MB_{SHH} was associated with improved HrQoL, but subgroup did not associate further with QoS outcomes. SIOP-UKCCSG-PNET3 patients receiving chemotherapy before craniospinal irradiation (CSI) had significantly lower health status (p=0.021) and behavioural functioning (p<0.016) compared to patients treated with CSI alone, and those treated on both arms (maintenance chemotherapy and hyperfractionated (36Gy) or standard (23.4Gy) CSI) of HIT-SIOP-PNET4. SIOP-UKCCSG-PNET3 patients receiving CSI-only had better HrQoL scores than those who received pre-CSI chemotherapy and both HIT-SIOP-PNET4 arms (p=0.004). Females reported worse HrQoL/ behavioural functioning across both trials (p<0.04). In HIT-SIOP-PNET4, longer intervals from diagnosis to CSI predicted worse HrQoL/health status (p<0.05). Neither molecular group nor clinico-demographic features tested were associated with neurocognition. In contrast, 6 SNPs significantly associated with ≥1 WISC domain; 4/6 showed multiple associations and were independently prognostic; further associations were apparent at the gene/ pathway level. This large, integrated and multi-disciplinary analysis of two independent trials cohorts has revealed multiple factors predictive of medulloblastoma survivorship including treatment (chemotherapy, time to CSI), tumour (molecular group) and host genetic factors. Assessment in further prospective series are required to determine their potential as a basis for modifications to disease management.

QOL-29. NEUROPSYCHOLOGY FOR YOU" – TOOLS TO IMPROVE AWARENESS OF AND ACCESS TO NEUROPSYCHOLOGICAL CARE

Liesa Josephine Weiler-Wichtl^{1,2}, Verena Fohn-Erhold^{1,2}, Alina Kollmann^{3,1}, Jonathan Fries⁴, Carina Schneider^{5,1}, angelika Holzer^{1,6}, Verena Rosenmayr^{7,2}, Beate Schreiber-Gollwitzer⁸, Peggy Lüttich⁹, Henning Ross¹⁰, Thomas Pletschko^{1,2}, Maximilian Hopfgartner^{1,2}, Ulrike Leiss^{1,2}; ¹Department of Pediatrics and Adolescent Medicine, Medical University of Vienna, Vienna, Austria. ²Comprehensive Center for Pediatrics in Vienna, Medical University of Vienna, Vienna, Austria. ³Kepler Universitätsklinikum Linz Med Campus IV, Linz, Austria. ⁴Department of Psychology, University of Vienna, Vienna, Austria. ⁵Childhood Cancer International - Europe, Vienna, Austria. ⁶General Hospital of Vienna, Vienna, Austria. ⁷University Campus General Hospital of Vienna, Vienna, Germany. ⁹Department of Pediatric Oncology, Hematology and Immunology, University Medical Center for Children and Adolescents Heidelberg Heidelberg, Heidelberg, Germany. ¹⁰Katharinenhöhe, Rehabilitationsklinik GmbH Schönwald, Schönwald, Germany

OBJECTIVE: The occurrence of neuropsychological late effects in childhood brain tumor patients is well known in literature and practice, as well as the use of neuropsychological testing and therapy procedures. Despite guidelines, actual care is quite heterogeneous and often does not meet the needs due to lack of resources. Therefore, a standardized tool to improve awareness of and access to neuropsychological assessment, but even more treatment was developed. METHODS: The core of this Quality-Improvement project is a multilevel and interdisciplinary approach characterized by iterative processes (PDSA-cycles): (1) conceptualization by interdisciplinary, multicenter teams of experts, (2) consensus in Delphi surveys by medical, nursing and psychosocial experts (N=45) and final approval by the steering group. (3) Pilot phases (N=44): Manageability and acceptance, emotional well-being and the degree of information were recorded using a process-oriented screening. RESULTS: The expert meetings resulted in two booklets ("Look closely - Psychosocial assessment" & "1,2,3 - All about Neuropsychology"): Each booklet offers creative methods with a high prompting character to motivate the child to participate actively in two face-to-face sessions (psychoeducational, work and exercise and reflection section). They enable patients to make themselves experts on these topics with age-appropriate, interactive methods. The Delphi survey revealed a consensus of 69%-93%. Patients using the Psychosocial-assessment booklet showed generally low negative emotions and stable positive emotions, which significantly increased during the second session (Z = 2.156, p = .031). Moreover, positive emotions increase significantly during the second session (Z = 2.805, p = .005). Self-indicated degree of information increases significantly with both booklets (Psychosocial assessment: Z = 3.133, p = .002; Neuropsychology: Z = 2.751, p = .006). CONCLUSION: The results illustrate a positive emotional approach to neuropsychological assessment and treatment. Likewise, the rapid increase in expert knowledge supports access to this specific topic and can be considered a minimum standard.

