

SAFERamp™

SAFERamp is a new device that simply, quickly and safely opens a drug-containing ampoule without requiring a needle and containing all broken glass within the device.

SAFERamp can also be configured to automatically label the syringe drawing up the drug, avoiding costly drug administration errors.

SAFERamp provides a new opportunity for medical technology manufacturers to add value to the traditionally high-volume but low-margin drug ampoule market.

SAFERamp provides potential benefits to:

- PATIENTS—fewer drug administration errors
- CLINICIANS— Safe, fast, convenient drug preparation; No more glass cuts from broken ampoules and fewer needlestick injuries
- PHARMA—Brand differentiation; drug life management
- HEALTH CARE PROVIDERS— Lower overall costs due to fewer consumables used (e.g. drawing needles), reduced risk of sharps injuries to their employees and reduced costs associated with drug administration errors

For further information please contact:

Dr Maher Khaled

✉ maher.khaled@enterprise.cam.ac.uk

☎ +44 (0)1223 760339

Cambridge Enterprise Limited, University of Cambridge
Hauser Forum, 3 Charles Babbage Road, Cambridge CB3 0GT, UK
www.enterprise.cam.ac.uk

Background

Sharps and needlestick injuries account for 17% of all accidents in the NHS and occur at incidences of up to 600 per 10000 health-care workers. 12% of needlestick injuries are related to the use of syringes.

Such accidents expose both patient and operator to the risk of viral or bacterial infection with up to 600,000 health care workers in the United States experience exposures to blood each year

Legislation has been introduced in the European Union and the United States to address needlestick injury. For example, the EU Needlestick Directive 2010, states that employers should aim to achieve the safest possible working environment, to prevent workers' injuries caused by medical sharps and to protect workers at risk.

Over 10 000 drug administration errors are reported every year in the UK alone which can result in severe patient harm and even death. Syringe mislabelling is a common cause of drug administration error and can add significant costs to health care providers.

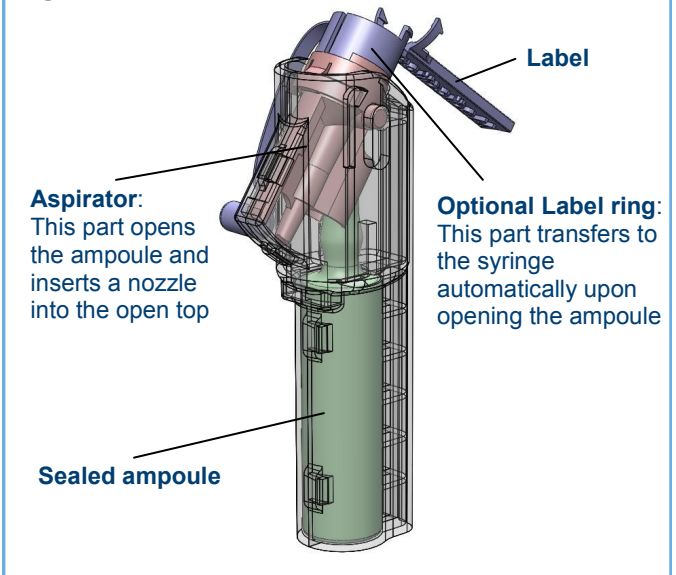
The SAFERamp Solution

Dr Daniel Wheeler, an anaesthetist in the University's Department of Medicine, conceived of SAFERamp as a device to enable the safer delivery of drugs from glass ampoules. One iteration of SAFERamp also includes a label ring that automatically transfers to the syringe while withdrawing the drug, preventing mislabelling errors.

SAFERamp allows the operator to quickly and easily open an ampoule while retaining the broken glass within the device. This reduces the problem of glass cuts encountered during conventional ampoule opening. An integrated nozzle avoids the need to use a needle to draw up the drug.

Other features incorporated into SAFERamp include:

Figure 1: SAFERamp



- a 5 μm particulate filter that keeps the medication entering into the syringe sterile and free from small shards of glass
- A special nozzle tip that stops bubbles from entering into the syringe—a common problem with drawing up a drug with a needle
- snap-locks that secure the mechanism in place, preventing re-use, as well as trapping all broken glass in the device for disposal

Manufacture

SAFERamp consists of only 2-3 simple polypropylene parts and has been designed to be easily manufactured and assembled.

UK manufacturers have fully costed production and assembly and we can achieve a cost-per-device significantly cheaper than the filter needles currently used for drawing up drugs.

