



Safe use of medical oxygen cylinders

Background

During a lifeguard training session in July 2019, a new cylinder was to be fitted to an Oxy-Viva set. Two workers were injured when a worker 'cracked' a 'C' size medical oxygen cylinder. Cracking involves opening the valve slightly then closing it with the intention of removing any contaminants from the outlet of the cylinder.

The cylinder was not secured and the worker lost control of it and it shot through the air. The valve spindle broke off on contact with the ground, leaving a short stub which cut a groove in a person's leg. Travelling further, it broke another person's leg and toes. The outlet on the valve was at the side, influencing the cylinder's random path.

The supplier's information warned not to crack the cylinder, as the outlet was shrink-wrapped to keep it clean.

Contributing factors

- The cylinder was not restrained in a cradle or support frame.
- Workplace procedures supported cracking the cylinder.
- The worker cracked the cylinder prior to fitting the regulator.
- The valve may have been cracked too far, as there is no indication of how far to turn it when cracking.
- The cylinder behaved unpredictably due to the pressure of the released gas (as the supplier information states) and travelled several metres.

Action required

1. Read the supplier's instructions for all gas products carefully.
2. Comply with the supplier's instructions.
3. Do NOT
 - crack the cylinder; or
 - open the valve before the regulator is fitted to the cylinder.
4. If difficulties occur when fitting the regulator to the cylinder, or if further information is required, contact the supplier of the cylinder and the supplier of the regulator before taking action. Locating pins may be damaged or there may be an equipment mismatch and it is important to identify the problem rather than apply force.

Regional Offices