

Appendix: Instructing Patients to Complete the Farnsworth-Munsell D-15 Test

To elicit a precise response it is necessary to give precise instructions. The following is a guide to administering the Farnsworth-Munsell D-15 Test (FMD15) in a precise fashion but without writing a fixed script.

Request the patient not to touch the surface of the colors. Cotton or powder-free latex gloves may be used.

The test starts with the pilot cap in the front of the box with the 15 caps randomised in the lid of the box and the pilot cap at one end of the bottom of the box (Figure A1). Explain to the patient that they should be able to complete this in about one minute and two minutes at the most.



Figure A1. Starting the FMD15 arrangement.

Ask the patient to choose the color from the top of the box that looks most like the one in the bottom, to take it out and to place it alongside (Figure A2). Avoid using less precise instructions like “choose the one nearest to...”, they may choose the one that is physically the nearest.



Figure A2. The color that is most like the pilot color has been taken out and put alongside the pilot cap.

Ask the patient to choose the color from the top of the box that looks most like the one that they have just moved to the bottom, to take it out and to place it alongside (Figure A3).



Figure A3. The color that is most like the first color chosen has been taken out and put alongside.

Repeat the process until all the caps have been used. Offer the opportunity to adjust anything that appears out of place. Record the time taken to complete. Figure A4 shows the correct arrangement and examples of the arrangements of protanopes and deuteranopes.



Figure A4. The correct arrangement (top), an example of a protanope's arrangement (middle) and an example of a deuteranope's arrangement (bottom).

You may also start with the 15 caps on the table top as Figure 5. This has the advantage that they are easier to pick up by your (nervous) patient. You then proceed the same way as before.



Figure A5. Alternate method of starting the test with the 15 caps removed from the box.

There is an alternate method for young children and those with intellectual disabilities that allows for the fact that they may not have developed the concept of a series (see text for details). In this method, all caps are removed from the box and the box is placed away from the immediate test area. The pilot cap is placed separately from the other 15. See Figure A6.



Figure A6. Starting the FMD15 for young children and persons with an intellectual disability.

The patient is asked to choose the color that looks most like the separate color, to take it and put it by the side of the separate color. See Figure A7.



Figure A7. The next cap has been chosen and put by the side of the pilot cap.

The pilot cap is removed and placed in the box, away from the immediate test area. See Figure A8.



Figure A8. The pilot cap has been removed and the next task is the same as the first task.

Repeat the instruction to find the color most like the single color and put it by the single color, remove the first color and place in the box, in sequence. Continue until all the colors have been used and are aligned in the box. Do not allow the option to review.