severe drug interaction with all penicillins  
  
True or false?