PREDICTION OF HYPERBILIRUBINEMIA

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ACKNOWLEDGEMENT

Presentation, Inspiration and Motivation have always played a key role in success of any project.

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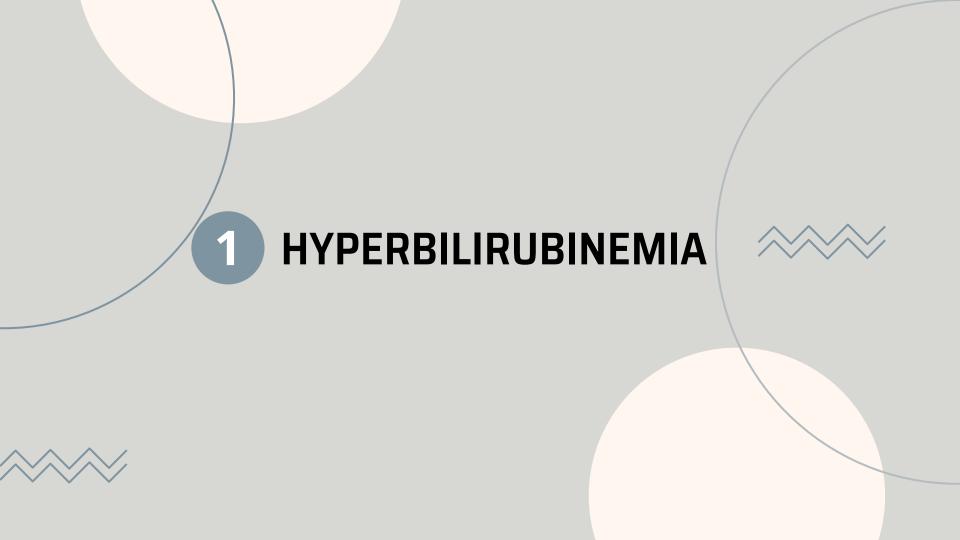
- Results
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"The core objective of fabricating this project was to apply the concepts of Machine Learning in such a way that it impacts the betterment of Human-Life directly"

BIOLOGICAL INTRA-PART



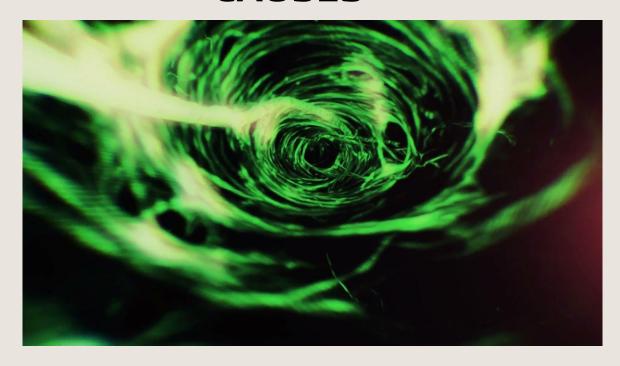
CAUSES



BREAKDOWN OF FETAL HEMOGLOBIN



CAUSES



IMMATURE METABOLIC PATHWAYS TO LIVER

IMPLICATIONS



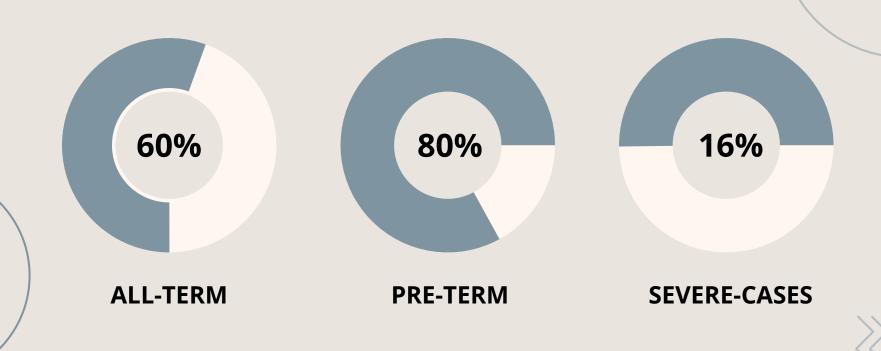
KERNICTERUS

Severe issues in the CNS e.g -- Brain Lesions.



SEVERE JAUNDICE

OCCURRENCE





PHOTOTHERAPY

- ☐ The use of visible light for the treatment of hyperbilirubinemia in the newborn.
- Therapy lowers the serum bilirubin level by transforming bilirubin into water-soluble isomers.





PROPOSED MODEL

"To develop a model that will predict high risk newborns who will subsequently develop significant hyperbilirubinemia"



PROBLEM AT HAND

DATA CLEANING

CONCLUSIONS











DATA COLLECTION

MACHINE LEARNING MODEL



- A. <u>(PDF) Applying data mining techniques to improve diagnosis in neonatal jaundice</u> (researchgate.net)
- B. <u>Enhanced early prediction of clinically relevant neonatal hyperbilirubinemia with machine learning PubMed (nih.gov)</u>
- C. <u>Hyperbilirubinemia, Phototherapy, and Childhood Asthma | Pediatrics | American Academy of Pediatrics (aap.org)</u>
- D. <u>Model to predict hyperbilirubinemia in healthy term and near-term newborns with exclusive breast feeding PubMed (nih.gov)</u>
- E. <u>Clinical predictive score of predischarge screening for severe hyperbilirubinemia in late preterm and term infants PubMed (nih.gov)</u>
- F. https://towardsdatascience.com/introduction-to-logistic-regression-66248243c148
- G. https://www.analyticsvidhya.com/blog/2021/05/logistic-regression-supervised-learni-ng-algorithm-for-classification/
- H. https://data-flair.training/blogs/machine-learning-classification-algorithms/

