Poster presentations

PP-01 Clinical outcomes of acute kidney injury: a recent cohort from a tertiary nephrology service

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Introduction. Acute kidney injury (AKI) is a major global health problem, associated with high morbidity, mortality, and healthcare costs. However, data from Albania remains limited. We aimed to represent the epidemiology, clinical features, and outcomes of AKI in a tertiary nephrology center.

Methods. We retrospectively analyzed 116 adult patients hospitalized with AKI in the Nephrology Service, University Hospital Center "Mother Teresa", Tirana, between September 2024 and May 2025. Patients included de novo AKI (61.2%) and AKI on pre-existing CKD stage 1–3 (38.8%). Demographic, clinical, etiological, and laboratory characteristics, comorbidities, and management were recorded. Outcomes included recovery, mortality, dialysis requirement, ICU admission, and hospital stay.

Results. The mean age was 70.6 ± 14.9 years; 66.4% were male. AKI was predominantly prerenal (50%), followed by intrinsic (37.1%) and postrenal (12.9%). By KDIGO criteria, 42% were stage 1, 30% were stage 2, and 28% were stage 3, with the latter accounting for the majority of dialysis starts. Hyperkalemia (K+ > 6.0 mmol/L) occurred in 18.9% of patients and was a strong predictor of the need for dialysis ($p < 0.01$). Oliguria/anuria was present in 14% and showed a trend toward higher mortality and incomplete recovery. Elevated inflammatory markers (CRP and neutrophil-to-lymphocyte ratio) and anemia were more frequent in patients with poor outcomes; however, these associations did not reach statistical significance. Within intrinsic AKI, 55.8% remained of undetermined cause as no renal biopsies were performed. Overall, dialysis was required in 20.7% of cases, and ICU admission occurred in 9.5% of cases. Recovery occurred in 89.7%, mortality in 5.2%, and persistent dysfunction in 5.2%. Hospital stays correlated negatively with age ($r = –0.26$, $p = 0.006$) and positively with creatinine ($r = 0.19$, $p = 0.046$).

Conclusion. In this recent Albanian cohort, AKI was most often prerenal, while advanced stages, hyperkalemia, and oliguria pointed to greater severity and risk. Although inflammatory markers and anemia showed only non-significant trends toward poorer outcomes, they remain clinically intriguing signals warranting closer study. Taken together, these findings provide a focused snapshot of AKI outcomes in a tertiary nephrology service, highlighting both the encouraging recovery rates and the gaps in diagnostic precision. They highlight the need for systematic AKI registries, earlier risk stratification, and broader use of diagnostic tools—steps that could transform care delivery and diminish the burden of AKI in nephrology service.

PP-02 Low dose furosemide reduces acute kidney injury in hip fracture patients post-blood transfusion perioperatively

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Introduction. Hip fractures in frail elderly patients are a significant cause of morbidity and mortality, requiring immediate surgery (optimally within the first 72 hours post fracture). These patients frequently suffer from chronic illnesses such as hypertension, cardiac disease, diabetes, osteoporosis, anemia, preexisting renal impairment, dehydration etc.

Blood transfusions during surgical repair of hip fractures are among the most frequent intervention and are associated with the risk of acute kidney injury (AKI). AKI is defined as an abrupt decline in renal filtration rate, marked by a rise in serum creatinine (SCr) or azotemia in laboratory findings. Every day evidence from the operating room, suggests that the use of low dose furosemid, such as 10 mg, may prevent the risk of AKI by promoting diuresis and improving renal perfusion.

Methods. This is a retrospective cohort study, where 143 frail hip fracture patients (aged 70- 96) over a period of 12 months, received perioperative blood transfusion. Their baseline serum creatinine ranged from 0.5-1.2 mg/dL and they received a single dose of 10 mg of IV furosemide, post transfusion, intraoperatively. The outcome was SCr measured at 48 hours post surgery. AKI was staged using KDIGO criteria based on SCr: Stage 1: SCr 1.5 - 1.9 * baseline or ≥ 0.3 mg/ dLincrease; Stage 2: SCr 2.0-2.9 * baseline; Stage 3: SCr ≥ 3.0 * baseline.

Results. The overall AKI incidence was 23/143 or 16.1 % of the total cohort. The results showed that SCr level was ≥1.3 mg/dl and ranged from 1.3 to 3.9 mg/dl. Our study displayed the following: **Stage 1** - 17 patients or 73.9 % of AKI cases, or 11.9 % of total cohort; **Stage 2** - 6 patients or 26.1 % of AKI cases, or

4.2 % of the total cohort; **Stage 3** - 1 patient or 4.3 % of AKI cases , or 0.7 % of the total cohort. No severe furosemide-related adverse events, such as significant hypotension or hypokalemia (K <3.0 mEq/L) were observed.

Conclusion. Prophylactic administration of 10 mg of Furosemide was associated with a moderate AKI incidence as 16.1% and as seen by results predominantly mild stage 1 cases. These findings support further trials to validate its renoprotective role after blood transfusion in hip fracture surgery.

PP-03 Acute kidney injury induced by hypercalcemia: a rare but significant complication of primary hyperparathyroidism

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Introduction. Primary hyperparathyroidism is an endocrine disorder characterized by excessive autonomous secretion of parathyroid hormone (PTH), independent of serum calcium levels (absent hypocalcemia), which leads to hypercalcemia by activating bone resorption mechanisms, renal calcium reabsorption and intestinal absorption stimulated by calcitriol.

Case presentation. We present the case of a hypertensive patient, without prior renal impairment, with recently diagnosed digestive pathology (gastritis), who presents with significant joint and bone pain, with the impossibility of maintaining orthostaticity, fatigue, nausea, vomiting, abdominal pain and bradycardia. For osteo-articular symptoms he undergone electro-physiotherapy procedures and received a contrast-enhanced computer tomography to serch the ethiology of gastrointestinal disorder, when slightly increased nitrogen retention values were detected (creatinine=1.7mg/dL, urea=80mg/dL). Upon presentation to the Nephrology service, a rapid increase in nitrogen retention (creatinine=3.8mg/dl, urea=150mg/dl) was detected over the last 2 weeks, also severe hypercalcemia (serum calcium=16mg/dl) and hyperuricemia (uric acid=13.7mg/dl), without significant electrolyte changes. Considering the clinical symptomatology of bone pain correlated with the laboratory test values, the suspicion of multiple myeloma is raised, but serum protein electrophoresis with immunofixation and skull x-ray refuted the diagnosis.

Outcome. The particularity of the case appears when the serum parathyroid hormone (PTH) value is determined. Thus, PTH=983pg/mL guides the diagnosis to primary hyperparathyroidism, secondary to an ultrasound-detected parathyroid adenoma, which is why hypocalcemic treatment with zoledronic acid is initiated, reducing the risk of associated complications (cardiac rhythm disorders, osteoporosis, coma), with improvement in digestive symptoms. After partial hydro-electrolyte balancing and significant reduction of symptoms, the patient is transferred to a specialized medical institution for curative treatment.

Conclusions. Acute kidney injury induced by severe hypercalcemia is a serious and frequently underdiagnosed complication of primary hyperparathyroidism, with significant implications on the clinical evolution of patients. Rapid recognition of signs of hypercalcemia and possible renal effects is crucial to reduce the risks of progression to chronic kidney disease. The therapeutic approach should be comprehensive, including measures to reduce serum calcium (adequate hydration, diuretics, bisphosphonates) and surgery to eliminate the primary cause (usually a parathyroid adenoma).

PP-04 Acute kidney injury secondary to SARS COV2 infection in a patient with major comorbidities

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Introduction. SARS COV2 infection does not only affect the respiratory system, but has important systemic consequences, the kidney being one of the organs frequently involved both directly and indirectly.

Case report. We present the case of a patient known to have multiple cardiovascular pathologies (CTI ablation for typical atrial flutter in 2015, severe valvular diseases, chronic heart failure NYHA class III with reduced ejection fraction, nonischemic dilated cardiomyopathy, carrier of a biotronik biventricular pacemaker for cardiac resynchronization therapy, atrial fibrillation with rapid ventricular allura), diabetic, with mild renal impairment stage G3A for several years, who presents to the emergency department, with fatigue, nausea, vomiting, diarrhea, occurring in the context of non-compliance with the diet, prolonged exposure to the sun and urban agglomeration. Clinically, he presents with hypotension, dyspnea, pale skin. Biological evaluation reveals a significant nitrogen retention syndrome (creatinine=11mg/dL, urea=305mg/dL), severe hyperkalemia=7.1mmol/l and severe metabolic acidosis (pH=6.9, HCO3=8.5mEq/L), with anuria of over 12h. He denies the association with febrile syndrome, considering it a severe dehydration syndrome and a possible context of infectious or infectious-contagious disease. The primary emergency is represented by hyperkalemia, acidosis and anuria so admission to the intensive care unit is decided, with renal replacement therapy through hemodialysis.

Outcome. He performs 2 hemodialysis sessions, with partial resumption of renal function, complete remission of digestive symptoms and apparent improvement of vital functions 48 hours after admission. But in the next 10 hours the general condition is getting worse, severe respiratory depression occurs requiring positive pressure ventilation, and surprisingly severe hepatic cytolysis appears without signs of sustained hypovolemic shock. Over 72 hours after admission, fever develops and it is decided to perform a SARS-COV2 test, with a positive result. The particularity of the case is the appearance of a significant hepatic cytolysis syndrome that is not found at admission (GPT=2251U/L, GPT=2710U/L) and rhabdomyolysis (CK=1071U/L, CKMB=60U/L), concomitant with fever 4 days after admission.

Conclusion. SARS COV2 infection can cause severe acute kidney injury in a patient with major comorbidities, such as cardiovascular disease and diabetes mellitus, being the most serious complication requiring immediate treatment. The subsequent evolution, with the appearance of a syndrome of massive hepatic cytolysis and rhabdomyolysis, confirms the systemic and complex nature of the damage caused by the COVID-19 virus.

