PIONEERING NEWBORN PREVENTIVE CARE INITIATIVE


VITAMIN K
FOR
CHILDREN
HEALTHCARE
PHARMA1
HUMANITAS
VITAMIN
D

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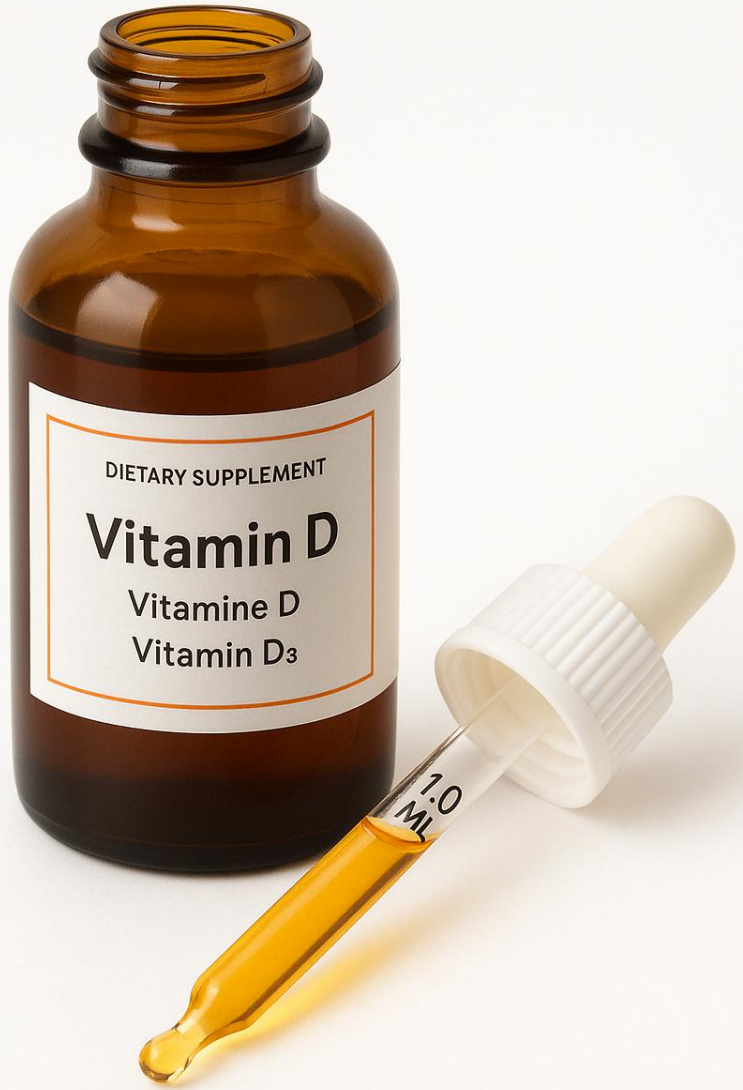
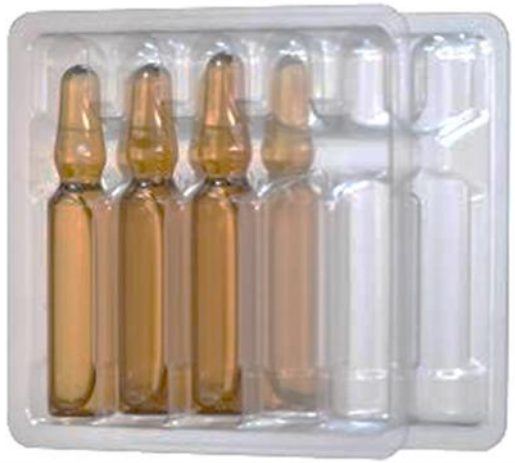
CHILDREN HEALTHCARE

