Editorial

Forgotten Futures: Bridging the Gap in Hepatitis C Care for Children and Adolescents

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Hepatitis C is an infectious disease characterized by the inflammation of the liver. An estimated 58 million people worldwide suffer from a chronic hepatitis C virus infection, and 1.5 million new cases are reported each year. An estimated 3.2 million children and adolescents suffer from a chronic case of hepatitis C. (1) According to WHO estimates, hepatitis C caused over 290000 deaths in 2019, primarily from cirrhosis and hepatocellular carcinoma, or primary liver cancer.(1) The top three countries with the highest illness burden are China (9.48 million), Pakistan (7.39 million), and India (6.13 million) as per the studies.(2,3)

Children infected with HCV differ from adults in a number of aspects, such as the mechanisms of transmission, duration of potential chronic infection when acquired at birth, rates of clearance and advancement of fibrosis.(4) Mother-to-child transmission is the predominant route that children develop HCV infection through. Mother-to-child transmission impacts an estimated 4 to 8% of children born to women with HCV infection alone and escalates to 10.8 to 25% for children born to women who have both HIV and HCV coinfection.(2,5,6) In LMICs in particular, older children and adolescents may contract infections through hazardous injection practices and inadequate infection prevention and control. (2,5)

Despite these specificities, the attention on screening, diagnosis and treatment of children of various age groups did not become the part of health policies in most of the countries. In a 2021 global review encompassing 194 WHO Member States, it was identified that 122 countries had implemented accessible national policies related to hepatitis C virus (HCV). (7) However, the prevailing majority of these countries lacked explicit recommendations or guidelines addressing the essential facets of testing and treatment specifically tailored for the pediatric and adolescent populations affected by HCV.

Adult testing and treatment have been the main focus of the global effort to date towards the eradication of hepatitis C. Despite the fact that 3.26 million children and adolescents were anticipated to have had HCV infection in 2018, testing and treatment for this population have received far less attention.(7)

In addition to this, several countries, including Pakistan and India, have guidelines to screen pregnant mothers for hepatitis C infection and risk groups, including children to prevent the perinatal and iatrogenic transmission in children. (2,7) However, the local mechanisms for the procedures, implementation and subsequent linkage to the provision of care to achieve the screening goals are yet to be formulated and put into practice.

Moreover, the updated recommendations on Hepatitis C in 2022 by WHO, despite its all-encompassing and radical approaches, do not include those children and adolescents, who are born and living in the areas of higher prevalence or children receiving transfusion therapies, into the definition of vulnerable population. Furthermore, no screening strategies and guidelines on the management of HCV infected children who are receiving transfusions due to chronic and congenital illness have been given the due place in the updated recommendations. This exhibits a missed opportunity to deal with the higher prevalence of hepatitis C in pediatric population. However, these limitations of the updated WHO recommendations on HCV, 2022, do not lessen the significant achievement including the treatment recommendations for the children ages 3 years and above, and adolescents.

The root of these oversights lies in the absence of operational national registries for HCV infections in many LMICs. These pivotal registries could serve to monitor and update disease burden based on serosurveys' data specific to pediatric demographics. The lacuna in these infrastructures renders guidelines skewed towards treatment without timely adaptations to evolving needs. Unless these national public health infrastructures are not established, the guidelines and recommendations will only prove to be treatment-oriented and time-lagged.

In conclusion, the urgency to address hepatitis C in children and adolescents necessitates a multifaceted approach that extends beyond policy refinement. The adoption of decentralized strategies, as articulated in WHO's 2022 recommendations, tailored explicitly to children and adolescents, forms the crux of the solution.(2)

Integrating Point-of-care (POC) hepatitis C virus (HCV) RNA nucleic acid test into routine transfusion protocols for vulnerable pediatric populations and adolescents could be transformative. This real-time testing would enhance safety measures, promptly identifying infections and allowing for immediate intervention.

Moreover, a robust linkage strategy is vital, seamlessly connecting screening and diagnostic outcomes with access to treatment and follow-ups.(2) A cohesive approach can ensure an uninterrupted continuum of care, preventing critical gaps from diagnosis to sustained management.

It is pivotal to recognize that refining policies only marks the initial stride. The true stride toward comprehensive care for every child and adolescent grappling with hepatitis C lies in the practical implementation and integration of decentralized strategies, point-of-care testing, and streamlined linkage systems.

Uplifting the futures of these often-overlooked demographics necessitates concerted efforts. Establishing decentralized care pathways, integrating innovative testing methodologies, and fortifying linkage strategies stand as pivotal strides toward a future where no child's health is overshadowed by this disease.

In essence, as we navigate this landscape, the focus must shift from policy 1formulation to strategic implementation. The voiceless children and adolescents affected by Hepatitis C urgently await a concerted global effort that addresses their specific needs and secures their health for the future.

REFERENCES

1. World Health Organization [Internet]. 2023 [cited 2023 Dec 25]. WHO. Available from: https://www.who.int/news-room/fact-sheets/detail/hepatitis-c
2. World Health Organization. Updated Recommendations on Treatment of Adolescents and Children with Chronic HCV Infection, and HCV Simplified Service Delivery and Diagnostics Web [Internet]. Geneva: World Health Organization; 2022.
3. Blach S, Terrault NA, Tacke F, Gamkrelidze I, Craxi A, Tanaka J, et al. Global change in hepatitis C virus prevalence and cascade of care between 2015 and 2020: a modelling study. Lancet Gastroenterol Hepatol. 2022 May;7(5):396–415.
4. Mack CL, Gonzalez-Peralta RP, Gupta N, Leung D, Narkewicz MR, Roberts EA, et al. NASPGHAN Practice Guidelines. J Pediatr Gastroenterol Nutr. 2012 Jun;54(6):838–55.
5. Schmelzer J, Dugan E, Blach S, Coleman S, Cai Z, DePaola M, et al. Global prevalence of hepatitis C virus in children in 2018: a modelling study. Lancet Gastroenterol Hepatol. 2020 Apr;5(4):374–92.
6. Benova L, Mohamoud YA, Calvert C, Abu-Raddad LJ. Vertical Transmission of Hepatitis C Virus: Systematic Review and Meta-analysis. Clinical Infectious Diseases. 2014 Sep 15;59(6):765–73.
7. Malik F, Bailey H, Chan P, Collins IJ, Mozalevskis A, Thorne C, et al. Where are the children in national hepatitis C policies? A global review of national strategic plans and guidelines. JHEP Reports. 2021 Apr;3(2):100227.