

1. Introduction

Caritas Baby Hospital (CBH) is the sole exclusively pediatric hospital in the West Bank. It was founded in 1953 by the Swiss Father Ernst Schnydrig and is operated by Children's Relief Bethlehem (CRB), a Christian relief agency based in Lucerne, Switzerland. For CBH, respecting the dignity of each human being is equally as important as focusing on the most vulnerable groups. Support is granted to every child, irrespective of their origin, religion or social background.

Annually, around 50,000 treatments are offered to Palestinian children up to 18 years of age in the outpatient department and inpatient wards of the hospital. The majority of CBH's patients come from the southern parts of the West Bank, namely the governorates of Bethlehem and Hebron. According to the Palestinian Central Bureau of Statistics (PCBS), over 400,000 children live in the served area; making up 42% of the total population.

CBH focuses on three pediatric subspecialties –neurology, pulmonology, and neonatal and pediatric intensive care– in accordance to the rising demand for these services as reflected in the hospital's strategic plan of 2018-2023.

2. Neurology Department Overview

Due to the notable increase in the incidence of neurological diseases among the Palestinian community, Caritas Baby Hospital aims at expanding the neurology department to be able to handle the high demand among the paediatric population. The clinic should be able to evaluate, counsel and treat inpatients and outpatients with developmental and behavioural difficulties (e.g. autism, attention deficit hyperactivity disorders – ADHD, and psychosomatic and psychiatric disorders).

The development approach for the neurology clinic depend on building on the available expertise through enhancing the capacity of the current multidisciplinary team and develop the diagnostic services.

In 2020, Dr. Nader Handal completed his subspecializing in pediatric neurology. The paediatrician who is already well engaged in the neurology clinic with Dr. Motee' Al-Ash'hab will be available on a fulltime basis to provide medical consultancies for CBH patients. Additionally, a multidisciplinary team of doctors, nurses, physiotherapists and social workers is being trained on rehabilitation and diagnostic neurological services including the EEG, EMG and MRI.

The second component of the developmental approach for the department includes improving the Diagnostic Services. CBH is one of very few facilities that provide the Electroencephalography (EEG), Electromyography (EMG), nerve conduction study (NCS) and visual evoked potential (EVP) tests and brain ultrasound.

Improving the diagnostic services and keep them up-to-date is a corner stone for accurate analysis and thus for the neurological cases.

3. Project progress

On Nov 11, the system was received and installed in the pediatric observation unit (POU)- where children can be connected and stay for Neurological observation up to 48 hours. However, due to the COVID-19 emergency status and hospital protocols, the POU was converted to a triage ward for suspected COVID 19 children before admitting them to the regular pediatric ward if they are negative. Therefore, we were not able to start using the LTM system due to impossible access to the room in which the system has been installed. On the other hand, our neurological team are pushing to start using the system as they already have some children waiting for this service. The system will start operating the moment we exit the emergency status, or clear the POU from suspected COVID-19 cases.



LTM EEG System and Review Station in CBH Outpatient Department
Credits: PRM Department

4. Project Outcome

The generous grant by the Equestrian Order of the Holy Sepulchre - OESSJ Grand Magistero through ROACO supports the comprehensive development plan for the expanding and sustaining the services of the neurology department in CBH.

In particular, the procurement and installation of a long-term electroencephalographic monitoring (LTM EEG) system and a review station for the neurology department will improve the accurate diagnosis of neurological disorders among the benefiting paediatric population. This will be achieved through offering remote access for the paediatric neurologists for the live streaming for the patients neurological monitoring which results in fast response and timely intervention to the patient needs. The new system will also develop patients' database, which results in better long-term treatment plan.