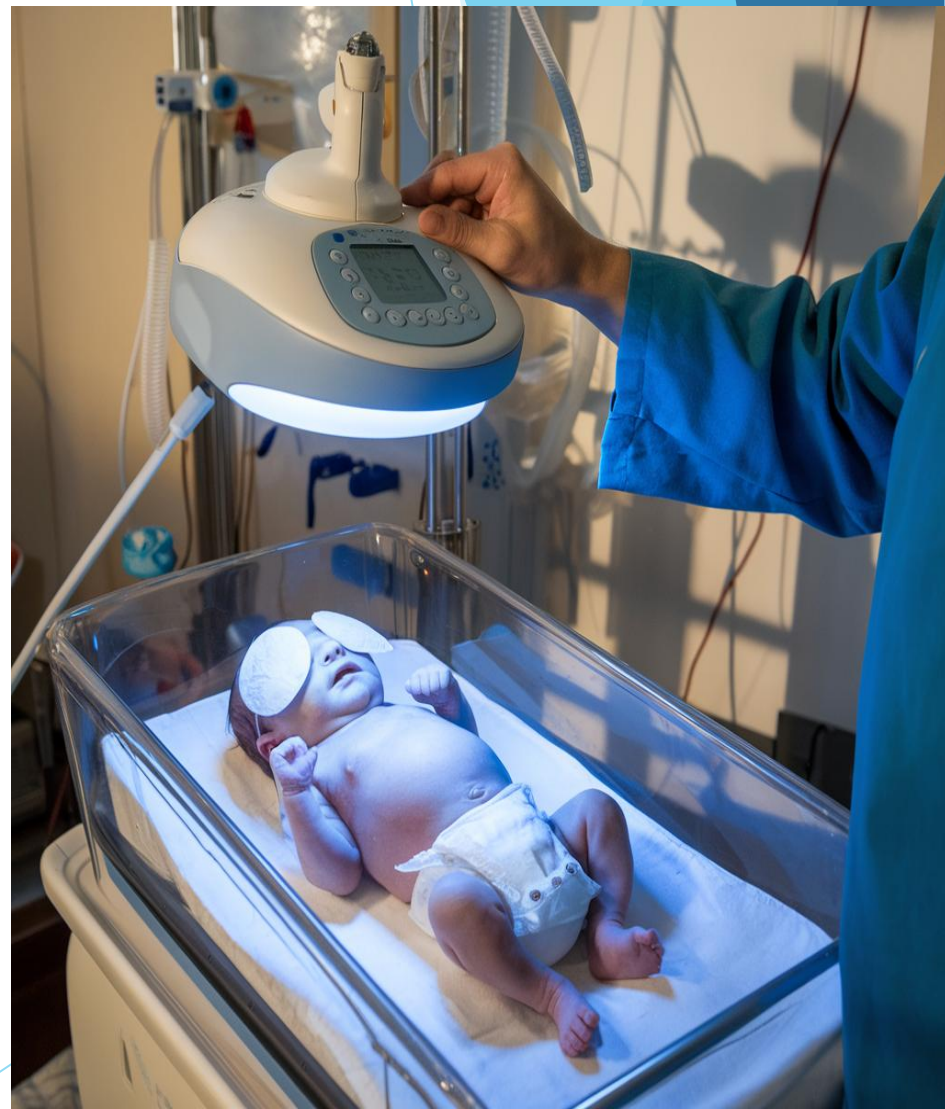
VITAMIN D PROJECT



PIONEERING NEWBORN PREVENTIVE CARE INITIATIVE VITAMIN K PROJECT

- Pioneering Therapeutics for Newborn Prevention.
This venture represents a groundbreaking industrial project within the pharmaceutical domain, centered on developing pioneering therapies for newborn preventive care in humanitarian purpose for support European and African healthcare system.
- The core aim is to formulate a pharmaceutical solution designed to prevent all three categories of neonatal hemorrhagic conditions: early-onset, classic, and late-onset.
- Address the need for a universally effective preventive therapy, as current solutions lack full efficacy.

