

is an indication for assessing bilirubin levels.

Phototherapy

The infant who receives phototherapy is placed semi-nude (diaper may be left in place) under the light source and periodically evaluated to ensure tolerance to the procedure. After phototherapy has been initiated, frequent serum bilirubin levels (every 6 to 24 hours) are necessary because visual assessment of jaundice or transcutaneous bilirubin monitoring is no longer considered valid.

Several precautions are instituted to protect the infant during phototherapy. The infant's eyes are shielded by an opaque mask to prevent exposure to the light (see [Fig. 8-17](#)). The eye shield should be properly sized and correctly positioned to cover the eyes completely but prevent any occlusion of the nares. The infant's eyelids are closed before the mask is applied because the corneas may become excoriated if they come in contact with the dressing. On each nursing shift, the eyes are checked for evidence of discharge, excessive pressure on the eyelids, and corneal irritation. Eye shields are removed during feedings, which provide the opportunity for visual and sensory stimulation.

Infants who are in an open crib must have a protective Plexiglas shield between them and the overhead fluorescent lights to minimize the amount of undesirable ultraviolet light reaching their skin and to protect them from accidental bulb breakage. Their temperature is closely monitored to prevent hyperthermia or hypothermia. Maintaining the infant in a flexed position with rolled blankets along the sides of the body helps maintain heat and provides comfort.

Accurate documentation is another important nursing responsibility and includes (1) times that phototherapy is started and stopped, (2) proper shielding of the eyes, (3) type of light source (by manufacturer), (4) use of phototherapy in combination with an incubator or open bassinet, (5) photometer measurement of light intensity according to hospital protocol, (6) feeding and elimination pattern, (7) body temperature, and (8) serum bilirubin levels.

Minor side effects for which the nurse should be alert include loose, greenish stools; transient skin rashes; hyperthermia; increased metabolic rate; dehydration; electrolyte disturbances,