

# Retinopathy of prematurity in urban district hospital: A single-centered retrospective cohort study from 2016 to 2022

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## ABSTRACT

**Introduction:** The most common cause of visual impairment among premature infants is Retinopathy of Prematurity (ROP). With the advancements in neonatal care, survival rates of premature infants improved leading to the increment of ROP incidence, making it a significant public health concern. This study aims to provide a baseline account of the disease burden to an urban minor specialist hospital by describing the incidence and the trend of the disease. **Methods:** This is a single-centred, 7-year retrospective cohort review of the records of premature infants screened for ROP between 2016 and 2022 in Hospital Shah Alam. Data pertaining to the premature infants screened for ROP in the neonatal unit were extracted from the Ophthalmology database and Hospital Information System (HIS). **Results:** 361 neonates who fulfilled the inclusion and exclusion criteria were screened for ROP during the study period. Their mean birth weight was  $1290 \pm 343$  g and their mean gestation was  $30.3 \pm 2.5$  weeks. Out of 722 eyes that were analyzed, 144 eyes have ROP making the overall incidence of ROP detection in these neonates 19.9% with an evolving trend across the specified years. **Conclusion:** As the incidence varies from year to year, it is important to analyze the factors contributing to these changes to understand the progression of the disease. The findings also indicate the effectiveness of neonatal management in the urban minor specialist hospital as the ROP incidence is relatively lower compared to the other previous study. However, it is worth noting that discrepancies in the demographic characteristics of patients, such as birth weight and gestational age, between our study and prior investigations may contribute to the observed variations in the incidence of retinopathy of prematurity (ROP).