

Q7: Why are ceiling tiles above some cabinets white and some are black?

A: Whole-body phototherapy cabinets are completely enclosed - except at the top where they are open to the surrounding room. This means that some ultraviolet radiation (UVR) from the phototherapy cabinet exits from the top, reflects off the ceiling and back down towards the floor. The potential concern is that the UVR that has reflected from the ceiling is then exposing staff and / or members of the public. The amount of UVR that is reflected from the ceiling will depend upon a number of factors including the height of the ceiling above the cabinet and the material that the ceiling is made from.

Local Medical Physics departments carry out regular measurements and risk assessment to determine if the reflected UVR is a hazard. They compare their measurements to values which are set down in law. If their measurements indicate that there is a potential hazard then they will take steps to further reduce the reflected light or the staff exposure. One such step might be to paint the ceiling tiles black on the assumption or knowledge that a particular black paint reflects less UVR than the white tile. However different black paints reflect different amounts of UVR so it is important to choose the paint carefully.

There are a number of other steps that can be taken to reduce UVR exposure of staff - for example, creating a curtained zone around the cabinet. The curtain, as well as being useful for privacy, acts as a barrier to the UVR. If Risk Assessed appropriately, the area within the curtain will have higher levels of UVR exposure and staff should minimise their time in this area. Outwith the curtain area there would be no restrictions.

Details of the control measures that have been put in place for your local therapy unit will be available in the Risk Assessment and Local Rules, copies of which can be obtained from your local Medical Physics.