PP-05 Association of FGF23 with markers of macrovascular complications, lipid profile, and inflammation in patients with type 2 diabetes mellitus and early-stage chronic kidney disease

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Introduction. Fibroblast Growth Factor 23 (FGF23) is a phosphaturic hormone with a key role in phosphate metabolism and the pathophysiology of chronic kidney disease (CKD). Growing evidence suggests that elevated FGF23 levels are associated with increased cardiovascular risk, vascular calcification, and inflammation. The aim of this study was to evaluate the association between serum FGF23 levels and markers of macrovascular complications, lipid status, and inflammation (CRP) in patients with type 2 diabetes mellitus (T2DM) and early-stage CKD.

Methods. A total of 106 patients (52 females, 54 males) with T2DM and early CKD, aged 38–80 years (mean age 67.4 ± 7.6), were included in the study. Serum FGF23, C-reactive protein (CRP), lipid profile, estimated glomerular filtration rate (eGFR), body mass index (BMI), and demographic characteristics were analyzed. Doppler ultrasonography was performed to assess extracranial carotid and peripheral arterial disease. Statistical analyses included Student's t-test, ANOVA, and Pearson/Spearman correlation tests.

Results. The mean serum FGF23 level was 118.67 ± 32.3 pg/ml. There were no statistically significant differences in FGF23 according to sex, age, smoking status, or diabetes duration. FGF23 showed a strong negative correlation with eGFR ($r = –0.9283$, $p<0.0001$) and a significant positive correlation with CRP ($r = 0.2062$, $p=0.034$). A weak but statistically significant positive correlation was observed with total cholesterol ($r = 0.1924$, $p=0.048$), while associations with LDL, HDL, and triglycerides were not significant. FGF23 levels were higher in patients with vitamin D deficiency ($p=0.045$). Patients with established carotid or peripheral atherosclerosis had higher mean FGF23 values, although without statistical significance.

Conclusion. FGF23 shows a trend toward association with inflammatory and lipid parameters, as well as vascular changes in patients with T2DM and early CKD. The strong negative relationship with eGFR confirms its potential role as an early biomarker of impaired renal function and increased cardiovascular risk.

PP-06 Effect of combined sodium glucose cotransporter inhibition and renin angiotensin aldosterone system blockade on kidney function in patients with cardio renal metabolic syndrome: A real world study

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Introduction. Cardiovascular disease, chronic kidney disease and type 2 diabetes frequently coexist, forming the cardio renal metabolic syndrome. These conditions share overlapping mechanisms that promote disease progression. Therapeutic strategies that inhibit the renin angiotensin aldosterone system and reduce glucose reabsorption have demonstrated individual benefits in delaying renal and cardiovascular deterioration. However, limited evidence exists regarding the combined impact of these interventions in real world settings. The present study aimed to investigate the effects of dual therapy on renal outcomes in patients with established chronic kidney disease.

Methods. This retrospective observational analysis was conducted in a single Nephrology Center and included sixty four patients with chronic kidney disease. Patients were categorized according to exposure to renin angiotensin aldosterone system inhibitors, sodium glucose cotransporter inhibitors, or the combination of both. Clinical and biochemical variables were collected at two time points, including

serum creatinine, urea, estimated glomerular filtration rate, albumin, proteinuria and hemoglobin. Statistical analysis employed appropriate paired tests based on distribution, with significance defined as $p < 0.05$.

Results. Treatment with sodium glucose cotransporter inhibitors was associated with a significant reduction in serum creatinine, together with a trend towards reduced urea levels. Monotherapy with renin angiotensin aldosterone system blockade alone did not achieve significant improvements. In contrast, patients not exposed to renin angiotensin aldosterone system inhibitors showed a significant decline in serum albumin. The combination of sodium glucose cotransporter inhibitors and renin angiotensin aldosterone system blockade demonstrated favorable, though not statistically significant, changes in renal function, while also preventing the progression of proteinuria. Proteinuria increased significantly in patients not receiving the combination therapy.

Conclusion. In this real world cohort, sodium glucose cotransporter inhibition was independently associated with improved renal function, while combination therapy with renin angiotensin aldosterone system blockade provided additive benefit by stabilizing proteinuria and supporting renal preservation. These results highlight the importance of integrated therapeutic approaches in patients with cardio renal metabolic syndrome and justify further evaluation in larger prospective studies.

PP-07 Kidney Health Awareness and Risk Factors in Albania: Findings from the ISN "Are My Kidneys Healthy?" Questionnaire

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Introduction. Chronic kidney disease (CKD) affects more than 10% of the global adult population, yet awareness and preventive action remain low. This study aimed to evaluate knowledge and exposure to CKD risk factors in the Albanian population using the ISN questionnaire "Are My Kidneys Healthy?".

Methods. A cross-sectional survey was conducted between January–June 2025. The validated ISN questionnaire was translated into Albanian and administered to 501 adults (≥18 years) without prior known kidney disease. Data were analyzed with descriptive statistics, chi-square tests, and correlation analysis.

Results. The study included 501 participants. Mean age 38.4 ± 14.7 years; 54% women. Knowledge levels were: 40.1% had high knowledge of CKD risk factors, 28.7% moderate, and 31.1% low. Risk factor exposure: NSAID use (regular and occasional users) was the most common exposure (56.3%), followed by daily salt intake >5 g (52.1%) and hypertension (34.7%). Diabetes was reported in 11.7%, and obesity (BMI>30kg/m^2) in 19.6%. Multiple exposures: 60% of participants were exposed to two or more risk factors, with prevalence rising significantly after age 40 ($p < 0.05$). Gender differences: Women reported higher NSAID consumption, while men showed higher rates of hypertension and obesity. Knowledge–exposure link: A negative correlation was observed between knowledge and number of risk factors ($r = –0.131$, $p = 0.003$), higher knowledge was associated with fewer risk factors.

Conclusion. This first nationwide application of the ISN CKD questionnaire in Albania shows that one-third of adults have low awareness of kidney health risks, while most are exposed to multiple modifiable factors. Public health interventions should prioritize people over 40 years, targeting NSAID overuse, high salt intake, and poor control of hypertension and diabetes, with primary care and nephrology services playing a central role in prevention and early detection.

PP-08 Hyperhomocysteinemia in chronic kidney disease: from biomarker to silent driver of cardiac remodeling and calcification

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Introduction. Chronic kidney disease (CKD) is strongly associated with increased cardiovascular morbidity and mortality. While traditional risk factors such as hypertension and diabetes play an important role, non-traditional factors linked to uremia and impaired metabolism are increasingly recognized. Among these, hyperhomocysteinemia has emerged as a relevant marker of endothelial dysfunction, vascular injury, and accelerated atherosclerosis. Elevated plasma homocysteine levels are frequently reported in patients with CKD, but their clinical significance in relation to cardiac remodeling and vascular calcification remains under debate. This study aimed to assess the prevalence of hyperhomocysteinemia in a CKD cohort and to explore its associations with echocardiographic findings and biochemical markers of cardiovascular risk.

Methods. We conducted a cross-sectional observational study in 100 patients with CKD stages II–V, including 21 on maintenance hemodialysis. Demographic data, comorbidities, and laboratory parameters were collected. Plasma homocysteine levels were measured in all patients.

Hyperhomocysteinemia was defined according to established cut-off values (>15 μmol/L). Echocardiographic evaluation included left ventricular ejection fraction (LVEF), left ventricular hypertrophy (LVH), diastolic function, and the presence of valvular calcifications. Associations were explored using correlation analysis and logistic regression models.

Results. Hyperhomocysteinemia was detected in 64% of patients, with a higher prevalence in advanced CKD stages (78% in stage IV–V vs. 52% in stage II–III, $p<0.05$). Patients with hyperhomocysteinemia had significantly higher rates of LVH (62% vs. 38%, $p=0.02$) and valvular calcifications (54% vs. 29%, $p=0.03$). Mean homocysteine levels correlated positively with NT-proBNP ($r=0.36$, $p=0.01$) and inversely with LVEF ($r=-0.32$, $p=0.02$). Logistic regression confirmed hyperhomocysteinemia as an independent predictor of valvular calcifications (OR 2.1, 95% CI 1.1–4.2, $p=0.04$), even after adjusting for age, diabetes, and hypertension.

Conclusion. Hyperhomocysteinemia is highly prevalent in CKD and independently associated with cardiac remodeling and valvular calcification. Beyond being a biochemical abnormality, it emerges as a true cardiovascular risk factor that mirrors the hidden vascular and myocardial damage in this population. Its routine assessment could refine cardiovascular risk stratification in CKD, and future interventional studies are needed to determine whether lowering homocysteine translates into improved outcomes.

PP-09 Epidemiology, comorbidities, and chronic kidney disease progression in autosomal dominant polycystic kidney disease: data from the Republican Clinical Hospital "Timofei Moșneaga," Chișinău (2024)

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Methods. Medical records of patients admitted in 2024 were retrospectively reviewed. Out of 1681 hospitalizations, 55 cases of ADPKD were identified, representing 3.3% of the cohort. Variables analyzed included demographic characteristics (age and sex), family history, clinical manifestations at onset, disease duration, CKD stage according to KDIGO classification, ultrasonographic findings, comorbidities, and the need for hemodialysis.

