wheezing, bronchitis and laryngitis. 203 nasopharyngeal swabs were collected during epidemic season 2019-2020, 180 (88,7%) of them were positive: RV – 56 (31,7%), AdV – 39 (22,2%), CoVNL-63, 229E – 28 (12,7%), hBoV – 19 (10,6%), IVA -15 (8,3%), PIV – 12 (6,6%). Confirmed diagnosis of pneumonia had 6 (10,6%) children with RV. 10 (17,8%) children with AdV infection had pneumonia as a clinical manifestation. CoVNL-63, 229E caused rhinopharyngitis, croup, wheezing, tracheobronchitis. Generally, 103 samples were collected during the period from March 2019 until September 2019. 98 of them were positive: RSV -37 (37,8%), RV -29 (29,6%), CoV – 12 (12,2%), AdV – 10 (10,2%), PIV – 9 (9,2%).

Conclusions There has been a change in the etiological spectrum of ARVI during the last two years. During epidemic season 2018-2019 in Ukraine, the most prevalent viruses were hMPV -33 (26,3%), IVA -28 (22,4%), RV – 21 (16,8%). During epidemic season 2019-2020 the most commonly detected pathogens were RV- 56 (31,7%), AdV 39 (22,2%), CoVNL - 63, 229E28 (12,7%).

Epidemiological studies should be continued in order to forecast the probable clinical course of disease, and for optimization therapy.

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THE ADOLESCENT SLEEP CRISIS: THE CAUSES, CONSEQUENCES AND SOLUTIONS

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This paper analyzes how reduced sleep duration and quality, referred to as sleep deprivation, affects adolescent development, with a particular interest in associations with obesity and mental health.

To answer this question, a literature search was conducted that produced 12 suitable papers for analysis. These papers were read and reviewed to identify the main findings which were then collated to find common themes.

The results showed that there were five main developmental areas affected by sleep deprivation: academic achievement, obesity, social jetlag, mental health and parent-adolescent relationship.

This study emphasizes the need for greater research into the effects of adolescent sleep deprivation in UK samples. It also highlights three ways in which adolescent sleep deprivation could be prevented: earlier school start times, sleep education and parental education.

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IMPACT OF COVID -19 ON ONCOLOGY PATIENTS IN IRELAND

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Background Cancer is a major cause of mortality in Ireland. The total number of cases will almost double by 2040. 1 in 3 people of all age group will develop cancer in their lifetime. On average 137 cases of cancer were diagnosed per year among children under the age 15 during the 21 year period.

211 cases of cancer were diagnosed per year under the age of 20. Five year survival has average 81% in most recent 10 years. Majority of survivors had been diagnosed with Leukemia 31%. Brain and CNS Tumour's surviving rate is 23%.

Aims To analyse the impact of COVID -19 on Oncology patients. Reason of Hospital admission during COVID-19 Pandemic in 2020-2021 in Wexford General Hospital. To aim for excellent patient care of Oncology patients and to improve access, quality and value for all children with Oncology issue in Wexford area. Assess the resources given to care for these inpatients and changes of workload in last year in COVID 19 Pandemic.

Standards Assessment of COVID-19 impact on Oncology patients if there is any relation to their hospital admission and sick days, has there been any relation of newly diagnosed Oncology patients due to COVID-19.

Difficulties of high risk Oncology patients in Paediatric Ward during COVID-19 Pandemic. The need of properly trained staff to deal with the workload during COVID-19 Pandemic with proper safety and healthcare to the staff and patient. Implementation of new National Cancer Strategy CHI Crumlin following the standards of treatment of Oncology patient according to CHI guidelines. National Model of care in Paediatric Oncology Patient Services in Ireland. Concept of integrated Multidisciplinary Care.

Methodology A HIPE search was completed for oncology patients admitted in Wexford General Hospital from January 2020 – January 2021 inclusive. All charts were reviewed and appropriateness of inclusion in the Study was confirmed. Following data was collected. Chart review. Date of birth. Age of diagnosis. Date of admission, cause of admission and diagnosis. Length of stay in hospital. Inclusion of Covid 19 PCR test and its outcome of Oncology patients. Newly diagnosed cases. To rule out if there is any correlation of Covid 19 in newly diagnosed and previously diagnosed patients causing them to be admitted in the hospital in Wexford area. Gender and age breakdown of oncology patients. Transfusion rate, most common cause of infection causing increase in number of bed days and hospital admission.

Result Total number of Oncology patient in Wexford area is 20. 9 oncology patients were admitted from January 2020 to January 2021 out of which 6 new and 3 previously diagnosed oncology patient. Total 12 male oncology patients and 8 female patients in total. 6 newly diagnosed oncology patient from(January 2020 to January 2021), out of which 3 ALL(Acute Lymphoblastic Leukemia), 1 Pilocytic Astrocytoma, 1 Medulloblastoma, 1 Wilms tumor respectively. Peripheral blood culture was tested negative for all inpatients except 1 that was likely contaminant sample. Blood transfusion was given only to ALL patients, 46% pack RBC was transfused and 54% platelet transfusion was given to patient admitted in Wexford General Hospital in Paeds ward. 6 patients were transferred to Tertiary care hospital as they were newly diagnosed oncology patients and 3 were not transferred as they had recurrent infection treated in local hospital. Total 9 admissions from January 2020 till January 2021, all patients were tested for COVID 19 PCR and all were negative. Total number of bed days occupied are 93 days out of which ALL patients occupied most days i.e 60 days, Medulloblastoma 31 days, Astrocytoma 2 days respectively. 11 times oncology patients admitted with line infection with febrile neutropenia whereas

4 times due to line infection only without neutropenia. Most infected central line lumen is red lumen 52%, white lumen 36% and blue lumen 12% respectively. Most common organism causing infection is Gram positive cocci in both Red & White lumen whereas most common infection in blue lumen is caused by Gram negative bacilli. Gram positive cocci the most common micro organism causing infection is staphylococcus. Gram negative bacilli most common micro organism causing infection are E.coli & Elizabethkingia.

