

Pediatric Cardiology 2022

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### Berlin Heart EXCOR Ventricular Assist Device in Paediatric Heart Failure – A Narrative Review of the Literature

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H eart Failure is one of the common cause of morbidity and mortality in childhood. The incidence of heart failure in Unite States is about 550000 and prevalence is more than 6 million and around 11000 to 14000 children hospitalised every year. There are several advances in the management of heart failure in Paediatric population. One such intervention is The Berlin Heart Paediatric EXCOR Ventricular Assist Device which was first used in a 8 year old boy with coarctation of Aorta presented with left ventricular failure and Tachyarrythmias using 50 ml adult size. The device was first approved for use in united states by 2017. This system incorporates para corporeal pulsatile membrane and silicone pumps and a specialized pneumatic system and considered as a bridge to orthotopic heart transplantation. The Berlin Heart EXCOR can be used either Left ventricle Assist Device (LVAD), Right Ventricular Assist Device (RVAD) or Biventricular Assist Device (BVAD). The system uses CARMEDA Bioactive Surface which is coated with heparin reduce thrombus formation and clinically proven thromboresistant surface. Over 2500 devices are implanted all over the world till now. The PubMed database and Google scholar search was performed using the terms "ventricular assist device", and "Berlin Heart EXCOR". The narrative review was performed by analysing 30 articles. The aim of this article to review the Investigational Data Exemption (IDE) study, post approval surveillance study, adverse events and antithrombotic protocols of Berlin Heart EXCOR Paediatric Device.

#### **Biography**

Dr. Kruthiga Rajasekaran was graduated from Annamalai university in 2020.She completed her MBBS degree at Rajah Muthiah Medical college. She is actively involved in many conferences and workshops during her academic years and loves Volunteering, involved in environmental activities like Swachh Bharath campaign, Rally for Rivers and Fundraising for Spinal Muscular atrophy patients. She is currently working on pursuing her paediatric residency in United States.

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## **19<sup>th</sup> International Conference on**

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# SUFE and the Internet: Are Healthcare Information Websites Accessible to Parents?

#### Mc Carthy A, Taylor C

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**Background:** Slipped upper femoral epiphysis is an adolescent hip disorder requiring rapid surgical intervention. Faced with the prospect of their child undergoing surgery, many fearful parents will turn to the internet to provide information and reassurance. Previous studies have shown the orthopaedic information can be difficult to comprehend.

Objective: Assess the readability of healthcare websites regarding Slipped Upper Femoral Epiphysis Methods: The term Slipped Upper Femoral Epiphysis was searched in Google, Bing and Yahoo. The websites were evaluated using readability software with seven specialised readability tests including the Flesch-Kincaid Reading Grade Level, the Flesch Reading Ease Score, the Simple Measure of Gobbledygook, Coleman-Liau Index, Automated Readability Index and the Gunning Fog Index. The Reading Grade Level was also calculated.

A Flesich Read Ease Score (FRES) score above 65 and a Reading Grade Level (RGL) of sixth grade and under was considered acceptable. Websites were also assessed for translation services.

**Results:** 21 unique websites were assessed. The average FRES was 52.5 +/- 15.4. Only 3 websites scored 65 or higher (14%). There was a statistically significant difference between website scores based on affiliation, with physician websites having the overall highest mean(P=0.004).

The average RGL was 8.67 +/- 1.8. Only two websites met the accepted RGL criteria (9.5%) while five websites were marked as extremely difficult to understand (23.8%). Only five websites offered translations (23.8%). There was no statistically significant difference in readability scores between websites which offered translation and those which did not.

One-way t-tests showed that both the RGL (p<0.001; CI: 1.83-3.49) and the FRES (P<0.001, CI: -19.4 to -5.4) scores were significantly different from the accepted standard.

**Conclusion:** Most websites reviewed were above the recommended Reading Grade Level, making content inaccessible. Improving readability and translation services would enhance the internet's usability as a healthcare tool for parents.

#### Biography

Dr Andrea Mc Carthy is an orthopaedic surgical trainee and part of the Royal College of Surgeons training scheme. She has published more than 10 papers and has a special interest in the communication and medical education of patients.