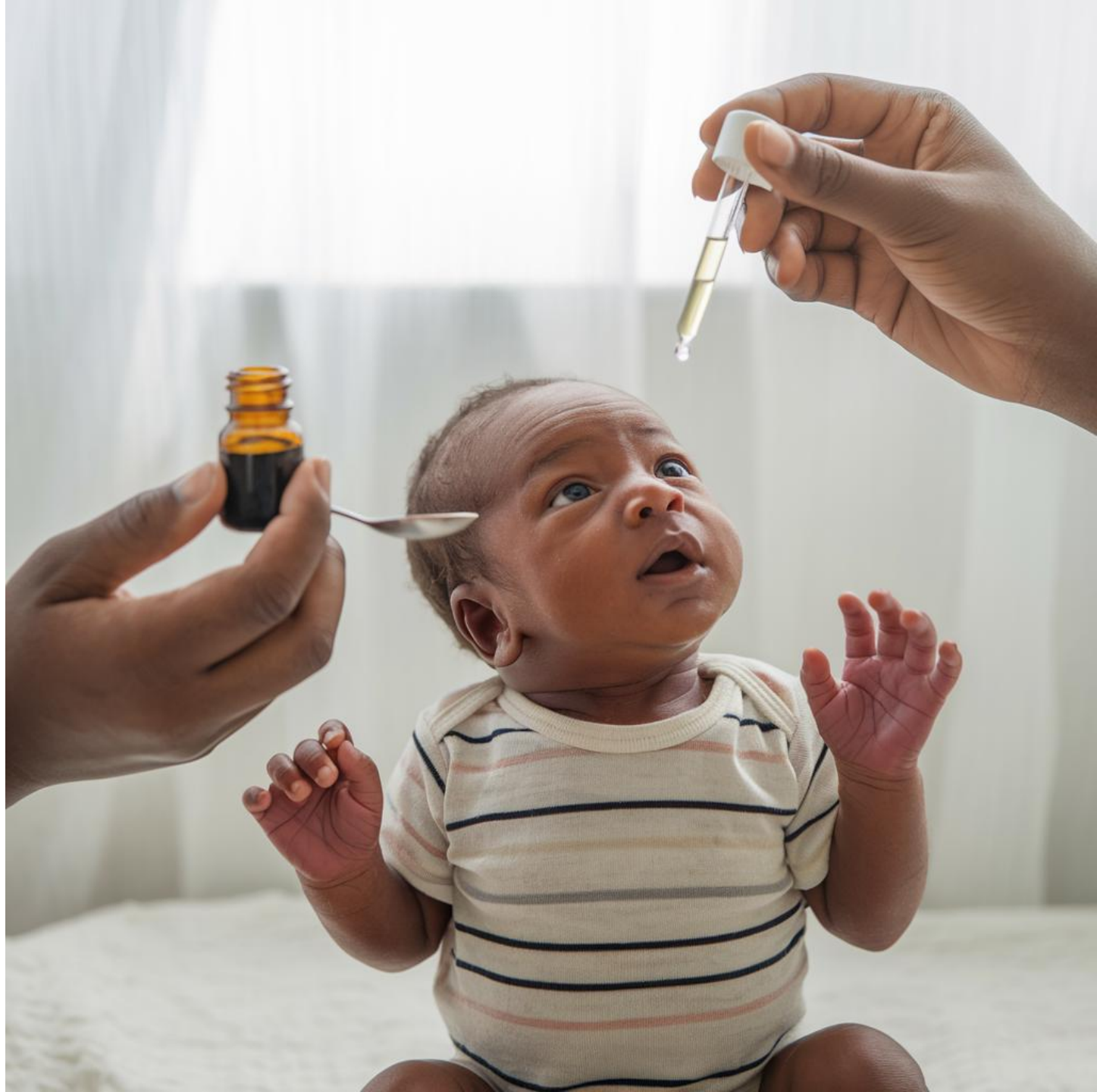




SUPPORT AFRICAN HEALTHCARE SYSTEM.

VITAMIN D
VITAMIN K

PHARMA 1 HUMANITAS
HEALTH – BEAUTY - HI-TECH



1. Introduction

The importance of vitamins D and K in bone development and coagulation metabolism is widely recognized. In neonates, adequate levels of these micronutrients are crucial for the prevention of rickets, hypocalcemia and bleeding disorders. Vitamin D deficiency, favored by insufficient sun exposure and renal immaturity, and vitamin K deficiency, due to limited endogenous reserves and absence of intestinal microbial synthesis, represent significant risk factors in the first months of life.

2. Objectives of the Project

Development of a highly tolerated pediatric supplement containing vitamin D3 (cholecalciferol) and phytomenadione (vitamin K1) in a liquid formulation for oral administration.

Clinical evaluation of bioavailability and safety in neonates aged 0–3 months.

Monitoring of the effects on bone mineral density biomarkers and prothrombin time.