Results. The mean age of patients was 52.7 years, with a median of 54 years (range 19–76). Women accounted for 65.5% of cases and men for 34.5%. The most frequent age of presentation was between 50–60 years in women and 40–50 years in men. A positive family history was documented in 58.3% of patients, with maternal transmission in 28%, paternal in 22%, and involvement of siblings in 8.3%. The most common presenting manifestations were lumbar pain (72.9%), followed by recurrent urinary tract infections (39.6%) and episodes of hypertension (37.5%). The mean disease duration was 17 years, with a median of 16 years (range 1–40). Subgroup analysis showed an evolution ≤10 years in 27.3% of patients, 11–20 years in 34.5%, and >20 years in 38.2%. CKD staging revealed: G1 – 9.1%, G2 – 23.6%, G3a – 9.1%, G3b – 29.1%, G4 – 12.7%, and G5 – 16.4%, with intermediate and advanced stages (G3b–G5) comprising 58.2% of cases. Ultrasonography confirmed renal cysts in all patients, while hepatic cysts were present in 34.5%.Cardiovascular comorbidities were highly prevalent: hypertension was observed in 91.7%, cardiopathy (ischemic, hypertensive, dismetabolic, or mixed) in 62.5%, and heart failure in 58.3%, of whom 81.2% were in NYHA stage II. Type 2 diabetes was diagnosed in 10.4% of patients, and anemia in 25%. Hemodialysis was required in 9.1% of patients, with a mean treatment duration of 3 years, a median of 2 years, and a range between 1 and 7 years. In the absence of widely available genetic testing, diagnosis continued to rely primarily on clinical manifestations and imaging, particularly ultrasonography.

Conclusions. ADPKD accounted for 3.3% of hospitalized patients in 2024, confirming the burden of this hereditary condition in the local setting. Most patients presented with advanced CKD stages (G3b–G5), underscoring the need for earlier diagnosis. The data highlight the clinical and genetic heterogeneity of ADPKD and support the development of dedicated screening programs and a national registry. Improved accessibility to genetic testing would enable earlier identification of familial cases and facilitate optimized management in line with KDIGO guidelines.

PP-10 The impact of comorbidities on quality of life in patients with chronic kidney disease

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Introduction. Chronic kidney disease (CKD) is, in most cases, associated with other chronic conditions and rarely occurs as an isolated entity. Comorbidities can accelerate CKD progression and significantly affect overall health, negatively impacting patients' quality of life. The study aims to investigate the relationship between comorbidities associated with CKD and patients' quality of life, as well as how these coexisting conditions influence overall health and well-being.

Methods. A cross-sectional study was conducted on a cohort of 989 CKD patients in stages I–V, prior to

initiating hemodialysis, admitted over one year to the Nephrology Department of IMSP SCR "Timofei Moșneaga." Quality of life was assessed using the KDQOL-SF™ 1.3 questionnaire, a validated instrument specifically designed for CKD patients.
Results. Among the included patients, 64.5% were female and 35.5% male, with a mean age of 57.7 ± 13.1 years. The distribution across CKD stages was: stage I – 31.0%, stage II – 26.1%, stage III – 19.7%, stage IV – 15.3%, and stage V – 7.9%. The majority of patients (86.7%) had at least one comorbidity, while approximately 13% had no associated conditions. The most common comorbidities were hypertension (79.3%), dyslipidemia (43.7%), diabetes mellitus (28.3%), obesity (19.0%), ischemic heart disease (8.4%), and peripheral artery disease (3.0%).
Conclusions. Comorbidities have a significant impact on CKD progression and patients' quality of life. These findings underscore the need for an integrated, multidisciplinary management approach, addressing not only CKD treatment but also effective control of associated conditions, to improve overall health and patient well-being.

PP-11 Nephroprotection in real life CKD - are we doing enough?

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Introduction. According to the 2024 KDIGO Guideline for CKD (Chronic Kidney Disease) management, several standard-of-care therapies can be used, especially in patients with increased albuminuria: RAS (renin-angiotensin-system) inhibitors, SGLT (sodium-glucose cotransporter 2) inhibitors, MRA (mineralocorticoid receptor agonists) and GLP-1 RA (glucagon-like peptide-1 receptor agonists) for diabetic patients. **Aim:** To assess the implementation of these therapies in a group of diabetic and non-diabetic CKD patients from an ambulatory nephrology practice.
Methods. A group of 46 patients (23 male and 23 female) was analyzed and distributed according to age, presence of diabetes, GFR and ACR (albumin-to-creatinine ratio) staging, as well as their therapies and combinations thereof.
Results. Age: 1 (40-50), 4 (51-60), 14 (61-70), 16 (71-80), 9 (81-90), 2 (>90) KDIGO CKD and ACR stages: 1 G1, 9 G2, 14 G3a, 14 G3b, 8 G4; 23 A1, 4 A2, 4 A3, 16 Ax (not staged)**;** Diabetes: 11 yes, 35 no**;** Nephroprotective therapy: 6 with no therapy, 37 on RAS, 14 on MRA-Spironolactone, 20 on SGLT2i, 4 on GLP-1 RA; Number of therapies: 13 on single drug, 21 on double therapy, 5 on triple therapy, 1 on quadruple therapy; Therapy vs KDIGO stage: G1-double therapy; G2-no, mono or double therapy; G3-4 with no therapy, 5 with monotherapy, 15 with double, 3 with triple and one with quadruple therapy; G4-4 with single drug, 2 with double and 2 with triple therapy; A1-4 with no therapy, 7 with single, 10 with double and 2 with triple therapy; A2-all 4 with double therapy; A3- all 4 with double therapy.
Conclusion. Unfortunately, in real life CKD patients are undertreated. Some of them, especially those with high albuminuria, receive double nephroprotection, but we should aim to start more intensive treatment in incipient stages. Thus, preventing future complications and slowing progression to end stage kidney disease.

PP-12 Post-COVID trajectory and outcomes of chronic kidney disease

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Introduction. COVID-19 is recognized as a multisystem disease with a wide range of manifestations, including renal involvement. Acute COVID-19 can precipitate acute kidney injury and exacerbate underlying kidney disease, making progression of chronic kidney disease (CKD) a common complication in survivors. We aimed to evaluate the evolution and prognosis of CKD in patients after COVID-19, identifying key risk factors associated with CKD progression and poor outcomes in this population.
Methods. We conducted an observational study of 1000 patients hospitalized with COVID-19 at the "Timofei Moșneaga" Republican Clinical Hospital between 2020 and 2022. Patients had various comorbidities, including pre-existing CKD. Clinical and biochemical blood analyses were performed to assess inflammatory, renal, and hepatic parameters in the acute phase. Statistical analysis was carried out using StatSoft STATISTICA 9.0 to compare patients with and without CKD progression and to evaluate predictors of adverse outcomes.
Results. Patients who progressed to more advanced CKD were significantly older (median 71 vs 62 years, $p<0.001$). Key risk factors for CKD progression included hypertension (present in 74% of progressors vs 62% of non-progressors, $p<0.01$), type 2 diabetes mellitus (27% vs 21%, $p=0.017$), and cardiovascular disease (31% vs 23%, $p<0.05$). Comorbidity burden was also higher in the progression group, with median Charlson Comorbidity Index of 5 vs 3 points ($p<0.0001$). Notably, patients with pre-existing CKD during acute COVID-19 had over a 2.5-fold higher

risk of mortality and of further CKD worsening compared to those without CKD in the acute phase.
Conclusion. COVID-19 illness was associated with accelerated CKD progression, particularly in older patients and those with significant comorbidities. Independent negative prognostic factors for post-COVID CKD evolution include advanced age, hypertension, cardiovascular disease, poorly controlled type 2 diabetes (often with obesity), and Charlson index >4. COVID-19 survivors with these risk factors require close nephrological follow-up, as pre-existing or acute-phase kidney involvement markedly increases the risk of death and long-term CKD progression.

PP-13 A modest experience in the treatment of membranous nephropathy with classical and alternative medications

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Introduction. Membranous nephropathy (MN) is the most common morphological finding encountered in cases of nephrotic syndrome in adults. Etiologically, MN is divided into primary (PMN) and secondary (SMN). Treatment of patients with MN is carried out with corticosteroids, immunosuppressants, monoclonal antibodies and others, depending on the determined degree of risk in the respective patients.
Methods. We describe two cases, from practice, with biopsy established MN, such as PMN, in which we carried out treatment with intermittent "pulses" of glucocorticoids and/or cyclophosphamide with simultaneous administration of medications with nephroprotective and/or anti-inflammatory effects - SGLT2 inhibitors and finerenon.
Results. Active observation of the patients lasted for six months. During this period, remission of the main manifestations of the disease was achieved without deterioration of renal function. Subsequent observation and non-pathogenetic treatment in the next six months also showed no disease activity.
Conclusion. The good results we have reported in these patients, in our opinion, are evidence that the individual approach to treatment does not contradict the accepted rules of good clinical practice, but often complements them well under the appropriate conditions.

PP-14 Nutritional therapy in chronic kidney disease - influence on intestinal microbiota

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Introduction. The gut microbiota has a significant impact on various aspects of health, including digestion, metabolism, and immune system functions. There is rising interest worldwide on the relationship between the complex abnormalities in chronic kidney disease (CKD) and the gut microbiota. Limited research investigates the link between alterations in gastrointestinal microbiota and CKD. Nutritional therapy—ranging from low/very-low protein diets (LPD/VLPD) supplemented with ketoanalogues to fermentable fiber, resistant starch, and synbiotic approaches—may remodel the microbiota and attenuate toxin burden. We aimed to synthesize the evidence of nutritional therapy on intestinal microbiota composition/function and downstream metabolic and vascular endpoints in CKD.
Methods. We performed a focused narrative review of CKD stage 3–5 (non-dialysis and dialysis) interventions highlighted in the presentation, prioritizing studies reporting microbiome profiles (16S rRNA), short-chain fatty acids (SCFAs), gut-derived uremic toxins (indoxyl sulfate [IS], p-cresyl sulfate [PCS], TMAO), intestinal permeability (e.g., zonulin), endothelial function (flow-mediated dilation -FMD), and safety/nutritional status. Exemplar datasets included crossover trials (MEDIKA/MEDIKA2: Mediterranean diet [MD]±ketoanalogues; VLPD+ketoanalogues) and a 6-month LPD+ketoanalogues study, contextualized by mechanistic data on dysbiosis in CKD/ESR
Results. All studies showed CKD/ESKD to expand urease-positive/proteolytic taxa and depletion of saccharolytic, barrier-supporting bacteria, aligning with higher IS/PCS and endotoxemia; uremia itself appears sufficient to induce dysbiosis. VLPD plus ketoanalogues consistently lowered total/free IS and PCS and reduced zonulin, suggesting improved barrier integrity and a shift away from proteolytic metabolism—effects plausibly mediated by decreased luminal urea and proteolytic substrate. Mediterranean diet plus ketoanalogues increased SCFA-producing taxa (e.g., Roseburia, Faecalibacterium, Lachnospiraceae), consistent with enhanced saccharolytic fermentation.
Conclusion. Nutritional medical therapy in CKD can beneficially modulate the intestinal microbiota and reduce gut-derived uremic toxins, with VLPD+ketoanalogues showing the strongest toxin-lowering and permeability signals, and MD+ketoanalogues enhancing SCFA-linked taxa. These data support integrating precision nutrition alongside guideline-based CKD care and justify larger,

longer randomized trials powered for microbiome-metabolite endpoints and clinical outcomes.