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Insights in Pediatric Cardiology

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### Post COVID MISC in PICU practical approach and mangement strategies

#### Aljalila

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Multisystem inflammatory syndrome in children (MIS-C) is a serious condition that appears to be linked to coronavirus disease 2019 (COVID-19). Most children who become infected with the COVID-19 virus have only a mild illness. But in children who go on to develop MIS-C, some organs, and tissues — such as the heart, lungs, blood vessels, kidneys, digestive system, brain, skin, or eyes — become severely inflamed. Signs and symptoms depend on which areas of the body are affected.

MIS-C is considered a syndrome — a group of signs and symptoms, not a disease — because much is unknown about it, including its cause and risk factors. Identifying and studying more children who have MIS-C may help to eventually find a cause.

The CDC issued a Health Advisory on May 14, 2020, that outlines the following case definition for MIS-C.

#### **Biography**

Dr. Mohamed is a Paediatric Intensivist at Al Jalila Children's with more than 20 years of experience in both Pediatric intensive care unit and neonatal intensive care unit. Dr Mohamed graduated from Alexandria Faculty of Medicine, Egypt one of the largest and reputable University hospital in Egypt. He completed a residency programme at Alexandria University Children's Hospital and obtained his master's degree in paediatrics and neonatology. Dr Mohamed also is a membership of royal colleague of pediatric and child health London UK. Dr. Mohamed was working as senior specialist in Kuwait for more than 13 years in both NICU and PICU in one of the major governmental hospital. Dr. Mohamed has an interest in PICU and management of acute bronchial Asthma, ARDS, DKA, status epilepticus and all metabolic emergencies.

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### The German Healthcare System

#### **Heinz Nagel**

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Germany was the first country in the world that created a national health insurance and social security system in the 1800's and has continuously improved it since. Many countries have looked at it as a model, including the United States while designing and implementing Obamacare.

My PowerPoint presentation will take the audience to Germany and give them an overview of how this system works today, especially how it affects the lives and health of the people in a small village in Bavaria, where I grew up.

In a colorful presentation I will talk about the history of our health care system, it's guiding principle and basic structure, the legal framework, the services it covers, as well as the financing and cost controlling.

I will put a special emphasis on how it affected two of my neighbors: Helmut, a farmer and butcher, who developed metabolic syndrome with heart failure and received a cardiac transplant, and Hildegard, who was borderline mentally retarded, had Type 1 diabetes and was living alone.

My presentation is spiced up with quite entertaining photos of the village, the residents, and their (often not so healthy) food choices.

I will add a special section about health care for children in Germany, that is different from other countries.

#### **Biography**

Heinz Nagel has studied medicine at the Universities of Heidelberg and Luebeck.in Germany. He graduated with an MD in 1988 and with a PhD in History of Medicine at the Medical University of Luebeck in 1989. He completed a residency in Pediatrics at the University of Maryland Hospital in Baltimore, USA, in 1992 and did a fellowship in Pediatric Endocrinology at the same hospital until 1994. Heinz Nagel obtained a Masters of Health Policy and Management from the Johns Hopkins Bloomberg School of Public Health in Baltimore in 1997. Heinz Nagel has extensive experience working and training in the United States and Germany. In Germany he was a researcher at the National Diabetes Center in Duesseldorf (2005-2006) and he was National Director of Innovation Management for social health insurances in Essen (2006-2009). Social Health Insurances cover 90% of the German population with health insurance. Currently he is serving as Chief of Pediatrics at Park West Medical Center, a community health center in the inner city of Baltimore, Maryland, USA.

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### Investigation of the Effect of Breastfeeding Support Given to Newborns on Hospitalizations Due to Hyperbilirubinemia