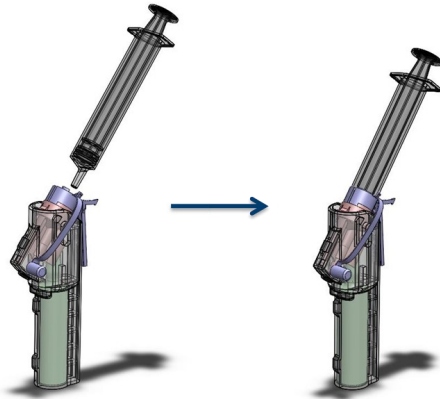
Commercialisation

We are actively seeking partners to help us bring SAFERamp to market. Prototype devices have been made and detailed 3D CAD designs have been generated for tooling.

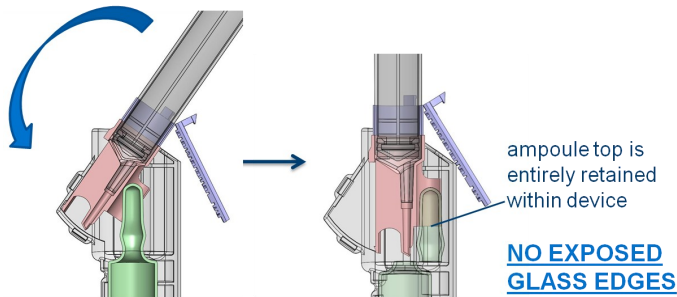
SAFERamp is protected by a PCT patent filing

How to use SAFERamp™

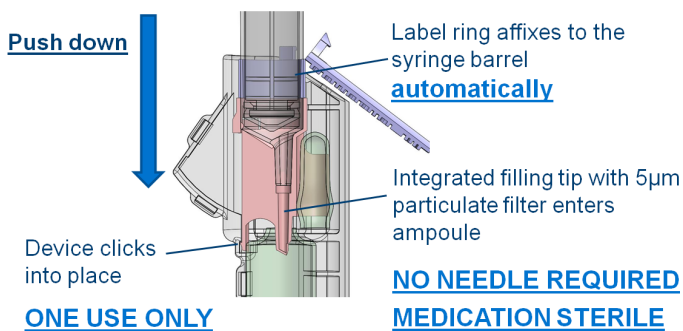
Step 1—Insert syringe



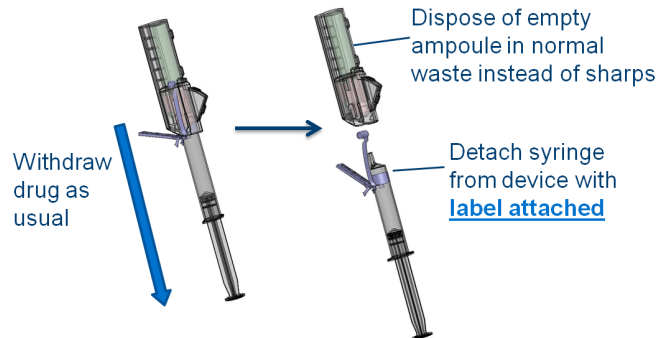
Step 2—Rotate syringe to break open ampoule



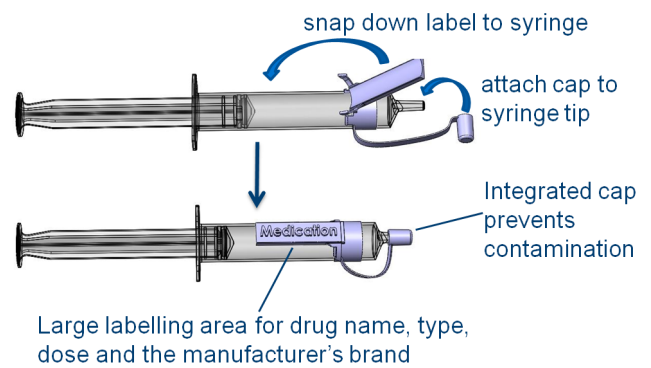
Step 3—Push down to click device into place



Step 4—Aspirate medication



Step 5—Snap down label



DRUG NOW READY TO ADMINISTER TO PATIENT

Watch a video of SAFERamp in action at:

www.enterprise.cam.ak/SAFERamp

Cambridge Enterprise is actively seeking partners to help us bring SAFERamp to market.

For more information please contact:

Dr Maher Khaled

✉ maher.khaled@enterprise.cam.ac.uk

☎ +44 (0)1223 760339