children with sickle cell disease. The secondary aim is to analyse whether there is an association in children with sickle cell disease between health-related quality of life and 1) patient's age, 2) disease severity, and 3) caregiver's sociodemographic characteristics.

A retrospective cross-sectional evaluation of TNO-AZL Pre-school Children Quality of Life questionnaire (TAPQOL, 0-1 year) and Pediatric Quality of Life Inventory™ (PedsQL™, 2-7 years) data was conducted in children aged 0-7 years, living in the Netherlands. Study participants included caregivers of children with sickle cell disease referred for clinical follow-up at the sickle cell comprehensive care centres at Amsterdam UMC and Erasmus MC Rotterdam between April 2012 and October 2020. Clinical data were obtained from medical records record abstraction. Comparisons were made with previously published normative data on health-related quality of life in the general paediatric population, living in the Netherlands.

The study enrolled 136 caregivers of 136 children. On domains where significant differences existed between children with sickle cell disease and the general paediatric population, children with sickle cell disease scored lower with the most extensive impairment in children aged 5-7 years.

Multiple regression models showed a significant negative association between age and health-related quality of life. No association was found between health-related quality of life and disease severity or health-related quality of life and socio-demographic characteristics.

This study has demonstrated that health-related quality of life declines with age in very young children with sickle cell disease, with an extensive impaired health-related quality of life from 5 years of age when compared to the general paediatric population. This underlines the importance of the identification of high-risk patients with significantly impaired health-related quality of life as early in life as possible, to apply appropriate interventions for quality of life improvement. Future research should focus on factors influencing health-related quality of life in children with sickle cell disease.

313

SARS-COV-2 INFECTION IN PEDIATRIC ONCOLOGICAL PATIENTS – OUR EXPERIENCE

Aleksandra Bonevski*, Jasna Leniček Krleža, Jasminka Stepan Giljević, Nuša Matijašić, Maja Pavlović, Nada Rajačić, Filip Jadrijević Cvrlije, Izabela Kranjčec, Renata Zrinski Topić. *Children's Hospital Zagreb*

10.1136/archdischild-2021-europaediatrics.313

The goal of the study was to present patients' demographic characteristics and clinical course of SARS-CoV-2 infection in children with malignancies treated at our Department. Additional goals were to evaluate the impact of infection on the course of diagnosis, treatment and/or follow up of the primary malignant disease and to determine anti-SARS-CoV-2 antibodies by quantitative assay after recovery from infection.

The study's participants were oncological patients, treated and monitored at our Department, who developed SARS-CoV-2 infection. Demographic data, symptoms and the impact of infection on diagnosis, treatment and/or follow up of the primary disease were collected from questionnaires, filled by patients' parents, in the presence of a medical doctor. Patients and their parents were informed about the study's concept, and all signed consent forms before data and sample

collection took place. Laboratory tests (total proteins, albumins, A, M, G immunoglobulin classes) as well as anti-SARS-CoV-2 antibodies were done at Department of Medical Biochemistry of the Children's Hospital Zagreb.

At the time of writing this abstract we have collected complete data on 14 patients, 9 boys. Primary diagnoses were: ALL (5), Wilms tumor (3), Hodgkin's lymphoma (2), rhabdomyosarcoma (2), desmoplastic infantile ganglioglioma (1) and yolk sack tumor (1). Three patients were diagnosed with SARS-CoV-2 infection during intensive treatment, 2 at initial presentation of primary disease, 4 during maintenance treatment, and 5 during follow up. All the participants, except one patient who was initially treated at another hospital and had undergone only rapid antigen test, had positive RT-PCR test. The common most symptom was fever (9), followed by rhinorrhea (5), loss of appetite (4), cough (2), dyspnoea (2), loss of taste/smell (2), sore throat (1), lethargy (1), vomiting (1), diarrhea (1) and abdominal pain (1). None of the patients developed multisystemic inflammatory syndrome. Four patients had asymptomatic infection. Serology test was done 2.5-4.5 months post-infection, and was positive in 10 patients, while 1 patient had values just below the cut off limit (0.8 U/mL). Out of 9 patients infected during the treatment (initiation, intensive or maintenance treatment), 5 reported short postponement in oncological therapy, and none had delay in crucial diagnostics.

Our study is still ongoing, but according to the results so far, none of our patients developed severe clinical presentation of SARS-CoV-2 infections, and the infection itself did not interfere much with oncological treatment.

Majority of patients developed detectable anti-SARS-CoV-2 antibodies.

314

VITAMIN D SUPPLY FOR CHILDREN AND ADOLESCENTS WITH CANCER IN THE SOUTH OF RUSSIA

Svetlana Dolbnya*, Alice Karaseva, Viktoriya Kur'yaninova, Inna Stremenkova, Leonid Klimov. *Stavropol State Medical University, Stavropol 355017, Russian Federation*

10.1136/archdischild-2021-europaediatrics.314

Study Objective To assess the supply of vitamin D in children and adolescents with cancer in the Stavropol Territory (45° north latitude).

We examined 36 children with cancer (18 boys and 18 girls). There were 11 children (30.6%) aged from 0 to 3 years, 16 (44.4%) – from 4 to 10 years, 9 (25.0%) children from 11 to 18 years. The average age is 7.9 ± 0.9 years.

Leukemia was revealed in 19 (52.8%) children, solid tumors – in 9 (25.0%), lymphomas – in 8 (22.2%) children.

The median calcidiol level was 17.5 [12.6–23.4] ng/ml. A deficiency of vitamin D (less than 20 ng/ml) was detected in 21 (58.3%) children, a deficiency at the level of 20–30 ng/ml – in 10 (27.7%), a level of more than 30 ng/ml – in 5 (13, 9%) of examined children.

Median 25 (OH) D in children with leukemia was 21.2 [14.6–22.4] ng/ml, with solid tumors – 16.2 [9.3–16.4] ng/ml, with lymphomas – 15.8 [11.7–22.8] ng/ml. Nine (47.4%) children with leukemia, 7 (77.8%) with solid tumors and 5 (62.5%) with lymphomas had a serum calcidiol level of less than 20 ng/ml, deficiency of 20–30 ng/ml was detected in 6 (31.6%), 1 (11.1%) and 3 (37.5%) children, respectively, the level of more than 30 ng/ml was detected in 4 (21.0%)