PP-15 Association of interleukin 6 levels with antihypertensive regimens in hemodialysis patients

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Introduction. Chronic inflammation is a key factor in the morbidity and mortality of patients undergoing hemodialysis (HD), with interleukin-6 (IL-6) serving as a pivotal biomarker. Antihypertensive agents such as beta-blockers and calcium channel blockers (CCBs) may influence inflammatory processes. This study evaluates IL-6 levels in HD patients according to the antihypertensive regimen used.

Methods. A retrospective analysis was conducted on 83 HD patients in American Hospital in Tirana, Albania in 2024. IL-6 serum levels (pg/mL) were recorded alongside detailed pharmacological therapy. Patients were stratified into four groups based on the use of beta-blockers, calcium channel blockers, both, or neither. Mean IL-6 levels were compared across groups, and standard deviation (SD) was calculated.

Results. Based on pharmacological therapy, 18 patients (21.7%) were on beta-blockers alone, 15 (18.1%) on calcium channel blockers (CCBs) alone, 8 (9.6%) on a combination of both, and 42 (50.6%) on neither class of drugs. The mean IL-6 levels were significantly different among the groups ($p < 0.001$). The no-treatment group exhibited the highest mean IL-6 concentration (33.6 ± 77.6 pg/mL). Patients treated with beta-blockers alone had moderately lower IL-6 levels (17.8 ± 18.8 pg/mL), while those on CCBs alone demonstrated slightly reduced levels (15.5 ± 12.1 pg/mL). The lowest IL-6 values were observed in patients receiving both beta-blockers and CCBs (13.2 ± 4.7 pg/mL), with notably reduced variability.

Conclusion. Among hemodialysis patients, those not receiving antihypertensive therapy exhibited the highest IL-6 levels, while patients on combined beta-blocker and calcium channel blocker therapy showed the lowest and most stable IL-6 values. The observed trend suggests that combined therapy may exert a more effective anti-inflammatory effect than monotherapy or no therapy. These findings support the hypothesis of a synergistic modulation of inflammatory pathways by dual antihypertensive regimens.

PP-16 Shadows of the Pandemic: Mortality Predictors in Hemodialysis Patients During and After Covid-19

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Introduction. The COVID-19 pandemic represented a major challenge for hemodialysis (HD) patients, a population already burdened by frailty and multiple comorbidities. This study aimed to describe their in-hospital outcomes during acute infection and their long-term post-pandemic evolution.

Methods. We retrospectively analyzed 186 HD patients monitored between 2020 and 2024. Patients were classified into four groups: G(I) – SARS-CoV-2–positive, hospitalized, deceased during admission; G(II) – SARS-CoV-2–positive, hospitalized and discharged; G(III) – SARS-CoV-2–positive, non-hospitalized; and G(IV) – SARS-CoV-2–negative. Demographic characteristics, comorbidities, laboratory parameters, and mortality were compared across groups during hospitalization and at long-term follow-up.

Results. Baseline demographics were similar across groups; however, patients in G(I) had a shorter dialysis vintage, and none were vaccinated. In this group, INR ($p = 0.0017$), AST ($p = 0.0002$), ALT ($p = 0.058$), and CRP ($p < 0.00001$) were significantly elevated, while Kt/V was reduced ($p = 0.050$). Independent predictors of in-hospital mortality included female sex, CRP ($p = 0.033$), procalcitonin ($p = 0.0015$), and D-dimer ($p = 0.033$). Severe COVID-19 occurred more frequently in overweight patients, reflected by higher BMI and BSA ($p = 0.030$ and $p = 0.031$), and in those with diabetes ($p = 0.0187$) or malignancy ($p = 0.0368$). Severe cases also showed hypoalbuminemia ($p = 0.017$), hypocalcemia ($p = 0.020$), and intense systemic inflammation (CRP, $p < 0.00001$; procalcitonin, $p = 0.0154$). Higher iPTH levels were observed in patients with mild/moderate forms ($p = 0.078$). Most severe cases died from COVID-19 itself ($p = 0.00001$), despite antiviral therapy, while mild/moderate cases died mainly from cardiovascular disease ($p = 0.018$). Patients who refused immunization were significantly younger (57.9 vs. 63.8 years, $p = 0.022$), had lower dialysis adequacy (Kt/V 1.51 vs. 1.66, $p = 0.0013$), stronger inflammatory activity, and a higher prevalence of malignancy ($p = 0.023$). Regression analysis comparing COVID-positive and COVID-negative deaths showed that diabetes mellitus ($p =$

0.029) and elevated CRP (p = 0.019) were significantly associated with mortality in the COVID-positive group.
Conclusions. HD patients remain a highly vulnerable population with persistently high mortality during and after the COVID-19 pandemic. Mortality was strongly linked to systemic inflammation and comorbidities, particularly diabetes mellitus and cardiovascular disease. These findings highlight the need for close monitoring and integrated risk management to improve survival in HD patients, especially in the context of future health crises.

PP-17 Improving Dialysis Care: A Single-Center Comparison of Post-Dilution Hemodiafiltration and Standard Hemodialysis
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Introduction. Chronic kidney disease causes retention of small and middle molecules, leading to inflammation and cardiovascular risks. While standard hemodialysis (HD) clears small solutes, it poorly removes middle molecules. Post-dilution hemodiafiltration (HDF), combining diffusion and convection, may enhance solute clearance and outcomes. This analysis compares post-dilution HDF and standard HD regarding biochemical control, clinical tolerance, and mortality in patients receiving chronic dialysis.
Methods. This study included 20 patients (10% of the dialysis population) who transitioned to HDF between 2021 and 2025 at the DIAVERUM Dialysis Center in Strumica. We analyzed eKt/V, serum phosphorus, hemoglobin, and erythropoietin dose over three months before and after HDF initiation. Criteria included blood flow ≥300 mL/min, dialyzer surface ≥1.7 m², session ≥240 min, older age, and diabetes.
Results. After transitioning to post-dilution HDF, changes were observed in dialysis adequacy, biochemical parameters, and clinical tolerance. Dialysis adequacy, measured by eKt/V, improved in 35% of patients, remained unchanged in 25%, and declined in 40%. Substitution volumes ranged between 23-39 liters per session. The group with increased eKt/V had an average substitutional volume (SV) of 33l, compared to 28.5l in the stable group and 27l in those with declined adequacy. Phosphorus control improved in 45% of patients, remained stable in 20%, and worsened in 35%. Patients with decreased or stable phosphorus had SV levels averaged 30.2l, while those with rising levels averaged 28.7l. Hemoglobin levels increased in 50% of patients, remained unchanged in 25%, and decreased in 25%. Erythropoietin dosing was reduced in 40% of patients, increased in 30%, and unchanged in the rest. One death was recorded during the observation period. Clinically, patients experienced fewer hypotensive episodes, less post-dialysis fatigue, and reduced symptoms such as nausea and headaches. Inflammatory markers declined in patients with previously elevated levels. Vascular access complications were minimal, with AV fistula thrombosis noted in two cases.
Conclusion. Post-dilution HDF offers potential benefits in biochemical control, clinical tolerance, and cardiovascular stability. Though not yet standard therapy, our single-center experience suggests reduced mortality, improved inflammation, and fewer vascular access issues, along with enhanced patient comfort and treatment consistency. Worsening of clinical and biochemical parameters was linked to lower substitutional volumes, highlighting the importance of achieving higher convection volumes. Dialysis modality should be individualized, considering age, comorbidities, vascular access quality, treatment tolerance, and overall patient goals. Further multicenter studies are needed to confirm HDF's broader applicability, long-term value, and potential to improve outcomes across dialysis populations.

PP-18 The resolution of AVF stenosis - techniques
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Introduction. AVF is the first line vascular access for patients with CKD in dialysis. Due to hemodynamic changes in the vascular wall - mostly the venous segment, this leads to stenosis in different parts of this segment, the major cause of AVF thrombosis. In this presentation we highlight techniques used by the presenting author for maintaining AVF patent and optimising its flow by surgical or endovascular means.
Methods. This is a retrospective, multicentric five-year study, single surgeon experience on correcting the stenosis of AVF on different levels of the venous and arterial segments, either by balloon angioplasty or by surgical means. The study included 175 patients with indication on correcting the stenosis according to ESVS-VAS criteria (2018). The goal was to achieve optimal dialysis flow, either pre or post AVF thrombosis, by stenosis correction with minimal local and systemic complications, with catheter insertion avoidance by all means. The surgical techniques used in one group were: patch angioplasty (ePTFE, venous, bovine pericardium), graft interposition either with or without thrombectomy, re-routing to collateral or profound venous system, techniques used according to ESVS guidelines. The other group was treated endovascular with ultrasound guided balloon angioplasty - either plain old balloon angioplasty (POBA), high pressure balloon (HPB) and drug coated balloon (DCB).

Results. The techniques used had an over 90% success rate, with a high primary patency at one year, without restenosis in the surgical group. We found a residual stenosis in the endovascular treated group ranging from 10 to 30%, observed at one and a half months follow-up.
Conclusion. We found the techniques used to be highly efficient on achieving optimal dialysis flow, keeping the AVF patent or, late after total occlusion declotting, with minor local complications, that have later passed.

