

# POOR ADHERENCE TO DRUG TREATMENT IN CHILDREN AND ADOLESCENTS WITH AUTOIMMUNE RHEUMATIC DISEASES

Redução da aderência ao tratamento medicamentoso em crianças e adolescentes com doenças reumáticas autoimunes

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I read with great interest the study reported by Miotto e Silva et al.<sup>1</sup> The investigators developed a relevant self-administered tool to assess adherence to medical and non-medical treatment in pediatric autoimmune chronic rheumatic diseases (PARDs). A pilot study evaluated a Pediatric Rheumatology Adherence Questionnaire, applied to caregivers, in two instances: diagnosis (the first four months of disease) and after six months. The four most important PARDs was included. Poor global adherence, defined as adherence <95%, was observed in 7/33 (21%) patients, poor adherence to medical treatment in 8/33 (24%), and a trend to correlation between socioeconomic factors and poor adherence was evidenced.

There are many factors associated with non/poor adherence to drug treatment in children and adolescents with PARDs, particularly low socioeconomic status, psychological stress of parents/patients, family dysfunction, drug unavailability, insurance type and coverage, unwanted adverse events and concomitant use of more than three different types of drugs daily.<sup>2-5</sup>

In addition, non/poor adherence to drug treatment and appointments in PARDs are more relevant issues, particularly in the second decade of life.<sup>3-5</sup> Indeed, adolescents have a set of biological, psychosocial and brain maturation developments, becoming more independent, with caregiver autonomy, peer connection, beginning of sexual and romantic relationships.<sup>3,4</sup> These findings may be delayed, exacerbated or impaired in adolescents with PARDs, contributing to low adherence to the use of immunosuppressive and biologic agents.

A recent web-based survey study evaluated epidemiology and management practices about childhood-onset systemic lupus erythematosus, including reports of 170/288 (59%) Latin American Pediatric Rheumatologists from 16 countries. Non-adherence to medications was the most important issue described by 97% of respondents, in spite of high frequencies of availability of glucocorticosteroid, antimalarials and immunosuppressive drugs (>80%).<sup>5</sup>

Therefore, assessing and preventing low adherence poses a great challenge in clinical practice. Direct and indirect methods may help measure poor treatment adherence and should be regularly evaluated: self-administered questionnaires, structured interviews with patients/parents, electronic monitoring devices, adherence history and measurement of serum/drug metabolite levels.<sup>2,4</sup> Specific programs for this purpose should be developed to improve compliance. Behavior and education strategies about the disease and treatments, through constructive dialogue at individual/group level with multidisciplinary teams may help PARDs patients improve adherence.<sup>2,4</sup>

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## Conflict of interests

The authors declare no conflict of interests.

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## REFERENCES

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1. Miotto e Silva VB, Okamoto KY, Ozaki LS, Len CA, Terreri MT. Early detection of poor adherence to treatment of pediatric rheumatic diseases: Pediatric Rheumatology Adherence Questionnaire (PRAQ) – A pilot study. *Rev Paul Pediatr*. In press 2019. Epub Mar 18, 2019.
2. Len CA, Miotto e Silva VB, Terreri MT. Importance of adherence in the outcome of juvenile idiopathic arthritis. *Curr Rheumatol Rep*. 2014;16:410.
3. Silva CA, Terreri MT, Bonfá E, Saad-Magalhães C. Pediatric rheumatic disease patients: time to extend the age limit of adolescence? *Adv Rheumatol*. 2018;58:30.
4. Silva CA, Aikawa NE, Pereira RM, Campos LM. Management considerations for childhood-onset systemic lupus erythematosus patients and implications on therapy. *Expert Rev Clin Immunol*. 2016;12:301-13.
5. Ferreira JC, Trindade VC, Espada G, Morel Z, Bonfá E, Magalhães CS, et al. Epidemiology and management practices for childhood-onset systemic lupus erythematosus patients: a survey in Latin America. *Clin Rheumatol*. 2018;37:3299-307.