

Caution: coloured medication and the colour blind

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Lancet 2009; 374: 720

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Colour is a good way to differentiate tablets and their containers because it enables more immediate recognition than do words printed on labels or embossed onto tablets. Moreover, patients with poor vision or those not wearing their reading glasses can have difficulty reading print on labels or tiny low-contrast embossed text on tablets. However, 8% of men and 0.4% of women have impaired colour-vision, of whom half are unable to recognise the main colours used in colour coding.¹ In a survey of 100 people with impaired colour-vision, 2% reported that they had confused their medication because they had mistaken the colour of tablets.² The appearance of warfarin tablets and containers to individuals with moderate or severe red–green defi-

ciencies of colour vision are shown in the figure. The pink tablet appears blue and the green tablet appears grey. Doctors and pharmacists should only use colour to instruct patients on how to identify tablets if they know that the patient has normal colour vision. People with red–green colour deficiency can recognise yellow, blue, grey, and white¹—perhaps manufacturers should incorporate this information into guidelines about the use of colour for tablet identification.

References

- 1 Cole BL, Lian KY, Sharpe K, Lakkis C. Categorical colour naming by persons with abnormal colour vision. *Optom Vis Sci* 2006; **83**: 879–86.
- 2 Steward SM, Cole BL. What do colour vision defectives say about everyday tasks? *Optom Vis Sci* 1989; **66**: 288–95.

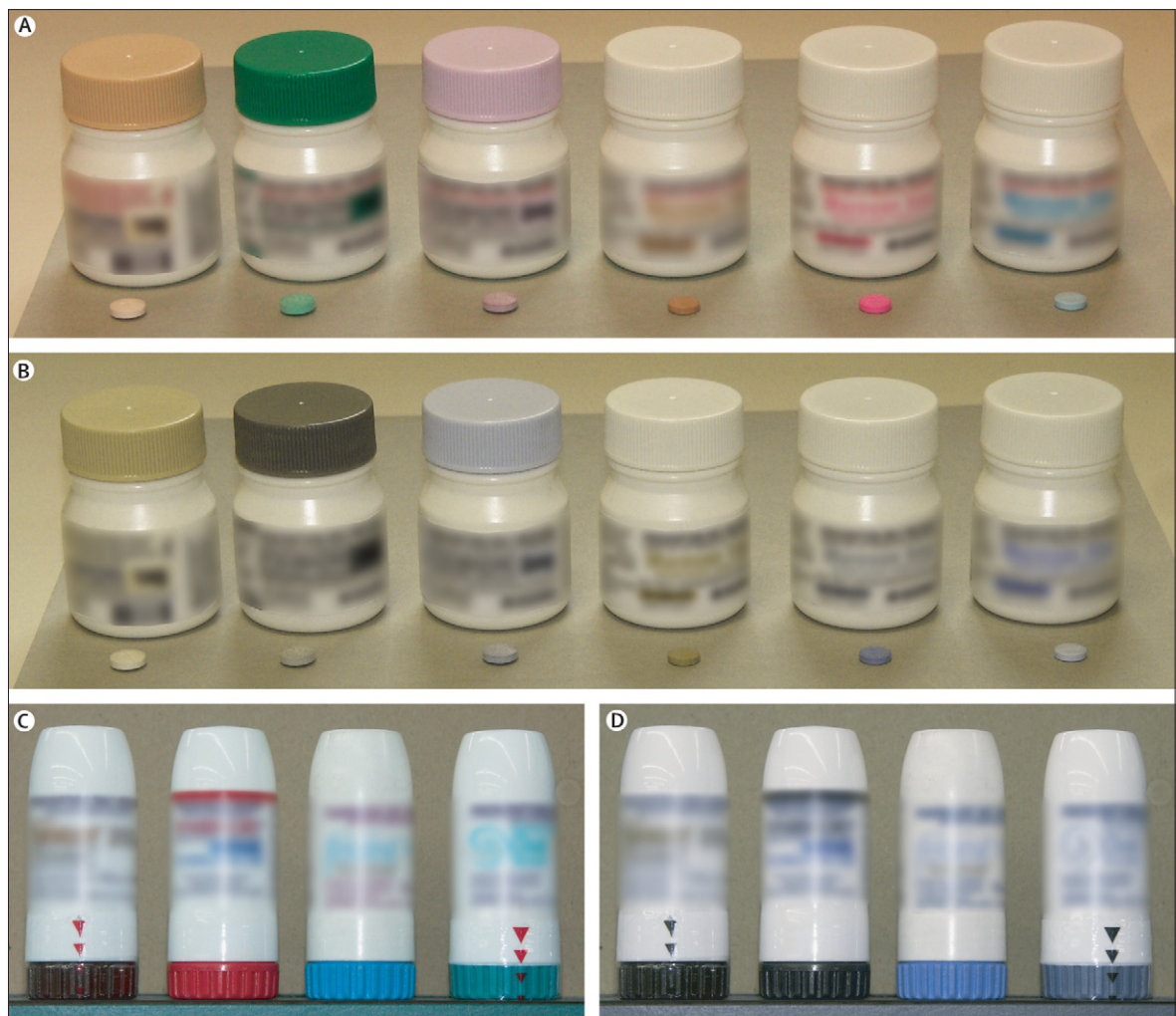


Figure: Colour-coded tablets and containers

Warfarin tablets and containers, as seen by individuals with (A) normal and (B) deuteranopia (loss of medium-wavelength retinal receptors, which occurs in 1% of men). Asthma inhalers, as seen by individuals with (C) normal and (D) protanopia (loss of the ‘red’ or long wavelength retinal receptors, which occurs in 1% of men). (B) and (D) were digitally altered with algorithms from Vischeck. The appearances shown in (B) and (D) are very similar to that for other kinds of red–green colour vision deficiency.

For Vischeck see
<http://www.vischeck.com>