PP-19 Techniques on overcoming the stenosis of AVF

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Introduction. AVF is the first line vascular access for patients with CKD in dialysis. Due to hemodynamic changes in the vascular wall - mostly the venous segment, this leads to stenosis in different parts of this segment, the major cause of AVF thrombosis.
Methods. This is a retrospective, multicentric five-year study, single surgeon experience on correcting the stenosis of AVF on different levels of the venous and arterial segments, either by balloon angioplasty or by surgical means. The goal was to achieve optimal dialysis flow, either pre or post AVF thrombosis, by stenosis correction with minimal local and systemic complications, with catheter insertion avoidance by all means. The surgical techniques used in the study were: patch angioplasty (ePTFE, venous, bovine pericardium), graft interposition either with or without thrombectomy, re-routing to collateral or profound venous system, techniques used according to ESVS guidelines.
Conclusions. The techniques used had an over 90% success rate, with a high primary patency at one year, without restenosis.

PP-20 Vascular access for hemodialysis treatment in problem groups of patients

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Introduction. End stage renal disease (ESRD) is increasingly common worldwide. ESRD is estimated to account for 9,1% (from 8,5 to 9,8%) of the total number of patients with CKD, amounting to 700 million people in 2017. Hemodialysis is the preferred treatment for ESRD. In terms of vascular access, tunneled catheter preferences range from 1% in Japan, 18% in USA, 42% in Belgium to 44% in Canada, respectively. In South Africa the relative share of native fistulas among patients on hemodialysis treatment was 51% during 2017, in Argentina was 70% during 2018 and in Vietnam was more than 95%. *The purpose* of our review is to present the features of vascular access in the three most problematic groups: diabetics, overweight- and elderly patients.
Methods. Based on the review of more than 250 literature sources, we share our over 15 years of experience in the field of vascular access for hemodialysis, with over a thousand primary and reconstructive arteriovenous anastomoses constructed, and more than two thousand temporary and tunneled catheters inserted for dialysis treatment of patients from the predominant part of Northern Bulgaria.
Results. Literature data shows that the relative share of central venous catheters as vascular access continues to be high. The number of patients, especially the elderly, who refuse attempts at native fistula construction is increasing. The proportion of primary cubital anastomoses and those requiring subsequent surgical interventions to reach optimal functionality and maturity is increasing.
Conclusion. Vascular access in problematic patient groups should be decided individually after clarifying the patient's condition. The main goal is to provide vascular access that is as trouble-free as possible for each patient.

PP-21 Cost Analysis of Hospital Treatment for Peritoneal Dialysis-Associated Peritonitis

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Introduction. Increasing healthcare spending is a significant issue, with the aging population contributing to a rise in patients needing renal replacement therapy. The cost of peritoneal dialysis (PD) is substantial, particularly in upper-middle-

income countries like Serbia. This study aims to identify the direct costs and influencing factors of treating PD-associated peritonitis in Serbia.

Methods. A retrospective observational study was conducted on consecutive patients admitted due to PD-associated peritonitis in five tertiary care hospitals across Serbia in period of four years. The primary outcome was total cost of hospitalization. Potential predictors were determined using generalized linear model with a gamma probability distribution and a log link function.

Results. The study included a total of 122 patients. The results showed that the average total cost per patient was 1131.90±1538.67 USD, with the cost of hospitalization (348.17 ± 361.52 USD) and antibiotics (294.94±465.88 USD) being the most significant. The length of hospitalization ($p<0.001$) and treatment outcome ($p<0.001$) were found to be significant predictors of the total cost.

Conclusion. The costs of treating peritonitis in Serbia are substantial, with each additional day of hospitalization significantly increasing the cost. The importance of patient and doctor education about infection prevention is underscored by the health consequences and the lengthy, expensive treatment when an infection occurs.

PP-22 Plasma Exchange: A Single-Center Experience (2024-2025)

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Introduction. Plasma exchange (PEX) is an extracorporeal technique widely used in autoimmune, neurological, hematological, and renal disease [1,2]. By removing autoantibodies, immune complexes, and other circulating pathogenic factors, PEX can lead to rapid clinical improvement, particularly in acute neurological emergencies [3]. Although international data supports its efficacy, systematic reports from Romania remain limited, justifying the analysis of local experience. Our aim was to identify adverse events, complications as well as patient outcome with PEX.

Methods. This retrospective study included 31 patients admitted between January 2024 to August 2025 who were treated with PEX in a single center emergency hospital. Recommendations used for performing PEX were defined by the American Society for Apheresis (ASFA) Guidelines 2023. PEX sessions were performed using InfomedHF440 and Fresenius MultiFiltrate systems either in the Intensive Care Unit (ICU) or Dialysis Unit. Data collected from medical records included: admitting department, diagnosis, number and duration of sessions, type of replacement fluid, procedure-related complications and patient discharge status. A descriptive statistical analysis was performed.

Results. For the total of 31 patients included, the mean age was 52,2 years, 52.5% were male patients, and distribution by hospital ward was: Neurology 70.9%, Nephrology 22.5% and 6.45% Gastroenterology. Total number of plasmapheresis sessions was 129, most common pathology treated were Acute Polyradiculoneuropathy 22.58%, ANCA positive Vasculitis 19.35%, Myelitis 16.1%. Replacement fluids used: 1492 units of fresh frozen plasma and 335 units of human albumin. Mean session duration was 184,03 minutes. Anaphylaxis was reported in 1.55% of cases, syncope:1.55%, hypotension:1.55%, mild allergic reactions:16.27%. Patient status at hospital discharge was defined as improved in most cases (87.09%).

Conclusion. Our findings confirm that PEX is a valuable therapeutic option, especially in neurological disorders. The predominance of FFP use reflects local practice, although guidelines recommend tailoring the choice of replacement fluid to both indication and patient risk. Allergic complications (including anaphylaxis) highlight the higher immunological risk associated with FFP compared to albumin. The overall incidence of complications (≈14%) is consistent with international reports, which range between 10–20%. The main limitations are the small study group size and absence of a control group. Nevertheless, these data support the need for standardized national protocols and careful patient monitoring.

PP-23 Kidney transplantation policy in the Western Balkans: from isolated national efforts to a coordinated regional strategy

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Introduction. Despite almost five decades of kidney transplantation in the region, most programs in the Western Balkans remain small, and unable to adequately address patient needs. Many patients continue to depend on dialysis, while limited resources and variable practices compromise graft survival and long-term kidney health. This study aimed to generate a regional policy overview and to define priorities that can be implemented through coordinated action.

Methods. In 2024, the European Society for Organ Transplantation and its Kidney Transplantation Section initiated a regional needs assessment. An online survey was sent to kidney transplant centers in Albania, Bosnia & Herzegovina, Croatia, Kosovo, Montenegro, North Macedonia and Serbia. The survey

covered clinical practice, infrastructure, legislation and workforce capacity. Findings were consolidated and discussed at a regional workshop in Tirana (May 2025), organized with support of the Albanian Ministry of Health, bringing together transplant professionals, policy makers and international experts to validate results and agree on shared priorities.

Results. Survey responses confirmed low and uneven activity across the region. Albania, Bosnia & Herzegovina, North Macedonia and Montenegro reported limited volumes, mainly from living donation, with very few or no deceased donor transplants. Kosovo lacks a national program and procedures are performed abroad. Common gaps included persistently low deceased donation, absence of paired kidney donation, limited immunology laboratories and rejection diagnostics, restricted access to modern immunosuppressive therapies, and shortages of trained surgeons, coordinators and immunologists. Strengthening legal frameworks and building comprehensive national registries were identified as essential enablers. At the Tirana workshop, stakeholders prioritized harmonized clinical protocols, expanded training and certification, modernization of legislation, stronger regional collaboration and public awareness. A stepwise approach was endorsed: introduce national paired kidney donation programs as a foundation, followed by a Western Balkans regional paired donation program, alongside registry improvement and engagement with religious leaders and communities.

Conclusions. Large unmet needs and wide gaps with European standards persist in the Western Balkans. Progress requires targeted investment in training, legislation and infrastructure, coupled with the roll-out of paired kidney donation at national and regional levels. Participants agreed that supporting transplantation in the Western Balkans should remain a strategic priority, with sustained professional and institutional partnerships to expand equitable access and improve outcomes.

PP-24 Living donor genetic testing practices in kidney transplantation - The Living Donor Genetic Registry (LDGen)

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Introduction. The growing availability of genetic testing has prompted its increased use in the evaluation of living donor (LD) candidates and recipients. Guidance on the use and interpretation of these novel tests are limited. However, genetic testing on asymptomatic living kidney donors remains fraught with many challenges and uncertainties. Not all transplant practitioners are aware of the limitations of genetic testing, are comfortable with selecting testing methods, comprehending test results, or providing counsel, and many do not have access to a renal genetic counselor or a clinical geneticist.

Methods. A cross-sectional, electronic REDCap registry was developed to collect information on LD candidates and their genetic test results. Participating transplant staff register LD candidates who either: 1) underwent genetic testing, and/or 2) had a family history of genetic kidney disease, or 3) are looking to donate to a related recipient with kidney disease of unknown etiology.. Data reported here were collected between June, 2023 and May, 2024.

Results: Data on 1004 LD evaluations were obtained [mean age 46.6±12.2 years, 54.5% women, 78% related to intended recipient] representing 12 U.S. and 9 international centers. 39% (n=305) of intended recipients had possible genetic kidney disease. Of these the most common recipient diagnoses were Alport Syndrome (22%), followed by autosomal dominant polycystic kidney disease (19%), focal segmental glomerulosclerosis (12%) and atypical hemolytic uremic syndrome (12%). Genetic testing was performed in 17% (n=168) of LD evaluations. Testing in recipient candidate was performed before the LD candidate in 12% of cases (n=122) while it was performed only in the donor candidate in 5% (n=46) of evaluations (Fig. 1A). 125 LD candidates underwent genetic testing and 81% of these donors received formal pre-test genetic counseling. Single gene/limited gene panel (42%) and broad kidney disease gene panel (29%) were the most common methods; however, in 20% of the cases, the specific genetic test used in donor evaluation was unknown. 33% (n=41) of the LD candidates who underwent genetic testing during evaluation were not accepted, of which 51% (n=21) of declinations were due to the genetic testing result [Pathogenic/Likely pathogenic variant (n=9), renal risk variants (n=2), variant of uncertain significance (n=10)].