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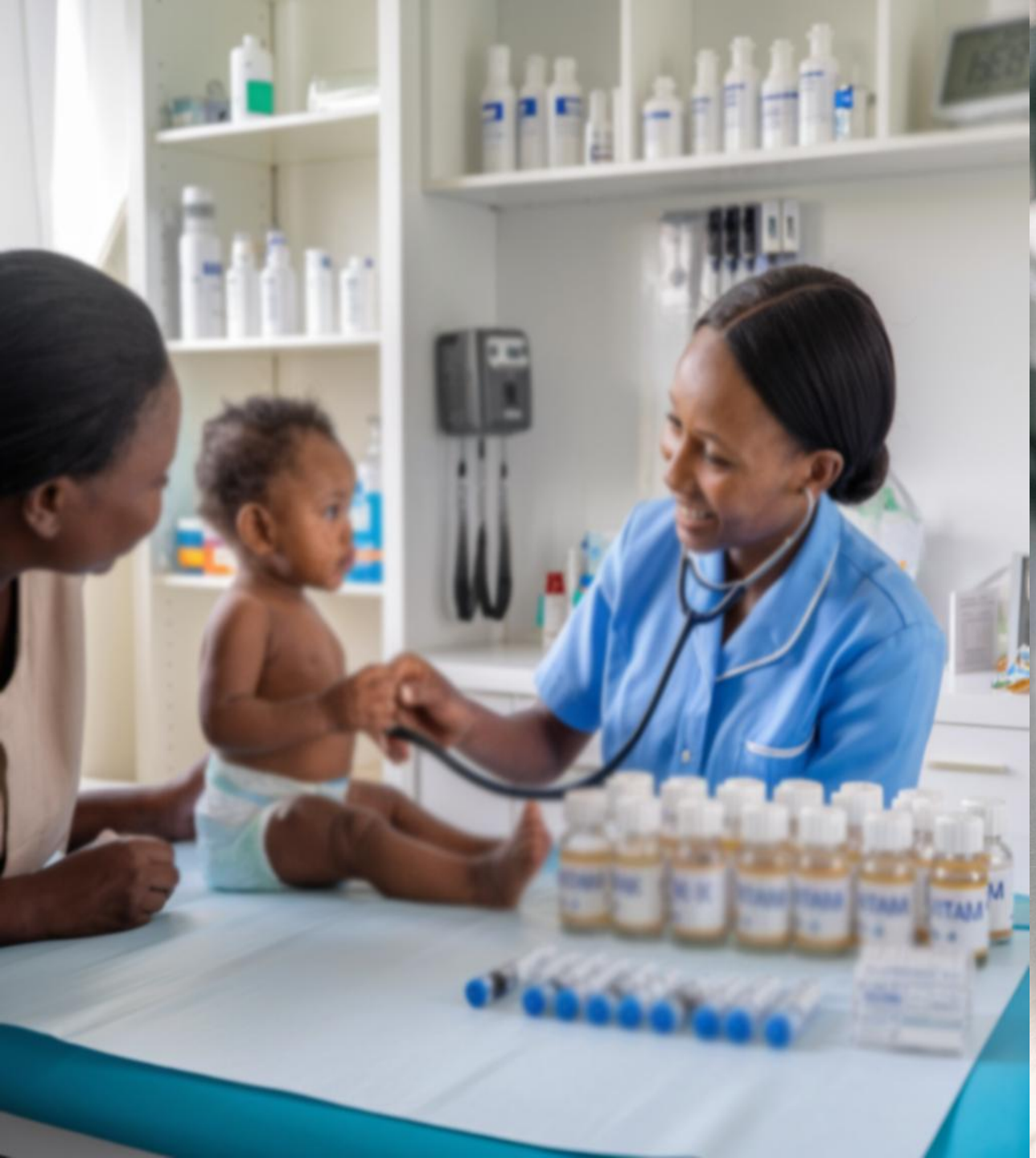
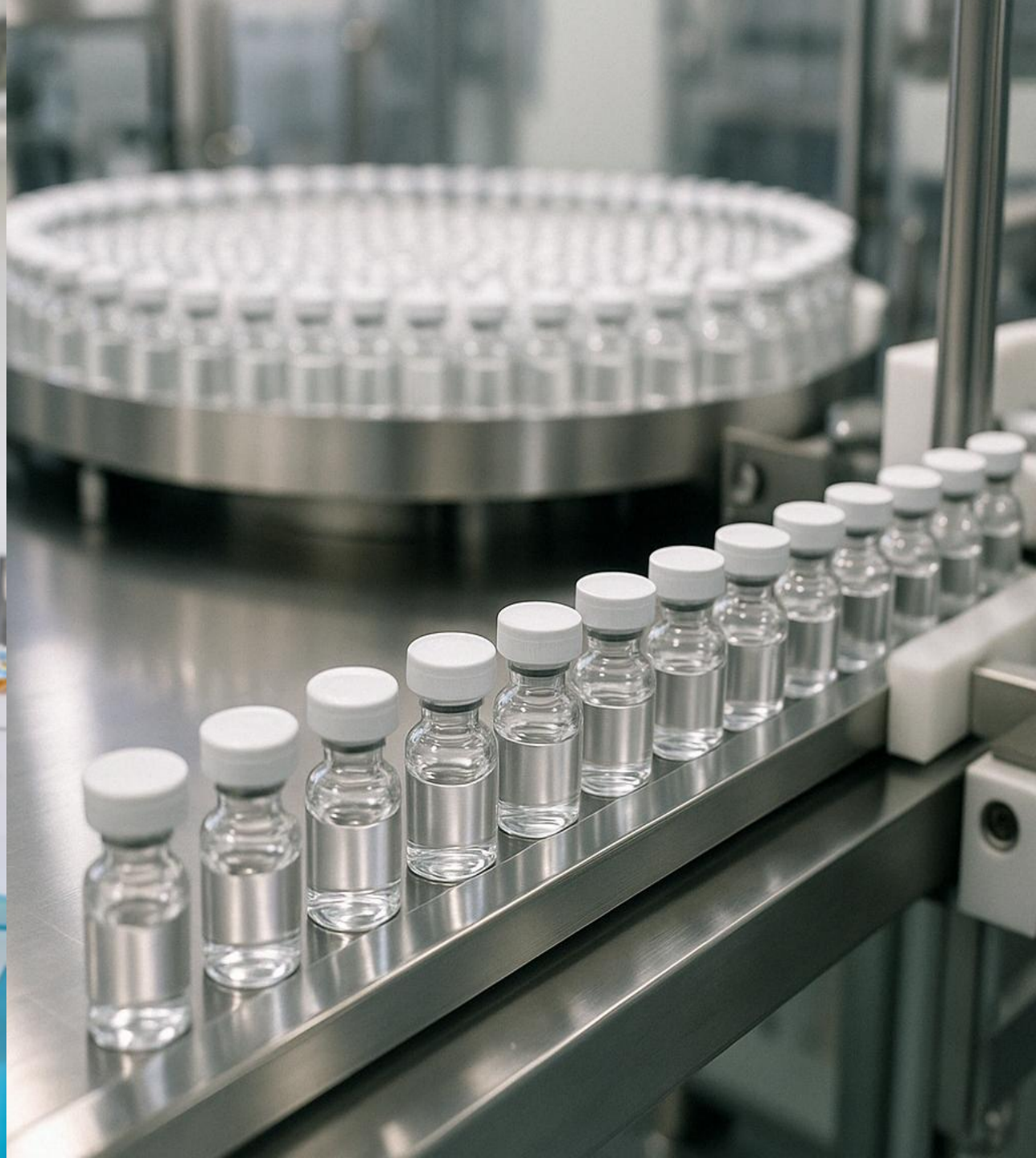
Goal

