

## Project Case Study No. 42



Bwrdd Iechyd  
Hywel Dda  
Health Board

### LC SmartGlass @ West Wales General Hospital

West Wales General Hospital is a 391-bed major acute secondary care hospital, in Carmarthen.

Carmarthenshire NHS Trust was once an NHS Trust in Wales with headquarters of the Trust in Glangwili General Hospital, Carmarthen. The Trust served around 170,000 people across Carmarthenshire and neighboring counties. It had two main hospitals, Prince Philip Hospital, Llanelli, and Glangwili General Hospital in Carmarthen, with accident & emergency services. Carmarthenshire NHS Trust merged with Ceredigion & Mid Wales NHS Trust and Pembrokeshire & Derwen NHS Trust in April 2008 to create Hywel Dda NHS Trust.

Carmarthenshire NHS Trust had a requirement for a new three-storey theatre and endoscopy unit at West Wales General Hospital. The facilities would be located in a totally enclosed courtyard on the hospital site. The purpose-designed facility would free up much needed space within the hospital and provide a highly flexible healthcare facility to meet future local needs. The new endoscopy unit has two fully equipped procedure rooms, a treatment room, two-stage recovery facility and a patient and relative waiting area. The upper floors accommodate a day hospital and a general theatre.

Through continued studies it has been proven that sheer, easily cleaned surfaces are essential in hospitals in order to reduce the risks associated with the spread of super bugs such as Clostridium difficile (CDIFF), Methicillin-resistant Staphylococcus aureus (MRSA) and Vancomycin-resistant Enterococcus (VRE).

A recent American study by the Cleveland Veterans Affairs Medical Centre in Ohio found that curtains which hang between patient beds in hospitals can become contaminated with drug-resistant bacteria and may be playing a role in the spread of these germs in hospitals.



The study showed that CDIFF, MRSA and VRE can be found on hospital privacy curtains. More worrying, researchers found that these bugs transfer onto the hands of people who handle the contaminated curtains, suggesting that health care workers who operate these may be spreading bugs.

The study found that 43 percent of privacy curtains were contaminated with VRE, 22 percent of them harboured MRSA and four percent tested positive for CDIFF.

LC SmartGlass provides the ideal surface to combat these deadly infections and eliminates the need for traditional blind systems which are difficult to clean and high risk in terms of harbouring dirt and bugs.

When the electrical supply is switched on, the liquid crystal molecules align and the LC SmartGlass panel instantly clears. When the power is switched off the liquid crystal molecules are randomly oriented scattering light and the LC SmartGlass becomes opaque (private). LC SmartGlass can be tailored to suit varying healthcare applications with requirements such as fire rated, x-ray proof and impact resistant glass.

LC SmartGlass was specified for this project to separate treatment rooms instantly at the flick of a switch delivering privacy on demand without the use of curtains/blinds. Two large LC SmartGlass panels were integrated into the partition walls separating each treatment room. Care staff at West Wales Hospital can now monitor patient activity within each room by using a remote control to switch the glass to its clear state. Where privacy is required, the LC SmartGlass can be switched to its opaque "off" state instantly, protecting patient privacy and dignity.

West Wales Hospital is dedicated to delivering the very best in quality and value to their patients. This was significantly reflected in the design brief with state of the art patient surroundings being the central focus throughout. Deep-cleaning and infection control preparation can be carried out efficiently and comprehensively within each treatment room at the new facility.

For more information on SmartGlass Medical visit [www.smartglassmedical.com](http://www.smartglassmedical.com).