Conclusion: Our initial experience supports the feasibility of international collaboration in creating a registry of genetic kidney disease testing practices among LD candidates. With more data, the findings of the LDGen registry will provide value information on global LD evaluation practice patterns, clarify how family history and genetic test results could impact donor selection and provide early follow-up data in those approved to donate.

PP-25 Living donor genetic testing practices in kidney transplantation - The Living Donor Genetic Registry (LDGen)

Radunovic D[1], Radunovic I[1], Prelevic V[1], Tomovic F[1]

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Mitochondrial diseases can be related to mutations in either the nuclear or mitochondrial genome. Childhood presentations are commonly associated with renal tubular dysfunction, but renal involvement is less commonly reported outside of this age-group. Mitochondrial diseases are notable for the significant variability in their clinical presentation and the broad spectrum of genes implicated in their etiology. These features contribute to the challenges of establishing a definitive diagnosis and understanding the pathogenetic mechanisms leading to kidney involvement in these diseases.

Mitochondrial diseases are a clinically and genetically heterogeneous group of disorders. The underlying dysfunction of the mitochondrial electron transport chain and oxidative phosphorylation is caused by variants of genes encoding mitochondrial proteins. Whilst each of these variants is individually rare, the estimated prevalence of all mitochondrial diseases is approximately 1:8500 (95% C.I.),1 making up quite a frequent group within rare diseases.

Mitochondrial diseases are a phenotype and genotype heterogeneous group of disorders that typically have a multisystemic involvement. The m.3243A>G pathogenic variant is the most frequent mitochondrial DNA defect, and it causes several different clinical syndromes, such as mitochondrial encephalopathy, lactic acidosis and stroke-like episodes (MELAS), and the maternally inherited diabetes and deafness (MIDD) syndromes.

Kidney involvement in these diseases is uncommon but may be higher than current estimates since many cases are not properly diagnosed. Noteworthy, renal disease when present may significantly increase patient morbidity. renal involvement in these diseases is probably underestimated, yet it increases morbidity. It generally manifests as subnephrotic proteinuria and progressive deterioration of kidney function. Adult presentation of mitochondrial diseases is hard to recognize, especially in oligosymptomatic patients or those with exclusive kidney involvement. However, suspicion should always arise when family history, particularly on the maternal side, and multisystemic symptoms, most often of the central nervous system and skeletal muscles, are present.

The contribution of mitochondria dysfunction in the pathogenesis of multiple types of kidney disease is well recognized. This includes not only kidney disease secondary to mitochondrial genetic defects, but also acute kidney disease, CKD, renal tumors, aging, and transplant nephropathy. Genetic counseling is an important component of patient management.

PP-26 From Awareness to Action: Public Readiness and Clinical Potential for Deceased Donor Kidney Transplantation in Albania

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Introduction. Albania currently lacks a deceased donor kidney transplantation program, mainly due to institutional, legal, and cultural barriers. To assess feasibility, we conducted a dual investigation combining intensive care unit (ICU) observations of trauma patients with a nationwide survey of public attitudes toward organ donation.

Methods. A prospective observational study was undertaken involving 150 trauma patients admitted to the ICU at the University Hospital of Trauma. The primary objective was to evaluate renal viability at the time of death. Concurrently, a nationwide, self-administered online survey was distributed via Google Forms to assess public perceptions, collecting responses from 1,457 adult participants across Albania.

Results. Of 150 ICU patients with normal baseline kidney function, 102 (68%) died during their ICU stay. Among these, 36 (35.3%) maintained viable renal function at the time of death. Donor potential was highest among early deaths (≤72 hours), where two-thirds (66.7%) retained transplantable kidneys. Younger patients were more likely to preserve kidney viability, with an average age of 49 years in early deaths compared to 63.1 years in later deaths. Despite risks such as nephrotoxic drug exposure, hypotension, and metabolic derangements, early ICU deaths often occurred before significant renal deterioration, identifying a missed window for donor eligibility. The survey revealed strong societal support for donation. Nearly three-quarters (74.8%) agreed it is time to establish a national deceased donor program. When asked about registering to donate for a family member, 86.3% expressed moderate-to-high willingness (scores 5–10), with 58.6% selecting the maximum score. Altruism extended beyond kinship: 72% were willing to donate to a stranger after death, and 36% gave the highest score. Living donation was widely accepted, with 90.2% of individuals willing to donate to a family member while they were alive. Willingness to donate was positively associated with older age and knowing someone on dialysis ($r = 0.10$, $p < 0.001$). Significant barriers included doubt in the healthcare system (61.9%), lack of awareness (53.8%), and cultural or religious concerns (16%).

Conclusion. These findings reveal both significant donor potential in Albanian ICUs and a good public readiness for organ donation. Establishing a deceased donor transplantation program is medically and socially feasible, but success will depend on policy

action and rebuilding public trust in the healthcare system.

Funding: This research is part of a project funded by the National Agency of Scientific Research, and Innovation (NASRI), Albania.

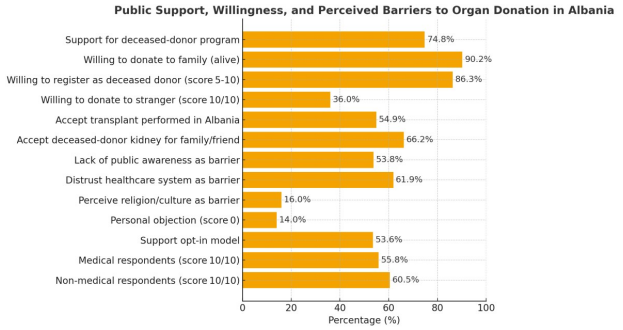

Figure1. Public Support, Willingness, and Perceived Barriers to Organ Donation in Albania: Results from a Nationwide Survey (n = 1,457). Data illustrate high willingness to donate to family members, moderate support for deceased donation, and key barriers including perceived religious and cultural objections and partial trust in the healthcare system. Responses reflect both medical and non-medical participants and inform public readiness for a deceased donor program.

PP-27 Kidney transplantation in a patient with tubulocystic carcinoma of native kidney (oral case)

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Introduction. Tubulocystic renal cell carcinoma of the kidney is a rare entity with less than one hundred cases reported so far. It is now a well-established entity in renal neoplastic pathology and has been recognized as a distinct entity in the 2012 Vancouver classification of renal tumors. Current guidelines on listing patients for renal transplantation suggest that no delay is required for subjects with small or incidentally discovered RCC (renal cell carcinoma), while the recommendations for patients who have been treated for other types of renal cell carcinomas are conflicting.

Case report. Male patient, 43 years old, diagnosed with IgA nephropathy at the age of 10, with progression to CKD. He was on a chronic hemodialysis program for 3 years. Among the comorbidities, he had arterial hypertension. Two years ago, he developed severe aortic stenosis, for which he was treated with replacement of the aortic valve with a mechanical valve, and was on chronic anticoagulant therapy. In the patient, a tumor mass of the native left kidney was verified 3 years ago. His father was evaluated and examined as a potential kidney donor with compatible blood group and no contraindications were found. Radical left nephrectomy was performed. Pathohistological finding revealed renal tubulocystic carcinoma, 3 cm in diameter, without necrosis, Fuhrman nuclear grade III, without lymphatic or venous invasion, without invasion in renal vein, hilus and perinephritic adipose tissue, Gerota's fascia or ureter. Lymph node and hilus adipose tissue had normal histology, without metastasis.

Outcome. After 3 years he was reconsidered for kidney transplantation treatment. Clinical examinations did not verify the presence of malignancy or pathological lymphadenopathy. Transplantation was performed with basiliximab in induction therapy, and with a standard immunosuppressive protocol (TAC + MMF + steroid), without complications. Graft function and patient are stable in follow up period.

Conclusions: Patients with tubulocystic renal carcinoma should be considered for treatment with a kidney transplantation with an individual assessment of the overall risk and benefit. Searching the literature, we did not come across a described case of kidney transplantation in a patient with a history of this type of native kidney cancer.

PP-28 Kidney transplantation in a patient with CML - chronic myeloid leukemia (oral case)

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Introduction. Myeloid neoplasms with PDGFRB rearrangements are genotypically and phenotypically diverse, typically presenting as myeloproliferative neoplasm (MPN) with eosinophilia. Common morphologic diagnosis is chronic myelomonocytic leukemia with eosinophilia, associated with t (5;12) (q33; p13), resulting an ETV6-PDGFRB fusion gene (formerly TEL-PDGFRB). Patients bearing PDGFRB fusion genes achieve durable long-term remissions with imatinib. Consensus regarding kidney transplantation feasibility in patients with chronic myeloid leukemia (CML) well controlled by tyrosine kinase inhibitors has not yet been achieved.

Case report. Female patient, 42 years old, had arterial hypertension and diabetes mellitus type 2 for seven years and CKD. After total hysterectomy and adnexectomy, due to uterine fibroids, developed acute respiratory distress syndrome, acutisation of CKD, threatened by pancytopenia. After the stabilization of the condition, a diagnosis of myeloproliferative neoplasm was made after pathohistological analysis of bone marrow biopsies PDGFRB (TIER3).

Outcome. After imatinib introduction, the condition stabilized. Patient achieved molecular response in treatment after a year, but developed ESRD (end stage renal disease) and was on chronic hemodialysis program. Her mother was examined as a potential

kidney donor and no contraindications for kidney donation were found. Patient underwent clinical examination according to the protocol for examining the suitability of treatment with the method of kidney transplantation. Clinical and hematological bone marrow molecular examinations suggested CML molecular remission. Transplantation was performed with basiliximab in induction therapy, and with a standard immunosuppressive protocol (TAC + MMF + steroid), without complications. Imatinib adjustment with immunosuppressive drugs was required. Graft function and patient are stable in follow up period.

