Management of Juvenile Idiopathic Arthritis 2015: A Position Statement from the Pediatric Committee of the Canadian Rheumatology Association

The medical management of juvenile idiopathic arthritis (JIA) and its complications has undergone significant changes in the last decade, a result largely of the introduction of biologics and increased availability of expertise in the diagnosis and management of rheumatic diseases in children and adolescents. The result is that clinical outcome has improved and complete disease control can often be achieved.

In 2010, the British Society for Paediatric and Adolescent Rheumatology (BSPAR) proposed guidelines for the optimal management of children and adolescents with JIA. This advocacy statement emphasizes the importance of empowering children and their caregivers, facilitating early detection of JIA, prompt referral to a team of health professionals who are expert in the diagnosis and management of childhood rheumatic diseases, prompt access to all appropriate pharmacologic and biologic therapies, and regular followup and monitoring. The Canadian Wait Time Alliance sets acceptable wait times as 4 weeks in children with JIA, other than systemic onset JIA, and within 7 days of disease onset for children with systemic onset JIA. Screening for asymptomatic uveitis should take place within 4 weeks of the diagnosis of JIA. Ideally, children and adolescents with JIA should be managed by a team of health professionals with training and experience in pediatric rheumatology given the differences in presentation, course, and prognosis between JIA and inflammatory arthritis in adults. Followup is recommended at intervals of 3-4 months in the patient with controlled disease and more often in those with uncontrolled disease.

Recommendations for the pharmacologic management of children and adolescents with JIA were proposed by the American College of Rheumatology (ACR) in 2011 and updated in 2013. They were developed with reference to published data in a rigorous process (RAND/UCLA Appropriateness Method, http://www.rand.org/pubs/monograph_reports/MR1269.html). They provide rational, evidence-based recommendations for the management of 5 groups of patients with JIA: (1) those with < 5 affected joints, (2) those with ≥ 5 affected joints, (3) those with systemic JIA with active systemic features, (4) those with systemic JIA with active arthritis, and (5) those with active sacroiliitis. The recommendations vary according to the presence or absence of poor prognostic features and the level of disease activity.

In the fall of 2015, the Pediatric Committee of the Canadian Rheumatology Association (CRA) endorsed the ACR and BSPAR guidelines and offered an update on management recommendations and a commentary on specific aspects of treatment particular to the Canadian context (Table 1). This position statement was developed by members of the Canadian pediatric rheumatology community through deliberations of 2 subcommittees: The Update on Management subcommittee (8 members, chaired by Dr. Tania Cellucci) and the subcommittee on Particularities in the Canadian Context (6 members, chaired by Dr. Jaime Guzman). The statement is based on published data. All pediatric rheumatologists practicing in Canada had the opportunity to become involved in this process and review the final text of the position statement. The CRA has approved the final text as reproduced here (Table 1).

Development of the position statement consisted of the following 6 steps:

1. The Guidelines Committee of the CRA proposed the need for Canadian recommendations to address the accelerated progress in JIA treatment, the interruption in marketing of liquid nonsteroidal antiinflammatory drug (NSAID) preparations and triamcinolone hexacetonide for injection, and inequalities in access to biologics across Canadian provinces and territories.

2. An invitation for a conference call was sent by e-mail to all 45 members of the CRA Pediatric Committee to recruit volunteers for this effort.

3. The 14 volunteers attending the call decided it was best to endorse existing evidence-based recommendations, and add brief statements about the particularities of the Canadian context and new developments since publication of the endorsed recommendations.

4. Each proposed additional statement was developed by at least 2 pediatric rheumatologists based on published evidence and then critiqued until the statement was acceptable to all members of the subcommittee.

5. The statements produced by the subcommittees were circulated via e-mail to all members of the Pediatric Committee for review and suggestions. Eleven pediatric rheumatologists in addition to committee members submitted comments. The resulting revised statements were circulated 1 more time to elicit any objections, and there were none.

6. The final statement was reviewed by the CRA Guidelines Committee.
Committee to determine acceptability for official endorsement.

The CRA Pediatric Committee endorses the ACR recommendations for pharmacological management of JIA. These include:

- The use of NSAID and intraarticular corticosteroids as first-line agents; it should be added that appropriate procedural sedation should be in place when performing intraarticular injections in children.
- The use of DMARD in patients with oligoarthritis who have...
not responded to NSAID or who have poor prognostic features (arthritis of the hip, cervical spine, wrist or ankle, prolonged inflammatory marker elevations, or the presence of erosions), in patients with polyarthritis, and in patients with systemic JIA and active arthritis. Sulfasalazine may have a role in management of children with enthesis-related arthritis.4,5.

- The use of a tumor necrosis factor-α inhibitor (etanercept, infliximab, adalimumab) in patients with oligoarthritis or polyarthritis who have not responded adequately to 3–6 months of treatment with a DMARD. The position statement mentions more recently available biologic agents and supporting references. Anakinra may be appropriate in children with systemic JIA who have failed to respond to systemic corticosteroids (with active systemic features) or methotrexate (with active arthritis)25.

It is also worth noting that recent guidelines for the treatment of JIA-associated uveitis state that infliximab and adalimumab are indicated for the management of methotrexate-resistant anterior uveitis21,26.

Therapeutic advances have dramatically improved the outcomes of children with JIA. The position statement reproduced in this editorial (Table 1) represents the views of Canadian Pediatric Rheumatologists, and is offered as an evidence-based approach to optimal management. It complements the ACR and BSPAR recommendations, with added comments applicable to the Canadian context. The statement will require updating as new biologics and other modalities of therapy emerge and are demonstrated to be effective. Management of complications of JIA such as macrophage activation syndrome, specific management of temporomandibular joint disease, and the use of biosimilars were beyond the scope of this position statement.

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