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Pediatric rheumatic disease patients: time to extend the age limit of adolescence?

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Adolescence and young adulthood definitions

Adolescence (aged 10-19 years) according to World Health Organization is a period involving biological, psychological, sociocultural expressions and cognitive development. During this stage, adolescents become gradually more independent, with parents' autonomy, attachment with the peers, beginning sexual interests and with penal responsibility [1, 2].

Young adulthood (aged 18-26 years) is a lifespan period that generally occurs complete independency, romantic relationships, end of college, begin working, become financially autonomous, leave home and start a family [3].

Brain development

In recent years, the world has changed with socio and economic barriers, leading to difficult to bear responsibility and achieve the aforementioned goals in young subjects. In addition, recent neuroplasticity studies have confirmed prolonged maturation of structures and functional brain throughout adolescence and adulthood. Therefore, executive, motivational and emotional brain functions continue after the cut-off previously established by World Health Organization [3].

Upper age limit for adolescence

It is, therefore, time for general pediatrics [3, 4] and pediatric specialties [5], including pediatric rheumatic patients, to rethink the age limit in pediatric care. The upper age limit of 21 years for adolescence was first suggested by American Academy of Pediatrics [2, 6]. The Institute of Medicine and National Research Council of United States carried out a workshop on Improving the Health, Safety and Well-Being of Young Adults and suggested that young adulthood was from 18 to 26 years [3]. Recently, other authors suggested a definition of adolescence from 10 to 24 years, based on contemporary

patterns of adolescence growth in a well-known digital social world [2].

Challenges for rheumatic disease patients

For rheumatic disease patients, there are other challenges that occur in daily clinical practice in late adolescence. These issues may be related to emotional immaturity, delayed financial independence, disease activity, medications, nervous central system cumulative damage, non-adherence to drug treatment and appointments, licit/illicit drugs use, violence (bullying, suicide), risk of sexually transmitted infection, infertility issues, as well as precocious sexuality and pregnancy, reinforcing the need of age cut-off extension [5].

Is time to extend the age limit of adolescence for rheumatic disease patients?

Additional relevant issues to expand the age bracket of adolescence are the requirement of new health-care public and insurance system policies regarding inpatients and outpatients' clinics.

The best model to establish this process is the transition program, but previous experiences of other high-income countries are not readily reproduced in low and middle-income countries mainly due to financial issues [6, 7]. In this context, it is even more important extending the upper age limit to 25 years for transfer the pediatric rheumatology patients to adult clinics. In fact, age brain maturation is more consolidated at this age and this will minimize the impact an unavoidable change in the long-term patient relationship with pediatric rheumatologist.

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Authors' contributions

CAS, MTT, CSM and EB contributed equally with this manuscript and approved the final manuscript.

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