

**Opinion Article***Copyright © All rights are reserved by Fernando Aguirre Palacios*

Unleashing the Power of Watson and Modeler Flow AI and Transforming Pediatric Cardiovascular Risk Assessment

Fernando Aguirre Palacios**Department of Cardiology, Masters in clinical and Epidemiology and research sciences, University of Guayaquil, Ecuador*

***Corresponding author:** Fernando Aguirre Palacios, Department of Cardiology, Masters in clinical and Epidemiology and research sciences, University of Guayaquil, Ecuador.

Received Date: September 02, 2023**Published Date: September 12, 2023**

Introduction

Revolutionizing the identification and assessment of risk factors for cardiovascular disease (CVD) in children is crucial for effective prevention and intervention strategies in primary care. In this editorial, we explore the game-changing potential of integrating IBM Watson and Modeler Flow with special indicators to improve the risk assessment of pediatric populations. These indicators include waist-to-height ratio, sedentary patterns, and arterial pressure, which can advance the early detection of metabolic syndrome in children. The synergistic power of these tools and variables unleashes a new era of precision medicine, facilitating personalized interventions and improving long-term cardiovascular health outcomes for our youngest generation [1].

The Integration of IBM Watson and Modeler Flow

The integration of IBM Watson and Modeler Flow provides a transformative approach to risk assessment. Watson's data analytics capabilities empower healthcare professionals to process vast amounts of clinical data, including genetic predispositions, lifestyle choices, and emerging biomarkers. With the support of machine learning algorithms, Watson uncovers complex patterns that enhance our understanding of CVD risk factors in children. Integrating Modeler Flow strengthens the analysis by creating customized risk assessment models tailored specifically to the pediatric population. This comprehensive evaluation goes beyond traditional risk factor assessments, providing a more accurate assessment of a child's risk profile.

Unlocking Central Obesity's Role: The Waist-to-Height Ratio

Recognizing the pivotal role of central obesity in metabolic syndrome, it's essential to incorporate the waist-to-height ratio into

risk assessment paradigms. Recent evidence supports the use of this simple yet accurate measurement, surpassing conventional metrics such as BMI. The algorithm accurately assesses an individual's abdominal fat distribution by dividing waist circumference by height, enabling the identification of children at risk of metabolic syndrome. Screening with the waist-to-height ratio empowers healthcare professionals to target interventions and implement lifestyle modifications early on [2].

Unveiling the Impact of Sedentary Patterns

In an era of increasing sedentary behavior, understanding its impact on pediatric cardiovascular health is imperative. Incorporating sedentary patterns into the risk assessment algorithm sheds light on an individual's lifestyle habits and physical activity levels. By assessing factors such as screen time (≥ 3 hours or more) of leisure activities and occupational activities, healthcare professionals gain valuable insights into a child's overall cardiovascular health. Identifying children with high sedentary behavior levels allows for tailored interventions and promotes a balanced and active lifestyle from an early age.

Refining Risk Assessment with Arterial Pressure

High blood pressure is a hallmark risk factor for metabolic syndrome and its association with cardiovascular disease. Incorporating arterial pressure measurements, including systolic and diastolic blood pressure, enhances the algorithm's ability to identify children at elevated risk. By setting predefined thresholds for abnormal blood pressure levels (>90 th percentile), healthcare professionals can promptly intervene and monitor hypertension, thereby reducing the risk of future cardiovascular events [3] [Figure 1].

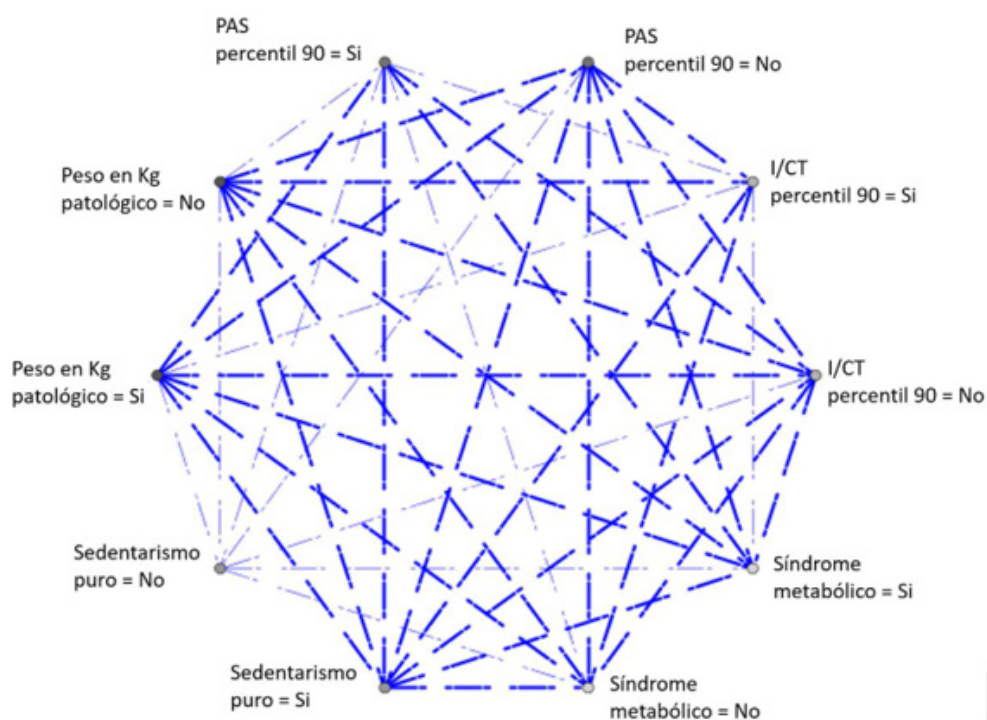


Figure 1: Mesh association modeling [3].

Conclusion

Nurturing Cardiovascular Health Today, Ensuring Healthy Hearts Tomorrow. Integrating IBM Watson, Modeler Flow, the waist-to-height ratio, sedentary patterns, and arterial pressure into pediatric risk assessment algorithms is a steppingstone towards a future where cardiovascular diseases are detected early, and preventive strategies are employed promptly. Leveraging the power of AI, personalized interventions can be tailored for each child, effectively combating metabolic syndrome, and reducing the burden of CVD. By embracing this multidimensional approach, we nurture the cardiovascular health of our children today, ensuring resilient and healthy hearts for generations to come [4].

Acknowledgement

None.

Conflict of Interest

No conflict of interest.

References

1. Palacios FA, Celis G (2022) How can we presume a kid is having risk factors for cardiovascular disease? Arch Community Med Public Health 8(4): 118-119.
2. Aguirre PF, Coca A, Aguirre MF, Celis G (2018) Waist-to-height ratio and sedentary lifestyle as predictors of metabolic syndrome in children in Ecuador. Hipertens Riesgo Vasc 35(3): 101-109.
3. Aguirre Palacios FA, Aguirre Caamano MF, Celis G (2020) Phenotype proposal for early diagnosis of the possibility of metabolic syndrome in schoolchildren aged six to fifteen years. Hypertension and Vascular Risk 37(3): 115-124.
4. Fernando Aguirre Palacios and Gregory Celis (2022) How can we presume a kid is having risk factors for cardiovascular disease? Kennedy Clinic Hospital, Beta section, 2nd floor, ofc 3 201, Avenida del periodista, Street 11. Arch Community Med Public Health 8(4): 118-119.