To improve the overall well-being, treatment outcomes and quality of care in a designated pediatric hospital by supplying age-appropriate play resources, entertainment options, vital medical equipment and essential medicines.

3. Objectives

- **Psychosocial Support:** Distribute safe toys and interactive video games to stimulate play and distract young patients during treatment and recovery.
- **Medical Capacity Building:** Procure medical devices (e.g., infusion pumps, portable monitors, neonatal phototherapy units) to modernize the ward's diagnostic and treatment capabilities.
- **Pharmaceutical Provisioning:** Secure and deliver a sustained stock of high-impact, life-saving medicines (e.g., antibiotics, antimalarials, vaccines, emergency resuscitation drugs).
- **Sustainability:** Establish partnerships and protocols to maintain and renew supplies, and train staff in equipment operation and medicine management.

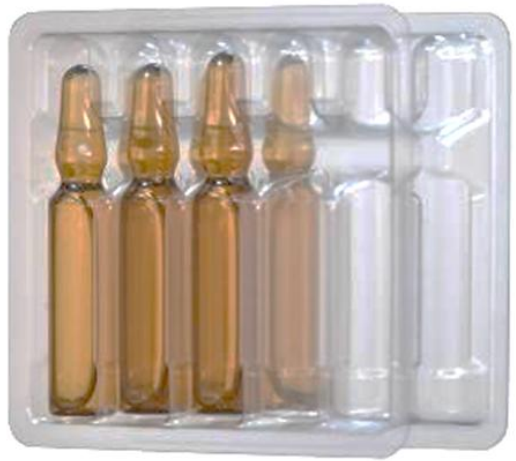


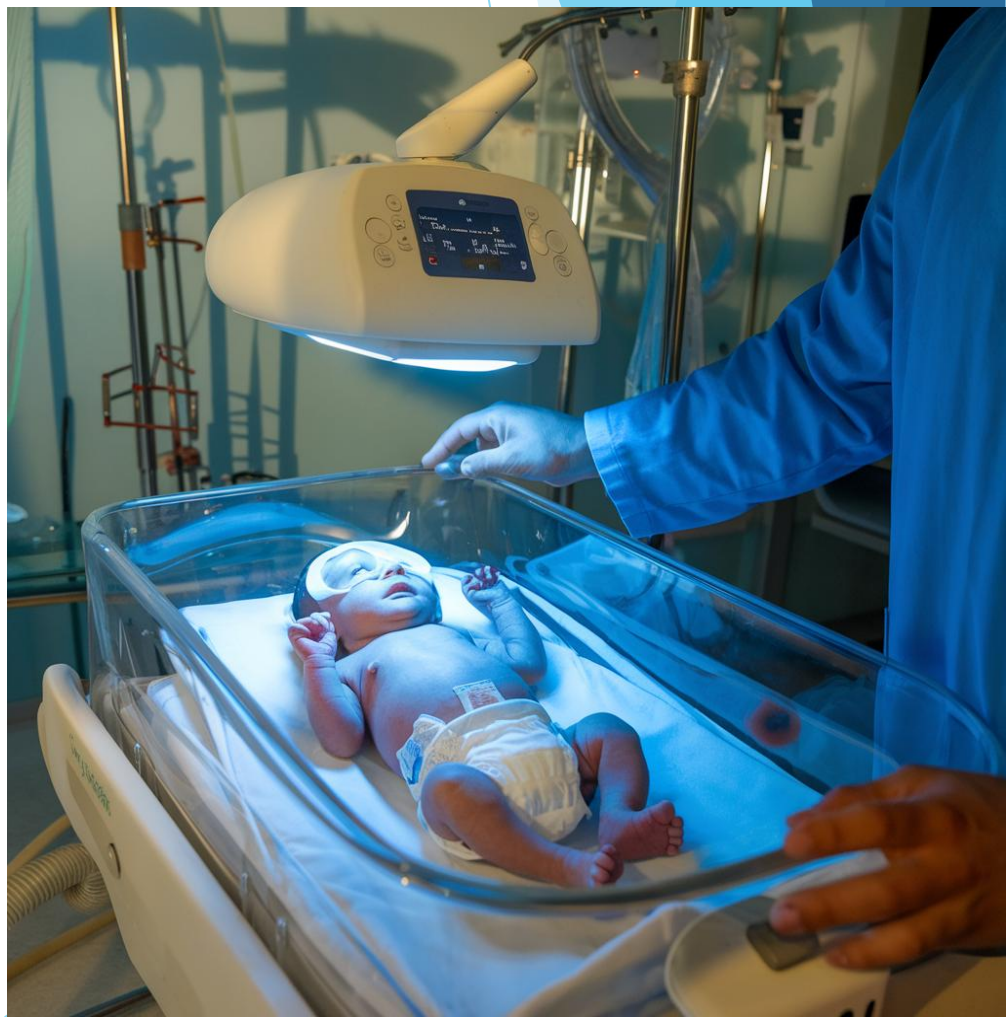


HELP CHILDREN FIND SOLUTION FOR AVOID NEONATAL DISORDERS AND RAMIFICATIONS

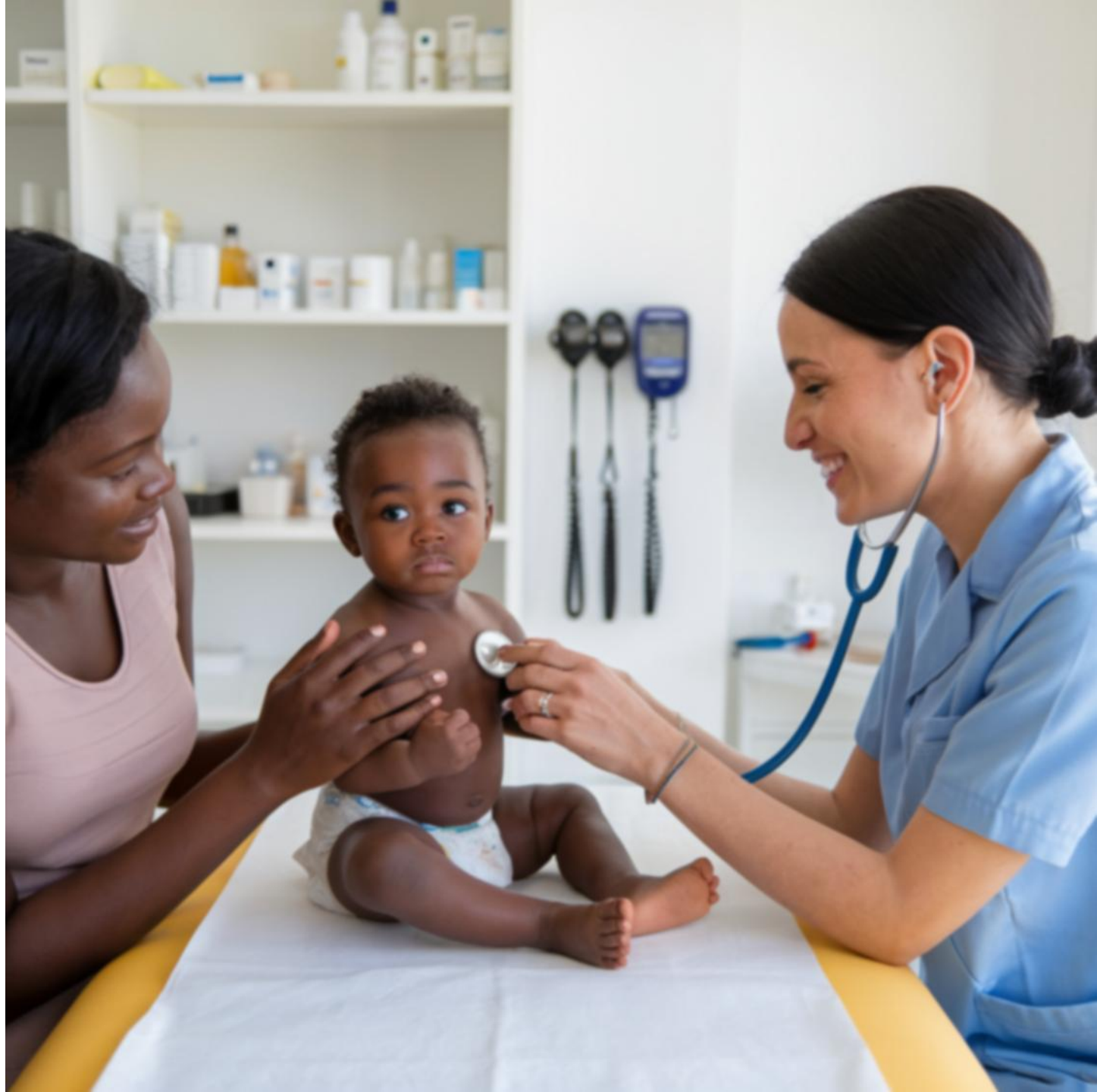
Inadequate vitamin K levels in newborns can precipitate severe bleeding episodes with high rates of morbidity and mortality.

Clinically recognized as Vitamin K Deficiency Bleeding (VKDB).Vitamin K insufficiency during the neonatal period and up to the third month of life significantly increases hemorrhagic risk.





At birth, neonates have low plasma vitamin K due to minimal placental transfer.A sterile gastrointestinal tract delays endogenous vitamin K production until microbial colonization begins.Vitamin K shortage may trigger bleeding within the first three months, classified into early, classic, and late-onset forms.



