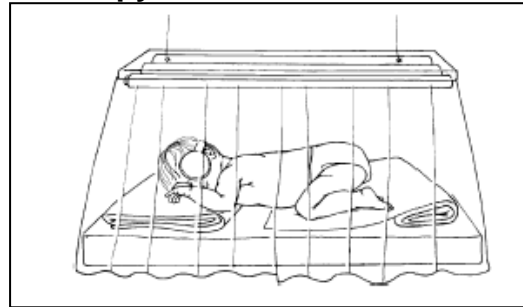


PHOTOTHERAPY UNIT

Tips towards delivering safe and effective phototherapy

- Protect the eyes from light using eye patches once the lights are on
- Keep baby naked with a small nappy to cover the genitalia



- Place the baby as close to the lights as the manufacturers' instructions allow. Use white curtains or linen as slings so as to reflect back as much light as possible to the baby, making sure not to cover top surface of unit which allows air flow for cooling the bulbs.
- Encourage frequent breast feeding. No need to supplement breastfeeding with any other type of feed or fluids.
- Temporary interruptions for feeding or procedures are allowed. But not for oro-gastric feeding or for IV fluids.
- If baby is on IV fluids or expressed breast milk increase the volume by 10%.
- Monitor for and ensure urinary frequency 6-8 times /day.
- Monitor temperature 4 hourly and weight every 24 hours.
- Estimate serum bilirubin frequently ~ q12 hourly. Clinical or visual assessment of jaundice under lights becomes fallacious.
- Change tube lights every 6 months (or usage time >1000 hrs) whichever is earlier; or if tube ends blacken or if tubes flicker. LED bulbs have longer life of 20,000 – 30,000 hours while CFL lamps life is 2000-3000 hours .
- Monitor irradiance of the phototherapy machine once every week. Use a flux meter to monitor irradiance. Change light source if irradiance falls below 6-8 $\mu\text{w}/\text{cm}^2/\text{nm}$.

Caution

- Do not use phototherapy unit under a warmer
- Ensure eye patches do not obstruct nostrils
- For babies below 1.5 kg preferably use phototherapy over incubator
- After switching on the unit , check if all tubes/bulbs are on
- Do not place anything on the phototherapy unit (this blocks air vents).

Trouble shooting

Problem	Possible cause	Corrective action
Too noisy machine or gives too much heat	The fan may not be working optimally or choke is faulty	Rectify the fan or choke
Inadequate irradiance	Machine bulbs covered with dust or reflectors are dirty or Life of bulb over	Clean the dust from unit ;Change the bulbs at specified periods
Flickering bulbs or blackened end of tubes	Problem with starter or Tubes life is over	Change starter /bulbs / tube lights as required
Unit is not switching	Problem with electrical socket , fuse or loose contact in plug or damaged mains cord	Take action as per need

**After doing the above procedure(s), if the unit is still having problem, call qualified technician to repair the unit.*

Maintenance

- Change bulbs / tube lights as per recommendation of equipment
- Maintain a log of hours by logbook or time recorder on equipment
- Ensure if inbuilt fan is installed it is working & vents are not covered
- Periodic removal of dust from overhead unit makes unit more efficacious
- If unit overheats the baby , the choke & fan assembly needs repair

Cleaning/Disinfection

- Use moist or dry cloth to clean unplugged unit
- Ensure the reflectors , bulbs remain dust free