A 65-year-old man complains of gradually decreasing vision for the last two years. He has always been myopic, but recently his myopia has got worse, and he has had to change his spectacles twice in twelve months. He has been a heavy smoker for many years and has type 2 diabetes and hypertension. He is taking tablets for diabetes and raised blood pressure but is not on any other treatment. There is no other past ocular or medical history. His unaided vision is 6/60, but (in the eye in the photo) this improves to 6/18 with a pinhole.

**Question 1**

Why is his myopia getting worse? (Select one)

- a. His eye is growing longer
- b. He has keratoconus
- c. He has a nuclear cataract

**Question 2**

What do you think has caused/exacerbated this problem? (Select all that are correct)

- a. Diabetes
- b. Smoking
- c. Steroid treatment
- d. Uveitis
- e. Glaucoma

**Question 3**

How would you help this man improve his vision?

- a. Encourage him to stop smoking and improve the management of his diabetes
- b. Prescribe new, stronger spectacles
- c. Refer for cataract surgery

**Answers**

1. Progressive nuclear sclerosis increases the refractive index of the lens in a fairly regular symmetrical fashion, producing a myopic shift. In cortical lens opacities, the changes in refractive index will be more localised, so the refractive changes would tend to be towards astigmatism. As he is 65 years old, the eye is no longer growing. We would also not expect there to be progressive keratoconus at this age.

2. a and b. Diabetes and smoking are known risk factors for cataract. Smoking is particularly associated with nuclear cataract, as seen in this photo. Some patients might be started on a new steroid course, but this would not be the preferred treatment. A cataract operation is likely to be the best option. Some patients might be started on a new steroid course, but this would not be the preferred treatment. A cataract operation is likely to be the best option.

3. c. To improve his presenting vision from the current level of 6/60, a cataract operation is likely to be the best option. Some patients might be started on a new steroid course, but this would not be the preferred treatment. A cataract operation is likely to be the best option. Some patients might be started on a new steroid course, but this would not be the preferred treatment. A cataract operation is likely to be the best option. Some patients might be started on a new steroid course, but this would not be the preferred treatment. A cataract operation is likely to be the best option.