After several minutes, the steam produced causes the pressure to rise in the autoclave. You can see this on the pressure gauge (3). When the pressure reaches 15 +/- 1 psi, steam will come out of the pressure valve.

• You must record the time at which this happens.
• Continue heating for a further 20–25 minutes. Turn off the heat source.
• Open the lower tap, which is the vacuum release tap. All the steam and water will then drain from the autoclave (4). As soon as the water stops draining, close the tap again and leave the autoclave for 5–10 minutes. A further vacuum develops in the autoclave, which will now dry the sterile contents.
• Then open the upper tap (5), which is the steam release tap. All remaining steam will come out of the pressure valve. The pressure gauge should now drop to zero psi.
• Only open the autoclave when the pressure is zero. Then remove the drum and immediately close the vents.

Safety
There are some crucial safety points that you must always follow when using an autoclave.

• You should be well trained in autoclave usage and you should be trained and tested periodically for proficiency in the operation of an autoclave. There is a danger of transmitting HIV, hepatitis viruses, or other infectious diseases if the surgical materials are not properly sterilised. There is also a danger of causing serious injury if the autoclave is not used correctly.
• Always ensure there is the correct amount of water in the autoclave before every use.
• You must not open the autoclave before the pressure reaches zero.
• Do not use an autoclave if parts are malfunctioning; for example, if the pressure does not rise and there is continual escape of steam.
• Do not use if you notice wear and tear on the lid gasket or notice leaky taps and valves.

Continuing Professional Development

CPD: Test yourself

These continuing professional development (CPD) Test Yourself questions are based on the contents of this issue. You can use the questions to test your own understanding; we hope that you will also discuss them with your colleagues and other members of the eye care team. The questions have been developed in association with the International Council of Ophthalmology (ICO) and are based on the style of the ICO Advanced Examination: www.icoexams.org/exams/advanced

1. Think about purchasing instruments and consumables. Which of the following statements are true, and which are false? True False
   a. Pre-shipment inspections are expensive, but they are worth the cost.
   b. Your supplier is usually responsible for inland transportation.
   c. When obtaining a quote, always approach more than one supplier.
   d. The Incoterm® CIP means that you are responsible for insurance and clearance charges.

2. Think about instrument care and maintenance. Which of the following statements are true, and which are false? True False
   a. Instruments must be cleaned after each use and lubricated once a week.
   b. Using distilled water to clean instruments reduces the risk of corrosion and chemical damage.
   c. Regular inspection is important, but it is not necessary to do so under magnification.
   d. It is important to keep records of any instruments requiring repair or replacement.

3. Think about supplies management. Which of the following statements are true, and which are false? True False
   a. You don’t have to make a large order to take advantage of bulk discounts.
   b. The people who manage supplies are usually specially trained and enjoy working with complex inventory systems.
   c. If an eye unit uses between 20 and 30 sutures a month, and they take between 6 and 8 weeks to arrive, you should keep a minimum 40 sutures in stock (and order more whenever the stock reaches 40).
   d. The ‘first in, first out’ approach means that you must use the items with the shortest shelf life first.

4. Think about performing Schirmer’s test and about sharpening and adjusting surgical scissors. Which of the following are true and which are false? True False
   a. When performing Schirmer’s test, patients must close their eyes as tightly as possible.
   b. Performing Schirmer’s test soon after instilling any eye drops will give a false result.
   c. When sharpening surgical scissors, don’t be afraid to apply pressure with the sharpening stone.
   d. When sharpening surgical scissors, cover the full length of the cutting surface with each stroke.

Answers

2. b. True. c. False.