



**Service Priorities and Programmes**  
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**Intensive phototherapy as a safe and effective alternative to exchange transfusion for treatment of severe neonatal jaundice**

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**Introduction**

Exchange transfusion (ET) is the standard treatment for severe neonatal jaundice. However it carries significant risks including haemodynamical instability, infection , clotting , electrolyte disturbance and catheter related complications as well as being very costly. Intensive phototherapy (IP) was suggested by the American Academy of Pediatrics in 2004 to be an effective treatment for severe NNJ. The aim of this study is to review the efficacy and safety of intensive phototherapy .

**Objectives**

to review the efficacy and safety of intensive phototherapy .

**Methodology**

Data were collected and analyzed retrospectively for neonates treated with intensive phototherapy from 1/1/2009 to 31/12/2012. Inclusion criteria were serum bilirubin level above ET level or near ET level but with risk factor ( including preterm, haemolysis ,G6PD deficiency , sepsis ). Exclusion criteria are those aged >1-month-old, conjugated hyperbilirubinaemia . Intensive phototherapy was conducted with set up according to AAP guideline. Outcome measures included the degree of bilirubin drops, avoidance of ET . Secondary outcome is to identify the risk factors for failing intensive phototherapy, complications from intensive phototherapy

**Result**

Total 95 neonates (83 term and 12 preterm babies) were included in the study.. 6 neonates failed intensive phototherapy and finally required exchange transfusion . No significant complications were noted during intensive phototherapy. To conclude,intensive phototherapy is a safe and efficacious alternative to treat severe NNJ . It would decrease the need of exchange transfusion and to avoid its complications.