



CUSTOMER CASE STUDY

CCTV at Royal Preston Hospital

The Customer

The Royal Preston Hospital is part of the Lancashire Teaching Hospitals NHS Foundation Trust and is a major hospital in the region. The pharmacy aseptic unit serves a regional population of 3,000,000 in the Northwest for Radiopharmacy and a local population of 350,000 in Preston and Chorley for Oncology.

Solution Overview

A standard CCTV system adapted for use with Envair safety cabinets and isolators in the pharmacy aseptic unit for remote supervision of critical operations.

Features

The CCTV is used for general supervision, release of prescriptions, recording preparations, monitoring of technique and training. It allows all of these activities to be carried out from a single convenient location outside the cleanroom, this maximising the pharmacist's operational control and effective use of time.

The camera can be focused on the label on the vial, on the graduation on the syringe and on the prescription itself so that a full visual record can be kept of every prescription that has been prepared.

Envair have worked with The Royal Preston Hospital Pharmacy Department to install CCTV cameras to monitor batch its preparation and dispensing processes.

Background

The Royal Preston Hospital Pharmacy Department provides an aseptic service not only for its own use but also for other NHS trust and local private hospitals covering a regional population of 3 million in the Northwest for Radiotherapy and a local population of 350,000 in Preston and Chorley for Oncology. As the whole unit is licensed, batch preparation is carried out as well as dispensing. In late 1996 due to a tightening up of controls over aseptic work, it was necessary to establish a procedure that would monitor all critical parts of such work. As a result, CCTV cameras were installed into two Envair Bio 2+ safety cabinets and one CDC 'C' negative pressure isolator.

CCTV Monitoring

The CCTV cameras are internally mounted behind a flush panel at the rear of the cabinet, which ensures no obstruction into the work zone. The camera can be focused initially by removing the glass panel from inside the work zone.

Periodic operator checks are carried out to ensure the virals/syringes are being correctly filled and correspond with documentation completed prior to preparation (these have been checked manually before being handed to the operator in the aseptic facility). Although the operation is slowed down slightly, operator and patient safety is paramount.

As a result of installing the CCTV system, Royal Preston Hospital have also been able to integrate a continuous air monitoring system in every room and every cabinet. If the air quality exceeds the permissible particle count, the technicians are immediately alerted. The videotape can then be played back and any fault or faulty technique identified.



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CCTV

A standard CCTV system comprising cameras, duplex multiplexer, time-lapse video recorder, standard monitor and intercom are set up to monitor operations in a pharmacy aseptic unit. The

time-lapse video recorder allows up to 168 hours (one month) of activity to be stored on a standard 3 hour VHS tape.

The duplex multiplexer allows independent viewing and recording from the selected camera on full screen or sequentially from several cameras on full screen or simultaneously from several cameras on split screen. In this installation, fixed cameras were placed behind waterproof glass panels.

On other installations the camera is a colour TV waterproof unit mounted on a swivel bracket inside the workspace.

Envair's Contribution

CIVAS and TPN are produced in two Envair BIO2+ microbiological safety cabinets built into full clean rooms. The CCTV's are used to monitor individual preparations and video records are kept for 31 days. The intercom systems also serve as a means of communication for the technicians who work alone at their cabinets in their dedicated areas.

Chemotherapy products are produced in an Envair CDC 'C' 2 glove isolator, also located in a full clean room, accessed via a change area.

The cameras, supplied by Envair, are linked to a TV monitor and video recorder to enable efficient monitoring and filling of vials. The rotation of the monitor on each camera at 10-second intervals enables the supervising pharmacist to observe the preparations taking place in all three cabinets. Alternatively, if required, the monitor can focus solely on one camera in a preferred cabinet.



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