Conclusions: Patients with low-risk chronic phase CML in good disease control and ESRD may be considered for a treatment with kidney transplantation.

PP-29 Congenital abnormalities of the kidney and urinary tract - Shadow in adults. Protecting kidney function through Medical Nutritional Therapy: a case presentation (oral case)

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Introduction. Congenital upper urinary tract abnormalities with secondary nephrolithiasis determine chronic kidney disease (CKD) via recurrent obstruction, infections, and hyperfiltration.

Case report. We report the case of a 30-year-old woman with chronic pyelonephritis. She was diagnosed with urinary tract abnormalities, with multiple urological intervention in childhood, who developed then malformation, highlighting risk stratification (KDIGO G1A3) and the design of a tailored nutritional strategy to support kidney preservation and stone prevention. We documented medical history (multiple childhood UTIs; pelvic/calyceal stones; in April 2009 pyelolithotomy; in September 2009 uretero-calyceal anastomosis/nephrolithotomy; in August 2010 ESWL unsuccessful), urinalysis/biochemistry (microalbuminuria 332 mg/24 h in 11/2009. Important proteinuria was revealed, up to 1.8 g/24 h in 08/2013), and functional studies (renal scintigraphy split function 17% left/83% right; global eGFR 93 mL/min/1.73 m²). A multifactorial nutritional plan was initiated: moderated protein intake (~0.6–0.8 g/kg/day, high-quality sources), ketoanalogue supplementation (1 tb/10 kg-day), phosphorus caution, adolescent-adapted counseling (food diary, shared decision-making), physical-activity encouragement, and close monitoring of growth and nutritional status. At risk stratification, CKD was G1A3 with persistent hematuria/proteinuria (RBC ~250/µL; proteinuria up to 1.8 g/24 h) and preserved global filtration driven by compensatory right kidney function (83%). The left kidney was shrunken, with delayed excretion. Nutritional counseling and adherence support were implemented without compromising growth objectives. Renal function at assessment was 93 mL/min/1.73 m²; the rate of decline in kidney function was much slower than was expected to, while proteinuria remained high above target.

Conclusion. The particularity of the case leads in early occurrence of CKD, due to chronic pyelonephritis (urinary tract abnormalities, secondary lithiasis), accompanied by high proteinuria during adolescence. Medical nutritional therapy, in terms of supplemented, personalization of protein, sodium and phosphorus intake provides a practical framework for delaying the dialysis and allows awaiting for kidney transplantation.

PP-30 Outcomes of patients with acute kidney injury: a single center results from Türkiye

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Introduction. We aimed to analyze the demographic, etiological, clinical and biochemical findings and outcomes of patients who were hospitalized and treated with diagnosis of acute kidney injury in this observational and prospective study which was performed in a single center (Trabzon/ Türkiye).

Methods. Twenty eight patients (Female/Male: 7/21) with acute kidney injury whom were diagnosed based on the KDIGO recommendations were recruited into this study. The etiology of acute kidney injury, sociodemographic, clinical and laboratory data were recorded for all of the patients. Volume evaluations were carefully performed in every and each of the patients. The need for dialysis, appearence of complications such as chronicity and mortality of the patients, clinical course and outcome of patients were evaluated.

Results. AKI stage 1 (n:5), stage 2 (n:3), and stage 3 (n:20) were diagnosed in 17.9, 10.7, and 71.4% of the patients respectively, based on the KDIGO

recommendations. The major comorbidity was chronic kidney disease which was found in 64.2% of all the patients. The main complaint of the patients was nausea which was present in 46.4% of all the participants. Second most common complaint was anorexia which was present in 28.6% of all the patients. Third most common complaint was vomiting which was present in 25% of patients. At admission, the usage of nonsteroidal anti-inflammatory drugs (NSAID) and acetaminophen (paracetamol) were present in 46 % and 17.8% of the patients respectively. Hypovolemia was diagnosed in 82.2% of all the patients while, hypervolemia was present in 14.2%, and euvolemia was found in 3.6% of the patients. Urinary infection was significantly more in patients with stage 1 AKI (80%) than those with stage 2 and 3 AKI (26.1%). The main electrolyte disturbances of the patients were hyponatremia and hyperkalemia. During hospitalization, Half of the patients recovered without sequelae. In all, 25% of patients needed chronic hemodialysis.

Conclusion. At the time of diagnosis, unfortunately, most of the patients had severe AKI (stage 3). Most of the cases were due to usage of nephrotoxic drugs such as NSAID and paracetamol. Hypovolemia was the most common examination finding. As a result, half of the patients recovered without sequelae. Half of the patients needed acute hemodialysis and 25% of all patients needed chronic hemodialysis. In all, 14.2% of patients died during follow up. Multiple myeloma was found to be significantly associated with mortality. Hypomagnesemia during hospitalization was detected statistically more in patients who died.

PP-31 Purple urine bag syndrome: a curious presentation of infection

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Introduction. Purple urine bag syndrome (PUBS) is an uncommon clinical entity most frequently observed in patients with long-term indwelling urinary catheters and associated with urinary tract infections caused by urease-producing microorganisms. While the condition is generally considered benign, it represents an important diagnostic sign that warrants clinical attention.

Case report. We report the case of an 81-year-old male with end-stage chronic kidney disease on maintenance hemodialysis and multiple comorbidities, managed with an indwelling urethral catheter. The patient was admitted with febrile episodes up to 38°C and striking purple discoloration of the urine collection bag. Laboratory investigations demonstrated elevated C-reactive protein (92.6 mg/L), leukocytosis (15×10^9/L), alkaline urine (pH 8.5), and active urinary sediment. Urine culture yielded *Escherichia coli* (>10^5CFU/mL).

Intravenouspiperacillin/tazobactam therapy combined with catheter replacement resulted in clinical improvement. The pathogenesis of PUBS is attributed to bacterial degradation of indoxyl sulfate, which in an alkaline urinary environment is converted into indigo and indirubin pigments, leading to the characteristic purple discoloration. Although infrequent, PUBS has relevant clinical implications as it often signals an underlying urinary tract infection.

Conclusion. PUBS should be recognized as a valuable clinical marker of urinary tract infection in chronically catheterized patients with substantial comorbid burden. Prompt recognition allows for early diagnosis and the institution of appropriate therapeutic measures.

PP-32 Urinary disorders and quality of life in prostate cancer patients

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Introduction. Among frequent men malignancies, prostate cancer (PC) is the second most common. Early diagnosis and improved treatment contribute to better survival, but the burden of the quality of life (QoL) remains important. We aimed to evaluate the frequency of urinary disorders and QoL of PC patients.

Methods. In this cross-sectional study we included 40 men, diagnosed with PC and treated in an oncological service of a tertiary university hospital during January 2023 - July 2025. Patients were treated with radical prostatectomy (RP), transurethral resection of the prostate (TURP), androgen deprivation therapy, and radiotherapy (RT). We used the EORTC QLQ-C30 version 3 questionnaire for assessing the quality of life during the last week, and the complementary EORTC QLQ-PR25 questionnaire. The following data were recorded: age, comorbidities as chronic kidney disease (CKD) and diabetes mellitus (DM), PSA levels ng/mL (before treatment), Gleason Score (GS), radiation therapy dosage in Centigray (cGY).

Results. The mean age of enrolled patients was 71±6.6 years. 10 % were in working condition at the time of the diagnosis. Comorbidities were: CKD in 5%, and DM in 7.5% of patients. The initial median and interquartile range (IQR) of PSA levels was 24.7 (10.4-107), and prostate volume was 50 (46-85.5) cc. The mean radiation therapy dosage was 6805±865 cGY. Before starting the RT, 17.5% had RP with a median IQR time in months 4 (2-9). 70.3 % patients reported frequent urination during the night, 67.6 % patients during the day, 32.4 % reported frequent

emergencies of urination. Involuntary urination was reported as occasionally in 51.4%, and frequently in 5.4% patients. Painful urination was reported as occasionally in 51.4%, and frequently in 10.8 % patients. Hematuria was reported in 32.4% patients. 13.5 % patients reported to frequently have trouble carrying out normal daily activities. 29.7.2% reported to be frequently anxious, and 45.9% reported difficult to get a good night's sleep. The average rating of quality of life on the last week was 3.7±1.0. We found a statistically significant association between frequent urination and emergencies of urination and difficulties to get a good night's sleep with p=0.02; p=0.042 respectively, and between frequent urination and the overall worse QoL p=0.014. The lack of involuntary urination was associated with a good QoL p<0.001.

Conclusion. Urinary disorders are frequent between PC patients and they significantly affect their QoL.

PP-33 Relationship between prostate-specific antigen and other diagnostic parameters for prostate cancer patients

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Introduction. To assess the relation of prostate-specific antigen (PSA) with other conventionally used diagnostic parameters, specifically extra capsular extension, Gleason Score, and metastasis.

Methods. A prospective observational analysis of diagnostic data was performed and included 54 men, between the ages of 53 and 80 years, during January 2023 to December 2024, at a tertiary care oncology hospital. Patients were treated with radical prostatectomy, androgen deprivation therapy, and radiotherapy. The following data were recorded: age, PSA levels on ng/mL (before and after treatment), prostate volume, Gleason Score (GS), extra capsular extension (ECE), and presence of metastasis.

Results. Study participants had a mean age 70.4±5.8 years, and an initial median and interquartile range (IQR) of PSA levels 19 (11.3-45.2), and mean prostate volume 43.8±18.6 cc. GS according stages was: 13% stage I, 48.1% stage II, 16.7% stage III, 11.1% stage IV and 11.1% stage V. ECE was present in 24.1% of patients. Kruskal-Wallis test didn't show any statistically significant relation between PSA level at diagnosis and GS stage (P=0.761). We found a statistically significant relation between PSA level at diagnosis and ECE presence {14.9(9.7-39) vs 41(18.6-97.7); p=0.010}.

