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VISUAL STIMULATION IN THE NEONATAL AND PEDIATRIC INTENSIVE CARE UNITS

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Introduction: In the first months of life, children are strongly sensitive to conditions that interfere with visual development. There is evidence that impoverished developmental conditions can lead to delays in visual development. We focused on patients with prolonged hospitalization during their first months of life, whose delayed visual maturation may be consequence of a poorly visual environment at the hospital intensive care units. Our main purpose was to develop a visual stimulation kit that could be implemented in these situations in order to create a visual enriched environment.

Materials and Methods: Creation of a reproductible visual stimulation kit using high contrast black-and-white patterns. Images were created through the software Adobe Illustrator® and impressed in plates with the following dimensions: 30 x 30 cm and 15 x 15 cm. A material appropriated to the hospital ambient was chosen. An awareness session at the time of the kit's delivery was conducted and a booklet with important advices to parents and caregivers was created.

Results: The visual stimulation kit, intended to be applied to the surrounding environment of children until 8 months-old with prolonged hospitalizations (more than 1 month long) and children demonstrating lack of visual interaction, was created with two bigger plates destined to be placed in the lateral walls of the cribs and four smaller plates destined to be hanged in the intravenous system support or other support surrounding the crib. One visual stimulation kit was delivered to the Intensive Care Unit of the "Hospital Pediátrico do Centro Hospitalar Universitário de Coimbra" after an awareness session was presented to the healthcare providers of this unit.

Discussion and Conclusion: Stimulation through an environmental enrichment can modulate brain development and induce modification in the neural circuits. Simple high contrast black and white images are one of the main interventions to stimulate children's vision. Our main purpose with this project is to create a systematic guideline to be applied in children with prolonged hospitalizations in order to prevent the onset of a delayed visual maturation. With our intervention, we intend to sensitize healthcare providers, caregivers and parents to this aspect of the newborn development.