Photonet
National Managed Clinical Network for Phototherapy in Scotland

NHS SCOTLAND

Common Pitfalls in UV Phototherapy

The below is the combined learning from UV phototherapy incidents which have been reported to the Photonet office over the past 5 years. It is not an exhaustive list of all hazards but more a reflection of common learning from the Scottish UV phototherapy community.

> ***It is important to highlight that there have been only 40 incidents reported to Photonet in the past 5 years, from more than 900,000 UV exposures.***

It is not compulsory to report incidents to Photonet but Scottish UV phototherapy centres are encouraged to do so.

1. **Clothing / protection equipment variation during a treatment course**
   a. **Incidents:** The most common form of incident has been erythema resulting from a variation in the type of clothing / protection equipment used during a treatment course. This can lead to previously unexposed sensitive areas of skin receiving high doses of UV radiation.

   b. **Learning:** It is important to have consistency throughout a treatment course. A checklist for the patient prior to each treatment has been found useful, including reminders to wear the same clothing every treatment. It is also important to check that the patient understands the need for the protective equipment (for example face shields) and to ensure that it is being used for each treatment. Signage on the phototherapy cabinet door can help remind the patient but should not be relied upon.

2. **Sun / sunbed exposure during or immediately after a treatment course**
   a. **Incidents:** Patients have had sun exposure, sunbathed or used a sunbed after having PUVA therapy.

   b. **Learning:** It is important to ensure the patient leaflet highlights after treatment procedures / care and the risks from not following instructions. Also helpful to confirm with patient in pre-treatment checklist.

3. **Treating for the wrong amount of time**
   a. **Incidents:** Wrong times entered into therapy treatment units, confusing localised and whole-body timings. This is a potentially very serious incident if, for example, a PUVA time was used for a patient receiving NB-UVB therapy.

b. **Learning:** Departments have found colour coding patient notes to be helpful, with a different colour for each treatment modality. Some also issue independent timers to patients as a second check, in addition to the phototherapy equipment timer. Patients are encouraged to speak up if they suspect the treatment time has changed drastically. This can be added into the pre-treatment checklist.

4. **Patient mix-up**
   a. **Incidents:** Patients with same First name, arriving in a department at the same time resulting in treatments being mixed-up. Potential for over exposure to radiation.

   b. **Learning:** Local hospital patient identification policy should be followed. It is good practice to ask the patient to provide their details rather than asking them to confirm or deny details.

5. **Equipment mix-up**
   a. **Incidents:** Mobile equipment moved and returned to wrong location, resulting in wrong type (UVA / UVB) of equipment in each location.

   b. **Learning:** Ensure that equipment is clearly and uniquely identifiable. Be aware that non-phototherapy staff (e.g. domestic / estates) may be operating in the area and put in place measures to reduce any hazards to them, make them aware of the hazards in the area and review area prior to putting back into clinical use.

6. **Patient fall in phototherapy cabinet**
   a. **Incidents:** Patients with and without mobility difficulties falling in phototherapy cabinets and being injured.

   b. **Learning:** Phototherapy cabinets without protective plastic shielding or grids around the phototherapy lamps are discouraged. Additional risk assessment required if these protection measures are not in place. Care plan required for all patients with mobility difficulties and those who need extra support. Be aware and take measures to reduce risk if room temperature is high and treatment periods are long.

7. **Guideline adherence**
   a. **Incidents:** Strictly adhering to treatment guidelines without using clinical judgement can lead to adverse effects following treatment, for example erythema in the skin

   b. **Learning:** Guidelines provide information that can be utilised in the vast majority of UV phototherapy treatments. However, there will be instances when deviation from guidelines is justified, appropriate and will actually reduce the risk to the patient.