and receiver operating characteristic (ROC) analysis of most
and receiver operating characteristic (ROC) analysis of most
discriminating indices (Matos & Carvalho, Mentzer
Index, RDW Index, Green and King, Ehsani Index) used in
differential diagnosis of these two diseases was calculated
using MedCalc.v15.2 statistical software. Nonparametric nature
of the CBC sample was assessed using the Kolmogorov–Smir-
nov test. Mann–Whitney test was used to investigate differen-
ces between the two groups. Area under the ROC curve was
calculated for each index and their differences were assessed.
A p-value < 0.05 was considered significant.

Among the 5 tested indices, the Ehsani index correctly
diagnosed the highest number of children with β-thalassemia,
but failed to properly recognize children with IDA (sensitivity
92%, specificity 46%). The most commonly used Mentzer
index showed similar results (sensitivity 88%, specificity 48%).
The best ratio between sensitivity and specificity was observed
for the new Matos & Cavalho index (sensitivity 74%, specific-
ity 88%) with highest area under the ROC curve. Pairwise
comparison of ROC curves obseved a significant difference
between Matos & Cavalho index and the remaining four
tested indices (RDW p<0.0008; Ehsani p<0.0001; Green
and King p<0.0001; Mentzer p<0.0001). Kolmogorov–Smir-
nov test for normal distribution of CBC values showed a
p>0.05 while Mann–Whitney U test for independent samples
showed a p<0.05 difference between IDA and β-thalassemia.

Our results show that the most optimal index for discrimi-
nation between β-thalassemia and IDA in analysed children is
Matos & Cavalho Index.

Therefore, it is more appropriate for discernment than the
other analysed indexes. All indexes with low specificity (Ment-
zer, Ehsani, Green and King) were of low validity as they
have a low proportion of IDA correctly identified as such.

296 ESTIMATION OF THE GLOMERULAR FILTRATION RATE
IN CHILDREN WITH HAEMOPHILIA

Zrinko Šalek*, Matej Šapina, Daniel Turudić, Danko Mikljević, Ernest Bilić. Division of
Paediatric Haematology and Oncology, Department of Paediatrics, University Hospital Centre
Zagreb

Haemophilia is rare, inherited and severe bleeding disorder
caracterised with factor VIII or factor IX deficiency. The esti-
ated glomerular filtration rate (eGFR) is one of the best-per-
forming methods to evaluate kidney function. Glomerular
filtration rate cannot be directly measured; however, it can be
determined by measuring the clearance of an ideal filtration
marker or estimated using predictive formulas. The aim of
this preliminary study was to calculate eGFR of paediatric
haemophilia patients treated in our centre and assess the corre-
lation of eGFR calculated by creatinine-based and cystatin C-
based equations.

In our study, we included 36 boys with moderate or severe
haemophilia. Out of a total of 36 patients, 27 had haemo-
philia A and 9 had haemophilia B.

Their mean age was 11.2±4.31 years, with a range from 3
to 18 years. We investigated the correlation and agreement
between two eGFR equations (creatinine-based ‘Bedside
Schwartz’ equation and cystatin-C based equation). Along with
applying correlation and linear regression tests, the Blad Alt-
man test was performed to assess the agreement of the
results.

Statistically significant differences were found between the
mean eGFR values (p<0.001). No significant correlation was
found between the two methods (p=0.07). Bland-Altman anal-
ysis results showed higher mean eGFR values of bedside
Schwartz equation compared to the cystatin-C based formula,
meaning that a significant disagreement was found between
those two equations. However, within the group of haemo-
philia A patients, statistically significant positive correlations
between the two methods were found, although still a dis-
agreement was observed Due to the observed disagreements
between eGFR within haemophilia patients, further research is
needed to find the optimal measure of eGFR. We suggest
extending this study on a larger cohort of patients and include
other possible eGFR equations.

295 NON-HODGKIN LYMPHOMA IN CHILDREN: SINGLE
CENTER EXPERIENCE DURING 20 YEARS

Ernest Bilić, Zrinko Šalek*, Matej Jelčić, Daniel Turuđić, Petra Ivančić, Maja Pavlović,
Ranka Femenić, Ana Petrović-Glujić, Lucija Mucavac, Toni Matić, Sara Dejanović Bekić,
Josip Korpia, ljubica Račić, University Hospital Centre Zagreb
10.1136/archdischild-2021-europaediatrics.295

Lymphomas are the third most common malignant disease in
childhood, after leukemia and brain tumors. The aim of this
study is to show stratification by gender and age as well as
long term survival in pediatric patients diagnosed with Non-
Hodgkin Lymphoma in our center.

Our retrospective analysis included 85 children with newly
diagnosed NHL from January 1, 1997 to December 31, 2016.
They all have been diagnosed and treated at the Department of
Pediatric Hematology and oncology, University Hospital Centre
Zagreb.

Out of 85 children with newly diagnosed NHL 48 of them
suffered from B-cell NHL (n = 48; 56%) while the rest of
them had T-cell lymphoblastic lymphoma
(T-LBL) (n = 20; 24%) or Anaplastic large-cell lymphoma
(ALCL) (n = 17; 20%). There were 25 girls and 50 boys
(age 3 – 17 years). Overall survival (OS) for the entire group
was 78.82%. Diagnose based survival is in the favor of T-LBL
– 85.00% in comparison to 81.25% in B-NHL and 64.71%
in ALCL.

Our survival rates are not very different from the ones in
the other European countries. We expect improved survival
rates after introducing novel treatment that would optimize
therapeutic effect and at the same time minimize the risk of
severe late toxic effects.

297 LYMPHOMA OR ALPS?

Cansu Koç*, Gonca Kaçar, Simge Özel Çınar, Suheyla Ocal, Nihan Burtecone, Tiraje Celkan.
İstanbul University-Cerrahpaşa, Cerrahpaşa Medical Faculty
10.1136/archdischild-2021-europaediatrics.297

ALPS is a rare disease characterized by chronic, non-malignant
lymphoproliferation and autoimmunity. The axis of apoptosis
is impaired in immunoregulation by mutation in Fas Ligand
and Caspase 8 genes.

Lymphadenopathy, hepatosplenomegaly, Direct Coomb’s
(+), autoimmune hemolytic anemia, ITP are the most