Implementation of an asthma treatment program for children in a remote community of Honduras

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Background: The disproportionate prevalence of asthma morbidity and mortality in Latin America has been documented in several studies. Latin America has a significantly increased prevalence of asthma/wheeze compared to other regions of the world, and only 2.6% of children with asthma meet criteria for control. The Global Initiative for Asthma (GINA) guidelines provide treatment recommendations for management of asthma worldwide, but Latin America falls short of goals established by GINA. Inhaled corticosteroids are recommended for all patients with persistent asthma, but only 6% of patients in Latin America are prescribed inhaled corticosteroids. Although inhaled corticosteroids are on the World Health Organization’s Essential Medications List and the Honduras National Formulary, the availability and pricing of these medications is not standard. This hinders treatment, especially in remote, rural villages of low-income countries, such as Honduras.

The purpose of this project is to develop a sustainable, culturally sensitive protocol consistent with guideline recommendations that allows for appropriate diagnosis, education, treatment, and follow-up of asthma in a remote community of Honduras. The primary outcome is change in asthma control. Secondary outcomes include adherence to guideline recommendations, program costs, and satisfaction.

Structure/Method/Design: Protocols for diagnosis, treatment, medications refills, and asthma exacerbations are being developed. Children, up to age 16, from San José, Honduras, will be screened for asthma, and all children diagnosed with asthma will be eligible. Participation in the program includes a formal asthma education session, free medications and supplies, and structured monitoring and follow-up. Medications will be prescribed based on asthma severity. All patients with persistent asthma will be prescribed as needed inhaled albuterol. Inhaled corticosteroids will be prescribed for patients with moderate persistent asthma (beclomethasone 100 mcg twice daily) and severe persistent asthma (beclomethasone 200 mcg twice daily). Monthly assessments and medication refills will be performed by a community health worker. An asthma action plan will be provided to patients with moderate and severe persistent asthma, and the community health worker will be trained to follow an exacerbation protocol for assessment and treatment of exacerbations. Asthma control will be assessed based on patient report of symptoms, Asthma Control Test scores, need for oral corticosteroids, and peak flow readings. Program records will be reviewed to determine adherence to protocols and program costs. Surveys will be used to assess satisfaction.

Providing chemotherapy in severely resource-limited settings

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Background: Cancer is rapidly emerging as a major source of morbidity and mortality in countries with limited resources and infrastructure. Ethiopia has only three oncologists and one oncology unit for a population of 80 million. A breast cancer center was recently established at the Hawassa College of Medicine and Health Sciences (HCMHS) as a satellite unit to the only existing source of cancer care at Addis Ababa University (AAU). With growing interest to treat cancer globally, safe protocols for the provision of chemotherapy are essential. Our group analyzed current safety practices at HCMHS to ascertain the current level of resources and potential restrictions for safety and patient care.

Structure/Method/Design: We observed the chemotherapy protocols at the Oncology Department at Jacobi Medical Center (JMC), Bronx, NY. Subsequently, we observed the current practices at HCMHS for 4 weeks. We worked closely with the physicians and nurses at HCMHS to gain an understanding of their current protocols and the limitations they face. We divided the protocols for handling chemotherapy into four categories: storage, preparation, administration, and disposal.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): The Global Initiative for Asthma (GINA) guidelines provide treatment recommendations for management of asthma worldwide, but Latin America falls short of goals established by GINA. Inhaled corticosteroids are recommended for all patients with persistent asthma, but only 6% of patients in Latin America are prescribed inhaled corticosteroids. Although inhaled corticosteroids are on the World Health Organization’s Essential Medications List and the Honduras National Formulary, the availability and pricing of these medications is not standard. This hinders treatment, especially in remote, rural villages of low-income countries, such as Honduras.

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The project is ongoing. Preliminary results will be presented at the conference.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Shoulder-to-Shoulder Pittsburgh, a nonprofit organization, supports a permanent clinic in San José and sends medical brigades biannually.

Summary/Conclusion: Program pilots have revealed need for an asthma treatment program. Moreover, community acceptance for the program is high. The largest challenge has been cost-effective medication/supply procurement.