QOL-30. POSITIVE EFFECTS OF A PSYCHOLOGICAL PREPARATION PROGRAM FOR MRI IN CHILDREN WITH COGNITIVE ISSUES – HOW TO BEST MEET THE PATIENTS' NEEDS

Liesa Josephine Weiler-Wichtl^{1,2}, Jonathan Fries^{3,1}, Verena Fohn-Erhold^{1,2}, Agathe Schwarzinger¹, Angelika Holzer^{1,2},

Verena Fonn-Ernold^{-*}, Agathe Schwarzinger^{*}, Angelika Holzer^{**}, Thomas Pletschko^{1,2}, Julia Furtner⁴, Daniela Preyer⁴, Paul Baer⁴, Irene Slavc^{1,2}, Andreas Peyrl^{1,2}, Amedeo Azizi^{1,2}, Ulrike Leiss^{1,2}; ¹Department of Pediatrics and Adolescent Medicine, Medical University of Vienna Vienna, Vienna, Austria. ²Comprehensive Center for Pediatrics Vienna, Medical University of Vienna, Austria, Vienna, Austria. ³Department of Psychology, University of Vienna, Vienna, Austria. ⁴Department of Radiology and Nuclear Medicine, Medical University of Vienna, Vienna, Austria

BACKGROUND: A growing body of evidence has supported alternatives to sedation and general anesthesia for increasing treatment compliance of children during MRI examinations. Particularities in children with a brain tumor (frequency of examinations, neuropsychological deficits (attention, memory)) have a significant impact on methods of treatment and are given special consideration in this study. OBJECTIVE: The aim of the present study was to (1) evaluate the effectiveness of an MRI training program and to investigate the moderating factors for successful MRI examination for a group of young patients with pediatric brain tumors and/or NF1 and (2) to examine the effect of the training on the patient's well-being. METHODS: A total of 87 in the retrospective analyses (Study 1) and a subgroup of 17 patients in the prospective analyses (Study 2, ClinicalTrials.gov: NCT04474678) of the neuro-oncology unit with a mean age of 6.83 years underwent a two-step program to prepare children for MRI, including an in vitro strategy training inside the scanner and were recorded using a process-oriented screening. RESULTS: 81 % of the children who had received MRI training managed to successfully undergo the MRI scan. Hence, the rate of successful MRI examinations without anesthesia was almost five times as high in the group that received MRI training compared to the group that did not. Memory, attentional difficulties and hyperactivity were significant neuropsychological moderators for successful or unsuccessful scanning. Furthermore, the training was effective in improving the psychological well-being of the patients. CONCLUSION: Based on the results, the MRI training is an effective alternative to sedation of young patients for MRI examinations and a promising tool for improving patient well-being related to the diagnostic procedure. However, the intervention needs to be customized according to the children's individual neuropsychological difficulties, which requires specialized psychological staff and an interdisciplinary approach.

QOL-31. A PSYCHOSOCIAL SUPPORT PROGRAM FOR YOUNG ADULT CHILDHOOD CANCER SURVIVORS IN AUSTRIA: A QUALITATIVE EVALUATION STUDY

<u>Thomas Pletschko¹</u>, Kerstin Krottendorfer¹, Juliana Schlifelner¹, Agathe Schwarzinger^{1,2}, Verena Fohn-Erhold¹, Liesa Weiler-Wichtl¹, Anita Kienesberger², Ulrike Leiss¹; ¹Medical University of Vienna, Vienna, Austria. ²Austrian Childhood Cancer Organisation, Vienna, Austria

PURPOSE: Many adolescents and young adult (AYAs) childhood cancer survivors face disease- or therapy-related late-effects, which limit their participation in various areas of daily life. AYAs are often left alone in our health care system and many worry about their ability to cope with long-term sequelae and some are even lost to follow up. Therefore, in the present study a targeted aftercare program was developed and evaluated with the goal of facilitating three important "life skills": (1) self-perception, (2) social interaction and conflict management as well as (3) self-conscious communication of support needs. METHODS: A total of n=13 participants (19.2-30.2 years, mean age: 22.8 years) completed a three-day aftercare seminar, at the end of which each participant wrote a reflection letter ("letter to my future self"), elaborating on observed effects of the seminar, applicability of the given information in daily life and the direct impact of the seminar on their individual circumstances. The reflection letters were analyzed using qualitative content analysis. RESULTS: All target life skills were mentioned in the reflection letters. The participants reported individual benefits from the program especially with respect to selfperception and self-confidence, giving and taking feedback, and acceptance of personal strengths and weaknesses. Moreover, the feeling of "not being alone" was associated with the survivors' experience of emotional and social support. CONCLUSIONS: This evaluation highlights the potential of a one weekend aftercare seminar to address important life skills that are known to positively influence health behavior in AYAs. The detailed description of the seminar can serve as a basis for making this kind of aftercare accessible for other people in similar circumstances.