HELP CHILDREN FIND SOLUTION FOR AVOID NEONATAL DISEASE EFFECTS OF VITAMIN K INSUFFICIENCY

- **Early-Onset VKDB:**
  - Occurs within 24 hours of life; often critical.
  - Typically in infants whose mothers used vitamin K–antagonistic medications during pregnancy.
- **Classic VKDB:**
  - Manifests between days 1 and 7 as a result of the physiological decline in neonatal vitamin K reserves.
  - Symptoms range from mild bruising to intracranial hemorrhage.
- **Late-Onset VKDB:**
  - Presents between weeks 2 and 24.

Frequently leads to serious intracranial or gastrointestinal bleeding, with a substantial fatality rate.

HELP CHILDREN FIND SOLUTION FOR AVOID NEONATAL DISEASE EFFECTS OF VITAMIN K INSUFFICIENCY

Project Roadmap

1. Site Acquisition

1. Secure an existing 2,500 sqm facility complete with production and packaging lines for liquid, solid, and powder formulations, plus administrative spaces and equipment.

2. Capacity Enhancement

1. Upgrade current manufacturing and packaging operations and initiate production of the neonatal prophylactic agent for global distribution.

3. Facility Expansion

1. Develop a new adjacent structure equipped with R&D laboratories, development offices, and essential support infrastructure.

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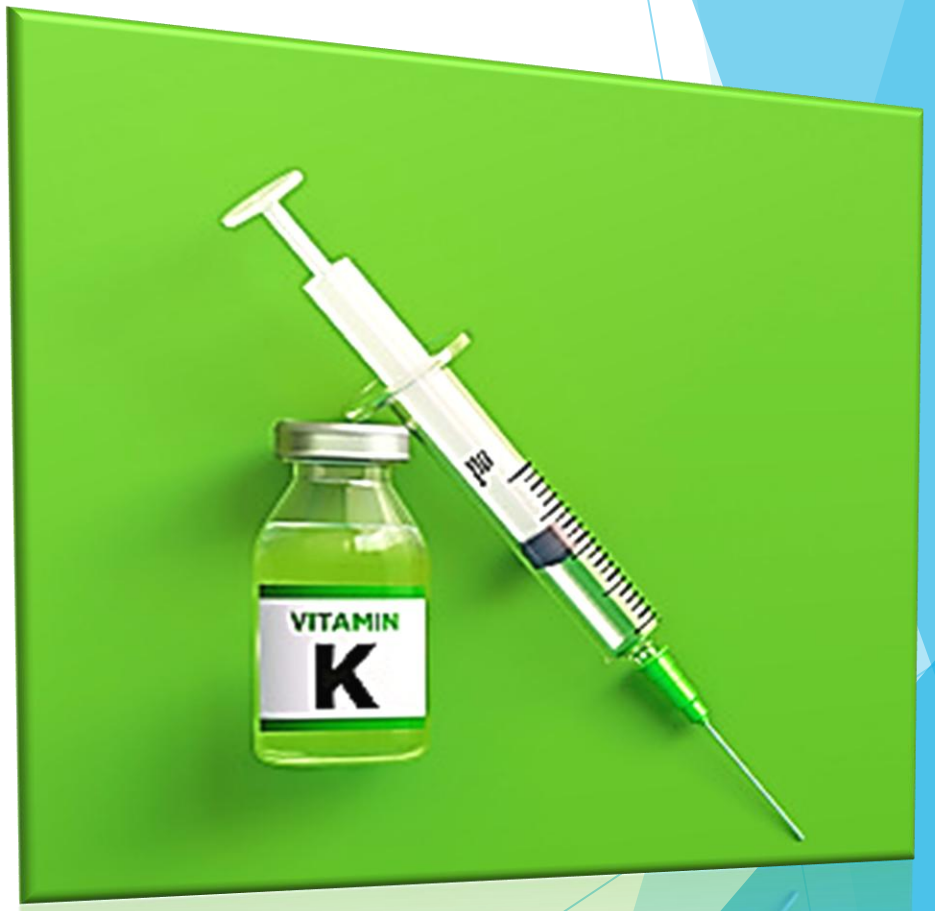
An integrated approach that ranges from preconception preparation to neonatal care and follow-up is essential to prevent neonatal disorders and reduce their long-term consequences. Involving a multidisciplinary network (obstetricians, pediatricians, geneticists, therapists) and ensuring adequate education to families will allow us to best protect children's health from the very first moments of life.



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