Conclusion. Based on the data collected and their subsequent analysis, a clear and optimal categorization of the PSA levels in relation to the grades of the Gleason score cannot be established. Appropriate biomarkers are need in decisions according to early diagnosis.

PP-34 The role of inflammatory biomarkers in children with chronic kidney disease

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Introduction. Chronic kidney disease (CKD) in children affects approximately 74.4 cases/1 million pediatric population worldwide. Chronic inflammation plays a central role in the pathogenesis of systemic complications, negatively influencing the growth hormone axis and nutritional status. According to the *North American Pediatric Trials and Collaborative Studies,* approximately 37% of children with CKD present with growth disorders.

Aims. Evaluation of the relevance of inflammatory biomarkers in children with CKD and their association with growth disorder.

Methods. Narrative synthesis of the specialized literature available in the last five years, using PubMed, Scopus and Web of Science databases.

Results. Interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF-α) contribute to growth retardation in children with CKD by inducing growth hormone resistance, reducing insulin-like growth factor 1 (IGF-1) synthesis and bioavailability, inhibiting growth plate function, and aggravating malnutrition, making chronic inflammation a central determinant of stature deficit. Recent studies report increased levels of proinflammatory cytokines, such as IL-6, TNF-α, and TNF receptors R1/R2, in children with CKD, being correlated with accelerated disease progression. Other studies have shown that plasma TNFR1 and TNFR2 levels are independent predictors of CKD progression in pediatric and adult CKD cohorts. The CKiD study, in a cohort of 651 children who were followed for more than 6 years, reported that double growth of plasma TNFR1 and TNFR2 levels was associated with CKD progression, with an adjusted HR (aHR) of 1.94 (95% CI: 1.56–2.40) and 1.85 (95% CI: 1.37–2.51), respectively. Elevated serum soluble urokinase plasminogen activator receptors (suPAR) were associated with a quick decline in renal function in European cohorts of 898 children. The CKiD study reports that double growth of urinary monocyte chemoattractant protein-1 (MCP-1) was associated with CKD progression, with an aHR of 1.29 (95% CI: 1.20–1.39) in the fully adjusted model. Chronic inflammation also negatively influences the GH–IGF1 axis and contributes to malnutrition and decreased appetite, which aggravates height loss. About 30% of children with CKD present a stature delay (below −1.88 SDS). Recent studies demonstrate elevations of

TNF-α and sCD14 correlated with intestinal barrier dysfunction and endotoxemia, accentuating systemic inflammation.
Conclusion. Inflammatory biomarkers represent promising indicators for risk assessment and personalized management of children with CKD, particularly regarding the consequences on linear growth. Integrating these biomarkers into monitoring protocols allows early intervention and prevention of stature deficiency in children with CKD.

PP-35 Advanced glycosylation end-products in the progression of chronic kidney disease in children
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Introduction. Advanced glycosylation end-products (AGEs) are covalently modified proteins formed by glycation and non-enzymatic oxidation. Pentosidine and verperlysine are fluorescent AGEs obtained by cross-linking arginine and lysine residues with a ribose. Recent studies have demonstrated that dysregulation of AGE homeostasis contributes to the progression of chronic kidney disease (CKD), leading to the generation of reactive oxygen species, proinflammatory transcription factors, and irreversible damage to kidney structures. Aim of the study: Determination of serum levels of pentosidine, verperlysine, and carbonyl groups in children with CKD.
Methods. A prospective study was conducted on a group of 72 children aged 1-16 years, diagnosed with CKD stages II-V, to determine serum levels of pentosidine, verperlysine, and carbonyl groups. The results were compared with those of a control group.
Results. The serum levels of pentosidine, verperlysine and carbonyl groups in the study group were (1918,218 ± 412,799 μM/L, $p < 0.001$; 3827,78 ± 661,407 μM/L, $p < 0.001$; 271,835 ± 84,393 nM/gprotein, $p < 0.001$) compared to the control group (1823,083 ± 868,921 μM/L, $p < 0.001$; 1628,777 ± 898,123 μM/L, $p < 0.001$; 233,005 ± 79,416 nM/gprotein, $p < 0.001$). The Mann-Whitney U test demonstrated a significant difference in verperlysine μM/L levels between the study and control group ($U = 706$, $n1 = 61$, $n2 = 55$, $p < 0.001$). Numerous other studies have reported the impact of increased levels of AGEs on the decline in renal function, which is also reflected in current study, according to the Spearman test, wich showed a high positive correlation between serum levels of verperlysine and creatinine ($r(59) = 0.527$, $p = <0.001$) and between verperlysine and catalase ($r(59) = 0.377$, $p = 0.003$).
Conclusions. Determination of serum AGE levels is a valuable method for assessing prooxidant status and is a crucial marker of CKD progression in children with kidney disease.

PP-36 The effects of antibiotic therapy on neonatal acute kidney injury
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Introduction. Neonatal acute kidney injury (AKI) continues to be one of the most common and often overlooked complications in newborns. As a high-risk population that is particularly susceptible to infections, the use of prophylactic antibiotics is frequently emphasized in clinical practice. Few studies have addressed the impact of antibiotic therapy on the immature kidney function. Our study aimed to underline the effects of the increasing use of antimicrobial classes in the management of neonates with AKI.
Methods. We performed an observational cohort study on 877 newborns admitted during 2014 – 2023 to the "Louis Turcanu" Clinical Emergency Hospital for Children from Timisoara, Romania, who were diagnosed with AKI according to the KDIGO criteria. We evaluated the impact of the most used antibiotic classes on AKI duration and mortality during hospitalization according to gestational age, form extremely premature to term neonates.
Results. The cohort consisted of 877 newborns diagnosed with AKI, with 521 males (58.4%) and 539 (60.7%) from an urban area. 350 (39.9%) newborns progressed to acute kidney disease (AKD), and 143 (16.3%) died during hospitalization. AKD presence doubled the hospitalization period (31 vs 16 days, $p<0.0001$). 94.3% of the patients received at least one class of antibiotics per admission. All the prescribed antibiotic classes presented higher incidences in patients with AKD when compared to non-AKD ones: beta lactams 75.1% vs 62.6%, $p=0.0001$, aminoglycosides 70.6% vs 59.9% $p=0.0011$, carbapenems 74.3% vs 52.9% $p<0.0001$, polymyxins 32% vs 10.4% $p<0.0001$, fluoroquinolones 22.6% vs 5.7% $p<0.0001$, glycopeptides 19.4% vs 10.2% $p=0.0001$, and lincosamides 6.9% vs 0.6% $p<0.0001$. In the univariate and multivariate analyses (adjusted for C-reactive protein, procalcitonin, gestational age category, total serum proteins, and thrombocytes), all prescribed antibiotic classes increased the risk of a prolonged AKI episode, but did not affect mortality. Antibiotic stewardship, as measured by the cumulative dose-effective index and drug class efficacy in newborns, increased the risk of AKD development by

80% (OR=1.81, 95% CI=1.61-2.04, p<0.0001). On the other hand, AKD patients received antibiotic therapy longer period of time compared to non-AKD ones (12 vs 9 days for beta-lactams, 9 vs 8 days for aminoglycosides, 13 vs 10 days for carbapenems, p<0.0001).

Conclusion. Antibiotic use in the presence of AKI independently increases the risk of AKD, and hospital stay but without any impact on mortality. The use of antibiotics is extremely high in neonates, and it seems that 3 out of 4 hospitalised neonates require more than two antibiotic classes.

PP-37 Mental Health, Quality of Life and Sleep Among Patients with Glomerulonephritis

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Introduction. The aim of this study was to investigate the effects of glomerulonephritis, which has a heterogeneous and unpredictable clinical course with remissions and relapses and can be emotionally and physically burdensome for patients due to both the disease and its treatments, on mental health, quality of life, and sleep.

Methods. A total of 40 participants (healthy control: 10, Glomerulonephritis: 30) were included in the study. The healthy control group had no proteinuria and a mean serum creatinine level of 0.7±0.1 mg/dL. The glomerulonephritis group, confirmed by renal biopsy, had proteinuria of 5.9±5.5 g/day and a mean serum creatinine level of 1.7±1.6 mg/dL. The Short Form-36, Pittsburgh Sleep Quality Index, and General Health Questionnaire-12 were administered to all groups. The Kidney Disease Quality of Life-36 form was administered only to the glomerulonephritis group. All participants were evaluated by a clinical psychiatrist. The correlation between the biochemical data of the groups and the scores on these forms was analyzed.

Results. The groups were similar in terms of smoking status, marital status, occupation, education, residence, hemoglobin, and blood pressure. Nephrotic syndrome was present in 43.3% of the glomerulonephritis group, 26.7% had acute kidney injury, 13.3% had nephrotic-range proteinuria, 10% had chronicity, and 6.7% had nephritic syndrome. The physical functioning and role-physical functioning scores of glomerulonephritis group were statistically significantly lower than those of healthy control group. Age exhibited a significantly negative correlation with vitality subscale of The Kidney Disease Quality of Life-36 scale and proteinuria was significantly negatively correlated with role-physical subscale of The Kidney Disease Quality of Life-36 survey. Hemoglobin levels were found to be significantly positively correlated with physical functioning, role-physical functioning, and emotional-role functioning subscales of The Short Form-36. There were also significant positive correlations between serum albumin levels and physical functioning, role-physical functioning subscales of The Short Form-36 survey. Linear association between estimated glomerular filtration rate of glomerulonephritis patients and role-physical domain of The Short Form-36 scale was found. Control group had significantly lower scores in Pittsburgh Sleep Quality Index than those of glomerulonephritis patients. Significantly lower sleep quality was found in the glomerulonephritis group compared to the control group (p<0.05).

Conclusion. Proteinuria, age, hemoglobin and albumin levels were found to have an impact on quality of life in glomerulonephritis patients, particularly in the subscales of physical function, vitality, role-physical and emotional. Sleep quality was also found to be poorer in glomerulonephritis patients.