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Bilirubin levels may increase with other problems in babies who cannot be fed adequately after birth. This study was carried out to determine the effect of breastfeeding support provided to mothers, and the effect of expressing breast milk after breastfeeding and giving the baby with a spoon on hospitalizations due to hyperbilirubinemia. The study was designed as a randomized controlled experiment. The sample of the study consisted of mothers and their babies who gave birth at Sakarya University Training and Research Hospital between October 2020 and April 2021 and met the inclusion criteria. A total of 78 mother-infant couples (34 intervention, 34 control group) were included in the study. During the study, to the mothers in the intervention group; Breastfeeding support was given on postpartum day 0. After each breastfeeding, the remaining milk in the mother's breast was expressed and given to the newborn with a spoon. The control group was followed in the routine follow-up of the clinic. Transcutaneous bilirubin levels were measured at the 24th and 72nd hours postpartum in newborns in both groups. In newborns with a transcutaneous bilirubin value above 12 mg/dL, bilirubin was checked by measuring venous blood. Demographic characteristics of newborns, laboratory data and hospitalization at 72 hours were recorded and compared. The groups were homogeneously distributed in terms of demographic characteristics (p>0.05). There was no significant difference between the groups in terms of 24-hour transcutaneous bilirubin values of newborns (p>0.05). The 72th hour transcutaneous bilirubin level (9.55±2.82mg/dL) in the intervention group was found to be significantly lower than the control group (12.03±3.67mg/dL) (t:-3.122, p:0.003). It was determined that the rate of hospitalization at the 72nd hour in the intervention group (2.9% n:1) was significantly lower than the control group (23.5% n:8) (t:6,275,p:0.027). It has been observed that the breastfeeding support given to the mothers and the feeding of the baby's remaining milk with a spoon after breastfeeding reduces hospitalization due to Hyperbilirubinemia.

#### **Biography**

Özge Karakaya Suzan continuing her PhD at the age of 28 years from Sakarya University. She continues her studies in the field of Child Health And Diseases Nursing. He has international and national publications, book chapters and projects.

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# Cerebral palsy in children: subtypes, motor function and associated impairments in ; addis ababa, ethiopia

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**Background:** Cerebral Palsy (CP) is one of the most a common developmental disabilityies inamong children seeking health care services in Ethiopia as well as in other low income countriesworldwide. YetAlthough, there is no national population data relating to CP in Ethiopia, previous retrospective hospital study shows CP is the commonest developmental disability in children. The overall aim of this study is to describe the clinical subtype, gross and fine motor function and presence and pattern of associated impairments and possible risk factors in children with Cerebral PalsyCP aged 2 to 18 years, July-September 2018, in Tikur Anbessa Specialized HospitalTikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia.

**Methods:** A hospital- based descriptive cross-sectional study conducted among 207 children with suspected motor symptoms Cerebral Palsy. The Surveillance of CP in Europe (SCPE) ) decision tree was used as a guideline to includefor inclusion 174 of 174 illegibleeligible children with CP. A then a pretested and pre-coded questionnaire administered to caregivers standardized questionnaire and clinical examination applied. Descriptive statistical analysis, bivariate and multivariate analysis, Chi square test, crudes association and adjusted odds ratio with 95% confidence interval employed. P value <0.05 was used to declare statistical significance. Assessing socio demographic characteristics, associated impairments and possible risk factors; evaluated with proper neurologic examination to classify them; and severity of gross and fine motor impairment was assessed by evaluating level of function by grading according to GMFCS and MACS. The IBM SPSS V.21 was used for data analysis, and a significance level of 0.05 was chosen.

**Conclusion:** The severe forms of CP prevail; and most children are dependent on their parents for routine activities of daily living and cannot communicate well. Multidisciplinary care approach and focused functional rehabilitation services need to be instituted. Causal relationship cannot be drawn from this study but makes a strong argument for improving maternal and child health care.

Key Words: Cerebral Palsy; children; subtypes; impairments; motor function; Ethiopia

#### **Biography**

Dr Selamenesh Tsige is a consultant pediatrician and an assistant professor oc pediatrics and child health at Addis Ababa University, College of Health sciences and current fellow under Developmental and Behavioral pediatrics at the University of Toronto, Holland Bloorview kids Rehabilitation Hospital. She is founder and president of Gojo Accomodation and Temporary shelter for patients in need in Ethiopia which supports patients referred to the main teritiary hospitals from remote areas of Ethiopia. She is also communication head of the EasternAfrica Academies of childhood disability (EAACD) and EAACD representative of the GPEC(Global Partnership Education Collaboration) of the IAACD(International Alliance Academies of Childhood Disability). She is 2021 Mandela WWashington Fellow in public management track.

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