Conclusion Covid 19 PCR was tested in all admitted oncology patients, out of 20 total patients in Wexford area 9 patients were admitted and all were tested negative for Covid 19 PCR. There is no relation of Covid 19 infection on oncology patients that are admitted in Wexford General hospital. There is no relation of Covid 19 infection on newly diagnosed oncology patients, as on time of their diagnosis they were all tested negative for Covid 19 PCR.

Main cause of admission is 71% line infection out of which 52% is related to febrile neutropenia and 28% are newly diagnose oncology patients. Highest number of patients admitted have diagnosis of Acute lymphoblastic Leukemia (Newly diagnosed as well as previously diagnosed ALL with line infection and febrile neutropenia). Number of average percentage of inpatient admission in Wexford General Hospital from January 2020 till January 2021 are as follows: 63%. ALL, 32% Medulloblastoma, 2% Astrocytoma. 6 out of 9 are newly diagnosed cases and 3 are previously diagnosed oncology patients admitted due to infection (line infection with or without febrile neutropenia).

Overall male predominance of oncology patients i.e 12 out of 20 patients are male. Medulloblastoma predominance in male, no female patient diagnose with it. Acute Lymphoblastic Leukemia has male predominance i.e 3 out of 4 male and only 1 female out of 4 ALL patients. Hodgkin and Non Hodgkin Lymphoma only male predominance.

Wilms tumor, neuroblastoma, AML only female predominance, no male patients are diagnosed with it.

Blood transfusion was given only to ALL patients, 46% pack RBC was transfused and 54% platelet transfusion was given to patient admitted in Wexford General Hospital in Paediatric ward. There is no relation of anemia and thrombocytopenia in oncology patients as they were all tested negative for Covid 19 PCR test. Total number of bed days occupied from January 2020 to January 2021 is 93 days out which ALL patients has occupied highest number of bed days i.e 60% whereas Astrocytoma has occupied least number of bed days i.e 2%.

Recommendation In view of novel Covid 19 infection and its multiple strains causing Pandemic this audit should be repeated on yearly basis to review any impact of Covid 19 on oncology patients. To rule out any co relation of Covid 19 with newly diagnosed oncology patients. To rule out any relation of Covid 19 causing haemolysis, anemia and thrombocytopenia in oncology patients. National plan of care, supportive care to patients. Safeguarding with proper protocol providing PPE Equipment in relation to patient and staff safety. More isolation rooms availability for oncology patients as they are prone to infections and Covid 19 could be the sinister for their mortality as they are already immunocompromised. Reinforce the medical staff to decrease the workload. Psychological and social support for Oncology patients and patient carer to cope in overwhelming situation due to Covid 19 Pandemic.

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SEROPREVALENCE OF CYTOMEGALOVIRUS AMONG SCHOOL-AGED CHILDREN IN RUSSIAN FEDERATION

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Cytomegalovirus (CMV) is an important human pathogen in case of immature or compromised immune system, such as the unborn child have. We thus aimed to examine risk factors for CMV infection in young people in Russia and, in order to improve our understanding of CMV epidemiology and guide future disorder prophylaxis strategies.

Objectives To explore cytomegalovirus (CMV) seroprevalence among school-aged children in different age groups.

We conducted retrospective evaluation of the seroprevalence of CMV IgG antibodies among immunocompetent school-aged children (n = 1315), age group from 10 to 15 years, from different regions in Russia (n=7). Children were divided into 2 groups; in the first group was children under 13 years old, in the second group – over 13 years old. Comparison of two independent groups was determined using the Mann-Whitney test and the Kruskal-Wallis test. We analyzed the prevalence of CMV serotype and risk factors for infection.

We estimated a total CMV seroprevalence of 74,6% (n = 981). The median of age in the 1st group was 10.9 (10.6; 11,3), the median of age in the 2nd group was 14.9 (14,6; 15,1). CMV seroprevalence was strongly associated with age, increasing from 71,8% in the first group, throughout adolescence (77,2% in the second group) p=0,048. There were no statistically significant gender differences between regions.

The results are consistent with global data and require further study. These estimates of the CMV distribution will help develop national and regional models and algorithms for disorder prophylaxis in target populations.

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SERUM CONCENTRATIONS OF BONE TURNOVER MARKERS AND MYOKINES IN CHILDREN ON VEGETARIAN AND OMNIVOROUS DIETS

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Vegetarian diets contain many beneficial properties but also carry a risk of inadequate intakes of several nutrients important for muscle and bone health. The links between muscle and bone have been recently intensively examined. Myokines, including myostatin and irisin are cytokines synthesized and released by muscle tissue. It is known that myokines affect bone metabolism, however, the mechanisms of these interactions are not fully understood. The aim of the study was to assess serum concentrations of bone turnover markers and myokines in prepubertal children on vegetarian and omnivorous diets.

The study included 30 healthy children (aged 5-9 years) on a lacto-ovo-vegetarian diet and 30 children on an omnivorous