Assessment of Barriers and Enablers to Implementation of a Pediatric Early Warning System in Resource-Limited Settings

Evaluación de Barreras y Facilitadores para la Implementación de un Sistema de Alerta Temprana Pediátrica en Entornos de Recursos Limitados

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ABSTRACTO: Importance: Pediatric early warning systems (PEWS) aid with early identification of clinical deterioration and improve outcomes in children with cancer hospitalized in resource-limited settings; however, there may be barriers to implementation. Objective: To evaluate stakeholder-reported barriers and enablers to PEWS implementation in resource-limited hospitals. Design, setting, and participants: In this qualitative study, semistructured stakeholder interviews were conducted at 5 resource-limited pediatric oncology centers in 4 countries in Latin America. Hospitals participating in a multicenter collaborative to implement PEWS were purposefully sampled based on time required for implementation (fast vs slow), and stakeholders interviewed included physicians, nurses, and administrators, involved in PEWS implementation. An interview guide was developed using the Consolidated Framework for Implementation Research (CFIR). Interviews were conducted virtually in Spanish, audiorecorded, and professionally transcribed and translated into English. A codebook was developed a priori using the CFIR and supplemented with codes inductively derived from transcript review. Two coders independently analyzed all transcripts, achieving a κ of 0.8 to 0.9. The study was conducted from June 1 to August 31, 2020. Main outcomes and measures: Thematic analysis was conducted based on CFIR domains (inner setting, characteristics of individuals, outer setting, intervention characteristics, and implementation process) to identify barriers and enablers to PEWS implementation. Results: Seventy-one staff involved in PEWS implementation were interviewed, including 32 physicians (45%), 32 nurses (45%), and 7 administrators (10%). Of these, 50 were women (70%). Components of the 5 CFIR domains were mentioned by participants as barriers and enablers to PEWS implementation at both fast- and slow-implementing centers. Participants emphasized barriers at the level of the clinical staff, hospital, external factors, and PEWS intervention. These barriers included staff resistance to change, inadequate resources, components of health systems, and the perceived origin and complexity of PEWS. At all centers, most barriers were successfully converted to enablers during the implementation process through targeted strategies, such as early stakeholder engagement and adaptation, including adapting PEWS to better fit the local context and changing the hospital setting to support ongoing use of PEWS. Conclusions and relevance: To date, this is the first multicenter, multinational study describing barriers and enablers to PEWS implementation in resource-limited settings. Findings suggest that many barriers are not immutable and can be converted to enablers during the implementation process. This work can serve as a guide for clinicians looking to implement evidence-based interventions to reduce global disparities in patient outcomes.

Factors influencing outcomes of older children with medulloblastoma over 15 years in Peru, a resource-limited setting

Factores que influyen en los resultados de niños mayores con meduloblastoma durante 15 años en Perú, un entorno de recursos limitados

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ABSTRACTO: Background: Medulloblastoma is the most common malignant brain tumor in children. While survival has improved in high-income countries (HIC), the outcomes for patients in low-to-middle-income countries (LMIC) are unclear. Therefore, we sought to determine the survival of children with medulloblastoma at the Instituto Nacional de Enfermedades Neoplasicas (INEN) between 1997 and 2013 in Peru. Methods: Between 1997 and 2013, data from 103 children older than 3 years with medulloblastoma were analyzed. Fourteen patients were excluded. The patients were split into two distinct cohorts, 1997-2008 and 2009-2013, corresponding with chemotherapy regimen changes. Event-free (EFS) and overall survival (OS) were calculated using the Kaplan-Meier method, whereas prognostic factors were determined by univariate analysis (log-rank test). Results: Eighty-nine patients were included; median age was 8.1 years (range: 3-13.9 years). The 5-year OS was 62% (95% CI: 53%-74%), while EFS was 57% (95% CI: 48%-69%). The variables adversely affecting survival were anaplastic histology (compared to desmoplastic; OS: HR = 3.4, p = .03), metastasis (OS: HR = 3.5, p = .01; EFS: HR = 4.3, p = .004), delay in radiation therapy of 31-60 days (compared to ≤30 days; EFS: HR = 2.1, p = .04), and treatment 2009-2013 cohort (OS: HR = 2.2, p = .02; EFS: HR = 2.0, p = .03). Conclusions: Outcomes for medulloblastoma at INEN were low compared with HIC. Anaplastic subtype, metastasis at diagnosis, delay in radiation therapy, and treatment in the period 2009-2013 negatively affected the outcomes in our study. Multidisciplinary teamwork, timely delivery of treatment, and partnerships with loco-regional groups and colleagues in HIC is likely beneficial.

Impact of COVID-19 in pediatric oncology care in Latin America during the first year of the pandemic

Impacto del COVID-19 en la atención oncológica pediátrica en América Latina durante el primer año de la pandemia

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ABSTRACTO: Background: The ongoing coronavirus 2019 disease (COVID-19) pandemic strained medical systems worldwide. We report on the impact on pediatric oncology care in Latin American (LATAM) during its first year. Method: Four cross-sectional surveys were electronically distributed among pediatric onco-hematologists in April/June/October 2020, and April/2021 through the Latin American Society of Pediatric Oncology (SLAOP) email list and St Jude Global regional partners. Results: Four hundred fifty-three pediatric onco-hematologists from 20 countries responded to the first survey, with subsequent surveys response rates above 85%. More than 95% of participants reported that treatment continued without interruption for new and active ongoing patients, though with disruptions in treatment availability. During the first three surveys, respondents reported suspensions of outpatient procedures (54.2%), a decrease in oncologic surgeries (43.6%), radiotherapy (28.4%), stem cell transplants (SCT) (69.3%), and surveillance consultations (81.2%). Logistic regression analysis showed that at the beginning of the first wave, participants from countries with healthcare expenditure below 7% were more likely to report a decrease in outpatient procedures (odds ratio [OR]: 1.84, 95% CI: 1.19-2.8), surgeries (OR: 3, 95% CI: 1.9-4.6) and radiotherapy (OR: 6, 95% CI: 3.5-10.4). Suspension of surveillance consultations was higher in countries with COVID-19 case fatality rates above 2% (OR: 3, 95% CI: 1.4-6.2) and SCT suspensions in countries with COVID-19 incidence rate above 100 cases per 100,000 (OR: 3.48, 95% CI: 1.6-7.45). Paradoxically, at the beginning of the second wave with COVID-19 cases rising exponentially, most participants reported improvements in cancer services availability. Conclusion: Our data show the medium-term collateral effects of the pandemic on pediatric oncology care in LATAM, which might help delineate oncology care delivery amid current and future challenges posed by the pandemic.