CHAPTER 1

INTRODUCTION & AIM OF THE WORK

Neonatal jaundice is defined by serum bilirubin concentration greater than 5mg/dl. ***[Sarici etal., 2004].***

Differentiation between physiologic jaundice and pathologic jaundice is essential because pathologic jaundice is a sign of a more serious condition***. [Riskin etal., 2008].***

The main management of hyprebilirubinemia whether term or pre-term newborn depends mainly on serum total bilirubin (STB), and age in hours, includes phototherapy and exchange transfusion if phototherapy fails. ***[Bhutani etal., 2008]***

Intensive phototherapy in neonatal hyperbilirubinemia rapidly decreases serum total bilirubin (STB) below the threshold for treatment. ***[National Neonatology Forum of India; 2004].***

Intensive phototherapy implies the use of high levels of irradiance to as much of infant's surface area as possible. ***[Bunder & Kaplan; 2006].***

Risk factors for phototherapy neonatal bilirubin rebound include a positive Coombs test, pre-maturity, and treatment at or before 72 hours***. [Kuzniewicz etal., 2008]***

The American Academy of Pediatrics ***(AAP)*** produced a practice parameter dealing with the management of hyperbilirubinemia. ***[(AAP); 2004].***

However, underlying alteration in bilirubin production and excretion may persist and cause bilirubin rebound after stopping phototherapy**.** ***[Bhutani etal., 1999, Yetman etl., 2002]***

The need of measurement of Bilirubin rebound after stopping phototherapy has been addressed previously by many observational studies. ***[Yetman etal., 1998], [Maisels & Kring; 2002].***

These studies included neonates born at term or pre-term gestation, those with or without positive Coombs test, have concluded that significant bilirubin rebound is rare and therefore, measurement of bilirubin rebound is not needed. In addition, routine measurement of bilirubin rebound may increase workload, add to expense and prolong the hospital stay**.** ***[Erdeve etal., 2004].***

Despite evidence to contrary and guidelines of American Academy of Pediatrics on similar lines, measurement of bilirubin rebound within 24 hours after discharge is recommended after stopping phototherapy. ***[(AAP); 2004].***

Aim of the work:

To determine the incidence and magnitude of post phototherapy neonatal serum total bilirubin (STB) rebound needing reinstitution of phototherapy.