Additional medications to treat children with JIA are urgently needed

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According to new research findings presented this week at the 2019 ACR/ARP Annual Meeting, there is a profound ongoing need for additional medications to control the signs and symptoms of juvenile idiopathic arthritis (JIA), despite the availability of several approved biologic disease-modifying antirheumatic drugs (biologics) (Abstract #1813).

There are several biologics used for JIA treatment in the United States including etanercept, adalimumab, abatacept, tocilizumab and canakinumab. Nevertheless, many children with JIA continue to have active arthritis despite the available medications and are treated with other medications off-label. Medications that have been proven to be safe and effective in adults with chronic inflammatory arthritis are not being universally studied in children with JIA. This study's goal was to document the continuing medical need for additional, newly approved medications to treat children with JIA.

"The approved treatment options for JIA have expanded tremendously, but there are still significant proportions of children who do not respond to available therapies or who are receiving medications that have not been approved for JIA. We must demand that newly developed medications are studied for safety and effectiveness in children," says Timothy Beukelman, MD, MSCE, associate professor, Division of Pediatric Rheumatology, at the University of Alabama at Birmingham, and the study's co-author.

For the study, the researchers reviewed electronic medical record data for 1,599 JIA patients treated at Cincinnati Children's Hospital Medical Center (CCHMC) since 2008 for medication use and disease activity over time. In addition, they assessed 7,379 JIA patients enrolled in the Childhood Arthritis and Rheumatology Research Alliance (CARRA) registry for medication use and disease activity at their most recent registry visit. The researchers defined ongoing medication need as active JIA despite sequential use of two or more biologics. They defined active JIA as either physician global assessment of JIA activity (on a scale of zero to 10 with zero as inactive disease) of three or higher, or three or more active joints, or a patient global assessment score (on a scale of zero to 10 with zero meaning very well) of three or higher. They only assessed medication failure for patients with complete data.

Use of biologics was common in both data sources (53 percent in CCHMC; 65 percent in CARRA registry), and ongoing medication need was assessed in 487 CCHMC patients and 1,159 CARRA patients. Approximately 52 percent of CCHMC patients and 45 percent of CARRA patients had ongoing active JIA despite treatment with two or more biologics. Among all patients who received any biologic treatments, there was frequent use of medications that are not approved for JIA (37 percent CCHMC patients and 24 percent CARRA patients).

"There is clearly a need to increase the number and types of therapies available for the treatment of children with JIA. Only if FDA demands studies from the pharmaceutical companies as part of their drug development program, will pediatric rheumatologists have valid information about the proper dosing, efficacy and preliminary safety of new medications. Further, FDA approval greatly increases access of JIA patients to new medications," says Hermine I. Brunner, MD, MSc, MBA, chief of rheumatology and director Lupus Center at Cincinnati Children's Hospital Medical Center, and scientific director of the Pediatric Rheumatology Collaborative Study Group (PRCSG) and the

study's lead- author.

More information: Study: New Medications Are Needed for Children with Juvenile Idiopathic Arthritis

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